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# **Agricultural College of Utah**

**BULLETIN**

## **GENERAL CATALOG**

**1923-1924**

With List of Students for 1922-1923

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*Thirty-fourth Year*

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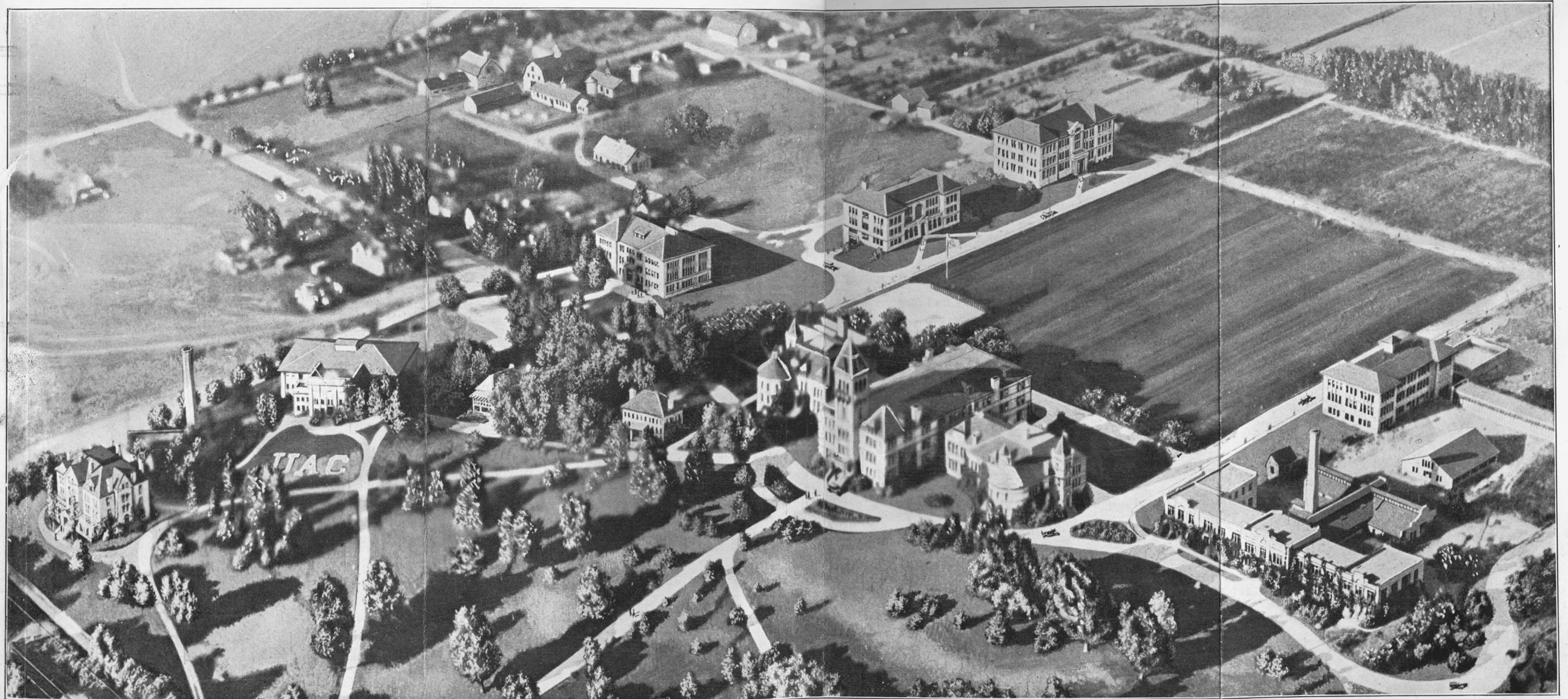
**LOGAN, UTAH**

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Published by the College  
July, 1923



# AIRPLANE VIEW OF THE CAMPUS OF THE UTAH AGRICULTURAL COLLEGE AT LOGAN



Home Economics  
Building

Heating  
Plant

Smart Gym-  
nasium

President's Resi-  
dence

Farm Buildings  
Chemistry Building  
Experiment Station

(See other side)

Plant Industry Building  
Animal Husbandry Building  
Main Building

Mechanic Arts Building

Engineering  
Building Auto Shop  
R. O. T. C. Garage

# Airplane View of the Campus of the Utah Agricultural College

This view of the campus of the Utah Agricultural College indicates, in a measure, the extensive plant of the Institution. The names of the various structures indicate in part the many fields of education covered by the College curricula. In addition to the Schools of Agriculture and Home Economics, the College maintains strong vocational, undergraduate and graduate courses in the Schools of Engineering, Mechanic Arts, Commerce and Business Administration, Basic Arts and Science and in the Department of Education.

The various buildings shown upon the airplane view house the following:

## **The Main Building:**

General Administrative Offices  
Extension Division  
Departments of:  
Accounting and Business Practice  
Agricultural Economics  
Art  
Business Administration  
Correspondence Studies  
Economics  
Education and Pedagogy  
English  
Entomology  
Geology  
History  
Horticulture  
Library Economy  
Marketing  
Mathematics  
Modern Languages and Latin  
Music  
Political Science  
Public Speaking  
Sociology

Stenography and Typewriting  
Zoology

## **Mechanic Arts Building:**

Departments of:  
Auto Mechanics  
Farm Mechanics  
Forging and General Blacksmithing  
Machine Work  
Mechanic Arts  
Woodwork and Housebuilding

## **Chemistry Building:**

Departments of:  
Bacteriology and Physiological  
Chemistry  
Chemistry  
Physics  
Physiology  
Rural Public Health  
Rural Sanitation

## **Home Economics Building:**

Departments of:  
Foods and Dietetics  
Household Administration  
Textiles and Clothing

## **Smart Gymnasium:**

Offices of Medical Advisor  
Men's Gymnasium  
Women's Gymnasium  
Swimming Pool and Showers  
Hand Ball Court  
Lockers for Men and Women  
Departments of Physical Education

## **Plant Industry Building:**

Departments of:  
Agronomy  
Botany  
Plant Pathology

## **Experiment Station:**

Administrative Offices of Experiment Station

## **Animal Husbandry Building:**

Departments of:  
Animal Husbandry  
Dairy Husbandry  
Poultry Husbandry  
Range Management  
Veterinary Science

## **Engineering Building:**

Departments of:  
Agricultural Engineering  
Agricultural Surveying  
Applied Mechanics and Design  
Highway Engineering  
Irrigation and Drainage  
Mechanical Drawing  
Military Science and Tactics  
Rural Architecture

Part of the farm buildings show in the background. The Home Economics Cottage, the Cronquist Practice Farm and the North Logan Experimental Farm are all off the College Campus.





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1923-25

## IMPORTANT NOTICE

Special attention is called to new regulations governing admission and graduation on pages 41 to 52 inclusive. These regulations will become operative with respect to Freshmen at the beginning of the School year 1923-24. The Junior College Certificate will be issued to Sophomores who have satisfied the requirements at the close of the Spring Quarter 1924.

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# College Calendar for 1923-24

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

## FALL QUARTER

September 24, Monday.....Entrance examinations. Registration  
of former students and of new stu-  
dents admitted on certificates.  
September 25, Tuesday.....Instruction begins.  
October 10, Wednesday.....Assembly to announce scholarship  
awards.  
November 29-Dec. 2 (inclusive)...Thanksgiving recess.  
December 21, Friday.....Fall quarter ends.  
December 22-Jan. 2 (inclusive)...Christmas recess

## WINTER QUARTER

January 3, Thursday.....Winter quarter begins.  
March 15, Saturday.....Winter quarter ends.

## SPRING QUARTER

March 17, Monday.....Spring quarter begins.  
April 21-26.....Annual Vocational Conference and Club  
Leaders' School.  
April 26.....High School Day.  
May 12, Monday.....Conferring of Scholarships and other  
awards.  
May 26, Monday.....Senior chapel.  
May 29, Thursday.....Spring quarter ends. Annual alumni  
business meeting and social.  
May 30, Friday.....Memorial Day.  
May 31, Saturday.....Comencement and Alumni Banquet and  
Ball.  
June 1, Sunday.....Baccalaureate Sermon.

## SUMMER QUARTER

June 9, Monday.....Summer quarter begins.  
July 4, Friday.....Independence Day.  
July 18, Friday.....First term ends.  
July 21, Monday.....Second term begins.  
July 24, Thursday.....Pioneer Day.  
August 29, Friday.....Summer quarter ends

## Board of Trustees

ANTHONY W. IVINS .....	Salt Lake City
E. O. HOWARD .....	Salt Lake City
R. L. JUDD .....	Salt Lake City
JOHN D. PETERS .....	Brigham City
O. H. BUDGE .....	Logan
C. P. CARDON .....	Logan
A. R. MCINTYRE .....	Ogden
LORENZO N. STOHL .....	Salt Lake City
HAMILTON GARDNER .....	Salt Lake City
ROY BULLEN .....	Logan
R. L. JONES .....	Cedar City
LUTHER M. HOWELL .....	Logan
H. E. CROCKETT, Secretary of State (ex-officio)....	Salt Lake City

## OFFICERS OF THE BOARD

ANTHONY W. IVINS .....	President
E. O. HOWARD .....	Vice-President
JOHN L. COBURN .....	Secretary and Treasurer
JOHN T. CAINE .....	Auditor

## STANDING COMMITTEES OF THE BOARD

Executive Committee—A. W. Ivins, E. O. Howard, O. H. Budge.
Agriculture—John D. Peters, C. P. Cardon, R. L. Jones.
Mechanic Arts—C. P. Cardon, O. H. Budge, H. Gardner.
Agricultural Engineering—O. H. Budge, John D. Peters, Roy Bullen.
Home Economics—R. L. Judd, A. R. McIntyre, C. P. Cardon.
Commerce—A. R. McIntyre, H. Gardner, John D. Peters.
Experiment Station—L. M. Howell, O. H. Budge, R. L. Jones.
Extension Division—L. N. Stohl, H. E. Crockett, John D. Peters.
Livestock—Roy Bullen, C. P. Cardon, R. L. Jones.
Buildings and Grounds—C. P. Cardon, A. R. McIntyre, H. Gardner.
Power, Heat, and Light—Roy Bullen, L. N. Stohl, H. E. Crockett, R. L. Judd.
Branch Agricultural College—R. L. Judd, R. L. Jones, L. M. Howell.
Legislation and Finance—H. Gardner, R. L. Judd, E. O. Howard, L. M. Howell.
Faculty and Course of Study—L. N. Stohl, O. H. Budge, R. L. Judd, E. O. Howard.

# Officers of Administration and Instruction<sup>\*</sup>

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## The College Faculty

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

ELMER GEORGE PETERSON.....President

B. S., Utah Agricultural College, 1904; A. M. Cornell University, 1909; Ph. D., 1911. Graduate Student, University of Chicago, 1906; Assistant Professor of Zoology and Entomology, Utah Agricultural College, 1906-08; Instructor and Assistant Professor of Bacteriology, Cornell University, 1909-10; Professor of Bacteriology, Oregon Agricultural College, Bacteriologist, Oregon Experiment Station, 1910-11; Professor of Bacteriology, Utah Agricultural College, 1911-12, Director of Extension Division, 1912-16, President, 1916—

GEORGE WASHINGTON THATCHER. Professor of Music

B. S., Utah Agricultural College, 1914. Student, New England Conservatory of Music; Graduate in Theory, Composition, and Orchestration, under Dr. Percy Goetschius; Special Music Study in Salt Lake City, Boston and New York, under Leading Masters. Professor of Music, Utah Agricultural College, 1905—

WILLIAM PETERSON....Director of Experiment Station,  
Professor of Geology

B. S., Utah Agricultural College, 1899. Instructor in Horticulture and Mathematics, Utah Agricultural College, 1899-1901; Student, University of Chicago, 1901-02, Summers of 1902-03-04. Assistant Professor of Geology and Mineralogy, Utah Agricultural College, 1904-06, Professor of Geology and Physics, 1906-08; Geology Field Work, 1908-10, Professor of Geology, Utah Agricultural College, 1910—; United States Geological Survey Field Work, Summers 1912-13; Member of State Road Commission, 1914-16; Utah State Geologist, 1917-21; Director, Utah Agricultural College Experiment Station, 1921—.

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<sup>\*</sup>The College Council consists of the President and all members of the faculty with the rank of Professor, Associate Professor or Assistant Professor.



HYRUM JOHN FREDERICK.....Professor of Veterinary  
Science

D. V. M., Iowa State College, 1905. Assistant Professor of Veterinary Science, Utah Agricultural College, 1905-06, Professor, 1906—.

FRANK RUSSELL ARNOLD.....Professor of Modern  
Languages

A. B., Bowdoin College, 1893, M. A., 1902. Graduate Student, Harvard University, Summers of 1893, 94, 99; University of Paris, 1895-96; University of Bordeaux, 1896-97; University of Goettingen, 1897-98; University of Chicago, summers of 1902, 03, 04, Instructor, University of Chicago, summer of 1905; Assistant Professor of Modern Languages, Utah Agricultural College, 1904-06, Professor of Modern Languages, 1906—.

JOHN THOMAS CAINE.....Auditor

B. S., Utah Agricultural College, 1894, Master Farmer (Honorary Degree), 1915. Student, Cornell University, 1876; Superintendent, Cache County Schools; Superintendent, Logan City Schools; Instructor in English, Utah Agricultural College, 1890-1907, Registrar, 1903-12; Auditor, 1912—.

FRANKLIN LORENZO WEST.....Dean of the Faculty,  
Professor of Physics

B. S., Utah Agricultural College, 1904; Ph. D., University of Chicago, 1911. Graduate Student, Leland Stanford Junior University, 1904-05; Professor of Physics, Brigham Young University, 1905-06; Graduate Student, University of Chicago, 1906-07, 1910-11, Summers of 1906-07-10-11; Professor of Chemistry, Utah Agricultural College, 1907-08; Fellow, University of Chicago, 1910-11; Professor of Physics, Utah Agricultural College, 1908—, Director of School of General Science, 1913-21, Dean of the Faculty, 1921—.

JOSEPH EAMES GREAVES.....Professor of Bacteriology  
and Physiological Chemistry

B. S., Utah Agricultural College, 1904; M. S. University of Illinois, 1907; Ph. D., University of California, 1911. Graduate Student, University of Illinois, 1904-07; Instructor in Chemistry, Utah Agricultural College, 1907-08, Assistant Professor, 1908-10; Fellow, University of California, 1910-11; Associate Professor of Physiological Chemistry, Utah Agricultural College, 1911-13; Professor of Bacteriology and Physiological Chemistry, 1913—.

## CALVIN FLETCHER.....Professor of Art

B. Pd., Brigham Young University, 1905. Student at Pratt Institute, 1906-07; Student at Columbia University, 1912; Student at Central School of Arts and Crafts, London, England, 1912-13; Student of M. Biloul and at Academy Colorossi, Paris, France, 1913; Student at Chicago Art Institute and Art Craft Institute, Chicago, Illinois, 1913-14; Superintendent of Art, Utah County Public Schools, 1903-05; Assistant Professor of Art, Brigham Young University, 1905; Assistant Professor of Art, Utah Agricultural College, 1907-12, Associate Professor, 1912-13; Vice-president, National Vocational Art and Industrial Federation, 1913-14; Director, Utah Art Institute, 1918-20. Professor, 1913—.

## RAY BENEDICT WEST. Dean of the Schools of Agricultural Engineering and Mechanic Arts, Professor of Agricultural Engineering

B. S., Utah Agricultural College, 1904; C. E., Cornell University, 1906. Engineer, Oregon Short Line Railroad, 1906-07; In Charge of Engineering Department, Brigham Young College, 1907-08; Division Engineer, Sumpter Valley Railroad, 1908-09; Consulting Engineer, Portland, Oregon, 1909-12; Professor of Agricultural Engineering, Utah Agricultural College, 1912—, Dean of the Schools of Agricultural Engineering and Mechanic Arts, 1916—.

## ROBERT JAMES EVANS.....Director Extension Division

B. S., Utah Agricultural College, 1909; Ph. D., Cornell University, 1912. In Charge, Dry Farm Work at the Experiment Station, Utah Agricultural College, 1912; State County Agent Leader for Utah, 1913; Assistant Director of the Extension Division, Utah Agricultural College, and County Agent Leader for Utah, 1916-20; Director of the Extension Division, 1920—.

## GEORGE RICHARD HILL, Jr.....Dean of the School of Agriculture, Professor of Botany and Plant Pathology

B. S., Brigham Young University, 1907; B. S., Utah Agricultural College, 1908; Ph. D., Cornell University, 1912. Instructor in Agriculture, Latter Day Saints University, 1908-09; Graduate Student, Cornell University, 1909-12; Instructor in the Department of Plant Physiology, Cornell University, 1911-12; Research Assistant in the Missouri Botanical Garden, 1912-13; Instructor in Summer School, Cornell University, 1913; Professor of Botany and Plant Pathology, Utah Agricultural College, 1913—; Dean, School of Agriculture, 1916—.

JAMES HENRY LINFORD.....Director, Summer Quarter;  
Superintendent, Correspondence—Study Department

B. S., Brigham Young College, 1898; D. Did., (Honorary Degree), Latter Day Saints Board of Education, 1913. Normal School Graduate, University of Utah, 1890; Student at the Hopkins Laboratory of Leland Stanford University, Summer Quarter, 1895-96; Student, University of Chicago, Summer Quarter, 1897; Professor of Zoology and Botany, Brigham Young College, 1892-12; President, Brigham Young College, 1900-13; Director of the Summer Quarter and Superintendent of the Correspondence Study Department, Utah Agricultural College, 1913—.

\*ARTHUR HERBERT SAXER.....Dean, School of Basic  
Arts and Science, Professor of Mathematics

B. S., Utah Agricultural College, 1910; M. S., University of California, 1912, Ph. D., 1915; Graduate Student, University of California, 1911-13. Whiting Research Fellow, 1912-13; Instructor in Physics, Utah Agricultural College, 1910-11; Professor of Mathematics, Utah Agricultural College, 1913—, Director, School of Home Economics, 1917-21, Dean, School of General Science, 1921—.

\*NIELS ALVIN PEDERSEN.....Professor of English

Graduate, Utah State Normal College, 1901; A. B., University of Utah, 1906; A. M., Harvard University, 1913; Student, University of Chicago, 1901; Graduate Student, University of California, 1922-23; Critic Teacher, Utah State Normal College, 1901-03; Student, Leland Stanford University, 1903-05; Instructor in Department of Public Speaking, University of Utah, 1906-07; Instructor in English, Utah Agricultural College, 1907-08, Assistant Professor, 1908-12; Fellow, Harvard University, 1912-13; Professor of English, Utah Agricultural College, 1913—.

WILLIAM ERNEST CARROLL.....Professor of Animal  
Husbandry

B. S., Utah Agricultural College, 1909; M. S., University of Illinois, 1911, Ph. D., 1914. Fellow, University of Illinois, 1910-11, 1913-14; Assistant Professor of Animal Husbandry, Utah Agricultural College, 1911-12, Associate Professor, 1912-14, Professor, 1914—.

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\*On Leave.

PARLEY ERASTUS PETERSON...Professor of Accounting,  
Registrar

A. B., Brigham Young College, 1907; C. P. A., 1913; Graduate Student, Harvard University, 1909-10; Graduate Student, New York University, Summer Quarter, 1910; Member, American Institute of Accounts, 1923. Instructor, History and Economics, Brigham Young College, 1907-09; Instructor in Accounting, Utah Agricultural College, 1911-12, Assistant Professor of Accounting, 1912-13, Professor, 1913—, Registrar, 1915—.

\*FRANKLIN DAVID DAINES Professor of Political Science

A. B., Brigham Young College, 1906; A. M., Harvard University, 1913. Graduate Student, University of California, 1922-23; Graduate Student, Harvard University, 1908-10-12-13; Instructor in Mathematics, Brigham Young College, 1906-08; Instructor in Social Science, Brigham Young College, 1910-11; Assistant Professor of History, Utah Agricultural College, 1913-17. Professor, 1917-22, Professor of Political Science, 1922—.

JOHN LEATHAM COBURN.....Secretary and Treasurer

B. S., Utah Agricultural College, 1905. Instructor in Mathematics, Utah Agricultural College, 1907-08, Secretary and Treasurer, 1909—.

JOHANNA MOEN.....Professor of Textiles and Clothing

B. S., Utah Agricultural College, 1920. Student, Technical Schools of Norway, 1904-05 and 1914-15; Student, Columbia University, 1908-09, 1915 and graduate work, Summer Session, 1922; Professor of Textiles and Clothing, Utah Agricultural College, 1920—.

\*EDGAR BERNARD BROSSARD. Professor of Agricultural  
Economics and Farm Management

B. S., Utah Agricultural College, 1911; M. S., University of Minnesota, 1917; Ph. D., 1920; Graduate Student, Cornell University, 1917-18; Instructor in Mathematics, Utah Agricultural College, 1909-10; Utah State Farm Management Demonstrator, 1914-16 and Summer of 1917; Assistant Farm Management Demonstrator, University of Minnesota, 1916-17; Instructor in Farm Management, University of Minnesota, 1918-19; Professor of Farm Management, Utah Agricultural College, 1919-21; Professor of Agricultural Economics and Farm Management, Utah Agricultural College, 1921—.

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\*On Leave.

## REUBEN LORENZO HILL.....Professor of Chemistry

B. S., Utah Agricultural College, 1912; Ph. D., Cornell University, 1915. Fellow, Cornell University, 1913-14; Graduate Assistant in Physiological Chemistry, Cornell University, 1914-15; Instructor in Physiological Chemistry, 1915-16; Physiological Chemist, Bureau of Chemistry, United States Department of Agriculture, 1916; Bio-chemist, Maryland Agricultural Experiment Station, 1916-18; Commissioned First Lieutenant, Food Division of the Sanitary Corps, United States Army, 1918; Professor of Chemistry, Utah Agricultural College, 1919—.

## GEORGE BALLIF CAINE...Professor of Dairy Husbandry

B. S., Utah Agricultural College, 1912; A. M., University of Missouri, 1914. Graduate Student, University of Missouri, 1912-14. Assistant Professor of Animal Husbandry, Utah Agricultural College, 1914-16; Assistant Professor of Dairy Husbandry, 1916-17, Associate Professor, 1917-20, Professor, 1920—.

\*ORSON WINSO ISRAELSEN.....Professor of Irrigation  
and Drainage

B. S., Utah Agricultural College, 1912; M. S., University of California, 1914; Graduate Student, Utah Agricultural College, Summer 1912; University of California, 1912-14; Assistant Division of Irrigation Investigation, U.S. Department of Agriculture, Summers 1913, 1914; Instructor, University of California, 1914-16; Assistant Professor of Irrigation and Drainage, Utah Agricultural College, 1916-17, Associate Professor, 1917-19, Professor, 1919—.

## GEORGE STEWART.....Professor of Agronomy

B. S., Utah Agricultural College, 1913; M. S., Cornell University, 1918. Graduate Student, Cornell University, 1916-17; Instructor in Agronomy, Utah Agricultural College, 1913-16; Assistant Professor of Agronomy, Utah Agricultural College, 1917-18, Associate Professor, 1918-19, Professor, 1919—.

WILLIAM LAWRENCE WANLASS.....Dean, School of  
Commerce and Business Administration,  
Professor of Business Administration.

A. B., George Washington University, 1915, M. A., 1917; Ph. D., Johns Hopkins University, 1919. Instructor in History, George Washington University, 1916-17; Fellow

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\*On leave.



in Political Science, Johns Hopkins University, 1917-19; Professor of Economics, Union College, Schenectady, New York, 1919-20; Dean, School of Commerce and Business Administration, and Professor of Business Administration, Utah Agricultural College, 1920—.

MILTON HYRUM HARRIS.....Professor of Economics

A. B., Brigham Young University, 1915; A. M., Columbia University, 1917; Graduate Student, Columbia University, 1917-19; Instructor in Economics in the College of the City of New York, 1918-19; State Club Leader, Utah Agricultural College, 1919-21; Professor of Economics, Utah Agricultural College, 1921—.

DAVID EARLE ROBINSON.....Professor of Marketing,  
In Charge, Information-Service

B. S., Utah Agricultural College, 1911. Graduate Student, University of California, 1914-15; Instructor in History, Utah Agricultural College, 1911-14; Assistant Professor of English, Utah Agricultural College, 1916-17; In Charge of Department of Information Service, 1916—; Assistant Professor of History, 1917-21, Professor of Marketing, 1921—.

HENRY PETERSON..Professor of Education and Psychology

A. B., Brigham Young University, 1894; Ph. B., University of Chicago, 1905; A. M., Harvard University, 1906. Graduate Student, Harvard University, 1907; Dean, Church Teachers College, Brigham Young University, 1909-11; Superintendent, Box Elder County Schools, 1911-12; Principal Ogden High School, 1912-14; Principal, Jordan High School, 1914-17; Superintendent, Logan City Schools, 1918-21; Professor of Education and Pedagogy, Utah Agricultural College, 1921—.

IRA MYRON HAWLEY.....Acting Dean, School of Basic  
Arts and Science; Professor of Zoology and Entomology

B. A., University of Michigan, 1909; Ph. D., Cornell University, 1916. Graduate Student, Cornell University, 1912-16; Instructor, Cornell University, 1912-16; Investigator, 1917-21; Professor of Zoology and Entomology, Utah Agricultural College, 1921—.

JOEL RICKS .....Professor of History

A. B., University of Utah; A. M., University of Chicago, 1920. President, Weber Normal College, 1920-22; Professor of History, Utah Agricultural College, 1922—.

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## GUSTAV WILSTER.....Professor of Dairy Manufacturing

B. S., Iowa State College, 1920, M. S., 1921. Student, Queensland Agricultural College, Australia, 1917; Assistant Professor of Dairy Husbandry, Utah Agricultural College, 1921-22, Associate Professor, 1922-23, Professor, 1923—.

ALICE KEWLEY...Professor of Household Administration,  
Superintendent, Home Economics Cottage,  
In Charge, Home Economics Education

B. S., Utah Agricultural College, 1910; (1) Instructor in Foods and Sanitation, Nephi High School, 1910-1913; (2) Head of Home Economics Department, Nephi High School, 1913-20; (3) Assistant Professor of Education and Pedagogy, Utah Agricultural College, 1921-23; Professor of Household Administration, 1923—.

VINCE CAREY COULTER...Professor of English, Acting  
Head of the Department

Ph. B., La Grange College, 1899; A. B., William Jewell College, 1903; A. M., Brown University, 1905; Graduate Student, Chicago University, 1905-06; Student of Dijon University, France, summer 1907. Assistant in English, William Jewell College, 1901-04; Head of English Department, Joliet Township High School, 1906-07; Head of Department of English, State Teachers' College, Warrensburg, Missouri, 1907-20; President, Sioux Falls College, 1920-22. Professor of English, Utah Agricultural College, 1923—.

CHARLES H. MERCHANT.....Acting Professor of Farm  
Management and Agricultural Economics

B. S., Cornell University, 1920; M. S., Cornell University, College of Agriculture, 1922. Graduate Student, Cornell University, 1922-23. Assistant in Agricultural Economics and Farm Management, Cornell University, 1920-21; Instructor in Agricultural Economics and Farm Management, Cornell University, 1921-23; Joint Survey, United States Department of Agriculture and New York State College of Agriculture on The Cost of Milk Production, Summer 1922. Acting Professor of Farm Management and Agricultural Economics, Utah Agricultural College, 1923—.

CARRIE CASTLE DOZIER.....Dean, School of Home Economics; Professor of Foods and Dietetics.

B. S., Oregon Agricultural College, 1918; A. M. University of California, 1919; Ph. D. 1923. Graduate student, University of California, 1918-19, 1922-23. Holder of Fellowship of the Hooper Foundation for Medical Research. Member of the faculty of the University of California, Southern Branch, 1922-23. Professor of Foods and Dietetics, Utah Agricultural College, 1923—.

.....Professor of Military Science and Tactics

AUGUST J. HANSEN.....Associate Professor of Carpentry and Woodwork

B. S., Utah Agricultural College, 1911. Assistant Instructor, Utah Agricultural College, 1896-97, Instructor, 1897-1913, Assistant Professor of Carpentry and Woodwork, 1913-17, Associate Professor, 1917—.

AARON NEWHEY....Associate Professor of Machine Work

B. S., Utah Agricultural College, 1912. Student, Stourbridge Technical School, England, 1894-1900; Assistant in Carpentry, Utah Agricultural College, 1906-07, Instructor in Forging, 1907-14, Assistant Professor of Forging, 1914-17, Associate Professor of Forging, 1917-20, Associate Professor of Machine Work, 1920—.

CHARLES ROBERT JOHNSON.....Associate Professor of Music

Graduate, Brigham Young University, Normal School and Music School, 1908; Graduate, National Summer School of Chicago, 1908-11; Student, Columbia Music School, Chicago, 1908-11; Student of A. C. Lund, Salt Lake City, 1901-02-03, Mrs. Cheney, New York, Summers, 1908-09, Arthur Burton, Chicago, 1909-10, George Hamlin, New York, 1910, Frederick E. Chapman, Boston, 1908-11, A. Cyril Graham, Chicago, 1909-10; Professor of Music, Brigham Young University, 1911-16; Assistant Professor of Music, Utah Agricultural College, 1916-17, Associate Professor, 1917—.

WILLARD GARDNER.....Associate Professor of Physics

B. S., Utah Agricultural College, 1912; M. S., University of California, 1915; Ph. D., University of California, 1916. Principal, Murdock Academy, 1916-17; Graduate Assis-



tant and Instructor in Physics, University of California, 1913-16; Professor of Physics and Mathematics, Brigham Young College, 1917-18; Associate Professor of Physics, Utah Agricultural College, 1918—.

BERT LORIN RICHARDS... Associate Professor of Botany  
and Plant Pathology

B. S., Utah Agricultural College, 1913, M. S., 1917; Ph. D., University of Wisconsin, 1919. Instructor, Utah Agricultural College, 1913-15, Assistant Professor of Botany and Plant Pathology, 1915-17; Student, University of Chicago, Summer Quarter, 1916; Fellow, University of Wisconsin, 1917; Associate Professor of Botany and Plant Pathology, Utah Agricultural College, 1919—.

WILLIAM BOWKER PRESTON... Medical Supervisor of  
Students, Medical Examiner, U. S. Veterans Bureau

M. D., University of Illinois, 1916. Graduate Work, West Side Hospital, Chicago, Illinois, 1916; Captain, Medical Corps, U. S. Army, 1917-19; Medical Supervisor of Students and Medical Examiner, U. S. Veterans' Bureau, Utah Agricultural College, 1920—.

LUTHER MURKINS WINSOR..... Associate Professor of  
Irrigation and Drainage

B. S., Utah Agricultural College, 1911. Graduate Work, Utah Agricultural College, 1922-23; Graduate work, University of California, 1923; Instructor in Irrigation, Extension Division, Utah Agricultural College, 1913-15, Assistant Professor of Irrigation and Drainage, 1915-20, Associate Professor, 1921—.

ALFRED H. POWELL..... Associate Professor of Farm  
Machinery

Four Years, Apprentice Machinist; Four Years, Iron, Bronze, and Steel Foundryman Apprentice; Qualified as Mechanical Engineer and Shop Superintendent, International Correspondence Schools, Scranton, Pa.; Assistant in Automobile and Tractor Work, Utah Agricultural College, 1918-19, Assistant Professor of Machine Work, 1919-20, Associate Professor of Farm Mechanics, 1920—.

KATHARINE M. COOPER.. Associate Professor of Physical  
Education for Women

B. S., Teachers College, Columbia University, 1918. Diploma, State Normal School, Montclair, New Jersey, 1916;

Tilestan Scholarship, Teacher's College, Columbia University, 1917-18; Instructor in Physical Education, Barnard College, 1918-21; Associate Professor of Physical Education for Women, Utah Agricultural College, 1922—.

BYRON ALDER...Assistant Professor of Poultry Husbandry  
B. S., Utah Agricultural College, 1912. Assistant Professor of Poultry Husbandry, Utah Agricultural College, 1913—.

CHARLES TARRY HIRST.....Assistant Professor of Chemistry  
B. S., Utah Agricultural College, 1910, M. S., 1914; Graduate Student, University of California, 1918-19 Instructor in Chemistry, Utah Agricultural College, 1910-15; Assistant Professor of Chemistry, Utah Agricultural College, 1915—.

CHARLOTTE KYLE.....Assistant Professor of English  
B. A. and M. A., Park College. Instructor in English, Utah Agricultural College, 1907-16, Assistant Professor, 1916—.

JOSEPH R. JENSON.....Assistant Professor of Physical Education  
A. B., Brigham Young College, 1909. Assistant Professor of Physical Education, Utah Agricultural College, 1917—; Recreational Director, Mather Field Flying School, Sacramento, California, 1918; Graduate Student, University of Wisconsin, Summer of 1912, Columbia University, Summer of 1916, University of California, Summer of 1919.

RAYMOND J. BECRAFT.....Assistant Professor of Range Management  
B. S., Utah Agricultural College, 1917. Graduate Student, State College of Iowa, 1922-23; M. S., State College of Iowa, 1923; Grazing Examiner, United States Forest Service, 1917-19; Assistant Professor of Range Management, Utah Agricultural College, 1919—

E. LOWELL ROMNEY.....Director of Athletics  
A. B., University of Utah, 1917. Second Lieutenant, U. S. Army, 1917-18; Assistant Professor of Physical Education and Director of Athletics, Utah Agricultural College, 1919—.

TRACY H. ABELL.....Assistant Professor of Horticulture

B. S., Montana Agricultural College, 1915; M. S., Oregon Agricultural College, 1917. Instructor in Horticulture, Utah Agricultural College, 1917-19, Assistant Professor, 1919—.

EZRA GREAVES CARTER.....Assistant Professor of Bacteriology and Physiology

B. S. Utah Agricultural College, 1913. Graduate Student, Breslau University, Germany, Summer of 1914; Graduate Student, University of California, Summer of 1916; M. S., Utah Agricultural College, 1918. Instructor in Bacteriology, Utah Agricultural College, 1914-16; Dairy Bacteriologist, U. S. Public Health Service, 1917; Assistant Professor of Bacteriology and Physiology, 1918—.

WILBER EVANS THAIN.....Assistant Professor  
of Accounting

B. S., Utah Agricultural College, 1914, Graduate Student, 1914-16; C. P. A., 1919. Instructor in Accounting, Utah Agricultural College, 1914-18; Cost Accounting, U. S. A. Engineers Corps, 1918-19; Instructor in Accounting, University of Wisconsin, Extension Division, 1919-20; Assistant Professor of Accounting, Utah Agricultural College, 1920—.

WALLACE J. VICKERS.....Assistant Professor of English

B. S., Utah Agricultural College, 1912. Graduate Student, University of Chicago, Summer Quarter 1916 and 1916-17; Instructor in English, Latter-Day Saints University, 1917-19, Head of the Department, 1919-20; Assistant Professor of English, Utah Agricultural College, 1920—.

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

B. S., Utah Agricultural College, 1917. Assistant, Correspondence-Study Department, Utah Agricultural College, 1917-20, Assistant Professor of Economics, 1920—.

\*HERBERT J. PACK.....Assistant Professor of Zoology  
and Entomology

B. S., Utah Agricultural College, 1913, M. S., 1923. Instructor in Zoology, Utah Agricultural College, 1913-14; Professor of Biology, Latter-Day Saints University, 1914-18; Instructor in Zoology and Entomology, Utah Agricultural College, 1920-21; Assistant Professor, 1921—.

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\*On Leave of Absence.

SHERWIN MAESER.....Assistant Professor of Chemistry

A. B., Brigham Young University, 1909; Ph. D., University of California, 1921. Graduate Student, University of Chicago, 1915-16; Graduate Student, University of California, 1919-1921; Professor of Physics, Brigham Young University, 1916-19; Assistant in Chemistry, University of California, 1919-21; Assistant Professor of Chemistry, Utah Agricultural College, 1921—.

DON WARREN PITTMAN.....Assistant Professor of  
Agronomy

B. S., Iowa State College, 1914; M. S., Utah Agricultural College, 1916. Instructor in Agronomy, Utah Agricultural College, 1916-20, Assistant Professor of Agronomy, 1920—.

SAMUEL ROY EGBERT....Assistant Professor of Forging

B. S., Utah Agricultural College, 1923; Assistant in Forging, Utah Agricultural College, 1920-21; Assistant Professor, 1921—.

CHARLOTTE E. DANCY...Assistant Professor of Nursing,  
Dean of Women

Graduate Nurse, Johns Hopkins Training School, 1896; Head Nurse, Johns Hopkins Training School, 1896-1901; Assistant Superintendent of Nurses, University Hospital, Columbus, Ohio, 1901-02; In Charge, District Nursing Work in Newark, 1903-06; Graduate Student, Battle Creek Sanitarium and Instructor in Mental Hospital, Elgin, 1906-08; In Charge, Surgical Department, 1908-10; Superintendent of Nurses, Latter-Day Saints Hospital, 1910-20; In Charge, Home Health and Nursing, Extension Division, Utah Agricultural College, 1920-21, Assistant Professor of Nursing, 1921—.

IVA MAUD DUNN.....Assistant Professor of Public  
Speaking

Ph. B., University of Chicago, 1920. Graduate of American Conservatory of Chicago, 1912; Instructor, Lexington College, 1908-11; Associate Professor, State Normal College, Peru, Nebraska, 1916-19, 1920-21; Assistant Professor of Public Speaking, Utah Agricultural College. 1921—.

HENRY OBERHANSLEY.Assistant Professor of Education  
and Psychology

A. B., Brigham Young University, 1914. Graduate Student, Iowa State College, 1920; Graduate Student, University of California, Summer, 1921; Principal, Iron County High School, 1916-18; Assistant State Leader, Junior Vocational Work, Extension Division, Utah Agricul-

tural College, 1918-19, Live Stock Specialist, Extension Division, 1919-20; Assistant Professor of Education and Pedagogy, Utah Agricultural College, 1921—.

EDMUND BURKE FELDMAN.....Assistant Professor of  
Agricultural Engineering

B. C. E., University of Cincinnati, 1916; Graduate work, University of Minnesota, 1921-22; Associate Member, American Society of Civil Engineers; Licensed Structural Engineer, State of Illinois; Structural Designer, 1916-17; Structural Engineer, 1917-18; Assistant Engineer, U. S. Bureau of Aircraft Production, 1918-19; Bridge Designer, 1919-20; Structural Engineer, 1920-21; Practical Engineering Experience, 1912-21; Instructor, University of Minnesota, 1921-22; Assistant Professor of Agricultural Engineering, Utah Agricultural College, 1922—.

N. E. EDLEFSEN.....Assistant Professor of Physics  
B. S., Utah Agricultural College, 1916; M. A., University of California, 1923; Instructor in Physics, Utah Agricultural College, 1916-1923; Assistant Professor, 1923—.

MILTON E. WILSON.....Assistant Professor of Military  
Science and Tactics  
1st Lieutenant, Quartermaster Corps, United States Army.

EDITH BOWEN.....Assistant Professor of Education  
and Psychology

Normal Graduate, Brigham Young College, 1906; Student, University of Chicago, Summer of 1909; Advanced Normal degree, Brigham Young College, 1911; Graduate student, Columbia University, 1919-20; Critic Teacher, Brigham Young College Training School, 1910-14; Teacher of ungraded work, Logan City Schools, 1914-16; Primary Supervisor, Logan City Schools, 1920-23; Assistant Professor of Education and Psychology, Utah Agricultural College, 1923—.

CHARLES W. REES.....Assistant Professor of Zoology  
and Entomology

B. S., Utah Agricultural College, 1913; M. A., University of California, 1920; Ph. D., University of California, 1921; Graduate student, University of Chicago, 1916; Graduate student, University of California, 1918-21; Fellow, University of California, 1919-20; Instructor in Biology, Brigham Young College, 1916-18; Instructor in Zoology and Organic Chemistry, Saint Marys College, Oakland, California, 1921-22; Assistant Professor of Zoology and Entomology, Utah Agricultural College, 1923—.



GEORGE DEWEY CLYDE...Assistant Professor of Irrigation  
and Drainage

B. S., Utah Agricultural College, 1921; M. S., University  
of California, 1923; Instructor in Irrigation and Drainage,  
Utah Agricultural College, 1923—.

JOSEPH A. SMITH, Jr...Assistant Professor of Band Music

Graduate, Chicago Musical College, 1907; Graduate Stu-  
dent, Chicago Musical College, 1907-08; Student of Felix  
Borowski and A. F. Weldon; Director, Logan Military  
Band, 1912; Instructor in Band Music, Utah Agricul-  
tural College, 1917-23; Assistant Professor of Band Music,  
1923—.

.....Secretary to the President

RUSSELL ELWOOD BERNTSON.....Purchasing Agent

LOVINA RICHARDSON.....Instructor in Textiles and  
Clothing

B. S., Utah Agricultural College, 1915. Graduate Student,  
University of California, Summer of 1919; Instructor in  
Textiles and Clothing, Utah Agricultural College, 1915—.

AARON F. BRACKEN.....Instructor in Agronomy

B. S., Utah Agricultural College, 1914. Foreman, Nephi  
Experiment Station, 1914-17; Instructor in Farm Man-  
agement, Extension Division, Utah Agricultural College,  
1917-18; Scientific Assistant in Agronomy, U. S. D. A.,  
1918-20; Superintendent Nephi Substation and Instructor  
in Agronomy, 1921—.

HATTIE SMITH.....Assistant Librarian

Student, University of California, Summer Quarters, 1907,  
1917-18; Assistant Librarian, Utah Agricultural College,  
1907—.

DAN ARTHUR SWENSON.....Instructor in Carpentry  
and Woodwork

B. S., Utah Agricultural College, 1915; Assistant in Car-  
pentry and Woodwork, Utah Agricultural College, 1913-16;  
Instructor, Carpentry and Woodwork, Utah Agricultural  
College, 1916—.

LOUIS F. NUFFER.....Instructor in Botany

B. S., Utah Agricultural College, 1918; M. A. 1923; In-  
structor in Botany, Utah Agricultural College, 1918—.

ASA BULLEN.....Special Lecturer in Commercial Law  
B. S., Utah Agricultural College, 1910; LL. B., Harvard  
University, 1913. Lecturer in Law, Utah Agricultural Col-  
lege, 1917—. Judge of the Logan City Court, 1919—.

EMIL HANSEN.....Superintendent of Grounds and Green-  
houses, Instructor in Landscape Gardening, Extension  
Graduate, Technical School in Landscape Gardening, Den-  
mark; Fellow, Royal Garden Association, 1895-97; Instruc-  
tor, Stormly School of Gardening, Norway, 1897-99; Land-  
scape Gardener, Wandamere Park, Salt Lake City, 1904-06;  
Landscape Gardener, Rose City Cemetery Portland, 1906-  
14; Superintendent, Grounds and Greenhouses, Utah Agri-  
cultural College, 1914—. Assistant in Horticulture, 1918-  
20, Instructor, 1920—.

DEAN S. CARDER.....Instructor in Geology  
B. S., Oregon Agricultural College, 1921. Instructor in  
Geology, Utah Agricultural College, 1921—.

THELMA FOGELBERG....Instructor in Stenography and  
Business Practice  
Student, Utah Agricultural College, 1917-19; Instructor in  
Stenography and Business Practice, Utah Agricultural  
College, 1919—.

RAY LANGTON ORMSBY.....Instructor in Textiles  
and Clothing  
Graduate, Keister Tailoring College, Salt Lake City, 1904;  
St. Louis, 1908; Instructor in Textiles and Clothing, Utah  
Agricultural College, 1920—.

SIDNEY STOCK....Instructor in Farm and Auto Mechanics  
B. S., Utah Agricultural College, 1922. Instructor in Auto  
Mechanics, and Ignition, Starting and Lighting, Utah  
Agricultural College, 1919-20, 1921-22; Instructor Farm  
and Auto Mechanics, 1922—.

CHARLES H. STEPHENS.....Instructor in Machine Work  
Student, Armour Institute of Technology, 1910-11; In-  
structor in Auto Mechanics, Utah Agricultural College,  
1919—.

HUGH HURST.....Project Instructor in Agriculture  
D. V. M., Colorado Agricultural College, 1916. County  
Agent, Utah, 1918-21; Instructor in Veterinary Science,  
Utah Agricultural College, 1921-23; Project Instructor  
in Agriculture, 1923—.

EARL THOMPSON...Instructor in English and Mathematics

Graduate, University of Utah Normal School, 1904; B. S., Utah Agricultural College 1923; Student, Chicago University, Summer Quarters, 1913-14-18; Principal, Monroe High School, 1907-08; Principal, Richfield Schools, 1908-13; Superintendent, Sevier County Consolidated District, 1913-15; Superintendent, Uintah County, 1915-20; Instructor, English and Mathematics, Utah Agricultural College, 1920—.

CHARLES E. McCLELLAN.....Instructor in Education

A. B. Brigham Young University, 1914. A. M., Utah Agricultural College, 1923; Superintendent Schools, Rigby, Idaho, 1914-15; Student, Summer Quarter, University of California, 1915; Principal, Millard Academy, 1915-17; Superintendent, Schools, Rigby, Idaho, 1917-20; Instructor in English and Education, Utah Agricultural College, 1921-23; Instructor in Education, 1923—.

HOWARD McDONALD.....Instructor in Mathematics

B. S., Utah Agricultural College, 1921, Graduate student, 1922-23; Instructor in Mathematics, 1921—.

————— .....Instructor in Foods and Dietetics

HARRY R. REYNOLDS.....Instructor in Art

Graduate of the three-year course, Art Institute of Chicago. Instructor in Art, Utah Agricultural College, 1923—.

ABBY GROESBECK.....Assistant Registrar

Assistant Registrar, Utah Agricultural College, 1914—.

EUGENE J. CALLAHAN.....Assistant in Military Science  
and Tactics

Sergeant, D. E. M. L., United States Army.

WILFORD AUDETTE.....Assistant in Military Science  
and Tactics

Sergeant, D. E. M. L., United States Army.

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

RASMUS OLUF LARSEN....Superintendent of Buildings



## Experiment Station Staff

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WILLIAM PETERSON, B. S.  
Director; Geologist

HYRUM JOHN FREDERICK, D. V. M.  
Veterinarian

FRANKLIN LORENZO WEST, Ph. D.  
Physicist

JOSEPH EAMES GREAVES, Ph. D.  
Chemist and Bacteriologist

WILLIAM ERNEST CARROLL, Ph. D.  
Animal Husbandman

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

GEORGE BALLIF CAINE, A. M.  
Dairying

EDGAR BERNARD BROSSARD, Ph. D.\*  
Farm Management

REUBEN LORENZO HILL, Ph. D.  
Human Nutrition

GEORGE STEWART, M. S.  
Field Corps

ORSON WINSO ISRAELEN, M. S.\*  
Irrigation and Drainage

WILLIAM LAWRENCE WANLASS, Ph. D.  
Marketing

IRA M. HAWLEY, Ph. D.  
Entomologist

BYRON ALDER, B. S.  
Poultryman

DAVID STOUT JENNINGS, Ph. D.  
Soil Surveys

RAYMOND J. BECRAFT, B. S.  
Range Management

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\*On Leave of Absence.

WILLARD GARDNER, Ph. D.  
Associate Physicist

BERT LOREN RICHARDS, Ph. D.  
Associate Botanist

LUTHER MURKINS WINSOR, B. S.  
Associate in Irrigation and Drainage

CHARLES TARRY HIRST, M. S.  
Associate Chemist

EZRA G. CARTER, B. S.  
Associate Bacteriologist

MOYER DELWIN THOMAS, A. B., B. Sc.  
Associate Agronomist

GUSTAV WILSTER, M. S.  
Associate Dairyman

DON WARREN PITTMAN, M. S.  
Assistant Agronomist

TRACY H. ABELL, M. S.  
Assistant Horticulturist

GEORGE DEWEY CLYDE, M. S.  
Assistant in Irrigation and Drainage

HERBERT J. PACK, M. S.\*  
Assistant Entomologist

LOUIS F. NUFFER, M. S.  
Assistant Botanist

AARON F. BRACKEN, B. S.  
Superintendent, Nephi Substation

ALMA L. WILSON, B. S.  
Superintendent, Davis County Farm

J. R. BATEMAN, B. S.  
Superintendent, Panguitch Farm

PETER NELSON, B. S.  
Farm Superintendent

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

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

DAVID A. BURGOYNE, B. S.  
Director's Secretary

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\*On Leave of Absence.

## Extension Division Staff

---

ROBERT JAMES EVANS, Ph. D.  
Director

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

JAMES HENRY LINFORD, B. S., D. Did.  
Superintendent, Correspondence-Study

JOHN T. CAINE, III.  
Livestock Specialist

IRA M. HAWLEY, B. S.; Ph. D.  
Entomologist

P. V. CARDON, B. S.  
Information-Service

BERT LORIN RICHARDS,  
Pathologist

LUTHER M. WINSOR,  
Irrigation Specialist

BYRON ALDER,  
Poultry Specialist

RENA BAKER MAYCOCK,  
State Leader, Home Demonstration Work

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

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

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

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

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

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

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

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

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

## AGRICULTURAL COLLEGE OF UTAH

CHRISTINE B. CLAYTON, B. S.  
Assistant Professor; Specialist in Foods

LILLIAN ELDER, B. S.  
Assistant Professor; District Home Demonstration Agent

MORGAN McKAY, B. S.  
Assistant Professor; County Agent, Southern Utah

VICTORIA B. CHRISTENSEN,  
Assistant Professor; Specialist, Home Health and Nursing

ERASTUS PETERSON, B. S.  
Assistant Professor; County Agent, Uinta County

IVY LOWRY, B. S.  
Assistant Professor; Home Demonstration Work, Salt Lake County

EMIL HANSEN,  
Specialist, Landscape Gardening

IDA R. MITCHELL,  
Clerk

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In Co-operation with United States Department of Agriculture.

B. B. RICHARDS, B. S.  
Biological Assistant, Rodent Control  
Headquarters, Salt Lake City

L. C. HENDERSON, D. V. M.  
Specialist in Swine Husbandry  
Headquarters, Ogden

## Standing Committees

1923-1924

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

*Advanced Standing*—Professor Richards.

*Attendance and Scholarship*—Professors F. L. West, Henry Peterson, Jenson, Dancy.

*Athletic Council*—Professors Ray B. West, Jenson, Romney (representing the Faculty); Professors George R. Hill, Jr., George B. Caine, Mr. John H. Bankhead (representing the Alumni); Willard Knowles, Howard Woodside, Herbert Adamson (representing the Student Body).

*Awards and Honors*—Professors Wanlass, Linford, Wm. Peterson.

*Boy Scout Activity*—Professors George R. Hill, Jr., Fletcher, Richards, Oberhansley.

*Campus Improvement*—Professors Ray B. West, William Peterson, George R. Hill, Jr., Fletcher, Mr. Emil Hansen.

*College Editor*—Professor Robinson.

*Debating*—Professors Wanlass, Ricks, Coulter, Vickers, Maeser, Rees, Miss Smith.

*Entrance*—Professors Harris, Stewart, Gardner, Hirst, Maeser.



*Exhibits*—Professors William Peterson, Fletcher, Moen, A. J. Hansen.

*Graduate Work*—Professors F. L. West, William Peterson, George R. Hill, Jr., Greaves.

*Graduation*—Professor Carroll.

*High School Relations*—Professors Henry Peterson, P. E. Peterson, Robinson, Kewley.

*Library*—Professors Ricks, Arnold, Wanlass, Coulter.

*Loan Funds*—Mr. Coburn, Professors Wanlass, Dancy.

*Lyceum*—Mr. Coburn.

*Publicity*—Professors Arnold, Robinson.

*Recommendations for Employment*—Professor Henry Peterson.

*Schedule*—Professors F. L. West, Stewart.

*Student Affairs*—Professor Jenson.

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

*Student Employment*—Professor Becraft, Mr. Berntson, Mr. Burgoyne.

## **Branch Agricultural College of Utah at Cedar City**

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### **OFFICERS OF ADMINISTRATION AND INSTRUCTION**

#### **Administrative Officers.**

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

J. HOWARD MAUGHAN, B. S.  
Director

JOHN L. COBURN, B. S.  
Financial Secretary

#### **FACULTY**

##### **Instructors.**

PARLEY DALLEY, B. S.  
Chemistry — Mathematics

JOHN S. CHRISTENSEN, B. S.  
Physiology — Physical Education

GILBERT L. JANSON, M. A.  
Business Practice

GEORGE H. LUNT, A. B.  
History — Law

JOHN PENDLETON, B. S.  
Woodworking — Mechanical Drawing

LOTTIE H. ESPLIN, B. S.  
English — Literature



## AGRICULTURAL COLLEGE OF UTAH

GEORGE A. CROFT, B. S.  
Auto Mechanics — Ironworking

NORMAN McCARTY  
Music — Voice — Piano

ARTHUR FIFE, B. S.,  
Agricultural Engineering — Physics

MARION A. GUDMUNDSEN, M. A.  
English — Foreign Language

CORA G. McBRIDE, B. S.  
Household Arts

CLAIRE BENNION, M. S.  
Household Science

WENDELL S. STOUT, A. B.  
Education

JOHN A. YOUNG  
Biology — Physical Education

IRVIN T. NELSON, B. S.  
Agronomy

ARTHUR MORRIS, B. S.  
Animal Husbandry

KING HENDRICKS, B. S.  
History — Economics

J. L. TERRY  
Music — Band — Orchestra

ANNA W. E. PETTIGREW  
Library Economy — Librarian

FRANCIS FENTON  
Review of Common Branches

.....  
Supervisor in Charge of Training

Extension and Demonstration Specialists.

ALMA ESPLIN  
Livestock

ARTHUR FIFE  
Irrigation and Drainage

IRVIN T. NELSON  
In Charge of College Farm

ARTHUR MORRIS  
In Charge of College Creamery

Assistants.

RUBY WOODARD  
English

.....  
Home Economics

CLARENCE E. RIDDEL  
Bookkeeping

HAROLD HENDERSON  
Typewriting

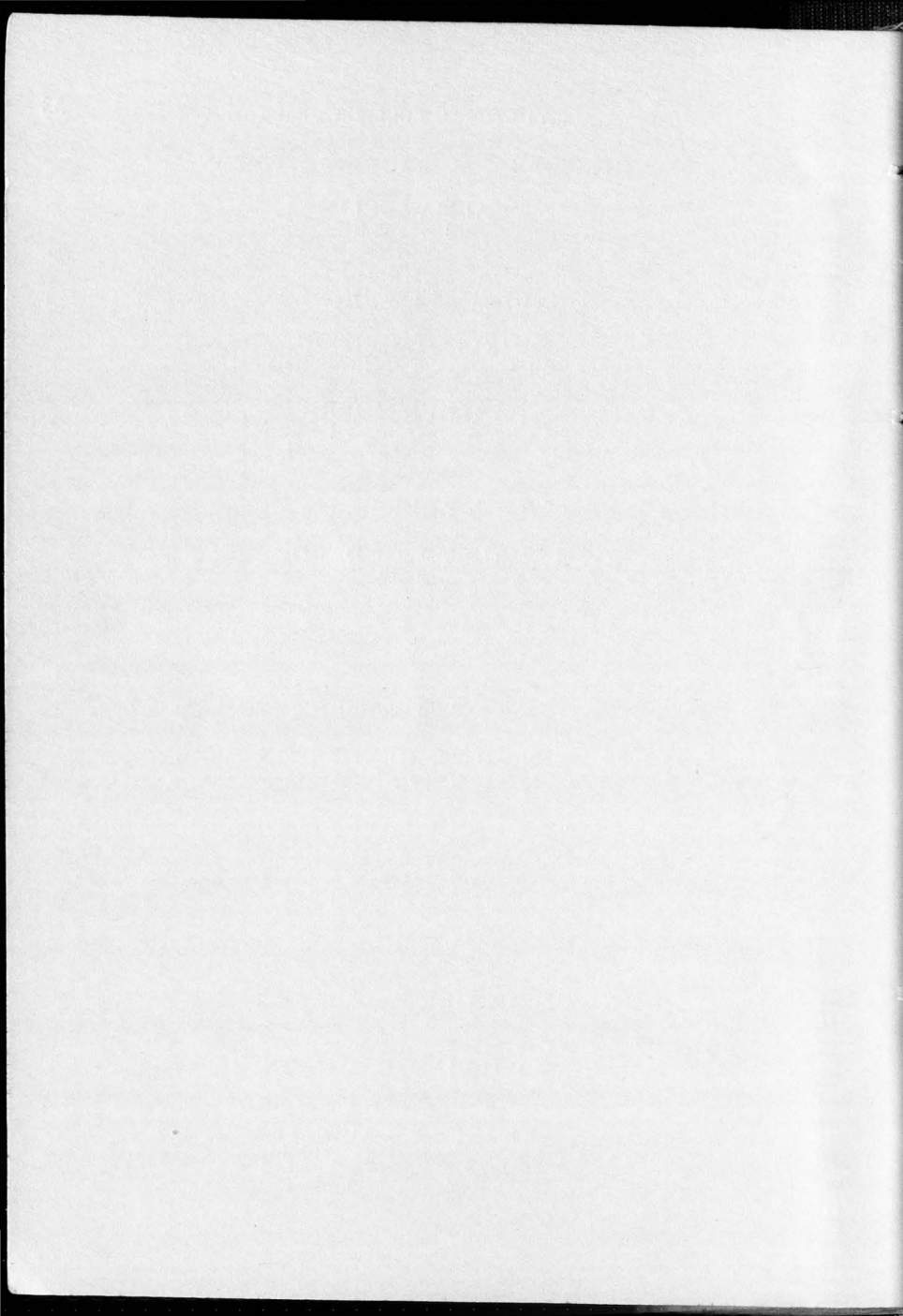
MR. PARRY  
Mechanic Arts

.....  
.....  
.....  
Critic Teachers

CLAIRE WOODARD  
Secretary

WILLIAM FLANIGAN  
Engineer

CHARLES SLAUGHTER  
Superintendent of Buildings



# 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 crops 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 institution is dependent on State appropriations for funds with which to provide additional instruction and for general maintenance. These needs have been generously met in the past by the Legislative Assemblies of the State. In 1888 the sum of \$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 *per cent.* of 28 *per cent.* 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 occupation 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 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 1923, the School of General Science was renamed the School of Basic Arts and Science.

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

In December, 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 Student's 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 Deans' and 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 DEANS' AND DIRECTORS' COUNCIL consists of the President, the Deans of the various schools,—Agriculture, Home Eco-

nomics, Agricultural Engineering, Commerce and Business Administration, Mechanic Arts and Basic Arts and Science—the Dean of the Faculty, the Director of the Summer Quarter, 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, 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 expense 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 the presenting of 15 approved high school units of work. High school graduates are urged to send their diplomas and a record of their credits to the Registrar at least two weeks before the opening of 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 unit of high school work. This deficiency must be removed, however, before the student is admitted to the Senior College.

A student who has more than one unit of high school deficiency cannot enter unless he is nineteen years of age, in which case he must register in the Vocational School. (See special circular.)

**ADVANCED STANDING.** The college does not grant college credit for excess high school work. Advanced Standing for work done in some other accredited college may be granted 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.



**CLASS STANDING.** Students are ranked as Freshmen, Sophomores, Juniors or Seniors at the time they enter

Thirty-six hours (36) of approved college work, in addition to the prescribed entrance requirements, are required for Sophomore rank; ninety hours and Senior College Standing for Junior rank (see pages 43,44) and one hundred thirty hours and Senior College Standing for Senior rank. The foregoing requirements are to be exclusive of the required courses in Physical Education and Drill.

**REGISTRATION.** The fall quarter opens Monday, September 24; the winter quarter, Thursday, January 3; the spring quarter, Monday, March 17; and the 1924 summer quarter, Monday, June 9. 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.

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

### THE JUNIOR COLLEGE

The work of the Junior College comprises the studies of the Freshman and Sophomore years, upon the successful completion of which, according to conditions hereinafter stated, a Junior College Certificate will be granted. The

Junior Certificate is required for admission to the Senior College.

In the Junior College it is expected that the student, in addition to fulfilling the prerequisites for the major work upon which he will concentrate in the upper division, will make an effort to establish a basis for that breadth of culture which will give him a realization of the methods and results of some of the more important types of intellectual endeavor, and a mental perspective that will aid him in reaching sound judgments. The Junior Certificate requirements were designed to provide in some degree for the accomplishment of this purpose, without unduly limiting the student's opportunity to satisfy his individual tastes and preferences.

Students who expect to become candidates for advanced degrees either in Arts and Sciences or in the professional schools in this institution or in other leading colleges of the country should plan their courses with great care through consultation with their deans in order to insure proper foundation for the technical work in the graduate division.

Junior college students will not be allowed to enter Senior College courses, except in meritorious cases and upon formal application approved by both the Dean and the Instructor of the course. Senior College credit will not be given to Junior College students who complete such Senior College work.

#### REQUIREMENTS FOR THE JUNIOR CERTIFICATE

The Junior Certificate will be issued to a student upon the following conditions:

1. Two years Military Science. (Men) Two years Physical Education. (Men and Women.)

(A student who has been excused from Physical Education or Drill for physical disability or other valid reasons must present one credit for each quarter for each subject from which he has been excused.)

2. a. The completion of ninety credits of work as hereinafter conditioned excluding Physical Education and Military Drill.

b. The completion of two-thirds of each of the group requirements for graduation in the particular school in which the student is registered.

c. The completion of an additional 15 hours of work in one school, (in the school of Basic Arts and Science in one group or in the department of education) this work to represent a continuation of the high school major if one has been selected or, if not, of some subject taken in the Senior year at high school. The aim of this requirement is to prepare the student for his major work in the Senior College.

3. To insure sufficient foundation for Senior College work students must present the following prescribed units or else their election of work will be correspondingly limited, i. e., part of the unconditioned Junior College electives must be used to strengthen subjects in which they are deficient:

- a. English ..... three units.
  - b. Algebra ..... one unit.
  - c. Geometry or equivalent mathematics... one unit.
  - d. Social Science ..... one unit.
  - e. Natural Science ..... one unit.
- (Requiring laboratory work.)

The student will be expected to select a major department on entering the institution. The Dean will assign the student to a professor in his school who will act as his adviser in all matters connected with the selection of his major, his registration and general school life.

The Junior College Certificate will be issued at the end of the quarter in which the requirements for the certificates have been satisfied.

## THE SENIOR COLLEGE

Only those students who have been granted the Junior Certificates or who have completed the equivalent at some other accredited college will be registered in the Senior College.

### REQUIREMENTS FOR THE BACHELOR'S DEGREE

The Degree of Bachelor of Science in Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, or Basic Arts and Science is conferred upon the following conditions:

1. Presentation of the Junior College Certificate in the case of the Utah Agricultural College students or its equivalent in case of students coming from other accredited colleges.

(Students from other institutions who do not present two years of military science will be registered for this work during their time in residence unless excused for valid reasons.)

2. Four quarters work in Physical Education for both men and women.

(A student who has been excused from Physical Education for physical disability or other valid reasons must present one credit for each quarter for each subject from which they have been excused.)

3. The completion of ninety credits of work after the attainment of Senior College standing. (Exclusive of Physical Education.)

4. The completion of 54 credits of Senior College work after being granted Senior College standing.

5. The completion of thirty hours forming a major subject in some one department in the school from which the student expects to graduate, one-half of which must consist of Senior College courses.

6. The completion of eighteen hours forming a minor subject in some other department or departments of the same school.

7. The completion of credit requirements as specified on pages 47-52.

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.

**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 major and minor and the group requirements in the various schools for the bachelor's degree are as follows:

# **REQUIREMENTS OF THE SCHOOL OF AGRICULTURE**

## *Technical Division*

Major Subject .....30 hours  
(At least one-half Senior College credit)

Thirty hours forming a major subject must be chosen by the candidate in some one department in the School of Agriculture. 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 .....18 hours  
Social Science Group .....18 hours  
Special Group .....18 hours

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

Electives .....48 hours

These electives are entirely at the disposal of the student.

## REQUIREMENTS OF THE SCHOOLS OF AGRICULTURAL ENGINEERING AND MECHANIC ARTS

### *Technical Division*

Major Subject ..... 30 hours  
(At least one-half Senior College credit.)

Thirty hours forming a major subject must be chosen by the candidate in some one department of the school in which the student expects to graduate. 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 Subject ..... 18 hours

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

Special Group (Technical) ..... 30 hours

The special group (technical) is additional work in the technical division and will be designated by the Dean of the Schools of Agricultural Engineering and Mechanic Arts.

### *General Division*

Biological Science Group ..... 9 hours

Exact Science Group ..... 18 hours

Language Group ..... 12 hours

Social Science Group ..... 9 hours

Special Group (general) ..... 18 hours

The special group is additional work in one or more of the above groups in the general division and will be designated by the Dean of the Schools of Agricultural Engineering and Mechanic Arts.

Electives ..... 42 hours

These electives are entirely at the disposal of the student.

**REQUIREMENTS OF THE SCHOOLS OF COMMERCE AND  
BUSINESS ADMINISTRATION, HOME ECONOMICS  
AND BASIC ARTS AND SCIENCE**

*Technical Division*

Major Subject ..... 30 hours  
(At least one-half Senior College credit.)

Thirty hours forming a major subject must be chosen by the candidate in some one department in the school in which he expects to graduate. 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

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.

(For All Schools)

### *Technical Division*

Major, 30 hours in one department.

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

Special Group. In the Schools of Agricultural Engineering and Mechanic Arts the dean will designate thirty hours in a special technical group.

### SCHOOL OF AGRICULTURE

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

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

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

SCHOOL OF BASIC ARTS AND SCIENCE

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

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

REQUIRED WORK.

*General Division*

BIOLOGICAL SCIENCE GROUP (18 Hours)

(9 hours in the Schools of Agricultural Engineering and Mechanic Arts)

Bacteriology	Physiology
Botany	Veterinary Science
Entomology	Zoology



## EXACT SCIENCE GROUP (18 Hours)

Accounting	Mathematics
Chemistry	Physics
Geology	Surveying

## LANGUAGE GROUP (24 Hours)

(18 hours in the School of Agriculture and 12 hours in the Schools of Agricultural Engineering and Mechanic Arts)

English	Latin
French	Public Speaking
German	Spanish

## SOCIAL SCIENCE GROUP (18 Hours)

(9 hours in the Schools of Agricultural Engineering and Mechanic Arts)

Agricultural Economics	Marketing
Business Administration	Political Science
Economics	Sociology
History	

## SPECIAL GROUP (18 Hours)

## ELECTIVES (42 Hours)

(48 Hours in the School of Agriculture)

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

Registration of all graduate students shall be made by the chairman of the committee on graduate work.

## 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 three full quarters after receiving the standard

Bachelor's degree (or after having met the requirements for this degree), and must obtain fifty-one (51) credits for work in addition to the 180 College credits and 15 High School units, or their equivalent, required for the Bachelor's degree.

Summer Quarter students with the baccalaureate degree are allowed five years in which to complete their work and residence requirements for the master'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, or at least seven months preceding the date on which he expects to receive the degree, by the committee on graduate work, the professor in charge of his major subject and the dean of the school in which his major subject is taken.

A thesis covering the work done in the major department must be prepared by May 1 and must be accepted by the group which approved his candidacy. At least two copies of the thesis must be filed with the college librarian.

The candidate must successfully pass an oral examination, which will be given under the direction of the committee on graduate work, by the professor in charge of his major subject, the dean of the school in which his major work is taken and three professors to be selected by the committee on graduate work.

### **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 standard 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. At least fifty copies of the thesis must be filed with the college librarian.

The candidate must satisfy the Department of Modern Languages that he has a reading knowledge of at least two for-

### 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.

eign 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 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.

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 Basic Arts and 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., \$8.00 annually. This society has control, under faculty direction, of the following student activities:

1. *Athletics*, including all inter-class and intercollegiate contests in foot ball, baseball, basketball, track, tennis, swimming, and wrestling 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 and for that given by The Sons of the American Revolution 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 the College year book, named *The Buzzer*; 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 and practical 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 American Association of Engineers*, a local chapter of the national organization made up of students and practicing engineers. Any student majoring in any branch of engineering is eligible for membership. The purpose of the organization is the advancement of the engineering profession and the promotion of the economic and social welfare of the engineer. Regular monthly luncheons are held at which men of repute are invited to speak on pertinent current problems.

*The Home Economics Club*, to which all students registered in the School of Home Economics are eligible. The object of the club is four-fold:

1. To stimulate interest in Home Economics;
2. To broaden and elevate each member's ideals for social, industrial and economic life, thereby helping her better to fit into the home and community;
3. To provide wholesome recreation;
4. To foster ties of friendship among the members.

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

*Gamma Sigma Delta*, a chapter of the national honorary fraternity for students in agriculture. Members are chosen for scholarship from the upper one-fourth of the junior and senior classes in agriculture.

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

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

*Alpha Kappa Psi*, a national fraternity, devoted to the interests of commerce and business.

*Scabbard and Blade*, a company of the national, honorary, military fraternity of the same name, organized to perpetuate American ideals among young men and open to cadet officers who have shown particular excellence in their R. O. T. C. work.

*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 The Agora.

*The Chemistry and Physics 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 Tennis Club*, organized to promote interest in tennis and develop players for intercollegiate matches.

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

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

*The Cosmopolitan Club*, composed of faculty members and students and organized for the purpose of furthering internationalism and world peace. To be eligible for membership, candidates must be of foreign birth, must have lived in a foreign country or show a keen interest in world problems.

*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.

*The Men's Rifle Club*, organized to foster marksmanship among its members.

*The Women's Rifle Club*, composed of women interested in the use of fire arms.

*The Botany Club*, composed of students especially interested in botany. Lectures are given by faculty members and initiation discussions by new members.

*The Short Story Club*, organized to promote interest in the short story.

*The Girls Athletic Club*, composed of women students who are particularly interested in athletic contests, hiking, etc.

*The Hand Ball Club*, organized by men interested in hand ball.

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 \$38.00, students from other states pay \$63.00. 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 withdrawal deposit of \$1.00, is charged every student.

According to the constitution of the Student Body, every regular student must pay, in advance, a Student Body fee of \$8.00 if registered for three quarters, of \$6.00 if registered for two quarters, and of \$3.00 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, tennis and track—dramatic and musical entertainments, socials, lectures, etc., and, in addition, giving him a copy of the annual year book and subscription to the college

paper. 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.

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 1923-24, the units to be maintained at the College include Coast Artillery and Motor Transport.

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.

As all students are required to take Physical Education they must provide themselves with gymnasium suits and gymnasium shoes. The cost is about \$6.00.

Each student in Foods and Dietetics courses and Household Administration 150 must provide herself with the following: two hair nets, one or two white petticoats, two washable white uniforms, two white work aprons.

Each student in Home Nursing course must provide herself with the following: one or two white petticoats, two washable white uniforms.



The uniforms required for Home Nursing course, and aprons and uniforms required for Foods course and Household Administration 150, must be of the standard designs provided by the Textile 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 the required period of residence in the Home Economics Cottage, as indicated in Household Administration 150. 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, where students may eat at cost.

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

	Low	Average	Liberal
Tuition, books, fees, etc.....	\$ 75	\$ 75	\$ 75
Room and Board .....	200	250	300
Incidentals or miscellaneous.....	50	90	150
	<hr/>	<hr/>	<hr/>
Total .....	\$325	\$415	\$525

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

The Senior Loan Fund, a gift of the class of 1911, and added to by the class of 1922, has helped many students through school.

## SCHOLARSHIPS AND AWARDS

*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. Applications for this scholarship must be filed with the chairman of the committee on honors and awards before April 15 for the succeeding year.

*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. C. Faculty Women's League* has a loan fund for the women students of the college. Loans may range from \$50 to \$200. Preference is given to senior women students. Loans are made at any time during the year when money is available.

*The Citizenship Award*, given by President Elmer G. Peterson is awarded annually to the male student who shows evidence of being able to repay, in greatest measure, to the Nation the investment which it has made in him. The United States in return for the opportunities which they freely offer to all their youth, irrespective of conditions or race, wealth or social position, cherish the faith that there will arise a noble and enlightened citizenship that will exalt and perfect the ideals of government and of industry. Such is the prime motive of education.

The basis of the award is as follows:

(a) The potential, vocational, or professional efficiency of the student as shown by his scholarly attainment, his industry, and natural ability and talent, 50 points.

(b) His patriotism, honesty and good judgment as a student citizen, as an indication of his future attitude as a voter or

public servant, combining a progressive spirit with a love of country and a concern for the safety and development of American institutions of liberty and justice. His qualities of social leadership, as shown in student affairs, based upon physical and moral cleanliness and strength, 50 points.

*The R. O. T. C. Medal*, a gift of the Institution, is awarded each year to the student in Military Science and Tactics who most nearly represents the ideal that the Reserve Officers' Training Corps is striving to develop, upon the following basis:

- (a) Character, 20 points.
- (b) Scholarship, 15 points.
- (c) College Activity, 15 points.
- (d) Leadership, 20 points.
- (e) Aptitude for and interest in Military Science, 20 points.
- (f) Physique and bearing, 10 points.

*The Rhodes Scholarships*. Special attention is called to the Rhodes Scholarships in Oxford University, England, to which one appointment from the State of Utah will be made for 1923. The scholarships are each of the value of approximately \$1,500.00 a year, and are tenable for three years. Full information and application blanks may be secured at the President's office.

*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 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 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 Professor 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.

*The Titus Medals*, given by Dr. E. G. Titus to the winners of the singles tennis tournament for men and women.

*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 Home Economics 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 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 plants of the western 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 draperies, 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 35,920 books and a large number of pamphlets. The books are classified by the Dewey decimal sys-

tem 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 of 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 and supplemented by the receipts from the sale 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 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 semi-arid countries, is receiving considerable attention. Breeding 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 investiga

tion 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 Department 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.

## 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	Correspondence Study
County Agent Work	Community Service Bureau
Home Demonstration Work	

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 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 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 work is maintained for the purpose of supervising and assisting the boys and girls in carrying out definite farm and home projects. Under this plan the primary purpose is to develop leadership and train boys and girls in better methods of farm and home practice.

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, the project leader in extension work—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 course.

7. Grade studies.

A special bulletin of the correspondence 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 Basic Arts and Science; (7) The Summer Quarter.

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

*The School of Home Economics* offers a four-year college course with the 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 economics, 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 drawing, machine and automobile work, technology of mechanic arts and woodwork.



*The School of Basic Arts and Science* offers a four year college course in general science.

*The Summer Quarter* offers instruction during twelve weeks of the summer, 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 those 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 works 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 additions to its efficiency are the newly equipped Home Nursing Laboratory, and opportunity for apprentice teaching in Home Economics in the Logan High School, and the well-equipped dwelling which has been leased as a Home Economics Cottage and serves the purposes of the laboratory for the Household Management Course.

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 prerequisites 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 MECHANICAL 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 woodwork. 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 BASIC ARTS AND 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 Basic Arts and 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 to 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 special-

ists, home economics 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.

### 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. All certificated teachers are admitted to the summer quarter. All others will meet the usual entrance requirements.

## Suggested Courses for Various Professions

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### Agricultural Economics.

The courses in Agricultural Economics aim to prepare men and women for the following services: (1) Commercial farmers or farm managers; (2) County agricultural agents; (3) managers of farmers' co-operative business associations; (4) wholesale and retail dealers of fertilizers, feed, seeds, grains, produce, farm machinery, and equipment; (5) buyers of farm products; (6) salesmen of agricultural commodities; (7) federal, state or private service in marketing farm crops or livestock; agricultural insurance, rural credit, transportation of farm products, agricultural statistics, farm accounting and farm cost accounting; (8) agricultural commerce or related fields such as receivers, shippers, handlers, storers of soil-grown products; (9) rural banking agents such as land appraisers and secretaries of national farm loan associations; (10) rural real estate dealers; (11) public service men and agricultural assistants to corporations and institutions as railroads, banks, chambers of commerce, boards of trade, grain exchanges, and associations of various kinds; (12) advertising and publicity service for agricultural products for various organizations, such as the state and national Farm Bureau Federations, the National Wool Growers Association, and the livestock breeders associations; (13) teaching in high schools and colleges; and (14) research or experiment station work in the various divisions of agricultural economics.

(Note) Students who are preparing to teach or do Smith-Hughes work need 15 quarter hours more work in the professional subjects than is here outlined. It is suggested that these professional subjects be taken instead of some of the work in the exact science group. Students who know what occupation they are going to follow may concentrate more than this course suggests by substituting the more specialized courses for some of the general ones suggested.



# SCHOOL OF AGRICULTURAL ENGINEERING

Students may major in any one of the three following departments: Highway Engineering, Irrigation and Drainage or Rural Sanitation. The Junior College work for all students is identical regardless of their major department and a suggested outline for suitable junior college courses is as follows:

Freshman Year:			Sophomore Year:		
F	W	S	F	W	S
Chemistry 1, 2.....	5	5	Physics 20, 21, 22....	5	5
Math. 45, 46, 47.....	5	5	Math. 112, 113, 114....	3	3
English 5, 10, 10.....	3	3	Surveying 2, 3.....	3	3
Mech. Dr. 11, 12, 13..	3	3	Mechanics 1, 101, 102.	3	3
Roads 1 or Irrig. 1....	5		Irrig. 2, 3.....	3	3
			Pub. Speaking 1.....	3	
Totals .....	16	16	Totals .....	17	17

For those students majoring in Highway Engineering the following senior college courses are recommended:

Junior Year:			Senior Year:			
F	W	S	F	W	S	
Mecanics 2, 106, 107	2	5	3	Irrig. 104, 105, 103....	5	5
Irrig. Roads 2, Survey				Eng. 108, 109, 110....	2	2
102 .....	5	5	5	Mechanics 103, 104, 105	3	3
Economics 1, 2, 3....	3	3	3	Sem., Roads 104, 105,		
Roads 3, 4, 101.....	3	3	3	106 .....	1	1
Spec. & Contracts....	3			Roads 102, 103 .....	3	3
				Biol. 1, Rural San. 6.	5	3
Totals .....	16	16	14		16	17

For those students majoring in Irrigation and Drainage the following senior college courses are recommended:

Junior Year:			Senior Year:				
F	W	S	F	W	S		
Mech. 2, 106, 107....	2	5	3	Irrig. 104, 105, 103...	5	5	5
Roads 1, 2, Geol. 111..	5	5	3	Irrig. 206 .....		3	
Agronomy 106 .....	4			Irrig. 110, 111 .....	1	1	
Irrigation 107, 108 ...		3	3	Agr. Econ. 101 .....	3		
Economics 1, 2, 3....	3	3	3	Irrigation 230 .....		3	
				Rural Sanitation 106 .			3
				Bacteriology 1 .....	5		
				Eng. 108, 109, 110....	2	2	
				Botany or Survey. 102			5
Totals: .....	14	16	14		16	14	15

For those students majoring in Rural Sanitation the following senior college courses are recommended:

Junior Year:			Senior Year:				
F	W	S	F	W	S		
Mech. 2, 106, 107.....	2	5	3	Eng. 108,109,110.....	2	2	2
Irrigation 1 .....	5			Seminar .....	1	1	1
Geology 118 .....		5		Bacteriology 110 .....	2		
Surveying 102 .....			5	Rural Sanitation 106 .			3
Economics (Gen.) 1, 2,				Irrig. 104, 105, 103..	5	5	5
3 .....	3	3	3	Bacteriology 108, 109.		3	3
Agronomy 106 .....	4			Irrigation 230 .....	3		
Bacteriology 2, 106...		5	5	Zoology 6 .....	4		
Totals .....	14	18	16		14	14	14

## 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		
	I	II	III		I	II	III
Freshman Year:				Sophomore Year:			
English 10, Sec. 1....	3	3	3	Bus. Ad. 1, 2, 3 or Acct.			
Economics 1, 2, 3....	3	3	3	31 .....	3	3	3
Accounting 1, 2, 3....	4	4	4	Econ. 10, 30, 31 or Pol.			
History or Political				Sci. 1, 2, 3 or Hist..	3	3	3
Science 1, 2, 3.....	3	3	3	Language Group ....	3	3	3
Exact Science Group..	3	3	3	Math. 60, 61 and Bus.			
				Ad. 112 or Exact Sci.			
				Group .....	3	3	3
				Biology Group .....	3	3	3

### SUGGESTED SPECIALIZED COURSE IN ACCOUNTING

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
Junior Year:				Senior Year:			
Acct. 101, 102, 103..	3	3	3	Acct. 131, 132, 133....	3	3	3
Mkt. 101, 102, 103 or				Pol. Sci. 106, 107, Mkt.			
Bus. Ad. 104, Econ.				171 .....	3	3	3
167, Bus. Ad. 120....	3	3	3	Soc. 150, 160.....	3	3	
Bus. Ad. 101, Mkt. 131,				Bus. Ad. 107 .....	3		
132 or Mkt. 121, Bus.				Language Group ....	3	3	3
Ad. 105, 106 or Mkt.				Elective .....		3	6
121, Acct. 111, 112..	3	3	3				
Language Group ....	3	3	3				
Biology Group .....	3	3	3				

### SUGGESTED SPECIALIZED COURSE IN BANKING

Junior Year:	Quarter Credits			Senior Year:	Quarter Credits		
	I	II	III		I	II	III
Mkt. 101, 102, 103....	3		3	Bus. Ad. 104, Econ.			
Mkt. 111, 112, 113 or		3	3	167 Mkt. 171 .....	3	3	3
Acct. 101, 102, 103...	3	3	3	Mkt. 121, Econ. 110,			
Pol. Sci. 106, 107, Bus.				Acct. 21 .....	3	3	3
Ad. 120 .....	3	3	3	Econ. 180, 181, 182....	1	1	1
Language Group ....	3	3	3	Elective .....	5	5	8
Biology Group .....	3	3	3				

### SUGGESTED SPECIALIZED COURSE IN BUSINESS ADMINISTRATION

Junior Year:	Quarter Credits			Senior Year:	Quarter Credits		
	I	II	III		I	II	III
Mkt. 101, 102, 103....	3	3	3	Mkt. 121, Econ. 110...	3	3	3
Mkt. 111, 112, 113 ...	3	3	3	Acct. 101, 102, 103....	3	3	3
Pol. Sci. 106, 107, Bus.				Econ. 167 .....		3	
Ad. 120 .....	3	3	3	Bus. Ad. 104 .....	3		
Pol. Sci. or History or				Language Group ....	3	3	3
Soc. ....	3	3	3	Bus. Ad. 105, 106....		3	3
Biology Group .....	3	3	3	Elective .....	3		6

### SUGGESTED SPECIALIZED COURSE IN COMMERCIAL TEACHING

Quarter Credits				Quarter Credits			
Freshman Year:	I	II	III	Junior Year:	I	II	III
Econ. 1, 2, 3.....	3	3	3	Educ. 101, 102, 103..	3	3	3
Eng. 10, Sec. 1.....	3	3	3	Acct. 101, 102, 103....	3	3	3
Steno. 1, 2, 3.....	4	4	4	Bus. Ad. 1, 2, 3.....	3	3	3
Typewriting .....	1	1	1	Pol. Sci. 106, 107....	3	3	
Hist. or Pol. Sci. ....	3	3	3	Bus. Ad. 120 .....			3
Exact Science .....	3	3	3	Biol. Group .....	3	3	3
				Elective .....	2	2	2
Sophomore Year:				Senior Year:			
	I	II	III		I	II	III
Steno. 6, 7, 8 .....	4	4	4	Educ. 111 .....	3		
Pol. Sci. or Hist. or				Mkt. 101, 102, 103....	3	3	3
English .....	3	3	3	Bus. Ad. 104, Econ.			
Biology Group .....	3	3	3	167, 160 .....	3	3	
Acct. 1, 2, 3.....	4	4	4	Pol. Sci. or Hist. or			
Educ. 31, 32, 33 ....	3	3	3	Eng. ....	3	3	6
				Soc. 150, 160 .....	3	3	
				Elective .....	1	4	6

### SUGGESTED SPECIALIZED COURSE IN MARKETING

Junior Year:	Quarter Credits			Senior Year:	Quarter Credits		
	I	II	III		I	II	III
Mkt. 101, 102, 103....	3	3	3	Bus. Ad. 104, Econ.			
Mkt. 111, 112, 113....	3	3	3	167, Bus. Ad. 120...	3	3	3
Pol. Sci. 106, 107....	3	3	3	Mkt. 121 .....	3		
Mkt. 161, 162, 163....	2	2	2	Mkt. 171 .....		3	3
Advertising Art ....	2	2	2	Advertising Art ....	1	1	1
Biology Group .....	3	3	3	Elective .....	3		
Elective .....			3	Soc. 150, 160 .....	3		
				Econ. 110 .....		3	
				Elective .....			9

## SUGGESTED SPECIALIZED COURSE SECRETARIAL WORK

Freshman Year:				Junior Year:			
	Quarter I	Quarter II	Credits III		Quarter I	Quarter II	Credits III
English 10, Sec. 1....	3	3	3	Mkt. 101, 102, 103....	3	3	3
Typewriting 1 .....	1	1	1	Pol. Sci. 101, 102, 103.	3	3	3
Stenography 1 .....	4	4	4	Bus. Ad. 1, 2, 3.....	3	3	3
Office Mgt. 10, 1, 2...	1	1	1	Acct. or Exact Sci. Grp	3	3	3
Acct. 1, 2, 3.....	4	4	4	Biology Group .....	3	3	3
Economics 1, 2, 3....	3	3	3				
Sophomore Year:				Senior Year:			
	Quarter I	Quarter II	Credits III		Quarter I	Quarter II	Credits III
Hist. or Pol. Sci. ....	3	3	3	Mkt. 161, 162, 163 or			
Typewriting 2 .....	1	1	1	Eng. 125, 126, 127....	2	2	2
Stenography 2 .....	4	4	4	Pol. Sci. 104, 105....	3	3	
Language Group .....	3	3	3	Bus. Ad. 107 .....			3
Biology Group .....	3	3	3	Of. Mgt. 20 .....		3	
Elective .....	2	2	2	Bus. Ad. 104 .....	3		
				Econ. 167, 160 .....		3	3
				History .....	3	3	3
				B. A. 101 .....	3		
				B. A. 113 .....			3
				Elective .....	2	2	2

## HOME ECONOMICS

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

Freshman Year:				Sophomore Year:			
	Quarter I	Quarter II	Credits III		Quarter I	Quarter II	Credits III
Chemistry 1, 2 .....	5	5		Chemistry 21, 22 (Organic Chemistry)...	4	4	
(Inorganic Chemistry)				Bacteriology 1 .....			5
Botany 1 or Zoo. 1, 2.			5	Bacteriology 111 .....			5
Physics 1 or Physiology 1 .....	3	3	3	Physiology or Physics	3	3	3
English 5 Elective...			3	Physics .....	3	3	3
English 10 .....	2	2	2	Foods .....	4	4	4
Art 1, 2, 3.....	2	2	2	Textiles 20 .....	3	3	
Textiles 10, 11, 12....	2	2	2	Economics 1, 2, 3....	3	3	3
Household Ad. 10....	1	1	1	Physical Ed. 16, 17, 18	1	1	1
Physical Education 13, 14, 15 .....	1	1	1				
Totals .....	16	16	16	Totals .....	18	18	18

## 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 Dean 18 hours), together with sufficient additional work to make a total of 180 hours exclusive of the required work in Physical Education.

All students wishing to qualify as teachers of Home Economics in Utah High Schools should, and under the Smith-Hughes Act 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 122 (Home Furnishing and Decoration) H. A. 150 (Household Management), H. A. 125 (Mothercraft), Education 120, 121 and 122 (Special methods in Home Economics) together with sufficient additional education subjects to meet the Utah State Board of Education requirements (27 hours for the State High School Certificate.

# DAIRY MANUFACTURING

## FRESHMAN YEAR

Chemistry 1	Inorganic Chemistry	5 Credits
Chemistry 2	Inorganic Chemistry	5 Credits
Animal Husbandry 1	Market Types	5 Credits
Dairy Husbandry 1	Elements of Dairying	4 Credits
Botany 1	General Botany	5 Credits
English 5	College Grammar	3 Credits
Dairy Husbandry 2	Market Milk	2 Credits
Dairy Husbandry 6	Dairy Arithmetic	1 Credit
Dairy Husbandry 7	Varieties of Cheese	2 Credits
Economics 1	General Economics	3 Credits
Economics 2	General Economics	3 Credits
Economics 3	General Economics	3 Credits
Bacteriology 1	General Bacteriology	5 Credits

## SOPHOMORE YEAR

Chemistry 21	Organic Chemistry	4 Credits
Chemistry 22	Organic Chemistry	4 Credits
Animal Husbandry 2	Breed Types	5 Credits
English 10	Composition	3 Credits
English 10	Composition	3 Credits
English 10	Composition	3 Credits
Accounting 1	Technic of Bookkeeping	4 Credits
Accounting 2	Bkpng and Acc. Practice	4 Credits
Dairy Husbandry 5	Dairy Engineering	2 Credits
Dairy Husbandry 4	Ice Cream and Ices	3 Credits
Public Speaking 4	Extemporaneous Speaking	3 Credits
Public Speaking 5	Extemporaneous Speaking	3 Credits
Physiology 1	Physiology	5 Credits

## JUNIOR YEAR

Chemistry	Dairy Chemistry	4 Credits
Chemistry	Dairy Chemistry	4 Credits
Dairy Husbandry 101	Judging Dair Products	1 Credit
Dairy Husbandry 102	Testing and Inspection	2 Credits
Dairy Husbandry 103	Buttermaking	5 Credits
Dairy Husbandry 104	Cheesemaking	4 Credits
Bacteriology 104	Dairy Bacteriology	3 Credits
Bacteriology 105	Dairy Bacteriology	3 Credits
Agronomy 106	Soils	4 Credits
Farm Mechanics 12	Farm Motors	5 Credits
Dairy Husbandry 3	Dairy Technology	3 Credits
Dairy Husbandry 111	Dairy Cattle Judging	1 Credit
Dairy Husbandry 12	Breeds of Dairy Cattle	3 Credits
Agronomy 101	Crop Production	5 Credits

## SENIOR YEAR

Marketing 102	Advertising	3 Credits
English 125	Journalism	2 Credits
English 126	Journalism	2 Credits
English 127	Journalism	2 Credits
Accounting	Creamery Accounting	4 Credits
Marketing 112	Marketing Agr. Products	3 Credits
Marketing 103	Salesmanship	3 Credits
Political Science 104	Commercial Law	3 Credits
Political Science 105	Commercial Law	3 Credits
Dairy Husbandry 105	Mgt. of Dairy Plants	5 Credits
Dairy Husbandry 110	Dairy Production	5 Credits
Animal Husbandry 106	Adv. Livestock Judging	3 Credits
Animal Husbandry 102	Practical Feeding	5 Credits
Agricultural Economics 102	Farm Management	3 Credits



## ELEMENTARY TEACHERS

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
Freshman Year:				Sophomore Year:			
English Literature ..	3	3	3	Sociology .....	3	3	3
History .....	3	3	3	Econ. Agri. or H. Econ.	3	3	3
Science .....	3	3	3	History of Education	3	3	3
Art Educational .....	3	3	3	Principles of Educ. or			
Music, Public School.	2	2		Methods of Teaching	3		
Psychology, Intro.....	3			Educ. Psychology ....		3	
Physical Development				School Sanitation ....			3
and Health Educ...	3	3		*Practice-Teaching ..	5-10	5-10	5-10
				*In the Logan City Schools.			

## HORTICULTURE

## FRESHMAN YEAR

Name of Course	Dept. No.	Quarter Credits		
		1	2	3
p. General Agricultural Botany .....	Bot. 21, 22, 23 .....	5	5	5
p. Inorganic Chemistry .....	Chem. 1, 2 .....	5	5	
General Physics .....	Physics 1, 2, 3 .....	3	3	3
p. Irrigation & Drainage Prac.....	Irri. 1 .....			5
Freshman Composition Exp.....	Eng. 10 Sec. 5.....	2	2	2
p. Landscape Drafting .....	Mech. Draw. 6.....		2	2

## SOPHOMORE YEAR

p. Organic Chemistry .....	Chem. 21, 22 .....	4	4	
p. General Zoology .....	Zoology 3, 4 .....		5	5
p. General Economics .....	Economics 1, 2, 3.....	3	3	3
College Grammar .....	Eng. 5, Sec. 3.....			3
American Literature .....	Eng. 82 .....			3
p. General Bacteriology .....	Bact. 1 .....	5		
Landscape Gardening & Floric....	Hort. 4 .....	4		
r. Plant Propagation .....	Hort. 2 .....		3	
r. Commerical Gardening... }	either Hort. 5 .....		2	
r. Olericulture .....	one Hort. 3 .....			3

## JUNIOR YEAR

p. General Entomology .....	Ent. 103 .....	4		
p. Economic Entomology .....	Ent. 104 .....		4	
General Geology .....	Geo. 102, 103, 104 .....	3	3	3
p. Soils .....	Agronomy 106 .....	4		
p. Crop Production .....	Agronomy 101 .....			5
Marketing of Farm Products ....	Marketing 112 .....		3	
General Poultry .....	Poultry Husb. 1 .....			4
Commercial Horticulture .....	Hort. 105 .....	2		
r. Fruit Production .....	Hort. 103 .....		3	
r. Orchard Practice .....	Hort. 104 .....			3
Plant Pathology .....	Bot. 130, 131 .....	4	4	

## SENIOR YEAR

p. Practical Feeding .....	An. Hus. 102 .....	5		
p. Genetics .....	Zoology 111 .....	4		
Farm Management .....	Agr. Econ. 102 .....		3	
r. Plant Breeding .....	Agronomy 109 .....		4	
Co-operation in Agriculture .....	Marketing 113 .....			3
Dairy Production .....	Dairy Hus. 110 .....			5
Journalism .....	Eng. 125, 126, 127.....	2	2	2
History of Agriculture .....	Agron. 114 .....		3	
History of Cultivated Plants....	Hort. 107 .....		2	
r. Systematic Pomology .....	Hort. 102 .....	3		
r. Horticulture Seminar .....	Hort 108, 109 .....		1	1
Selectives .....	Electives .....	3	2	6

p. Course required as prerequisite or parallel to another course.  
r. Course required for a major in horticulture.

# PHYSICAL EDUCATION FOR WOMEN

Freshmen:				Sophomores:			
	I	II	III		I	II	III
English 10 .....		3	3	Intro. Psychology ...	3		
English 5 .....	3			Hygiene .....		3	
Chemistry 1, 2 .....		5	5	Anatomy .....			3
or				English .....	3	3	3
Physics 1, 2, 3 .....	3	3	3	Modern Language ...	3		
History .....	3	3	3	Plays & Games .....	2	2	2
Physiology .....	3	3	3	P. E. 16, 17, 18 .....	1	1	1
Music 4, 5, 6 .....	3	3	3	Primary Methods ...	3		
P. E. 13, 14, 15 .....	1	1	1	Home Nursing .....		3	3
Bacteriology .....	5						
Juniors:				Seniors:			
Kinesiology .....	3	3		Phys. Diag. & Meas...			4
Cor. Gymnastics .....			3	Community Recreation		2	2
Psychology Prin of..	3			Interpretive Dancing.	1	1	1
Psychology of Adol..		3		Ad. Folk Dancing..	1	1	1
Advanced Educ. Psy..			3	Meth. of Teach. P. E..	2	2	2
Dramatic Game .....	2			Swimming .....	1	1	1
Folk Dancing .....	1	1	1	History of Education	3	3	3
Interpretive Dancing.	1	1	1	History of Costume..	3		
Athletics .....	1	1	1				
Mothercraft .....	3						
Public Speaking .....	2	2	2				

# SCOUT EXECUTIVES

FIRST YEAR				SECOND YEAR			
Course	F	W	S	Course	F	W	S
Economics 1, 2, 3 .....	3	3	3	Zoology 1, 2 .....	3	3	
Chemistry 1, 2 .....	5	5		Entomology 2 .....			3
Bacteriology 1 .....			5	Physics 1, 2, 3 .....	3	3	3
Botany 21, 23 .....	5		5	English 10 .....	2	2	2
Physiology 1 .....		5		History 15 .....	3		
English 50, 51, 52 .....	3	3	3	Bus. Ad. 1, 2, 3 .....	3	3	3
Music 21, 22 23 .....	1	1	1	Education 33 .....			3
				Political Science 1, 2, 4	3	3	3
				Art 4 .....		3	
Totals .....	17	17	17	Totals .....	17	17	17
THIRD YEAR				FOURTH YEAR			
	F	W	S		F	W	S
Accounting 1 .....	4			Mkt. 101, 102, 103...	3	3	3
Geology 102, 103, 104..	3	3	3	Mkt. 141, 142, 163...		3	2
Education 101, 102, 103	3	3	3	Education 107 .....	3		
Public Speaking 4, 5.	3	3		Education 24 .....	2	2	2
English 170, 195 .....		3	3	English 130, 131 .....	2	3	
Education 10, 11, 21..	2	2	2	Political Science 102.			3
Bus. Ad. 101, 104, 106	3	3		Mech. Drawing 3....			3
Botany 101 .....			3	Sociology 101 .....	3		
				Rural Sanitation 106.		3	
				Elective .....		3	3
	18	17	17		17	17	16

## SMITH-HUGHES TEACHER TRAINING

The Smith-Hughes Teacher Training Work in the Utah Agricultural College is authorized and subsidized by the Federal Government through the Smith-Hughes Act and authorized by an act of the 1919 session of the Legislature of the State of Utah. It is under the direction of the State Board for Vocational Education and its agents the State Supervisors.

As at present organized, the Department of Education aims to train Smith-Hughes teachers for positions in agriculture, farm mechanics, home economics.

### Training of Smith-Hughes teachers in Agriculture.

#### 1. General requirements:

- a. Fifteen units of high school credit or the equivalent is required for entrance.
- b. For graduation, 180 Quarter hours and the necessary work in physical education and military science will be required of all students.
- c. State Credentials to teach require 27 Quarter hours in professional studies.

Following is a suggestive course for students in residence who are prospective Smith-Hughes teachers:

Freshman Year:				Sophomore Year:			
	I	II	III		I	II	III
Chemistry .....	5	5	5	Physics .....	3	3	3
Botany .....	5	5	5	Zoology .....	3	3	
English .....	2	2	2	History .....	3	3	
Agronomy .....	4	4		Physiology .....			3
Horticulture .....			4	Vet. Science .....	4		
				Animal Husbandry...		5	3
				Pub. Speaking.....	3		
				Poultry .....			4
				Pub. Speaking or Eng.			
				Lit. ....			3
				History of Mod. Ed.,			
				Incl. Voca. Ed.....			3
Junior Year:				Senior Year:			
	I	II	III		I	II	III
Geology .....	5	5		Rural Edu. ....		3	
Bacteriology .....	5			Meth. of Teach. Agr..	2	2	2
Elective .....	4			Apprentice Teaching..	8	8	8
Agronomy Soils .....	4			Feeds and Feeding ..	5		
Economics .....		3	3	Marketing .....		3	
Irrigation .....			5	Breeding .....		5	
Prin. of Psychology..	3			Horticulture .....			5
Psy. of Adolescence				Farm Management...	3		
(Secondary Educ....		3		Rural Sociology .....	2		
Edu. Psychology .....			3	Dairying .....	4		
Farm Mechanics .....		5		Entomology .....		3	
English .....	2	2	2	Elective .....		4	3

By arrangement with the Logan City School Board, observations and apprentice-teaching will be in the Smith-Hughes classes in agriculture in the Logan High School, during the Fall, Winter and Spring quarters.

Opportunity will be afforded in connection with the same classes to supervise Smith-Hughes projects during the summer. See Outline following.

Students in Smith-Hughes Teaching in Agriculture are advised to elect their technical and professional studies as near the following percentages as conditions will permit:

- a. Technical agriculture 40 per cent so distributed as to prevent too narrow specialization. The work should include at least one basic course in each important department of applied agriculture.
- b. The related work in the biological and physical sciences 25 per cent.
- c. Professional studies preparing for Smith-Hughes Teaching 15 per cent.
- d. Language and Literature 10 per cent.
- e. Social Science 10 per cent.

#### Project Management and Practice in Agriculture.

Candidates for graduation in Agriculture must take an examination in farm practice with the department head, with whom they are majoring, the director of the School of Agriculture, and one other man to be selected by them.

The purpose of this examination is to insure adequate practical experience in the technique of farming, without which a man is not a good teacher of Agriculture or a good farm manager.

To prepare a man for this examination, farm practice is considered under three heads:

1. Elementary farm practice, technique, proficiency in hitching up a team, in handling a team on the wagon, plow, or grader; adjusting a harness, milking, building a fence, preparing land for irrigation, etc.
2. Project management. Some unit of the farming business planned and conducted to a conclusion under the direction of the professor of farm practice, the head of the department in whose field the project comes, and the teacher of methods in agriculture.
3. Farm Management. The whole business of a farm planned and run as a business under the same leadership, in which complete records are kept.

Students who have had farm experience can readily pass 1. All Smith-Hughes students should take 2, for which satisfactory examination in 1 should be prerequisite. It is assumed that after going thoroughly through one project, the organization of other projects will be within the student's power. Smith-Hughes students should take 3 for which 2 is prerequisite. They should be able to analyze a farmers business and point out the profitable and the unprofitable units of it and tell why. Such training should be prerequisite to the teaching of agriculture.

#### The Summer Quarter.

Professional and Technical courses are being planned for the Summer Quarter for the convenience of those teachers in service desiring to qualify for Smith-Hughes teaching of Agriculture. These courses will be:

1. Undergraduate, for elementary school teachers working for degrees.
2. Graduate, for Smith-Hughes workers now in service who can get furloughs to take these courses thereby increasing their efficiency. The State Supervisor of Smith-Hughes Agriculture will co-operate in planning and giving this work.

#### Helping Teachers in Service.

The Smith-Hughes Teacher Training Department of the U. A. C. will co-operate with the State Department in training Smith-Hughes teachers in service. This will be done by means of:

1. District and Regional Conferences.
2. Visiting Schools and helping inexperienced teachers plan and organize their work.
3. By preparing Outlines, Bulletins, and "News Letters."

## **Departments of Instruction**

Departments in Agricultural Engineering, Mechanic Arts and Home Economics are grouped alphabetically under their respective schools. Departments in Agriculture, Commerce and Business Administration, and Basic Arts and Sciences are arranged alphabetically but are not grouped.

### **SCHOOL OF AGRICULTURAL ENGINEERING**

1. Agricultural Engineering
  - a. Agricultural Surveying
  - b. Applied Mechanics and Design
  - c. Highway Engineering
  - d. Rural Architecture
  - e. Rural Sanitation
2. Irrigation and Drainage

### **SCHOOL OF MECHANIC ARTS**

3. Farm and Auto Mechanics
  - a. Auto Mechanics
  - b. Farm Mechanics
  - c. Ignition, Starting and Lighting
  - d. Oxy-acetylene, Electric Arc and Resistance Welding
  - e. Tractor Repair and Operation
  - f. Vulcanizing and Tire Repair
4. Mechanic Arts
  - a. Forging and General Blacksmithing
  - b. Machine Work
  - c. Mechanical Drawing
  - d. Woodwork and Housebuilding



# **SCHOOL OF HOME ECONOMICS**

5. Foods and Dietetics.
6. Household Administration.
7. Textiles and Clothing

# **SCHOOLS OF AGRICULTURE, COMMERCE AND BUSINESS ADMINISTRATION, AND BASIC ARTS AND SCIENCE**

(Arranged Alphabetically)

8. Accounting and Business Practice
9. Agricultural Economics  
(Farm Management)
10. Agronomy
11. Animal Husbandry
  - a. Poultry Husbandry
12. Art
13. Bacteriology and Physiological Chemistry
14. Botany
15. Business Administration
16. Chemistry
17. Dairy Husbandry
18. Economics
19. Education and Psychology
20. English
21. Entomology
22. Geology
23. History
24. Horticulture
25. Library Economy
26. Marketing
27. Mathematics
28. Methods in Experimentation
29. Military Science and Tactics
30. Modern Languages and Latin

31. Music
32. Physical Education
  - a. For Men
  - b. For Women
33. Physics
34. Physiology
35. Political Science
36. Public Speaking
37. Range Management
38. Rural Public Health
39. Sociology
40. Stenography and Typewriting
41. Veterinary Science
42. Zoology

### EXTENSION DEPARTMENTS

(Arranged Alphabetically)

43. Correspondence Studies
44. Extension Classes
45. Farm Management
46. Home Management
47. Junior Extension

### RECITATION TABLE

The recitation hours are sixty minutes in duration and begin at 8:00 a. m. The following shows the entire schedule:

1st hour,	8:00— 9:00.
2nd hour,	9:00—10:00
3rd hour,	10:00—11:00
4th hour,	11:00—12:00
5th hour,	12:00— 1:00
6th hour,	1:00— 2:00
7th hour,	2:00— 3:00
8th hour,	3:00— 4:00
9th 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 Friday this period is left open to miscellaneous meetings.

# Courses of Instruction

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## School of Agricultural Engineering

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### AGRICULTURAL ENGINEERING

#### AGRICULTURAL SURVEYING

RAY B. WEST, *Professor.*

EDMUND FELDMAN, *Assistant Professor.*

HOWARD McDONALD, *Instructor.*

#### JUNIOR COLLEGE COURSES.

1. 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 laying out drains and buildings. Spring quarter. Three credits.

Lec. F. 11:00; lab. T. Th. 2:00 to 5:00. Room 203 Ag. Eng. *Feldman*

2. SURVEYING FOR AGRICULTURAL ENGINEERS. This is a more thorough course than Surveying 1, and covers, in addition to the above, a study of the instruments used by engineers. Fall quarter. Three credits.

Lec. T. 1:00; lab. M. W. 2:00 to 5:00. Room 203 Ag. Eng. *Feldman*

3. SURVEYING FOR ENGINEERS. Topographical surveying, hydrographic surveying and some rural and city surveying. Prerequisite, Trigonometry. Spring quarter. Three credits.

Lec. T. 1:00; lab. M. W. 2:00 to 5:00. Room 203 Ag. Eng. *Feldman*

4. MAPPING. Practice in the mapping of the various kinds of surveys that may be encountered by the agricultural engineer. Winter quarter. Three credits. (See Mechanical Drawing 31.)

Lab. M. T. Th. 2:00 to 5:00. Room 307 Ag. Eng.

*Feldman*

### SENIOR COLLEGE COURSES.

101. SOIL AND OTHER AGRICULTURAL SURVEYS. The methods of preparing maps of a given agricultural area and surveys of the agricultural interests within the area. Fall quarter. Three credits. Prerequisite, Surveying 1. Open to Junior College Students. Room 203 Ag. Eng.

Hours to be arranged.

*West*

102. CANAL AND ROAD SURVEYING. Instruction and practice in the application of surveying methods used in the layout and construction of canals and roads. Prerequisite, Surveying 2 and 3. Spring quarter. Five credits. May be used as a major in Highways.

Lec. T. Th. S. 9:00; lab. M. W. 2:00 to 5:00: Room 203 Ag. Eng.

*West*

### APPLIED MECHANICS AND DESIGN

RAY B. WEST, *Professor.*

WILLARD GARDNER, *Associate Professor.*

EDMUND FELDMAN, *Assistant Professor.*

### JUNIOR COLLEGE COURSES.

1. MATERIALS OF ENGINEERING. The chemistry of 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. Three credits.

M. W. F. 8:00. Room 203, Ag. Eng.

*West*

2. PLAIN CONCRETE. Cement, sand, stone. Mechanical analysis, curves and cement and concrete testing. Fall quarter. Two credits.

Lab. T. Th. 2:00 to 5:00. Concrete lab. Ag. Eng.

*Feldman*

### SENIOR COLLEGE COURSES.

101, 102. THEORETICAL AND APPLIED MECHANICS. The simple machines reaction, moments, shears, moments of inertia, centers of gravity. The design of beams and columns. Winter and Spring quarters. Three credits per quarter.

M. W. F. 8:00. First floor, Chemistry Bldg.

*Gardner*

103. GRAPHIC STATICS. The graphical analysis of stresses in framed structures. Fall quarter. Three credits. Prerequisites, Engineering Drawing 11, 12, and 13 and Mechanics 101 and 102.

Lec. Th. 8:00; lab. T. S. 9:00 to 12:00. Room 203 Ag. Eng.

*Feldman*

104. BRIDGE ANALYSIS. The algebraic and graphical analysis of stress in the modern types of highway bridge trusses. Special attention is given to influence, lines and equivalent uniform loads. Winter quarter. Three credits. Prerequisite Graphic Statics 103.

Lec. Th. 9:00; lab. T. S. 9:00 to 12:00. Room 203 Ag. Eng.

*Feldman*



105. BRIDGE DESIGN. The design of the modern types of highway bridges and culverts in wood, steel and concrete. Spring quarter. Three credits. Prerequisite Bridge Analysis 104.

Lab. M. W. 10:00 to 12:00, T. S. 9:00 to 11:00. Room 203 Ag. Eng. *Feldman*

106. REINFORCED CONCRETE. The fundamental principles of reinforced concrete design. Slabs, beams, girders, and columns. Winter quarter. Five credits.

Lec. M. W. F. 10:00; lab. W. F. 2:00 to 5:00. Room 305, Ag. Eng. *Feldman*

107. MASONRY CONSTRUCTION. A continuation of course 106 with special applications to foundations, bridges, retaining walls, drains and irrigation structures. Spring quarter. Three credits.

Lab. M. W. F. S. 9:00 to 11:00. Room 307 Ag. Eng.

*Feldman*

## GRADUATE COURSES.

201. INDETERMINATE STRUCTURES. The nature of the problem. The Elastic Theory; method of least work; moment area method and elastic weights. Three credits. Room 306, Ag. Eng.

Hours to be arranged.

*Feldman*

202. INDETERMINATE STRUCTURES. The application of Applied Mechanics and Design 201 to the solution of problems in steel and concrete. Box culverts, continuous span concrete slab highway bridges, swing bridges and other problems. Three credits.

Hours to be arranged. Room 306, Ag. Eng.

*Feldman*

# HIGHWAY ENGINEERING

RAY B. WEST, *Professor.*

WILLIAM PETERSON, *Professor.*

EDMUND FELDMAN, *Assistant Professor.*

## JUNIOR COLLEGE COURSES.

1. HIGHWAY CONSTRUCTION. Location, grade, drainage, resistance to traction, road materials, construction methods and costs. Fall quarter Five credits.

Daily except Thursday at 11:00. Room 203 Ag. Eng.

*West*

2. ROAD MATERIALS. Dynamical and structural geology as it applies to construction. Special attention is given to materials affecting highway construction, dams excavations. Winter quarter. Five credits.

Daily except Thursday at 11:00. Room 283 Main.

*Peterson*

4. INSPECTION OF HIGHWAY CONSTRUCTION. A study of the road inspector's duties on all types of roads, pavements, and bridges. Winter quarter. Three credits.

T. Th. S. 9:00. Room 203 Ag. Eng.

*West*

5. HIGHWAY STRUCTURES AND DESIGN. The design of manholes, catch basins, fences and guard rail details, road and pavement cross-sections, etc. Any quarter. Two credits. (See Engineering Drawing 14.) Room 203, Ag. Eng.

Hours to be arranged.

*Feldman*

## SENIOR COLLEGE COURSES.

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

M. W. F. 11:00. Room 283 Main.

*Peterson*

102, 103. HIGHWAY ADMINISTRATION. State, County, and City highway departments, highway and local improvement laws, traffic regulations, taxation and method of financing county roads and city pavements. Relation of road and street improvements to social and economic welfare. Winter and Spring quarters. Three credits.

Winter quarter M. W. F. 9:00. Room 203, Ag. Eng.

Spring quarter T. Th. S. 11:00. Room 203 Ag. Eng.

*West*

104, 105, 106. SEMINAR. One credit per quarter. Room 205 Ag. Eng.

Fall quarter. M. 2:00 to 5:00. Winter quarter. F. 2:00 to 5:00.

Spring quarter T. 2:00 to 5:00.

*West*

## RURAL ARCHITECTURE

RAY B. WEST, *Professor.*

CALVIN FLETCHER, *Professor.*

EDMUND FELDMAN, *Assistant Professor.*

## JUNIOR COLLEGE COURSES.

1. FARM STRUCTURES. The arrangement, design and construction of barns, stables, poultry houses, silos and other farm

structures. Prerequisite Mechanical Drawing 1 or 2. Winter quarter. Three credits.

Lec. M. W. F. 11:00. Room 203 Ag. Eng.

*West and Feldman*

2. POULTRY HOUSE DESIGN. The plans and layout of the various types of structures used in Poultry Husbandry. Complete layout of poultry ranch. Prerequisite, Rural Architecture 1, or Mechanical Drawing 1 and 2. Three credits. (See Mechanical Drawing 4.)

T. Th. S. 9:00 to 12:00. Room 307 Ag. Eng.

*Feldman*

3. BARN AND STABLE DESIGN. Various types of barns and stables. Layouts and construction. Prerequisite, Rural Architecture 1, or Mechanical Drawing 1 and 2. Three credits. (See Mechanical Drawing 5.)

T. Th. S. 9:00 to 12:00. Room 307 Ag. Eng.

*Feldman*

4. 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.

5. PLANNING OF FARM STRUCTURES AND HOMES. The making of plans for farm buildings, including complete specifications, costs of materials and construction. Winter quarter.

Hours to be arranged.

*West*

6. HOUSE BUILDING AND CONTRACTING. Various methods of construction; the frame, two brick, three brick, stucco, single

cement block and stuccoed hollow tile; cost and economy of each; interior finishing. Winter quarter. Five credits.

Daily, except Saturday, 8:00. Room 203 Ag. Eng.

*West*

### SENIOR COLLEGE COURSES.

101. RURAL ARCHITECTURE. Architectural composition. Study of the principles of composition as applied to buildings, emphasis being placed 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. Art Studios, Main.

*Fletcher*

102. ARCHITECTURAL COMPOSITION. Continuation of course 101 with special attention to the relation of all the parts of the exterior and architectural effect in environment. For related work see Horticulture 9. Prerequisite, Rural Architecture 101. Open to Junior College students. Ten studio hours. Winter quarter. Three credits.

Hours to be arranged. Art studios, Main.

*Fletcher*

103. 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. Art studios, Main.

*Fletcher*



**RURAL SANITATION**

J. E. GREAVES, *Professor.*

RAY B. WEST, *Professor.*

IRA M. HAWLEY, *Professor.*

EZRA G. CARTER, *Assistant Professor.*

**SENIOR COLLEGE COURSES.**

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

M. W. F. 9:00.

*West*

PARASITOLOGY. (See Zoology 106.)

*Hawley*

SANITATION. Special attention will be paid to school sanitation. (See Bacteriology 108, 109.)

*Greaves*

SANITARY ANALYSIS. (See Bacteriology 106.)

*Greaves*

DAIRY BACTERIOLOGY. Lecture (See Bacteriology 104.)

*Carter*

DAIRY BACTERIOLOGY. Laboratory. (See Bacteriology 105.)

*Carter*

SANITARY STATISTICS. (See Bacteriology 110.)

*Carter*

## IRRIGATION AND DRAINAGE.

O. W. ISRAELSEN, *Professor.*

L. M. WINSOR, *Associate Professor.*

DEWEY CLYDE, *Assistant Professor.*

ASA BULLEN, *Judge, Logan City Court.*

Students who major in Irrigation and Drainage will be required to complete all of the Junior College and Senior College courses or their equivalents and to present a thesis concerning some special problem to be assigned by the Department, as announced in Courses 110 and 111.

They will be required also to spend at least one summer of 12 weeks in doing some kind of practical work in irrigation or drainage, for which they may receive remuneration; such work to be approved by the Head of the Department.

## 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 minor in the Department of Agronomy. Summer quarter designed especially for high school instructors, Fall quarter for students in Agricultural Engineering, Spring quarter for students in Agriculture. (Fall quarter not to be given during 1923.) Five credits.

Lec. M. W. F. 11:00; Lab. T. Th. 2:00 to 5:00. Room 304,  
Ag. Eng. Clyde

2, 3. HYDRAULICS. Laws of liquids in motion and at rest, flow in natural and artificial channels and elementary principles of water power development. Prerequisites or parallel Mathe-

matics 108 and 109 or their equivalents. Winter and Spring quarters. Three credits each quarter.

Lec. M. W. 11:00. Winter quarter. Lab. S. 9:00 to 12:00. Room 304 Ag. Eng.

Lec. M. W. 10:00. Spring quarter. Lab. S. 9:00 to 12:00. Room 304 Ag. Eng. *Clyde*

### SENIOR COLLEGE COURSES.

103. 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. Prerequisites, Irrigation 2 and 3. Spring quarter. Five credits.

Lec. M. W. F. 8:00. Lab. F. 1:00 to 5:00. Room 304 Ag. Eng. *Clyde*

104, 105. DESIGN OF IRRIGATION SYSTEMS. Sources of water supply, diversion works, canal alignment and cross section, flumes, drops and spillways. Prerequisites, Irrigation 2 and 3 and Mechanics 101, 102. Fall and Winter quarters. Five credits each quarter.

Lec. M. W. F. 10:00. Lab. T. Th. 2:00 to 5:00. Room 304 Ag. Eng. *Clyde*

107, 108. 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. Room 304 Ag. Eng.

*Clyde*

T. Th. S. 8:00. Spring quarter. Room 352 Main.

*Bullen*

110, 111. UNDERGRADUATE THESIS AND SEMINAR. Papers and discussions upon problems concerning irrigation or drainage. Required of students who major in Irrigation and Drainage. Fall and Winter quarters. One credit each quarter.

M. 3:00.

*Winsor and Clyde*

## GRADUATE COURSES

As a condition for enrollment in a graduate course, the student must submit satisfactory evidence of his qualifications for the work proposed to the instructor in charge of the course.

206. MANAGEMENT AND OPERATION OF IRRIGATION SYSTEMS. Delivery of water to irrigators, annual water charges, operation costs. Prerequisite, Design of Irrigation Systems. Winter quarter. Three credits. (Not to be given during 1923-24).

T. Th. S. 10:00.

230. HYDROLOGY AND ADVANCED IRRIGATION DESLGN. The occurrence, utilization and control of water, rainfall, stream flow, and runoff, measurements and records, reservoirs, and pumping for irrigation. Open to specially prepared seniors. Winter quarter. Three credits.

M. W. F. 9:00. Room 304 Ag. Eng.

*Clyde*

298. RESEARCH IN IRRIGATION AND DRAINAGE. Specially prepared undergraduate, or graduate students may elect a problem in irrigation or drainage for investigation, subject to the approval of the professor in charge. Such investigations may be conducted at the College or elsewhere. The studies may be used as a basis for a thesis to meet in part the requirements for an advanced degree. Any quarter. Credits and hours to be arranged.

*Winsor, or Clyde*

## School of Mechanic Arts

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### FARM AND AUTO MECHANICS

A. H. POWELL, *Assistant Professor.*

S. R. STOCK, *Instructor.*

LOUIS A. SHOOK, *Instructor.*

Students wishing to graduate in the department of Auto Mechanics may major in automobiles, ignition, or tractors. His minor must be 12 hours of machine work and 6 hours of forging. Students specializing in Ignition must elect eighteen hours of the special group in either or both of the departments of Auto Mechanics or tractors. Students specializing in Auto Mechanics or tractors must elect eighteen hours of their special group in Ignition.

### AUTO MECHANICS

#### SENIOR COLLEGE COURSES.

Six hours forging and twelve hours machine work is required of all men specializing in auto mechanics.

1. **AUTOMOBILE DESIGN AND CONSTRUCTION.** A course for beginners. This course is a thorough study of the design and construction and function of the various units and parts of the automobile, with special reference to gas engine principles and the mechanism involved. This course or its equivalent must be taken by all students who wish to specialize in any branch of automobile work. Four credits. Room 205 Mech. Arts.

Sec 1. Fall quarter M. W. F. 8:00 to 11:00.

Sec. 2. Spring quarter T. Th. S. 8:00 to 11:00.

*Shook*



2. AUTOMOBILE DESIGN AND CONSTRUCTION. A continuation of Auto Mechanics 1. It also deals with the dismantling and the assembling of the automobile. Four credits. Winter quarter.

M. W. F. 8:00 to 11:00. Room 205 Mech. Arts.

*Shook*

3. AUTOMOBILE CARE AND MAINTENANCE. (Special) For Winter students only. This course is designed especially for Winter course or short term students who wish to learn enough about the care and operation of the automobile to enable them to make their own minor repairs and adjustments. Oils, lubrication, valve grinding, bearing setting, fitting of piston rings, and etc., will be taken up along with many other problems that the average car owner has to be familiar with if he is going to do his own repairing and properly care for his car. Four credits. Winter quarter.

T. Th. S. 8:00 to 11:00. Room 205 Mech. Arts.

*Shook*

Auto Mechanics 4, 105 and 106 are advanced courses. They must be taken by all students who intend to specialize in garage management, garage practice, teaching, or repairing. The courses will cover detailed theory, operation, advantages in design and construction of all modern makes of cars, and automobile equipment and appliances. Methods of systematic location of trouble, dismantling, repairing and assembling. Modern shop methods, tools and equipment. Prerequisites Auto Mechanics 1 and 2 or their equivalents.

4. AUTOMOBILE REPAIR. Four credits. Spring quarter. Room 205 Mech. Arts.

M. W. F. 8:00 to 11:00.

*Shook*

# SENIOR COLLEGE COURSES.

105. AUTOMOBILE REPAIR. Prerequisites, Auto Mechanics 4. Winter quarter. Four credits.  
M. W. F. 2:00 to 5:00. Room 205 Mech. Arts.

*Shook*

106. AUTOMOBILE REPAIR. A continuation of Auto Mechanics 105. Includes shop methods and equipment, Pre-requisite, Auto Mechanics 105. Spring quarter. Four credits.  
M. W. F. 2:00 to 5:00. Room 205 Mech. Arts.

*Shook*

107. GASOLINE ENGINE CARBURETION AND CARBURETORS. Internal combustion engine fuels and a thorough treatise on the principles of carburetion, the construction of carburetors and their relation to successful gas engines operation. Practice in repairing, overhauling and adjusting of carburetors, thorough study of the modern devices and improvements on new models will be taken up. Prerequisites Auto Mechanics 4 and Ignition 119. Winter quarter. Three credits.  
T. Th. 2:00 to 5:00. Room 206 Mech. Arts.

## FARM MECHANICS

Students taking Farm Mechanics may select work from the following courses; Auto Mechanics, Tractor care and Operation, Machine work Forging, Wood work, Leather work and Rural Architecture.

# JUNIOR COLLEGE COURSES.

8. FARM MECHANICS. Tillage cultivating and harvesting machinery, pumping, water systems on the farm and general labor saving equipment. Fall quarter. Three credits.

Lec. T. Th. 8:00; lab. M. 2:00 to 5:00. Room 202 Mech. Arts.

*Powell*

9, 10, 11. FARM MOTORS. The design, operation care and adjustment of the internal combustion engine; the general principles of construction; also minor repairs and adjustments of the automobile. Fall, Winter, and Spring quarters. Five credits each quarter. Room 202 Mech. Arts.

Lec. M. W. F. 8:00; lab. Winter quarter W. F. 2:00 to 5:00; Fall and Spring quarters, T. Th. 2:00 to 5:00.

*Powell*

12, 13. FARM REPAIR WORK. Elementary plumbing, rural home lighting plants and wiring, soldering, babbitting, common shop tools and equipment. Fall and Spring quarters. Five credits each quarter. Room 202 Mech. Arts.

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

*Powell*

### SENIOR COLLEGE COURSES.

114. FARM MACHINERY. A complete course in the care, repair and adjustments of the various types of farm machinery. Prerequisite, Farm Mechanics 13. Five credits. Room 202 Mech. Arts.

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

*Powell*

### IGNITION, STARTING AND LIGHTING

Six hours forging and twelve hours machine work is required of all men specializing in Ignition, Starting and Lighting.

### JUNIOR COLLEGE COURSES.

15. ELEMENTS OF ELECTRICITY AND MAGNETISM. A complete study of magnets, magnetism and the elementary principles of electricity. It includes a study of the units of electricity, their governing laws, power measurement, induction, electro magnets, sizes of wires and their carrying capacity, dry cells and their application to the automotive electrical industry. Required

of all students specializing in Ignition, Starting and Lighting. Fall quarter. Four credits. Room 203 Mech. Arts.

T. Th. S. 8:00 to 11:00.

*Stock*

16. IGNITION, STARTING AND LIGHTING. (Special) For Winter quarter students only. This course is designed especially for short term students who wish to learn enough about the electrical apparatus of the automobile to enable them properly to care for and locate electrical troubles and make minor repairs. It will include a study of spark plugs, high and low tension coils, ignition timing, high and low tension magnetos, battery ignition systems, care and testing of batteries and adjusting the charging rate of generators. Winter quarter. Four credits.

M. W. F. 2:00 to 5:00. Room 203 Mech. Arts.

*Stock*

17. STORAGE BATTERIES. The aim of this course is to furnish students the experience necessary to enable them to care for and handle a battery service station and repair shop. A thorough study of the different types and makes of batteries will be made. Practice will be given in testing, charging, discharging, disassembling and rebuilding and in the diagnosis of battery troubles. Prerequisite, Ignition 15. Four credits. Room 203 Mech. Arts.

Sec. 1. Fall quarter M. W. F. 2:00 to 5:00.

Sec. 2. Winter quarter T. Th. S. 8:00 to 11:00.

*Stock*

18. HIGH AND LOW TENSION MAGNETOS. A complete study of all low and high tension Magnetos as to design, construction and operation. Prerequisite, Ignition 15. Spring quarter. Four credits.

T. Th. S. 8:00 to 11:00. Room 203 Mech. Arts.

*Stock*

## SENIOR COLLEGE COURSES.

119. IGNITION TROUBLE WORK. The systematic location of trouble, service work, adjusting and minor repairs. Fall quarter. Four credits.

M. W. F. 2:00 to 5:00. Room 203 Mech. Arts.

*Stock*

120. STARTING, LIGHTING AND IGNITION SYSTEMS. A complete study of the modern starting, lighting and ignition systems, their operation, design, and construction; The direct current motor and generator; Voltage and current regulation by vibrating relays; third brush; battery cutouts; reading and drawing of wiring diagrams and electrical devices. Ample practice is given in disassembling and assembling, also trouble shooting; testing and adjusting of the various units taken up to enable the student to handle such work in the repair shop. Prerequisite Ignition 15 and 18. Winter quarter. Four credits.

M. W. F. 8:00 to 11:00. Room 203, Mech. Arts.

*Stock*

121. MOTOR AND GENERATION REPAIR AND ARMATURE WINDING. A thorough study of direct current starting motors and generators; their construction, operation and repair, including armature field and commutator testing; a systematic location and repair of all troubles encountered in the modern starting motors and generators; armature winding, as far as is practical, for modern up-to-date garages and service stations. Prerequisites, Ignition 20, 24, and 25. Spring quarter. Four credits.

M. W. F. 8:00 to 11:00. Room 203 Mech. Arts.

*Stock*

## OXY-ACETYLENE, ELECTRIC ARC, AND RESISTANCE WELDING

The following courses in Oxy-Acetylene Welding, Electric Arc, and Resistance Welding will prepare the student to handle the commercial work found in the ordinary welding shops.

### JUNIOR COLLEGE COURSES.

22. OXY-ACETYLENE WELDING. The oxy-acetylene welding process, equipment and gases, properties of the various metals, etc. Practice in the welding of cast iron, steel, aluminum, and other metals is given, also the proper methods of preheating, and the preparation of cylinder blocks and other castings that are to be welded in the latter part of the course. A special fee of \$25.00 is required of all students taking the course. Winter quarter. Room 202 Mech. Arts.

Sec. 1. T. Th. S. 8:00 to 11:00. Four credits.

Sec. 2. T. Th. 2:00 to 5:00. Three credits.

*Powell*

23. OXY-ACETYLENE, ELECTRIC ARC AND RESISTANCE WELDING. This course is in part a continuation of the preceding course. In addition, electric arc and resistance welding will be taken up. The work includes an elementary course in metallurgy, the use and application of the oxy-acetylene welding flame in the industrial field and advanced work in the welding of cast iron, steel, aluminum, bronze and other metals. A special fee of \$25.00 is required of all students taking this course. Spring quarter. Four credits.

T. Th. S. 8:00 to 11:00. Room 202 Mech. Arts.

*Powell*



## TRACTOR REPAIR AND OPERATION

## JUNIOR COLLEGE COURSES.

24. GASOLINE TRACTION ENGINE DESIGN AND CONSTRUCTION. A complete course in the design, construction and function of the various units and parts of the gas traction engine. This course is required of all students who intend to specialize in tractor operation and repair. Spring quarter. Four credits.

Sec. 2. Spring quarter T. Th. S. 8:00 to 11:00. Room 206 Mech. Arts.

*Shook*

26. GASOLINE TRACTION ENGINE OPERATION AND REPAIRS. (Special) For Winter quarter students only. Offered for men who wish to qualify to do their own minor repairs, adjustments and operation. Special attention will be given to the methods of tractor overhauling and repairing on the farm. Winter quarter. Four credits.

T. Th. S. 8:00 to 11:00. Room 206 Mech. Arts.

*Shook*

27. GASOLINE TRACTOR OVERHAULING. The overhauling of the tractor, including babbitting of bearings, fitting of new parts and the operation of the tractor. Prerequisites, Tractor Design and Operation 24. Fall quarter. Four credits.

M. W. F. 2:00 to 5:00. Room 206 Mech. Arts.

*Shook*

## SENIOR COLLEGE COURSES.

128. GASOLINE TRACTOR OVERHAULING. A continuation of Tractor Repair 27. It includes trouble work and operating of

the tractor under load. Prerequisite Tractor Repair and Operation 27. Winter quarter. Four credits.

M. W. F. 2:00 to 5:00. Room 206 Mech. Arts.

*Shook*

129. TRACTOR REPAIR AND OPERATION. An advanced course for men who wish to specialize in tractor service work. It includes field work, operating problems, trouble shooting, and repairs. Prerequisites Tractor Repair and Operation 27 and 128. Fall quarter. Four credits.

T. Th. S. 8:00 to 11:00. Room 206 Mech. Arts.

*Shook*

## VULCANIZING AND TIRE REPAIR

### JUNIOR COLLEGE COURSES.

30. VULCANIZING AND TIRE REPAIR. A thorough course in the repairing of casings and tubes, including the building up of tire sections. This course is for men who wish to qualify to take charge of a tire repair shop. Winter quarter. Three credits.

T. Th. 2:00 to 5:00. Room 204 Mech. Arts.

*Shook*

31. VULCANIZING AND TIRE REPAIR. A continuation of Tire Repair 30. It also includes retreading, shop problems and equipment. Prerequisite Tire Repair 30. Spring quarter. Three credits.

T. Th. 2:00 to 5:00. Room 204 Mech. Arts.

*Shook*

**MECHANIC ARTS****FORGING AND GENERAL BLACKSMITHING**

ROY EGBERT, *Assistant Professor.*

An average of one-third of the time in all courses in forging is spent demonstrating and lecturing. All courses are given in the Forge rooms, Mechanic Arts Building.

**JUNIOR COLLEGE COURSES.**

1, 2, 3. **FORGE PRACTICE.** Forging, welding, tempering, tool making and other operations essential to forge shop work. Open to Vocational students. Fall, Winter and Spring quarters.

Sec 1 and 2 daily 8:00 to 11:00. Seven credits.

Sec. 3 and 4 daily, except Saturday, 2:00 to 5:00. Six credits.

May not be used to fill requirements for major. *Egbert.*

4, 5, 6. **FORGE SHOP OPERATIONS.** Advanced forging and general repair work, including plow work, spring work, axle, and tire setting, and horseshoeing. Prerequisites, Forge Practice 1, 2, 3. Fall, Winter and Spring quarters.

Sec. 1, daily 8:00 to 11:00. Six credits.

Sec. 2, daily, except Saturday, 2:00 to 5:00. Five credits.

*Egbert.*

7, 8, 9. **SELECT** work from Forge practice 1, 2, 3, for automobile and tractor students who cannot spend each day in the shops. Fall, Winter and Spring quarters. Sec. 1, 2, and 3, four credits each quarter. Sec. 4, three 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.

*Egbert.*

10. 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.

*Egbert*

11, 12, 13. FORGING. Selected work from Forge Practice 1, 2, 3, for agricultural students who cannot spend each day in the shops. Nine hours a week each quarter. Three credits.

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.

*Egbert*

14, 15, 16. AUTOMOBILE REPAIRS. Repairing and building bodies, wheels, and springs. Prerequisites, Forge Practice 1, 2, and 3. Fall, Winter and Spring quarters.

Sec. 1, daily 8:00 to 11:00. Six credits.

Sec. 2, daily, except Saturday, 2:00 to 5:00. Five credits.

*Egbert*

#### SENIOR COLLEGE COURSES.

100, 101. ADVANCED SHOP PRACTICE. COMPOSITION AND HEAT TREATMENT OF STEEL. The student may emphasize any line of blacksmithing work that suits his particular needs. Prerequisites, Forging 4, 5, 6. Fall and Winter quarters.

Daily 2:00 to 5:00. Five credits each quarter.

Credit will be given for unfinished courses according to work done. Not less than two credits will be given.

*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**

AARON NEWHEY, *Associate Professor.*

C. H. STEVENS, *Instructor.*

All courses given in Machine Shops, Mechanic Arts Building.

**JUNIOR COLLEGE COURSES.**

1, 2, 3. MACHINE SHOP PRACTICE. Lathe, planer, shaper, drill-press operations, the use of hand tools, laying out and fitting machine parts and other operations essential to machine shop practice. The shop work is supplemented each quarter by a course in shop technology and shop mathematics. Open to vocational students. These courses may not be used to fill requirements for major.

Daily, 8:00 to 11:00, Fall, Winter and Spring quarters, 7 credits.

Daily, 2:00 to 5:00, Fall, Winter and Spring quarters, 6 credits.

*Newey and Stevens*

4. SHORT COURSE. Work selected from Machine Shop Open to vocational students. Four credits.  
Four credits.

Fall and Spring quarters.

T. Th. S. 8:00 to 11:00.

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

Winter quarter.

M. W. F. 8:00 to 11:00.

T. Th. S. 8:00 to 11:00.

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

*Newey and Stevens*

5. **ADVANCED SHORT COURSE.** Work selected from Machine Shop Practice 2 including Shop Technology and Shop Mathematics. Prerequisite Short Course. Open to vocational students. Four credits.

Fall, Winter and Spring quarters.

M. W. F. 8:00 to 11:00.

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

*Newey and Stevens*

6, 7, 8. **GENERAL MACHINE WORK.** Advanced lathe and planer work, milling, gear cutting, tool grinding, building simple machines and automobile parts. Prerequisite Machine Shop Practice 1, 2, 3.

Daily 8:00 to 11:00, Fall, Winter and Spring quarters, 6 credits.

Daily 2:00 to 5:00, Fall, Winter and Spring quarters, 5 credits.

*Newey and Stevens*

## SENIOR COLLEGE COURSES.

101, 102, 103. **TOOL MAKING.** These courses include practice in making arbors, gauges, taps, reamers, milling cutters, etc., and in designing and building special tools. Prerequisite General Machine Work 6, 7, 8.

Daily 8:00 to 11:00, Fall, Winter and Spring quarters, 6 credits.

Daily 2:00 to 5:00, Fall, Winter and Spring quarters, 5 credits.

*Newey and Stevens*

Note.—For unfinished courses, credit will be given according to work done. Not less than two credits will be given.



**MECHANICAL DRAWING**

EDMUND FELDMAN, *Assistant Professor.*

Drawing rooms are open from 8:00 to 5:00 daily. Supervised instruction given from 9:00 to 12:00 and from 2:00 to 4:00. Three hours a week are required for each credit. All classes carried on simultaneously in Room 307, Agricultural Engineering Building. The following courses are offered each quarter:

**JUNIOR COLLEGE COURSES.**

1. AGRICULTURAL DRAWING. The use and care of instruments and orthographic projection. Two credits.
2. AGRICULTURAL DRAWING. Farm structures in orthographic projection. Two credits. Prerequisite, Drawing 1.
3. AGRICULTURAL MAPPING. Maps and topographical drawing of farm problems. Two credits. Prerequisite, Drawing 1 and 2.
4. POULTRY HOUSE DESIGN. Complete working drawings of various types of poultry houses. Two credits. Prerequisite, Drawing 1 and 2.
5. BARN LAYOUT AND DESIGN. Working drawings of various types of barns. Two credits. Prerequisite, Drawing 1 and 2.
6. LANDSCAPE DRAWING. For students of Landscape Gardening. Two credits.
11. ENGINEERING DRAWING. The use and care of instruments, applied geometry and orthographic projection. Three credits.
12. ENGINEERING DRAWING. Developing surfaces and intersections. Three credits. Prerequisite, Drawing 11.
13. ENGINEERING DRAWING. Pictorial presentation, isometric, oblique and cabinet projections. Three credits. Prerequisite, Drawing 11 and 12.

14. HIGHWAY STRUCTURES. Structural problems such as bridges, dams, retaining walls, etc. in orthographic projection. Two credits.

21. DRAWING FOR BUILDERS AND MECHANICS. The use and care of instruments and orthographic projections. Two credits.

22. DRAWING FOR MECHANICS. Drawing of shop exercises in orthographic projection and free hand sketching of machine parts. Two credits. Prerequisite, Drawing 21.

23. DRAWING FOR BUILDERS. Building details such as walls, windows, doors, etc. Two credits. Prerequisite, Drawing 21.

24. MACHINE DRAFTING. Drawing of fastenings such as bolts, screws, etc. Two credits. Prerequisite, 21 and 22 or 10 and 11.

25. MACHINE DRAFTING. Detail drawings of machine parts. Three credits.

26. MACHINE DRAFTING. Assembly and detail drawings of machine and machine parts. Three credits.

31. MAP AND TOPOGRAPHICAL DRAWING. Surveys, symbols, topographical maps, etc. Three credits.

41. LETTERING AND DESIGNING OF COMMERCIAL AND OTHER FORMS. Three hours work for one credit.

### SENIOR COLLEGE COURSES.

111. DESCRIPTIVE GEOMETRY. Of practical value to the mechanic and engineer in making and reading working drawings and in solving graphical problems. The point, line, plane and simple solids are studied. Any quarter. Five credits. Hours to be arranged.

112. LINEAR PERSPECTIVE. Shades and shadows. Of interest to the advanced student of rural architecture and mechanical drawing. Any quarter. Three credits. Hours to be arranged.

114. IRRIGATION DRAFTING. Drafting of irrigation structures including pumping plants, etc. in orthographic projection. Three credits.

121. ARCHITECTURAL DRAWING. The complete working drawings for a small farm house including plans, elevations, specifications, and necessary detail. Five credits.

131. ADVANCED TOPOGRAPHICAL DRAWING. Complete topographical maps, contours, lettering, coloring, etc. Three hours work for one credit.

### WOODWORK AND HOUSEBUILDING

A. J. HANSEN, *Associate Professor.*

D. A. SWENSON, *Instructor.*

The Shops, located in the Mechanic Arts Building, are open daily from 8:00 to 12:00 a. m., and from 2:00 to 5:00 p. m. except Saturdays, when they are open from 8:00 to 12:00 a. m.

Courses run five days a week, three hours daily, five credits. Otherwise credits according to work done. All courses offered during Fall, Winter and Spring quarters.

### JUNIOR COLLEGE COURSES.

1. ELEMENTARY WOODWORK. Scarfing, morticing, dovetailing and jointing. Proper handling of tools is emphasized.

2. ELEMENTARY WOODWORK. Panels, sashes, doors and rafter cutting; also thorough practice in tool sharpening.

3. ELEMENTARY WOODWORK. Feedhoppers, trestles, gates, grindstone frames, beehives, etc. and simple furniture.

Credit in proportion to work done. These courses may not be used to fill requirements for major.

*Hansen*

4, 5, 6. MACHINE WORK. The use of wood working machinery, building a modern work bench and tool chest, elementary and advanced wood turning. Prerequisite, woodwork 3. Three hours daily and five days a week throughout the year. Five credits.

*Swenson*

7, 8, 9. HOUSEBUILDING AND CABINET MAKING. Door frames and window frames, French doors, casing up and finishing, framing and roofing. Also furniture in fir and oak, staining, fuming, etc.

*Swenson.*

10. FARM WOODWORK. A special course for students who expect to specialize in farming. Embraces such problems in woodwork as are commonly met on the farm. Three hours daily and three days a week throughout the year. Three credits each quarter.

*Hansen.*

## SENIOR COLLEGE COURSES.

101, 102, 103. ADVANCED WOODWORK. Special furniture, floor lamps, table lamps, nut bowls, etc. Mahogany and other fancy woods used. Veneering, inlaying and hand polishing. Prerequisite, Woodwork 9. Three hours daily, and five days a week throughout the year. Five credits each quarter.

*Swenson*

104. WOOD CARVING. Simple problems in straight and curved lines, simple conventional ornaments and natural foliage. Time and credits to be arranged with the instructor.

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105. PATTERN MAKING. Making of practical patterns for use in the College foundry. Time and credits to be arranged with the instructor. *Swenson.*

106. ADVANCED SHORT COURSE. For students who do not fit into the regular schedule. Prerequisite, work equivalent to that listed under Junior College Courses. Credit according to work done. *Swenson.*

107. PICTURE FRAMING. Making of simple mouldings and frames, finishing, 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. *Swenson.*

108. WOOD FINISHING. Paints, pigments, oils and their manufacture. Water, oil and spirit stains. Varnishes, kinds and preparation. Practical application in staining, varnishing, rubbing and hand polishing. May be taken any quarter if four or more students apply. One lecture a week each quarter. One credit. Time to be arranged with the instructor.

*Hansen*

## School of Home Economics

### FOODS AND DIETETICS

CARRIE CASTLE DOZIER, *Professor.*

.....*Instructor.*

All students who elect Foods and Dietetics as their major are required to complete Foods 20 and 140. Students wishing to qualify as teachers of Foods and Dietetics must complete Education 120, 121 and 122.

### JUNIOR COLLEGE COURSE.

20. 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, 2, and Physics 1, 2, 3; prerequisites or parallel, Physiology 1 and Botany 1 or Zoology 1, 2. Fall, Winter and Spring quarters. Four credits each quarter.

Lec. T. Th. 1:00. Room 26 Home Ec.

Lab. M. W. or T. Th. 2:00 to 5:00. Room 17 Home Ec.

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### SENIOR COLLEGE COURSES.

103. FOOD PRESERVATION. A study of the principles which underlie food preservation, and of the effect of the application of these principles on food supply. Laboratory practice in preservation methods suitable for home use. Prerequisites, Foods 20 or its equivalent and Bacteriology 1. Fall quarter. Three credits.

Lec. S. 9:00. Room 26 Home Ec.

Lab. T. Th. 10:00 to 1:00. Room 25 Home Ec.

Ec.

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105. **FOOD ENGINEERING.** The economic, sanitary, and aesthetic principles involved in the purchase, preparation and serving of food. The essentials in planning of kitchen and dining room; the arrangement of furniture and equipment, and the management of the work connected with home food problems as a factor in efficiency. Prerequisites, Art 1, 2, Foods 20 or its equivalent. Advised prerequisite or parallel, Economics 1, 2, 3, Textiles 20. Spring quarter. Three credits.

Lec. M. 8:00. Room 26 Home Ec.

Lab. T. Th. 9:00 to 12:00. Room 25 Home Ec. *Dozier*

140. **DIETETICS.** The principles of human nutrition. Human dietary needs; nutritive value of foods. Practice in construction of dietaries to meet given needs. Prerequisites, Chemistry 21, 22, Bacteriology 111, and Foods 20. Fall and Winter quarters. Five credits each quarter.

Lec. M. W. F. 9:00. Room 26 Home Ec.

Lab. T. Th. 9:00 to 12:00. Room 25 Home Ec. *Dozier*

141. **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 140. Spring quarter. Three credits.

Lec. W. F. 8:00. Lab. Th. 2:00 to 5:00. Room 26 Home Ec. *Dozier*

#### GRADUATE COURSES.

210, 211, 212. **SPECIAL PROBLEMS.** Project to be planned with instructor and carried out under her supervision. Prerequisite, Foods 140. Fall, Winter and Spring quarters. Time and credit to be arranged with instructor in charge. *Dozier*

**HOUSEHOLD ADMINISTRATION**

ALICE KEWLEY, *Professor.*

CHARLOTTE DANCY, *Assistant Professor.*

CALVIN FLETCHER, *Professor.*

Students who elect Household Administration as their major are required to complete the following courses, Household Administration 25, 122, 123, 125, 130, 150. Students wishing to qualify as teachers of Household Administration must complete Education 120, 121 and 122.

**JUNIOR COLLEGE COURSES.**

10. **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. Room 12 Home Ec.

*Dozier*

(Any college student who has received three hours credit for the above course may earn one hour 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 Household Administration 10.)

20. **HISTORY OF DOMESTIC ARCHITECTURE.** History of the house from primitive times to the present. Spring quarter. Three credits.

(Not given 1923-24).

*Fletcher*

21. HISTORY OF FURNITURE. History of interior decoration and furniture styles. Spring quarter. Three credits.

M. W. F. 10:00. Art Rooms, Main.

*Fletcher*

25. HOME HEALTH AND NURSING. Special emphasis on the prevention of disease and on the building up of the highest degree of health as one of the principal functions of the home keeper. The treatment of functional disturbances, injuries, wounds, etc., receive due attention. Lectures, discussions and laboratory demonstrations. The reading of reference works and writing of special reports are required. Prerequisite, Physiology 1. Sec. 1, Fall and Winter quarters. Sec. 2, Winter and Spring quarters. Four credits each quarter.

Sec. 1. Lec. M. W. F. 9:00. Room 12 Home Ec.

Lab. W. 2:00 to 5:00. Room 11, Home Ec.

Sec. 2. Lec. M. W. F. 8:00. Room 12, Home Ec.

Lab. Th. or F. 2:00 to 5:00. Room 11, Home Ec.

*Dancy*

### SENIOR COLLEGE COURSES.

125. MOTHERCRAFT. Vital questions of the adolescent period. Correct and incorrect impressions concerning the prenatal influence, physiological changes during pregnancy. Care of the expectant mother, care of the infant and causes and prevention of infant mortality will be considered. Prerequisite, Household Administration 25, or Physiology 1 and Inorganic Chemistry. Spring quarter. Three credits.

Lec. M. W. F. 9:00. Room 12, Home Ec.

*Dancy*

150. HOUSEHOLD MANAGEMENT. A study of the organization and management of the household and of the ideals fundamental to wholesome family life. Laboratory projects will consist of the application of the underlying principles of household management during the twelve weeks residence in the Home Economics Cottage. A fee of \$6.00 per week will be charged each student while in residence. Open to seniors only. Prerequisites, Household Accounts, Foods 105, Textiles 20. Two lectures per week in addition to the laboratory projects in the cottage. Fall or Winter quarter. Five Credits each quarter.

Lec. T. Th. 12:00 Fall quarter only. Room 26, Home Ec.

*Kewley*

For closely related courses see:

Accounting 107 (Household Accounts)

*Peterson*

Art 122 (Home Planning and Furnishing)

*Fletcher*

Art 123 (Interior Decoration)

*Fletcher*

English 195 (Literature for Children)

*Coulter*

## TEXTILES & CLOTHING

JOHANNA MOEN, *Professor.*

CALVIN FLETCHER, *Professor.*

LOVINA RICHARDSON, *Instructor.*

Students who elect Textiles and Clothing as their major are required to complete the following courses: Textiles and Clothing 10, 20, 105, 115, 125, 160. Students wishing to qualify as teachers of Textiles and Clothing must complete Education 120 and 122.

## JUNIOR COLLEGE COURSES.

10, 11, 12. ELEMENTARY CLOTHING AND HANDWORK. Drafting, design and pattern making; construction of underclothing,

dressess, and household furnishing. Emphasis is placed upon choice of design and material. Lectures and laboratory work. Prerequisites or parallel Art 1, 2, 3. Fall, Winter and Spring quarters. Two credits each quarter.

Sec. 1. M. W. 2:00 to 5:00. Room 33 Home Ec.

*Moen*

Sec. 2. W. F. 10:00 to 1:00. Room 36 Home Ec.

*Richardson*

Sec. 3. T. Th. 2:00 to 5:00. Room 36 Home Ec.

*Richardson*

Note.—Section 2 is especially designed for those who have not had Textiles in High School.

20, 21. ECONOMICS OF TEXTILES. This course includes a study of standard materials used for clothing and house furnishing. These materials are considered from the standpoint of design, structure, fiber content and such physical tests as will determine quality and relative value. The fibers, their production, properties and past and present method of manufacture are studied as a basis for intelligent purchase and use of materials. Prerequisite, Textiles and Clothing 10. Prerequisites or parallel, Economics 1, 2, 3. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00. Room 33 Home Ec.

*Moen*

30, 31. 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,

2, 3; Textiles 10, 11, 12, or their equivalent. Two credits each quarter. Room 36 Home Ec.

Sec. 1. Fall and Winter quarters. M. W. 2:00 to 4:00.

Sec. 2. Winter and Spring quarters. T. Th. 10:00 to 12:00.

*Richardson*

40. HANDWORK AND WEAVING. Lectures and laboratory work, including practical instruction in the selection, preparation, care and repair of table linen, bed linen, etc.; various specialized embroideries; simple weaving. Prerequisites or parallel, Art 1, 2, 3, 8 and Clothing 10, or its equivalent. Fall, Winter and Spring quarters. One credit each quarter.

Friday 2:00 to 5:00. Room 33 Home Ec.

*Moen*

## SENIOR COLLEGE COURSES.

105. HISTORY OF COSTUME. A study of Egyptian, Grecian, Roman, early and modern French costumes. Fall quarter. Three credits.

M. W. F. 10:00. Room 330 Main.

*Fletcher*

115. 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. Room 330 Main.

*Fletcher*



125. APPLIED COSTUME DESIGN. Practical training in the use and adaptation to different individuals and purposes, design made in Textiles and Clothing 115, as well as designs taken from current fashion magazines. Modeling in paper and crinoline and making of one costume. Prerequisites, Textiles and Clothing 10, 11, 12, 105, 115, or their equivalents. Spring quarter. Three credits.

M. W. F. 9:00 to 11:00. Room 33, Home Ec.

*Moen*

160, 161, 162. CLOTHING, ADVANCED. Advanced dress design; construction of dresses; infants and childrens clothing, including budgets; problems in standardization of clothing. Lectures and laboratory work. Prerequisites, Clothing 10, 20, 105, 115, 125. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 2:00 to 5:00. Room 33, Home Ec.

*Moen*

For closely related course see:

Chemistry 109 (Chemistry of Textiles)

*Hill*

## **Schools of Agriculture, Commerce and Business Administration, and Basic Arts and Science**

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### **ACCOUNTING AND BUSINESS PRACTICE**

P. E. PETERSON, *Professor.*

W. E. THAIN, *Assistant Professor.*

#### **JUNIOR COLLEGE COURSES.**

1. **TECHNIC OF BOOKKEEPING.** Development of the principles of debit and credit, functions of the account, technic of recording the business transactions in the records, preparation of statements and closing the books. Two lectures, six hours practice each week. Four credits.

Fall quarter, Lec. T. Th. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

Winter quarter, Lec. T. Th. 1:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

*Thain.*

2. **BOOKKEEPING AND ACCOUNTING PRACTICE.** A continuation of Accounting 1, introducing more advanced technic, such as controlling accounts, accruals, deferred items, depreciation, special columns and special journals, departmentalization, etc. Partnership accounting is also taken up. Prerequisite, Acct. 1. Two lectures, six hours practice work each week. Four credits.

Winter quarter, Lec. T. Th. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

Spring quarter, Lec. T. Th. 1:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

*Thain.*

3. CORPORATION AND FACTORY ACCOUNTING. Accounts peculiar to corporations, as accounting for capital stock, treasury stock, surplus, reserves, dividends, etc. Voucher accounting. Accounting for manufacturing enterprises where no cost system is in use. Prerequisites, Accounting 1 and 2. Two lectures, six hours practice work each week. Four credits.

Spring quarter, Lec. T. Th. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main. *Thain.*

4. BOOKKEEPING FOR CO-OPERATIVE ENTERPRISES.  
(Not given in 1923-24).

5. FARM BOOKKEEPING. Principles of bookkeeping and accounting as applied to the special needs of different types of farming. Single and double entry. Two lectures, six hours practice work each week. Practice hours to be arranged with instructor. Fall quarter. Four credits.

Lec. Th. S. 8:00. Room 302 Main. *Thain.*

6. SHOP ACCOUNTING.  
(Not given 1923-24).

11. FACTORY ACCOUNTING. An elementary study of the principles and methods of cost accounting and their application to a specific problem. This course should precede Accounting 111. Two lectures, six hours practice work each week. Prerequisite, Accounting 1, 2, and 3. Fall quarter. Four credits.

Lec. T. Th. 1:00. Practice hours any days from 2:00 to 5:00. Room 302 Main. *Thain.*

21. ACCOUNTS OF BUILDING AND LOAN ASSOCIATIONS, BANKS, AND TRUST COMPANIES. A practical course in the organization, business practice and accounting methods of building and loan associations, banks and trust companies. Account analysis in commercial banks. Special attention will be given to labor

saving methods and mechanical equipment. Prerequisites, Accounting 1, 2, and 3. Two lectures, six hours practice work each week. Practice periods to be arranged with instructor. Spring quarter. Four credits.

Lec. M. W. 9:00. Practice periods any days from 2:00 to 5:00. Room 302 Main. *Thain.*

31. RETAIL AND DEPARTMENT STORE ACCOUNTING.  
(Not given 1923-24).

41. INTERMEDIATE ACCOUNTING PROBLEMS. Problems will cover the opening and closing of the books, adjusting entries; preparation of statements for different lines of business and for different purposes; fiduciary accounts; and non-business enterprises. Prerequisites, Accounting 1, 2, and 3. Winter quarter. Three credits.

Lec. T. Th. S. 8:00. Room 302 Main. *Thain.*

51. DAIRY MANUFACTURING ACCOUNTS. Accounting methods for cheese and butter factories. Two sets will be worked, a simple double entry system and one in which the cost to manufacture will be determined. The special accounting problems of the cooperative enterprise will be examined. Prerequisites, Accounting 1 and 2. Two lectures, six hours practice work per week. Practice hours to be arranged with instructor. Spring quarter. Four credits.

Lec. T. Th. 8:00. Room 302 Main. *Thain.*

SENIOR COLLEGE COURSES.

101, 102, 103. PRINCIPLES OF ACCOUNTING. Essentially a course in theory with practice reduced to a minimum. Emphasis will be placed upon the interpretation of accounts. The course is intended to meet the needs of the general student, students training for executive positions and students who, upon

entering the professions, may, as investors, wish to analyze the various accounting statements and published reports. It is desirable that students complete Economics 1, 2 and 3, and Mathematics 60, before registering for this course. Graduate credit may be allowed for this course upon completion of additional work. Lectures and assigned problems. Fall, Winter and Spring quarters. Three credits each quarter.

Lec. T. Th. S. 9:00. Room 302 Main.

*Peterson.*

107. HOUSEHOLD ACCOUNTS. The practical application of accounting principles and practice to home management. Lectures and assigned problems. Fall quarter. Four credits. Practice hours may be taken any day from 2:00 to 5:00.

Lec. T. Th. 8:00.

*Peterson.*

111, 112. INDUSTRIAL ACCOUNTING. A detailed study of the principles of cost accounting as applied to various lines of industry. Particular stress will be laid upon methods of distributing burden and wage systems. Problems will be used to illustrate the principles developed. (See Accounting 11 for related course). Winter and Spring quarters. Three credits each quarter.

Lec. M. W. F. 10:00. Room 302 Main.

*Thain.*

121. ACCOUNTING PROBLEMS. This course aims to develop analytical power, initiative and resourcefulness in the handling of accounting problems. The problems are largely drawn from the Institute examinations. Prerequisites, Accounting 101, 102, 103 or their equivalent. Lectures and assigned problems. Fall quarter. Three credits.

Not given 1923-24.

*Peterson.*

131, 132. PRINCIPLES OF AUDITING. A study of the principles of auditing with assigned problems. For senior students. A major subject for students who plan to enter the accounting

profession. Graduate credit may be allowed upon the completion of additional work. Fall and Winter quarters. Three credits each quarter.

Lec. T. Th. S. 11:00. Room 302 Main.

*Peterson.*

133. AUDITING PROCEDURE. The procedure in making an audit and the proper reporting of it constitutes the major part of this course. Where possible, students will be required to make an actual audit. A major subject for students who plan to enter the profession of accounting. Graduate credit may be allowed upon the completion of additional work. Prerequisite, Accounting 131, 132. Lectures and field work. Spring quarter. Three credits. Two additional credits may be allowed for extra field work.

Lec. T. Th. S. 11:00. Room 302 Main.

*Peterson.*

141. PUBLIC SERVICE CORPORATION ACCOUNTS. A study of the accounting systems of steam and electric railways, including station accounting. Prerequisites, Accounting 101, 102, 103. Lectures and assigned problems. Three credits.

(Not given 1923-24).

151. INSURANCE AND INSURANCE ACCOUNTING. Functions of life insurance, premiums, reserves, types of policies, special benefits and insurance accounting. Fire insurance. Prerequisites, Economics 1 and 2, Mathematics 61 and Accounting 101, 102, 103. Lectures and assigned problems. Spring quarter. Four credits.

(Not given 1923-24).

161. MUNICIPAL ACCOUNTS. A study of the accounting systems of cities, counties and states. The importance of the budget in municipal expenditures. A course in public finance should precede or parallel the taking of this course. Prerequisites, Ac-



counting 101, 102, and 103, and Political Science 2. Lectures and assigned problems. Four credits.

(Not given 1923-24).

181. BUDGETS. The course involves a very careful study of the need for budgetary control, of the preparation of departmental budgets and their coordination with the financial budget, the application of budgetary control to manufacturing, merchandising and non-commercial enterprises, and of the estimated balance sheet and profit and loss statement. Fall quarter. Three credits. Prerequisites, Accounting 101 and 102 or their equivalent.

M. W. F. 2:00. Room 302 Main.

*Peterson.*

### OFFICE MANAGEMENT

P. E. PETERSON, *Professor.*

W. E. THAIN, *Assistant Professor.*

THELMA FOGELBERG, *Instructor.*

### JUNIOR COLLEGE.

1. CALCULATOR OPERATION. Method of operating calculators. Accuracy and speed secured. Five practice hours each week. Fall or Winter quarter. One credit. Room 305 Main.

Fall, Sec. 1 daily except Saturday, 8:00.

Spring Sec. 2, daily except Saturday 2:00. *Fogelberg.*

2. CALCULATOR OPERATION. Advanced work on the calculator for increased skill. Accuracy and speed secured. Five practice hours each week. Winter or Spring quarter. One credit. Room 305 Main.

Winter Sec. 1, daily except Saturday, 8:00.

Winter Sec. 2 daily except Saturday, 2:00. *Fogelberg*

10. MACHINE BOOKKEEPING—BURROUGHS. Instruction in the correct operation of the Burroughs Posting machine. Practice given in bank and ordinary retail store machine bookkeeping. Accuracy and speed secured. Three practice hours each week. Fall or Winter quarter. One credit. Room 305 Main.

Time to be arranged with instructor.

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

Sec. 2 T. Th. S. 8:00.

Sec. 3 M. W. F. 10:00.

Sec. 4 T. Th. S. 10:00.

Sec. 5 M. W. F. 2:00.

*Fogelberg*

15. MACHINE BOOKKEEPING—ELLIOTT-FISHER. Instruction in the operation of the Elliott-Fisher bookkeeping machine. Three practice hours each week. Fall or Winter quarter. One credit. Room 305 Main.

Time to be arranged with instructor.

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

Sec. 2. T. Th. S. 8:00.

Sec. 3 M. W. F. 10:00.

Sec. 4 T. Th. S. 10:00.

Sec. 5 M. W. F. 2:00.

*Fogelberg*

## SENIOR COLLEGE

101. OFFICE TRAINING FOR STENOGRAPHERS. The aim of this course is to furnish students the experience necessary 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. Prere-

quisites, Business English, two years of stenography and typewriting. Fall, Winter and Spring Quarters. Two credits each quarter.

(Not given 1923-24).

*Fogelberg*

110. DUTIES OF PRIVATE SECRETARIES. Position defined; meeting callers, handling correspondence, outlines and reports; sources of information; editing and proof reading; handlink appointments, reporting, etc. Prerequisites, two years of stenography and two years of typewriting. Three lectures a week. Winter quarter. Three credits.

(Not given 1923-24).

*Fogelberg*

120. OFFICE MANAGEMENT. Study of office location, layout, equipment and administration; selection and training of employees; office records; filing methods. Prerequisite, Accounting 1 or 101. Winter quarter. Three credits.

(Not given 1923-24).

*Thain*

## AGRICULTURAL ECONOMICS

### FARM MANAGEMENT

E. B. BROSSARD, *Professor* \*

CHARLES H. MERCHANT, *Professor*.

Note.—Students in either the School of Agriculture or the School of Commerce and Business Administration may major in this department.

Students in the School of Agriculture may present credits in any of the following courses towards their major; Agronomy 101, and 106; Animal Husbandry 1 and 102; Economics 1, 2, 3, 120

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\*On leave of absence.

and 121; Horticulture 1, 2, 3; and Range Management 1. They will all be required to take Agricultural Economics courses 101, 102, 103, 104, 105, 211, 212 and 213.

Students in the School of Commerce and Business Administration may submit credits in any of the following courses towards their major; Accounting 101, 102, 103, 4 and 5; Agronomy 101, 106 and 114; Animal Husbandry 1 and 102; Business Administration 8; Economics 25, 30, 120, 121, 160, 167, 150 and 180; Horticulture 1, 2, 3; Marketing 71, 102, 103, 111, 131, 132 and 141; Political Science 104, 105 and 106; Range Management 1; and Sociology 101, 150 and 160. All such students will be required to take Agricultural Economics courses 101, 102, 103, 104, 105, 211, 212 and 213.

### SENIOR COLLEGE COURSES.

101. PRINCIPLES OF AGRICULTURAL ECONOMICS. A general course in the principles and problems of agricultural economics, including production on the farms, consumption of the products of the farms and the distribution of the agricultural income. Prerequisites, Economics 1, 2, 3, or 120, 121. Fall quarter. Three credits.

M. W. F. 9:00. Room 132 Main.

*Merchant*

102. FARM MANAGEMENT. A general course in the principles of farm management. A study of the problems involved in choosing, buying, planning, organizing and managing a farm. Discussions of proper size, balance, diversity and quality of farm business; relation of livestock, crops, pastures and ranges; efficient use of equipment and man and horse labor. Prerequisites, Economics 1, 2, 3, or 120, 121; Animal Husbandry 1 or 102; and Agronomy 101 (or equivalent) and 106. Fall quarter. Three credits.

Lec. M. W. 11:00; Lab. Fri. 2:00 to 5:00. Room 132 Main.

*Merchant*

103. FARM COST ACCOUNTING. Theory of farm cost accounting combined with practice in keeping a simple yet complete set of farm cost accounts. This course stresses the analyzing and interpreting of results and their use in organizing and managing the farm business. Prerequisite, Accounting 5. Winter quarter. Three credits.

M. W. 11:00, Lab Fri. 2:00 to 5:00. Room 132 Main.

*Merchant*

104. TYPES OF FARMING. A study of the natural and economic factors affecting types of farming in Utah, the United States and other countries, to determine the most profitable types for given times and conditions, and the needed adjustments in types to meet changing conditions. Prerequisite, Agricultural Economics 102. Spring quarter. Three credits.

M. W. 11:00, Lab Fri. 2:00 to 5:00. Room 132 Main.

*Merchant*

105. RURAL CREDITS. A study of the credit needs of farmers and methods of meeting these needs. This involves a study of bank credit and agriculture, the Federal Farm Loan Act, The Federal Intermediate Credits Act, cooperative credit and any new legislation needed to provide for financing adequately the farming business of the country. Winter quarter. Three credits.

M. W. F. 9:00. Room 132 Main.

*Merchant*

#### GRADUATE COURSES.

206. LAND ECONOMICS. A study of such important problems of land economics as the following: (1) the history of nations as affected by their land policies, (2) the concept of private property in land, (3) land classification, (4) land utilization, (5) land valuation, (6) land taxation, (7) land settlement and its relationship to water and irrigation institutions, (8) land owner-

ship and tenacy and their desirability and disadvantages, (9) range and ranch land, (10) economics of forest land, and (11) transportation and the use of land. Open only to seniors and graduate students. Fall quarter. Two credits.

Th. 10:00 to 12:00. Room 132 Main.

207. TENANCY. History and extent of farm tenancy in the United States. Experience of European countries with tenancy problems. Tenancy as a social institution. Tenancy as a step in the economic ladder of progress of farmers. Evils of tenancy. Suggested methods of diminishing or eliminating the evils of tenancy. Methods of renting farms. Types of farming and the farm lease contract. Essentials of a good farm lease. Prerequisite, Agricultural Economics 102. Spring quarter. Two credits.

Th. 10:00 to 12:00. Room 132 Main.

*Merchant*

208, 209, 210. RESEARCH. Special investigations in agricultural economics or farm management. Only those senior or graduate students who present an acceptable plan for an investigation will be admitted. Fall, Winter and Spring quarters. Two to five credits each quarter. Three hours work each week for each credit hour granted.

Time and credit to be arranged with instructor.

*Merchant*

211, 212, 213. SEMINAR. All senior and graduate students majoring in this department are required to take part in these round-table discussions of current problems and recent publications in Agricultural Economics and Farm Management. Fall, Winter and Spring quarters. One credit each quarter.

W. 7:20 p. m. Room 132 Main.

*Merchant*



214, 215. HISTORY OF ECONOMIC THOUGHT. A critical study of the origin and development of the economic theories of the leading thinkers in the leading nations of the world. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Main, room 132.

(Not given 1923-24).

*Brossard*

## AGRONOMY

GEORGE STEWART, *Professor*.

DON WARREN PITTMAN, *Assistant Professor*.

AARON F. BRACKEN, *Instructor*.

DELMAR C. TINGEY, *Instructor*.

Note—Students who major in Agronomy are required to take courses 1, 2 or 3, 106, 108, 109, 111, 112, 113, 104 or 110, and 114 or 117. Irrigation 1 and Agricultural Economics 102 should be included in either the major or the minor group.

## 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, 2 and Botany 21, 22, 23. Winter quarter. Four credits.

Lec. M. W. F. 9:00; Room 201 Plant Ind., Lab. T. 2:00 to 5:00. Room 204 Plant Ind. *Bracken*

2. ROOT CROPS. Sugar-beets, potatoes, mangles, 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, 2, and Botany 21, 22, 23. Fall quarter. Four credits.

Lec. M. W. F. 9:00; Room 201 Plant Ind., Lab. T. 2:00 to 5:00. Room 204 Plant Ind. *Stewart and Tingey*

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, 2, and Botany 21, 22, 23. Spring quarter. Four credits.

Lec. M. W. F. 9:00. Room 201 Plant Ind. Lab. T. 2:00 to 5:00. Room 204 Plant Ind. *Stewart and Tingey*

### SENIOR COLLEGE COURSES

101. GENERAL CROPS. Essentials in the production of principal field crops: small-grains, corn, potatoes, sugar-beets, alfalfa, and pastures. Designed for those students not majoring in Agronomy who wish minimum work in crops. Not accepted toward a major in Agronomy. Same material as in course 1, 2 and 3. Prerequisites Chemistry and Botany 1 or 21. Spring quarter. Five credits.

Lec. M. T. W. F. 9:00. Lab. T. 2:00 to 5:00. Room 204 Plant Ind.

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104. WEEDS, SEEDS, AND GRADING. Common weeds of Utah and methods of eradicating them; the quality and care of seeds; market classes and grades of grain, seeds, hay, and potatoes. Prerequisites, Botany, Agronomy 1, and 2 or 3; some horticulture preferred. Not given unless ten or more students apply. Fall quarter. Three credits.

Lec. Th. 11:00; Lab. W. 2:00 to 5:00, and any other three-hour period. Room 204 Plant Ind.

*Stewart*

105. SEED ANALYSIS AND TESTING. Impurities of farm and garden seeds; methods of analysis and testing; the inspection and marketing of seeds. Prerequisites, Botany 21, 22, 23; Agronomy 1 and 3 or 104. Not given except on application of two or

more students who have open the same two laboratory periods of three hours each. Any quarter. Two to four credits. Two to four laboratory periods a week.

Time to be arranged.

*Stewart*

106. SOILS. Review of the entire field of soil study; designed as a foundation course for all students of agriculture. Prerequisites, Chemistry 1, 2 (high school chemistry not adequate.) Fall quarter. Four credits.

Lec. M. W. F. 10:00; Room 201 Plant Ind. Lab. Th. 2:00 to 5:00. Room 210 Plant Ind.

*Pittman*

108. MANAGEMENT OF ARID SOILS. The composition, nature and management of soils of arid regions; special attention to water relations, alkali, rotations, and other problems in the management of arid soils. Prerequisites, Agronomy 106 and either Geology 102 or Bacteriology 1, preferably both. Winter quarter. Four credits.

Note.—Graduate Students may obtain additional credit for extra work.

Lec. M. W. F. 10:00. Room 201 Plant Ind. Lab. Th. 2:00 to 5:00. Room 210 Plant Ind.

*Pittman*

109. PLANT BREEDING. Varieties of field crops; their selection and improvement; attention to the methods of plant breeding as practiced in America and Europe. Prerequisites, Agronomy 1 or 101; Zoology 111; and Botany 21, 22, 23. Winter quarter. Four credits.

Note.—Graduate Students may obtain additional credit for extra work.

Lec. M. W. F. 11:00. Room 201 Plant Ind. Lab. W. 2:00 to 5:00. Room 204 Plant Ind.

*Stewart*

110. SOIL FERTILITY. Principles of soil fertility; fertilizers and their most productive use; review of experimental work in America and Europe. Prerequisites, Chemistry 1, 2 and Agronomy 106.

Spring quarter. Two credits.

Lec. M. F. 10:00. Room 201 Plant Ind.

*Pittman*

111, 112, 113. SEMINAR. Current agronomic literature; agricultural problems; assigned topics. Required of all seniors and graduate students in agronomy; open also to juniors. Fall, Winter and Spring quarters. One or two credits each quarter.

Friday 2:10 to 3:20. Room 203 Plant Ind.

*The Department*

114. HISTORY OF AGRICULTURE. 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 to five credits. Alternates with course 117.

(Not given 1923-24).

116. DRY-FARMING. Principles of dry-farming from practical and scientific standpoints; a survey of experimental work in the Great Plains and Mountain Regions; an analysis of the possibilities in typical climatic areas and on important soil types. Selecting and organizing a dry-farm unit. Graduate students may obtain additional credit for extra work. Given if ten or more students apply. Winter quarter. Three lectures. Two to four credits.

T. Th. S. 10:00. Room 201 Plant Ind.

*Bracken*

117. GEOGRAPHY OF AGRICULTURE. Relation of geography to present agricultural development; where plant and animal products are produced; why only in the present regions; a sur-

vey of the United States with respect to possible new agricultural development; effect of the relative position of large markets and areas of large potential production. A summary of geography in relation to agriculture, especially in Utah. Winter quarter. Two to five credits.

T. Th. S. 11:00. Room 201 Plant Ind.

*Stewart*

### GRADUATE COURSES.

207. 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. Spring quarter. Two credits.

Lec. W. 10:00; Room 201 Plant Ind. Lab Th. 2:00 to 5:00.  
Room 210 Plant Ind.

*Pittman*

211. ADVANCED LABORATORY IN SOILS. Chemical and mechanical analysis or special laboratory work. Three hours or more any quarter. Credit in proportion to work.

Hours to be arranged.

*Pittman*

213. RESEARCH. Graduate students specializing in agronomy are required to do research in some branch of the subject. Open to approved seniors. Time and credit to be arranged with the instructors.

*Stewart and Pittman*

215. PLANT PRODUCTION. Recent experimental information on plant production and soil management; analysis of research methods; classification of important varieties of field crops; review of the scientific literature. Prerequisites, at least one course in botany, agronomy, and either bacteriology or geology. Given in 1923-24 if ten or more students apply. Open to approved senior

college students. Spring quarter. Two to four credits.

T. Th. 11:00. Room 201 Plant Ind.

*Stewart*

218. SPECIAL SOIL PROBLEMS. Students desiring to make a special study of any particular soil problem will make a complete study of available literature on this problem under the supervision of the instructor and write a thesis. Credit in proportion to work. Prerequisite, Agronomy 106 and either General Bacteriology or General Geology. Any quarter.

*Stewart and Pittman*

### ANIMAL HUSBANDRY

W. E. CARROLL, *Professor.*

GEORGE B. CAINE, *Professor.*

BYRON ALDER, *Assistant Professor.*

### 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.

*Caine*

Sec. 2. Winter quarter. Lec. M. W. F. 11:00. Lab. W. F. 2:00 to 5:00. Room 208 Livestock.

*Caine*

2. BREED TYPES. The origin, history and characteristics of the different breeds of horses, cattle, sheep and swine, especial stress being laid upon their adaptability to western conditions. Fall quarter. Five credits.

Daily except Th. 10:00. Room 208 Livestock.

*Caine*



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. Room 208 Livestock.

*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 1923-24).

*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. Room 208 Livestock.

*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 1923-24).

*Caine*

#### SENIOR COLLEGE COURSES.

101. LIVESTOCK MANAGEMENT. Practice in care and management of livestock and fitting for show and sale. Open only to a limited number of advanced students in Animal Husbandry. Laboratory work at barns. Fall or Spring quarter. Credit and hours to be arranged.

*Carroll and Caine*

102. PRACTICAL FEEDING. (Open only to 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 101. Fall quarter. Five credits.

Daily except Saturday 8:00. Room 207 Livestock .

*Carroll*

103. ANIMAL NUTRITION. The anatomy and physiology of the digestive system; the purpose of nutrition; the theory and practice of feeding; with special reference to Utah conditions. Prerequisites, Organic Chemistry or Physiology 1 and Agronomy 101. Winter and Spring quarters. Five credits each quarter.

Daily except Saturday 8:00. Room 207 Livestock.

*Carroll*

104. 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.

Time and credit to be arranged.

105. 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. Prerequisite Zoology 111 (Genetics). Spring quarter. Five credits.

Daily except Saturday 9:00. Room 207 Livestock.

*Carroll*

106. 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. Barns. *Caine and Carroll*

110. 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 informal course for students not registered in the School of Agriculture. Fall quarter.

M. W. F. 9:00. Room 207 Livestock.

*Carroll*

120. RESEARCH. Advanced students may elect research work in any phase of animal husbandry.

Time and credit to be arranged with the department.

125. SEMINAR. Round table discussions of current literature and special phases of animal husbandry and dairying by advanced students and instructors of the department. One meeting a week.

M. 2:00. Room 207 Livestock.

*Carroll, Caine and Wilster*

## POULTRY HUSBANDRY

BYRON ALDER, *Assistant Professor.*

### 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. Room 205 Livestock.

*Alder*

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

M. W. F. 11:00. Room 205 Livestock.

*Alder*

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

T. Th. 10:00. Room 205 Livestock.

*Alder*

4. INCUBATION AND BROODING. Practical and experimental work; the factors which influence the hatching quality of eggs and the raising of chicks. Prerequisites, Poultry 1. Spring quarter. Two credits.

M. W. 9:00. Room 205 Livestock.

*Alder*

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

(Not given in 1923-24).

*Alder*

6. 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.

M. W. 10:00. Room 205 Livestock.

*Alder*

7. POULTRY FEEDS AND FEEDING. A study of nutrition problems; the feeds and methods of feeding. Prerequisite, Poultry 1 or 2. Winter quarter. Three credits.

M. W. F. 11:00. Room 205 Livestock.

*Alder*

8. TURKEYS, DUCKS AND GEESE. A study of the breeds, breeding, feeding, marketing, etc. Two credits. Winter quarter.

T. S. 10:00. Room 205 Livestock.

*Alder*

## SENIOR COLLEGE COURSES.

125. RESEARCH. Research work in special problems. Prerequisites, Poultry 4 and 5.

Time and credit to be arranged.

*Alder*

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

Time to be arranged.

*Alder*

127. POULTRY PRACTICE. Special practice at the poultry yards.

Time and credit to be arranged.

*Alder*

## ART

CALVIN FLETCHER, *Professor.*

HARRY R. REYNOLDS, *Instructor.*

## JUNIOR COLLEGE COURSES.

1. NATURE APPRECIATION. Study of beauty in natural form with a view to its use in design. Fall quarter. Two credits. Room 330 Main.

Sec. 1, T. Th. Sat. 8:00.

*Fletcher*

Sec. 2, M. W. F. 10.

*Reynolds*

Sec. 3, M. W. F. 11:00.

*Reynolds*

2. DESIGN. General principles of design in pattern and color, color theory, etc. Winter quarter. Two credits. Room 330 F Main.

Sec. 1, T. Th. Sat. 8:00.

*Fletcher*

Sec. 2, M. W. F. 10.

*Reynolds*

Sec. 3, M. W. F. 11:00.

*Reynolds*

3. ART APPRECIATION. Art principles as applied to costume, interior decoration, painting, sculpture and architecture will be discussed. Spring quarter. Two credits. Room 330 Main.

Sec. 1, T. Th. Sat. 8:00.

*Fletcher*

Sec. 2, M. W. F. 10:00.

*Reynolds*

Sec. 3, M. W. F. 11:00.

*Reynolds*

### SENIOR COLLEGE COURSES.

114. HISTORY OF ART. History of painting, sculpture, and architecture. Stereopticon used. Winter quarter. Three credits. T. Th. S. 11:00. Room 355 Main.

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107. AESTHETICS. The essentials common to all the arts. The basis of sound judgment and appreciation of poetry, painting, music, sculpture, and architecture. Spring quarter.

Daily, except Saturday, 11:00. Room 355 Main.

*Fletcher*

122. HOME PLANNING AND FURNISHING. The principles of house and garden design, wall decoration, color, floor and ceiling treatment, furniture and wood finishing. Fall quarter. Three credits.

Lec. T. Th. Sat. 9:00. Lab. F. 2:00 to 5:00. Room 355 Main.

*Fletcher*

123. INTERIOR DECORATION. Continuation of Art 122. Textiles and drapery, tableware, pottery, pictures, flowers and the practical assembling of all features which go to make the home beautiful. Winter quarter. Three credits.

Lec. T. Th. Sat. 9:00. Lab. F. 2:00 to 5:00. Room 355 Main.

*Fletcher*



124. PERSPECTIVE THEORY.  
(Not given 1923-24).

*Fletcher*

## STUDIO COURSES

This work is conducted as individual laboratory work. Three hours work each week required for each credit granted. Two, three, or more credits may be taken each quarter but no more than the maximum credit indicated will be granted. Students must file their studio hour schedule with the professor in charge of the course during the first week of their attendance. All studio courses are open every quarter and are given in the art studios, third floor, Main Building.

## JUNIOR COLLEGE COURSES.

4. DRAWING. Freehand drawing from still life, cast and nature. Maximum 15 credits. Any day except Thursday and Saturday. 2:00-5:00.

*Fletcher*

5. ELEMENTARY PAINTING. In water color, oil, or pastel. Maximum 15 credits.

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

*Fletcher*

6. ELEMENTARY MODELING. From antique and nature. Maximum 15 credits.

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

*Fletcher*

7. ILLUSTRATION. Elementary illustration and processes for newspaper, books and magazines. Maximum 12 credits.

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

*Fletcher*

8. EMBROIDERY DESIGN. Design for embroidery, lace, weaving, etc. Maximum 6 credits.

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

*Fletcher*

9. HISTORIC ORNAMENT. Egyptian, Assyrian, Greek, French, and Renaissance may be studied. Maximum 9 credits.

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

*Fletcher*

10. SHOW CARD AND ELEMENTARY SIGN LETTERING. Maximum 12 credits.

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

*Fletcher and Reynolds*

11. POTTERY. Elementary, including building, turning, glazing, firing, etc. such as may be done with a limited equipment. Maximum 2 credits.

M. T. W. F.

*Fletcher*

12. CHINA PAINTING. Elementary painting processes. Prerequisites Art 1, 2, 3, or equivalent. Maximum 6 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

13. COPPER WORK. Simple exercises in sawing, raising, and repousse. Maximum 6 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

14. LEATHER WORK. Elementary etching, dying, cutting, and tooling in leather mats, purses, bags, etc. Maximum 4 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

15. BASKETRY. Weaving processes in reed, raffia and grass. Maximum 9 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

16. ENAMELING. Work on glass, wood, ivory, etc. Maximum 6 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

17. FABRIC DECORATION. Elementary stencilling, block-printing, and Batik. Maximum 9 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

### SENIOR COLLEGE COURSES.

106. ADVANCED DRAWING. Life drawing from draped figure, animal drawing, and advanced antique. Maximum 15 credits.

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

*Fletcher.*

108. ADVANCED PAINTING. Oil, water color, or pastel may be used. Maximum 30 credits.

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

*Fletcher.*

109. ADVANCED MODELING. From animals or living models. Maximum 15 credits.

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

*Fletcher.*

110. ADVANCED ILLUSTRATION. Newspaper, magazine, costume and decorative illustration; illumination poster work or cartooning may be pursued. Maximum 15 credits. Students will pursue one line at a time.

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

*Fletcher.*

111. PROFESSIONAL DESIGN. Design for textiles, wall paper, interior decoration, furniture, etc. One line to be taken at a time. Maximum 12 credits.

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

*Fletcher*

112. ADVANCED COSTUME DESIGN. Prerequisite, Textiles 105 and 115. Maximum 6 credits.

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

*Fletcher*

113. ADVANCED SIGNS. Advanced show card and technical sign work. Maximum 12 credits.

M. T. W. F.

*Reynolds*

114. FANCY LETTERING AND ILLUMINATION. Pen lettering and decoration for memorials, documents, Christmas greetings, place cards etc. Maximum 12 credits.

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

*Fletcher and Reynolds*

115. ADVANCED CHINA DECORATION. Incrusted work, enamelling, lustre, and paste, to be taken up. Prerequisite Art 12 or equivalent. Maximum 15 credits.

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

*Fletcher and Reynolds*

116. ADVANCED ART METALRY. Maximum 18 credits.

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

*Fletcher*

117. JEWELRY. Sawing, wire work, filligree, stone setting, enameling, soldering, etc. will be taken up with broaches, rings, lavaliers, pins, chains, etc. Maximum 18 credits.

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

*Fletcher*

118. ADVANCED LEATHER WORK. Tooling carving, mounting and finishing. Maximum 12 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

119. ADVANCED WOOD ORNAMENTATION. Carving, inlay, scraffito, jesso, etc. Maximum 18 credits.

M. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

120. ADVANCED FABRIC DECORATION. Advanced work in Batik, dying, stencilling and blockprinting. Maximum 15 credits.

H. T. W. F. 2:00 to 5:00, T. Th. 10:00 to 1:00.

*Fletcher and Reynolds*

### GRADUATE COURSES.

206. ADVANCED DRAWING FROM animals, life, and close anatomical analysis.

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

*Fletcher*

208. ADVANCED PAINTING. Landscape or portrait may be pursued.

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

*Fletcher*

209. ADVANCED MODELLING. Original projects in sculpture to be carried out.

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

*Fletcher*

211. PROFESSIONAL DESIGN. Interior decoration, or commercial design may be taken up.

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

*Fletcher*

*Note.* Students work is subject to temporary or permanent retention for exhibit purposes. When permanently retained the department will pay for materials used.

## BACTERIOLOGY AND PHYSIOLOGICAL CHEMISTRY

JOSEPH E. GREAVES, *Professor.*

EZRA G. CARTER, *Assistant Professor.*

DANIEL H. NELSON, *Instructor.*

### JUNIOR COLLEGE COURSES.

1. GENERAL BACTERIOLOGY. Biology and significance of bacteria. The general phases of soil, air, food, water and diseases are considered. Breakage deposit, \$2.50. Fall quarter. Five credits.

Lec. M. W. F. 10:00. Lab W. F. 2:00 to 5:00. Third floor, Widtsoe Hall. *Greaves and Carter*

2. GENERAL BACTERIOLOGY. Biology and significance of bacteria. The subjects of air, water, milk food, and disease are considered. Breakage deposit \$2.50. Winter quarter. Five credits.

Lec. T. Th. S. 9:00. Lab. W. F. 2:00 to 5:00. Third floor, Widtsoe Hall. *Greaves and Carter*

3. PATHOGENIC BACTERIOLOGY. The pathogenic bacteria are considered in relation to specific diseases, especially with regard to immunity. Prerequisite, Bacteriology 1 or 2. Breakage deposit, \$2.50. Winter quarter. Five credits.

Lec. M. W. F. 10:00. Lab. W. F. 2:00 to 5:00. Third floor, Widtsoe Hall. *Carter*

### SENIOR COLLEGE COURSES.

102. SOIL BACTERIOLOGY. Bacteria considered in relation to soil fertility. Prerequisite, Bacteriology 1. Fall quarter. Three credits.

M. W. F. 8:00. Third floor, Widtsoe Hall. *Greaves.*



103. SOIL BACTERIOLOGY. Methods used in bacteriological investigations. Should accompany Bacteriology 102. Prerequisites, Bacteriology 1 and Chemistry 102. Breakage deposit \$2.50. Fall quarter. Three credits.

T. Th. 2:00 to 5:00. Third floor, Widtsoe Hall.

*Greaves.*

104. DAIRY BACTERIOLOGY. (Lecture) The bacteria of milk, butter and cheese. Prerequisite Bacteriology 1. Spring quarter. Two credits.

T. Th. 8:00. Third floor, Widtsoe Hall.

*Carter*

105. DAIRY BACTERIOLOGY. (Laboratory) Methods used in the bacteriological examination of milk and dairy products. Should accompany Bacteriology 104. Prerequisite, Bacteriology 1. Breakage deposit \$2.50. Spring quarter. Two credits.

T. Th. 2:00 to 5:00. Third floor, Widtsoe Hall.

*Carter*

106. SANITARY ANALYSIS. Methods used by the sanitary inspector in examining water, milk and other foods. Prerequisites, Chemistry 6 and Bacteriology 1 or 2.

Time and credit to be arranged.

*Greaves*

108, 109. SANITATION. Principles of sanitation; nature of disease, its spread and means of prevention; sanitary arrangement and construction of farm buildings. The sanitation of the school will be given special consideration. Prerequisite, Bacteriology 1 or 2. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Third floor. Widtsoe Hall.

*Greaves*

110. **SANITARY STATISTICS.** Vital statistics showing effect of sanitary precautions upon health in cities and rural communities. Prerequisites Bacteriology 1 or 2 and 108. Fall quarter. Two credits.

(Not given 1923-24).

*Carter*

111. **PHYSIOLOGICAL CHEMISTRY.** The transformation going on in the plant and animal. Prerequisites, Chemistry 21 and 22. Spring quarter. Daily except Saturdays 9:00. Third floor, Widtsoe Hall. Five credits.

*Greaves*

112. **PHYSIOLOGICAL CHEMISTRY.** A laboratory course which may accompany Bacteriology 111. Breakage deposit, \$2.50. Spring quarter. Two credits.

W. F. 2:00 to 5:00. Third floor, Widtsoe Hall.

*Carter*

114. **SCHOOL SANITATION.** Sanitary problems confronting the teacher in rural and urban schools. Prerequisite, Bacteriology 1 or 2 and 108. Fall quarter. Three credits.

T. Th. S. 10:00. Third floor, Widtsoe Hall.

*Carter*

116. **ADVANCED BIOCHEMISTRY.** Bacteriological and chemical methods used in the diagnosing of disease.

(Not given in 1923-24).

## GRADUATE COURSE.

207. **RESEARCH.** The laboratory and library facilities are especially arranged for advanced students in bacteriological investigation in agriculture, household science, the industries, sanitary science and veterinary science.

Time and credit to be arranged.

*Greaves and Carter.*

For closely related courses see: Physiology 112, 113, 114, (Physiology)

*Greaves*

**BOTANY**

GEORGE R. HILL, JR., *Professor.*

BERT L. RICHARDS, *Associate Professor.*

LOUIS F. NUFFER, *Instructor.*

ALMA WILSON, *Instructor.*

Botany 21, 22, 23, 101, 120, 130, 131, 240, 241, 242 required of students majoring in Botany.

**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 function; the food of plants; the relation of plants to human needs; noteworthy wild and cultivated plants. Five credits.

Sec. 1, Fall quarter. Lec. M. W. F. 9:00. Lab. T. Th. 2:00 to 5:00 or W. F. 2:00 to 5:00. Rooms 101-102 Plant Ind.

*Richards.*

Sec. 2, Spring quarter, Lec. M. W. F. 9:00. Lab. T. Th. 2:00 to 5:00 or W. F. 2:00 to 5:00. Rooms 101-102 Plant Ind.

*Richards*

21. GENERAL AGRICULTURAL BOTANY. 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 a major or minor in Botany. Prerequisite or parallel, Chemistry 1, 2. Fall quarter. Five credits.

Lec. Sec. 1, M. W. F. 8:00. Sec. 2, T. Th. S. 8:00. Lab. M. or W. and Th. or F. Rooms 101-103 Plant Ind.

*Hill and Nuffer*

22.\* A continuation of course 21. Winter quarter. Five credits.

*Hill and Nuffer*

23.\* A continuation of course 22. Spring quarter. Five credits.

*Hill and Nuffer*

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\* Students may register for Botany 22 and 23 without Botany 21 only by permission.

### SENIOR COLLEGE COURSES.

101. FLOWERING PLANTS. Our common plants and their systematic relationship; special emphasis given to economic plants. Two lectures and one, two or three laboratory periods. Prerequisite Botany 1 or 21, Zoology 1 or 3 preferred. Three, four or five credits. Spring quarter.

Lec. T. Sat. 10:00. Lab. T. 2:00 to 5:00 and any other afternoon. Rooms 101-103 Plant Ind.

*Nuffer*

102. A continuation of course 101, extending through the summer. A consideration of the general summer flora of particular families and their distribution. A laboratory course. Prerequisite, Botany 101. Two to five credits according to work done.

*Nuffer*

111. MORPHOLOGY. Life history and classification of plants representative of the four big groups. The course embraces a general survey of the representative reproductive structures and processes in plants, from the bacteria to the higher seed plants. It aims to give a broad view of the trend of evolution as well as an appreciation of the natural relation of the

living plant forms. Given if ten students apply. Winter quarter. Three lectures and two laboratory periods. Five credits.

Time to be arranged.

*Hill*

116. MATERIALS AND METHODS IN BOTANICAL TECHNIC. Collections and preservations 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 21. A laboratory course. Any quarter. Two to five credits.

Room 110 Plant Ind.

*Richards*

118. ENGINEERING BOTANY AND DENDROLOGY. Principles of Botany necessary for an understanding of woods; structures and properties of wood; economic woods; their identification and uses. Three lectures and two laboratory periods. Winter quarter. Five credits.

Lec. T. Th. S. 9:00. Lab. T. Th. 2:00 to 5:00. Rooms 101-102 Plant Ind.

*Wilson*

120. PLANT PHYSIOLOGY. An advanced course dealing with the water relations of plants; absorption, metabolism and growth and factors affecting each. Prerequisites Botany 21, 22, and 23. Three credits. Fall quarter.

Time to be arranged.

*Hill*

126. ECOLOGY. The distribution and adaptation of plants, as affected by the environmental factors. Winter quarter. Three credits. T. Th. Sat. 9:00.

(Not given in 1923-24).

*Hill*

130. PLANT PATHOLOGY. The history, nature, cause, and control of field and truck crop diseases. Prerequisites, Botany 1 or 21, 22, 23. Fall quarter. Four credits.

Lec. M. F. 10:00. Lab. M. F. 2:00 to 5:00. Rooms 101-102 Plant Ind.

*Richards*

131. A continuation of course 130. Orchard and small fruit diseases. Winter quarter. Four credits.

*Richards*

132. SPECIAL FEATURES OF PLANT PATHOLOGY IN UTAH. Field laboratory work. Summer quarter. Credit given according to work done.

*Richards*

### GRADUATE COURSES.

221. PATHOLOGICAL TECHNIC. Fundamental principles of photography and micrography as applied to advanced work in Biology and Plant Pathology. Special attention is given to Photomicrography and lantern slide production. One lecture and two laboratory periods. Winter quarter. Three credits. Time to be arranged.

*Richards*

222. A CONTINUATION OF COURSE 221. Special cultural methods as applied to Plant Pathology and related subjects. Students may register for courses 221 and 222 only by special permission. Two to five credits according to work done.

Winter or Spring quarter. Time to be arranged.

*Richards*

231. PROBLEMS IN PLANT PATHOLOGY. Winter quarter. Two or three credits.

Time to be arranged. Room 101 Plant Ind.

*Richards*



240-241-242. SEMINAR. Fall, Winter and Spring quarters. One credit each quarter.

Time and credit to be arranged. Room 101 Plant Ind.

*Hill and Richards*

RESEARCH. Open to all qualified Senior College Students.

Time and credit to be arranged.

*Hill and Richards*

## BUSINESS ADMINISTRATION

W. L. WANLASS, *Professor.*

P. E. PETERSON, *Professor.*

M. H. HARRIS, *Professor.*

W. E. THAIN, *Assistant Professor.*

LEON D. HARDY, *Assistant Professor.*

## JUNIOR COLLEGE COURSES.

1, 2. 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. Room 280 Main. *Wanlass*

3. 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, 2, 3, and Business Administration 1, 2. Spring quarter. Three credits. M. W. F. 10:00. Room 280 Main. *Wanlass*

SENIOR COLLEGE COURSES.

101. **APPROACH TO BUSINESS PROBLEMS.** This course aims at such a classification of business activities as to provide the student of business with a scientific method of approach to the solution of business problems in whatever form they may arise and to illustrate the application of this method to typical cases. It is intended to serve as a guide to the study of the more specific problems of factory, retail store, and sales management. Fall quarter. Three credits.

(Not given in 1923-24).

*Peterson*

104. **BUSINESS FINANCE.** Various types of business organization will be considered and attention given to the methods of providing capital and managing the current finances. This will be done through the use of actual problems. Special consideration given to the financing of small rural enterprises. Prerequisites, Economics 1, 2, 3, or 120, 121, and Business Administration 1, 2. Fall quarter. Three Credits. M. W. F. 9:00. Room 361 Main.

*Harris*

105-106. **MODERN SCIENTIFIC MANAGEMENT.** A careful study will be made of the principles and the advantages and disadvantages of scientific management. Prerequisites, Economics 1, 2, 3, or 120, 121. Winter and Spring quarters. Three credits. M. W. F. 2:00. Room 302 Main.

*Peterson*

107. **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, 2, 3, or 120, 121, and Business Administration 1, 2. Fall quarter. Three credits. M. W. F. 8:00. Room 132 Main.

*Hardy*

111. BUSINESS AND AGRICULTURAL STATISTICS. Consideration will be given to the meaning and application of statistics, statistical methods, sources of statistical information and the formulation of business barometers. Prerequisites, Economics 1, 2, 3, or 120, 121, and Business Administration 1, 2. Alternates with Business Administration 113. Fall quarter. Three credits. M. W. F. 9:00. Room 280 Main.

*Wanlass*

112. INVESTMENTS. This course takes up a study of the different classes of securities on the market from the standpoint of their desirability as an investment. Analysis of the factors of safety. Determination of the income yield. Type of investment suitable for the different classes of investors. Students should complete Mathematics 61 before taking this course. Three credits.

(Not given 1923-24).

*Thain*

113. BUSINESS FORECASTING. The uncertainty which now attends the outcome of business undertakings constitutes the principal defect of the modern business system. In recent years, science has been applied to this field. There is now a great body of material which if properly understood and used, would be of inestimable value in forecasting business conditions. The aim of this course will be to acquaint students with principles of business forecasting, the business cycle and the various business barometers. Prerequisites, Economics, 1, 2, 3 or 120, 121, and Business Administration 1, 2. Alternates with Business Administration 111. Three credits.

(Not given 1923-24).

*Wanlass*

115. PURCHASING. Much has been written concerning the production and sales activities of business. Why is not business success dependent also upon scientific purchasing of the commodities to be sold? With that thought in mind, this course will include a study of the proper organization and management of the purchasing department; the quantity to buy; the time to buy; and the place to buy. A study of stores systems will also be taken up. Fall quarter. Three credits. M. W. F. 10:00. Room 302 Main.

*Thain*

120. DOMESTIC AND FOREIGN EXCHANGE. Since the establishment of the Federal Reserve System, great changes have been made in the methods and facilities for financing commercial transactions. The aim of this course will be to give students a working knowledge of the theory and practice of both domestic and foreign exchange. Prerequisites Economics, 1, 2, 3 or 120, 121, and business Administration 1, 2. Spring quarter. Three credits.

M. W. F. 9:00. Room 280 Main.

*Wanlass*

125. RAILROADS. After a general study of the economics of transportation, special attention will be given to railroad traffic and service, determination of rates, management and public regulation. Prerequisites, Economics 1, 2, 3, or 120, 121 and Business Administration 1, 2. Winter quarter. Three credits.

M. W. F. 9:00. Room 280 Main.

*Wanlass*

For closely related courses see:

INSURANCE AND INSURANCE ACCOUNTING. (Accounting  
151.) *Peterson*

**CHEMISTRY**R. L. HILL, *Professor.*C. T. HIRST, *Assistant Professor.*SHERWIN MAESER, *Assistant Professor.*

Students who major in Chemistry are required to take Chemistry 103 and twelve hours additional senior college work in Chemistry.

**JUNIOR COLLEGE COURSES.**

1, 2. **INORGANIC CHEMISTRY.** The properties and preparation of the elements and their ordinary compounds. The quantitative laws of chemical combination and their applications. The effects of temperature and concentration in displacing chemical equilibria. Second floor, Widtsoe Hall.

Sec. 1. Fall and Winter quarters. Five credits each quarter.

Lec. T. Th. S. 8:00. Lab. T. Th. 2:00 to 5:00.

*Maeser*

Sec. 2. Fall and Winter quarters. Five Credits each quarter.

Lec. M. W. F. 8:00. Lab. M. W. 2:00 to 5:00.

*Hill*

Sec. 3. Winter and Spring quarters. Five credits each quarter.

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

*Maeser*

3, 4, 5. **INORGANIC CHEMISTRY.** A more advanced course in organic chemistry, including a beginning in qualitative analysis. Prerequisites, high school chemistry or physics. Fall, Winter and Spring quarters. Five credits each quarter.

M. W. F., 10:00. Lab. W. or Th., 2:00 to 5:00 Second floor. Widtsoe Hall.

*Maeser*

14, 15. **QUALITATIVE ANALYSIS.** A course in the theory and practice of inorganic qualitative analysis. Prerequisites, Chemistry 1, 2. 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.  
Second floor Widtsoe Hall. *Hirst*

21, 22. **ORGANIC CHEMISTRY.** Fundamental principles of organic chemistry. The chemistry of the carbon compounds. Special attention will be paid to the chemistry of the proteins, carbohydrates, and fats. Prerequisites, Chemistry 1, 2. Fall and Winter quarters. Four credits each quarter.

M. W. F. 10:00. Lab. W. or Th. 2:00 to 5:00. Second floor, Widtsoe Hall.

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23. **ORGANIC CHEMISTRY.** A laboratory course in organic chemistry to accompany Chem. 22, 23, designed to furnish extra laboratory work for students majoring in Chemistry and all others who desire a more complete laboratory course. Fall or Winter quarter. One or two credits each quarter according to registration.

Hours to be arranged. *Hill*

## SENIOR COLLEGE COURSES.

102, 103. **QUANTITATIVE ANALYSIS.** A course in the theory and application of the fundamental principles of gravimetric and volumetric analysis to inorganic, agricultural and food analysis. Prerequisites, Chemistry 14 and 15. Winter and Spring quarters. Three credits each quarter.

Sec. 2. Winter and Spring quarters. Lec. Th. 2:00. Lab. Th. 3:00 to 5:00, T. F. 2:00 to 5:00. Second floor Widtsoe Hall. *Hirst*



104. SPECIAL COURSE IN QUANTITATIVE ANALYSIS. Pre-requisite Chemistry 103. Fall, Winter or Spring quarter.

Time and credit to be arranged with instructor.

a. Water analysis. b. Food analysis. c. Soil analysis.  
d. Urine analysis. e. Gas analysis. *Hill and Hirst*

107, 108. DAIRY CHEMISTRY. The chemistry of milk and milk products including tests for adulterants, preservatives, and the routine quantitative methods of analysis of dairy products. Prerequisites, Chemistry 22. Fall and Winter quarters. Four credits each quarter.

Lec. M. W. F. 10:00. Lab. W. or Th. 2:00 to 5:00. Second floor. Widtsoe Hall. *Hill*

109. CHEMISTRY OF TEXTILES. Chemical methods for the identification of textile fibres, including complete quantitative determination of cotton, wool, silk, and linen substances in fabrics; chemistry of dyeing and bleaching. Prerequisites. Chemistry 22. Textiles and Clothing 20, 21. Spring Quarter. Three credits.

Time to be arranged. *Hill*

111, 112. ORGANIC CHEMISTRY. A senior college course in organic chemistry paralleling chemistry 21, 22, but requiring extra reports and outside reading. Fall and Winter quarters.

Lec. M. W. F. 11:00. Lab. W. or T. 2:00 to 5:00. Second floor, Widtsoe Hall. *Hill*

113. GENERAL ORGANIC REACTIONS. The more important reactions employed in synthetic organic chemistry. Prerequisites, Chemistry 22. Spring quarter. Three credits.

Hours to be arranged. *Hill*

114. THE NITROGEN COMPOUNDS. A course devoted primarily to the proteins alkaloid and purine derivatives. Prerequisites Chemistry 22. Winter quarter. Five credits.

Hours to be arranged.

*Hirst*

115. ORGANIC PREPARATIONS. An advanced laboratory course in practical laboratory methods of synthetic organic chemistry. Prerequisites, Chemistry 22, and 103. Fall or Winter quarter. Three credits.

Hours to be arranged.

*Maeser*

180. RESEARCH. Senior or graduate students majoring in chemistry may elect research in any branch of the subject.

Time and credit to be arranged with the instructor.

*Hill*

## DAIRY HUSBANDRY

GEORGE B. CAINE, *Professor.*

GUSTAV WILSTER, *Professor.*

## JUNIOR COLLEGE COURSES

1. ELEMENTS OF DAIRYING. The secretion and composition of milk; the chemical and physical properties of milk; testing milk and cream for fat and adulterants; dairy sanitation; separation; pasteurization; making of butter, cheese and ice cream; food value of milk and milk products. Course completed in one quarter. Students should provide themselves with white aprons or white suits. Four credits. Fall or Winter quarter. Room. 208 Livestock.

Fall quarter, Lec. M. W. F. 8:00. Lab. W. 2:00 to 5:00.

Winter Quarter, Lec. M. W. F. 9:00. Lab. T. 2:00 to 5:00.

*Wilster*

2. MARKET MILK. The production of sanitary milk; handling of milk at city milk plants; inspection methods; marketing of milk. Winter quarter, Two credits.

T. Th. 9:00. Room 208 Livestock.

*Wilster*

3. DAIRY TECHNOLOGY. The manufacture of dried and condensed milk, milk sugar, casein, fermented milk, oleo-margarine, renovated butter; preparation of various milk drinks. Spring quarter. Two credits.

M. W. 11:00. Room 208 Livestock.

*Wilster*

4. ICE CREAM AND ICES. The manufacture of standard kinds of ice creams and ices. Prerequisite, Dairy Husbandry 1. Spring quarter. Three credits.

Lec. T. Th. 9:00. Lab. T. 2:00 to 5:00. Room 208 Livestock.

*Wilster*

5. DAIRY ENGINEERING. A study of the machines used in the various dairy plants, such as boilers, engines, motors, refrigerating machines, separators, pasteurizers, freezers and churns. Fall quarter. Two credits.

M. W. 10:00 Room 208 Livestock.

*Wilster*

6. DAIRY ARITHMETIC. Problems in testing and standardizing, figuring overrun, figuring cost of manufacturing and marketing of dairy products. Fall quarter. One credit.

Friday 10:00. Room 208 Livestock.

*Wilster*

7. VARIETIES OF CHEESE. The manufacture of standard kinds of soft cheese and some foreign and domestic varieties such as Edam, Brick, Limburger. Fall quarter. Two credits.

Lec. M. 11:00. Lab. M. 2:00 to 5:00. Room 208 Livestock.

*Wilster*

8. BUTTERMILK PRACTICE. Any quarter. Credit and time to be arranged. Dairy Laboratory.

*Wilster*

9. CHEESEMAKING PRACTICE. Any quarter. Credit and time to be arranged. Dairy Laboratory.

*Wilster*

10. ICE CREAM-MAKING PRACTICE. Any quarter. Credit and time to be arranged. Dairy Laboratory.

*Wilster*

12. BREEDS OF DAIRY CATTLE. Study of the history, development and type of all the breeds of dairy cattle. Requirements for official records. Pedigree and Herd Book study. Winter quarter. Three credits.

M. W. F. 9:00. Room 208 Livestock.

*Caine*

#### SENIOR COLLEGE COURSES.

101. TESTING AND INSPECTION. Commercial testing of dairy products. Methods of inspection. Prerequisite, Dairy Husbandry 1. Spring quarter. Two credits.

Lec. T. 11:00. Lab. W. 2:00 to 5:00. Room 208 Livestock.

*Wilster*

102. JUDGING DAIRY PRODUCTS. Judging milk, butter, cheese, and ice cream. Winter quarter. One credit.

T. 11:00. Dairy Laboratory.

*Wilster*

103. BUTTERMILK. The manufacture of creamery butter. Designed to meet the needs of the creameryman. Prerequisite or parallel, Dairy Husbandry 1. Winter quarter. Five credits.

Lec. M. W. F. 8:00. Lab. F. 2:00 to 5:00 and S. 8:00 to 11:00. Room 208 Livestock.

*Wilster*

104. CHEDDAR CHEESE MAKING. Manufacturing and curing of American cheddar cheese. Prerequisite or parallel, Dairy husbandry 1. Fall quarter. Four credits.

Lec. T. Th. 8:00. Lab. T. 9:00 to 12:00 and 2:00 to 5:00. Room 208 Livestock.

*Wilster*

105. MANAGEMENT OF DAIRY PLANTS. Organizations and construction of dairy plants; efficient methods in the manufacture of dairy products; marketing; profit obtained; advertising; accounting. Each student will keep the Dairy Department books for one month. Prerequisite Dairy Husbandry 1. Spring quarter. Five credits.

Lec. M. W. F. S. 8:00; one three hour lab. Time to be arranged. Room 208 Livestock.

*Wilster*

110. DAIRY PRODUCTION. A brief review of dairy breeds, ways of starting dairy herds, systems of herd records, calf feeding and management, dairy herd feeding, housing and management. Laboratory exercises in judging, fitting for show, official testing, calf feeding, etc.

Time to be arranged. Spring quarter. Five Credits.

Daily except Saturday 10:00. Room 208 Livestock.

*Caine*

111. DAIRY CATTLE JUDGING. A study of the types of the various herds of dairy cattle. Visit to important herds. Valuation of dairy cattle. Prerequisites Animal Husbandry 1 and 2, and Dairy Husbandry 12. Spring quarter. One credit.

Time and credit to be arranged. *Caine and Wilster*

115. DAIRY SEMINAR. Discussions and reports of current literature.

Time and credit to be arranged. *Caine and Wilster*

### GRADUATE COURSE.

216. RESEARCH. Special problems in connection with dairy production and the manufacture of butter, cheese, and ice cream. Open to advanced undergraduates. Any quarter.

Friday 2:00 to 5:00. Room 208 Livestock. *Caine*

### ECONOMICS

M. H. HARRIS, *Professor.*

W. L. WANLASS, *Professor.*

CHARLES H. MERCHANT, *Professor.*

LEON D. HARDY, *Assistant Professor.*

### JUNIOR COLLEGE COURSES.

1, 2, 3. 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. 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 Room 280 Main.

*Wanlass*



Sec. 2, M. W. F. 11:00. Room 361 Main.	<i>Harris</i>
Sec. 3, T. Th. S. 8:00. Room 132 Main.	<i>Merchant</i>
Sec. 4, T. Th. S. 9:00. Room 132 Main.	<i>Merchant</i>

10. CURRENT ECONOMIC AND POLITICAL PROBLEMS. One great handicap of most college students is that they have never learned to read the newspapers and periodicals intelligently and critically. Many do not read them at all. The consequent inability to correlate college work with the world of affairs greatly diminishes the value of a college education. The aim of this course will be to assist students to read intelligently. Extensive reading of current newspapers and magazines will constitute the basis for class discussions. Fall quarter. Three credits.

(Not given 1923-24). *Wanlass*

30, 31. ECONOMIC DEVELOPMENT OF THE UNITED STATES. This course indicates the dominance of economic forces in history. A critical study will be made of the evolution and progress of American agriculture, industry, commerce, transportation, banking, labor organizations, etc., from the colonial to the present time. Graphs and charts will be made and special reports will be given. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 8:00. Room 361 Main. *Harris*

### SENIOR COLLEGE COURSES.

110. COMMERCE AND COMMERCIAL POLICIES. Attention given to the fundamentals of trade and commerce, to the methods of increasing, limiting and directing American trade and an analysis of sound commercial policies. Prerequisites, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

M. W. F. 10:00. Room 361 Main. *Harris*

120, 121. GENERAL ECONOMICS. A comprehensive study of the fundamentals of economic theory. Prerequisite, High School Economics or Senior College standing. Winter and Spring quarters.

(Not given 1923-24).

*Harris*

125. 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. Prerequisites, Economics 1, 2, 3 or 120, 121. Spring quarter. Three credits.

(Not given 1923-24).

150. PRINCIPLES OF TAXATION. After a brief survey of the fundamental economic principles of public finance, a critical examination of our federal, state and local tax systems will be made. The tariff, the general property tax, the income tax and the various business taxes will be studied. Special attention will be given to tax problems in Utah. Prerequisites, Economics 1, 2, 3, or 120, 121. Winter quarter. Three credits.

(Not given 1923-24).

*Wanlass*

160. MONEY AND CREDIT. The nature, development and uses of money and credit. Special attention given to bi-metalism, the gold standard, the money market and the relation of money and credit to prices. Prerequisites, Economics 1, 2, 3, or 120, 121. Fall quarter. Three credits.

(Not given 1923-24).

*Harris*

167. 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. Prerequisites, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

M. W. F. 9:00. Room 361 Main.

*Harris*

168. **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. Prerequisite, Economics 67. Spring quarter. Three credits.

(Not given in 1923-24).

*Harris*

180, 181, 182. **CURRENT ECONOMIC PROBLEMS.** (Economic Seminar.) A reading and research course designed for junior, senior, and graduate students who are majoring in economics and related subjects. Special reports on current economic problems and literature will be made. Required of students graduating in economics. Fall, Winter and Spring quarters. One credit each quarter. Two years credit allowed.

Alternating Wednesday evenings, 7:15.

*The Department*

190. **RESEARCH IN ECONOMICS.** Special investigations in problems of economics may be carried on by senior and graduate students. Credit will be granted according to work done.

Time to be arranged.

*Harris*

For courses in other departments closely associated with these see:

Agricultural Economics 105. (Rural Credits.)

Agricultural Economics 101. (Rural Economics.)

Agricultural Economics 206. (Land Economy.)

See also Departments of Marketing and Business Administration.

## EDUCATION AND PSYCHOLOGY

HENRY PETERSON, *Professor.*

J. E. GREAVES, *Professor.*

GEORGE R. HILL, JR. *Professor.*

CALVIN FLETCHER, *Professor.*

R. J. EVANS, *Professor.*

ALICE KEWLEY, *Professor.*

C. R. JOHNSON, *Associate Professor.*

KATHERINE COOPER, *Associate Professor.*

J. R. JENSON, *Assistant Professor.*

HENRY OBERHANSLEY, *Assistant Professor.*

EDITH BOWEN, *Assistant Professor.*

C. E. McCLELLAN, *Instructor.*

## 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 and profession. Course repeats. Fall or Spring quarter. Three credits. Room 177 Main.

Sec. 1, Fall quarter, M. W. F. 8:00.

Sec. 2, Winter quarter, M. W. F. 8:00

Sec. 3, Spring quarter, M. W. F. 8:00.

Sec. 4, Spring quarter, M. W. F. 8:00.

*Peterson and McClellan*

2. EDUCATIONAL PSYCHOLOGY. Designed especially for Sophomores who are preparing to teach in the elementary schools. This course applies the principles of psychology to the teaching process and to other aspects of social leadership. Prerequisite, Education 1. Winter quarter. Three credits.

Sec. 1, Winter quarter, M. W. F. 8:00. Room 177 Main.

Sec. 2, Spring quarter, M. W. F. 8:00, Room 358 Main.

*Peterson and McClellan*

10, 11. PHYSICAL DEVELOPMENT AND HEALTH EDUCATION. How to keep physically fit. The close correlation between mental fitness and physical fitness. A lecture course. Winter and Spring quarters. Two credits each quarter.

T. Th. 8:00 Room——

*Jenson*

21. 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. T. S. 11:00.

Committee in charge: *Professors George R. Hill, Jr., Richards, Fletcher, Henry Peterson, William Peterson, Jenson, Oberhansley.*

24. APPRENTICE TEACHING IN SCOUTMASTERSHIP. For prospective scoutmasters and other social leaders. One lecture each week and active participation as assistant scoutmaster in registered troops. Prerequisites, Education 1 and 21. One or two credits.

Time to be arranged.

*Oberhansley and Scout Commission of The Logan Council of Boy Scouts*

30. 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 each week. Any quarter. Two credits.

Hours to be arranged.

*Johnson*

31. HISTORY OF EDUCATION. The evolution of education in ancient Greece and Rome. A study of the ideals and processes of the Greeks and Romans. Fall quarter. Three credits.

Sec. 1, M. W. F. 10:00. Room 177 Main.

Sec. 2, T. Th. S. 10:00. Room 358 Main.

*McClellan*

32. HISTORY OF EDUCATION. The rise and growth of Christianity with its schools and systems of education in Europe down to modern times. Winter quarter. Three credits.

Sec. 1, M. W. F. 10:00. Room 177 Main.

Sec. 2, T. Th. S. 10:00. Room 358 Main.

*McClellan*

33. 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 31 and 32 suggested as a preparation for this course. Spring quarter. Three credits.

Sec. 1, M. W. F. 10:00. Room 177 Main.

Sec. 2, T. Th. S. 10:00. Room 358 Main.

*McClellan*

41. PRINCIPLES OF EDUCATION. PRIMARY METHODS. The spontaneous purposeful activity of the child as the basic principle determining method. Subject matter reviewed in the light of the foregoing thesis. Significance to teachers of the fact of individual differences. Consideration of school room equipment, organization and play activity. Fall quarter. Three credits.

T. Th. S. 8:00. Room 302 Main.

*Bowen*

42. APPRENTICE TEACHING. This course in practice teaching is open to Sophomores who have had psychology and principles of education. Students desiring this course must register and arrange for it at the opening of the Winter or



the Spring quarter. This course is required for certification to teach by the State Board of Education. Those who train must attain an average standing of B. Prerequisites, Education 1, 2 and 41. It can be taken in the afternoon. Five to ten hours credit. *Peterson*

51. EDUCATIONAL ART FOR GRADED SCHOOLS. Survey of design and color as applied to costume, posters, interior decoration and hand work in the public schools. The problem of teaching art in the grades. Winter quarter. Three credits.

M. W. F. 11:00. Art Rooms, Main. ....

60-61-62. METHODS OF TEACHING AGRICULTURE IN THE GRADES. The project method of teaching will be the basis of this course. Special problems considered are: selection and arrangement of subject matter, collection of materials for teaching and the home project. Fall, Winter, and Spring quarters. Two credits each quarter.

T. Th. 8:00. Room 177 Main. *Oberhansley*

### SENIOR COLLEGE COURSES.

101. PRINCIPLES OF PSYCHOLOGY. Designed for those who are preparing to teach, to become county agents or home demonstrators. The course deals with the processes of mental activity and growth and is prerequisite for psychology of adolescence and educational psychology. Fall quarter. Three credits.

M. W. F. 11:00. Room 177 Main. *Peterson*

102. PSYCHOLOGY OF ADOLESCENCE. A course for those preparing to become high school teachers or directors of summer adolescents. Prerequisite, Education 101 or equivalent. Winter quarter. Three credits.

M. W. F. 11:00. Room 177 Main. *Peterson*

103. ADVANCED EDUCATIONAL PSYCHOLOGY.. For prospective teachers and leaders of social and other activities. The principles studied in preceding courses are here applied to the processes of teaching and leadership. Prerequisite, Education 101 or its equivalent. Spring quarter. Three credits.

M. W. F. 11:00. Room 177 Main.

*Peterson*

111. PRINCIPLES OF EDUCATION. A study of the educative process and of the means and aims of education and of their application in teaching and community leadership. By special permission Sophomores may be admitted to this course. Prerequisite, Education 101, Fall quarter. Three credits.

T. Th. S. 10:00. Room 177 Main.

*Peterson*

112. RURAL EDUCATION. The principles of education applied to the high school teacher. Special attention will be given to Smith-Hughes teachers of Agriculture and Home Economics. Prerequisites, Education 101, 102, 103 and 111. Winter quarter. Three credits.

T. Th. S. 10:00. Room 177 Main.

*Peterson*

113. RURAL EDUCATION. Designed to prepare county agents, home demonstrators and club leaders. This course will give special attention to Smith-Lever educational leadership. Open also to those preparing to teach in the practical studies in high school. Spring quarter. Three credits.

T. Th. S. 10:00.

*Evans*

114. APPRENTICE TEACHING IN SECONDARY SCHOOLS. Prerequisites, Education 101, 102, 103 and 111. Winter and Spring quarters. Five to ten hours credit.

Hours to be arranged.

*Peterson*

120, 121. METHODS OF TEACHING HOME ECONOMICS. A course designed for teachers of home economics. Determination of objectives in home economics teaching. A study of the types of schools and courses; recent legislation; standards of accomplishment. General discussion of methods in teaching home economics. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00. Room 26 Home Ec.

*Kewley*

122. APPRENTICE TEACHING IN HOME ECONOMICS. This course provides an opportunity for a first hand study of school plants, buildings, equipment, school procedure and good teaching. Supervised observation of all phases of home economics teaching in various schools of the State. Each apprentice teacher is required to teach a minimum of 30 successful lessons. Round table discussions and individual weekly conferences to parallel practice teaching. Prerequisites Education 120, 121. Winter or Spring quarters. Five to ten credits.

Daily from 11:15 to 12:45.

*Kewley*

124, 125, 126. METHODS OF TEACHING AGRICULTURE. For prospective Smith-Hughes and agricultural teachers. The home project and agricultural job analysis will be the basis of the course. Special topics considered are: The Smith-Hughes law and how it operates in Utah; selection and arrangement of subject matter; lesson planning; management of students in class room, laboratory and field; visual and extension methods of teaching. Prerequisite, Education 101 or its equivalent. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00. Room 177 Main.

*Oberhansley*

127. APPRENTICE TEACHING IN AGRICULTURE. Opportunity will be provided for a limited number of men to do some personally directed teaching in Smith-Hughes work in the Logan High School. Prerequisite, first three year's of Smith-Hughes course. Fall, Winter and Spring quarters. Eight credits.

9:30 to 11:00 or 11:00 to 12:30.

*Oberhansley*

128. THE TEACHING OF NATURAL SCIENCE. This course is designed for those preparing to teach nature in the elementary schools or natural science in high schools. Lectures, class discussions, laboratory work and many excursions to study nature at first hand. Prerequisites, Botany 1 or 21, 22 and 23, Zoology 1 or 3, one additional laboratory course in biology, educational psychology and principles of education. Two lectures and one lab. period each week. Spring quarter. Three credits.

Lec. T. S. 10:00. Lab. T. 2:00 to 5:00.

*Hill*

130. SMITH-HUGHES SUMMER SUPERVISION. This course includes training in extension methods including demonstrations, keeping records and reports, outings, personal visits and general supervision of a group of boys in summer projects. One to five credits. Summer quarter.

*Oberhansley*

140, 141, 142. METHODS OF TEACHING PHYSICAL EDUCATION. This course deals with the principles involved in the teaching of gymnastics, dancing and games, and gives an opportunity for practice teaching. Fall, Winter and Spring quarters. Two credits each quarter.

Lec. T. 12:00. Lab. Th. 12:00. Room 12, Home Ec.

*Cooper*

151. EDUCATIONAL ART FOR HIGH SCHOOLS. For those who want to teach art under the Smith-Hughes plan or in High School. The teaching of drawing, the crafts, costume design, interior decorations, commercial design, etc. Prerequisite, a knowledge of drawing and design. Fall quarter. Three credits.

T. Th. S. 10:00. Art room, Main.

*Fletcher*

### GRADUATE COURSES.

261, 262, 263. SEMINAR IN EDUCATION. A study of special problems in the various phases of education. Individuals will choose or be assigned problems related to their work or prospective careers which they will study thoroughly and report to the group or class. Another aspect of the work of the seminar will be the keeping abreast of the latest researches and review the best current literature in education. Open to seniors and graduates who have laid the necessary foundation in psychology and education. Fall, Winter and Spring quarters. One and one-half credits each quarter.

Hours to be arranged. Room 177 Main.

*The Staff*

201. METHODS IN EXTENSION WORK. Intensive study of the problems and functions of county agricultural agents, county home demonstration agents, agricultural specialists, home economics specialists, club agents 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. Primarily for graduate students. Seniors may be admitted. Fall term.

Hours and credit to be arranged.

*Evans and Oberhansley*

## ENGLISH

N. A. PEDERSEN, *Professor*.\*

V. C. COULTER, *Professor*.

JOHN T. CAINE, *Professor*.

F. R. ARNOLD, *Professor*.

CHARLOTTE KYLE, *Assistant Professor*.

WALLACE J. VICKERS, *Assistant Professor*.

IVA MAUD DUNN, *Assistant Professor*.

## JUNIOR COLLEGE COURSES.

5. COLLEGE GRAMMAR. Course repeats each quarter. Five credits. M. T. W. Th. F. 8:00. Room 357 Main.

*Vickers*

### 10. FRESHMAN COMPOSITION.

Sec. 1. Runs throughout the year. The first two quarters include much drill in the fundamentals of good writing and in rhetorical details. Business English will be emphasized during the last quarter. Three credits each quarter.

Sec. 1a, M. W. F. 9:00. Room 128 Main.

*Caine*

Sec. 1b, M. W. F. 9:00 Room 357 Main.

*Vickers*

Sec. 1c. M. W. F. 9:00. Room 358 Main.

*McClellan*

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\* On leave of absence.



Sec. 2. Similar to Section 1. Runs through the Winter and Spring quarters only. Three credits each quarter.

T. Th. S. 8:00. Room 128 Main.

*Caine*

Sec. 3. Literary forms, description, narration, stories. Fall, Winter and Spring quarters. Two credits each quarter.

M. W. 10:00. Room 359 Main.

*Dunn*

Sec. 4. Exposition. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00. Room 360 Main.

*Kyle*

Sec. 5. Exposition, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 10:00. Room 360 Main.

*Kyle*

English 10 is a prerequisite for all courses in English that follow.

50, 51, 52. HISTORY OF ENGLISH LITERATURE. The literature of Great Britain from the Anglo-Saxon period to the present day, with emphasis on the ages since Shakespeare. Fall, Winter and Spring quarters. Three credits each quarter.

Sec. 1, M. W. F. 8:00. Room 360 Main.

*Kyle*

Sec. 2, T. Th. S. 9:00. Room 357 Main.

*Vickers*

53, 54, 55. NINETEENTH CENTURY ENGLISH NOVEL. A study of the technique of the novel. "Pride and Prejudice," "The Return of the Native," "Great Expectations" and others will be analyzed. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00. Room 360 Main.

*Kyle*

70. THE SHORT STORY. A study of the technique of the short story. Stories by 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. Room 360 Main.

*Kyle*

80, 81, 82. AMERICAN LITERATURE. From Colonial times to the present. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00. Room 358 Main.

*Coulter*

90, 91, 92. WORLD MASTERPIECES. A rapid reading course with special reference to the great epics: The Iliad, the Odyssey, the Aeneid, Paradise Lost. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Room 358 Main.

*Coulter*

#### SENIOR COLLEGE COURSES.

108, 109, 110. ADVANCED WRITING. Study of current models as found in Cunliffe and Lomer's "Writing of Today." Considerable freedom of choice as to the type of writing the student will undertake. Prerequisite, English 10. Fall, Winter and Spring quarters. Two credits each quarter. Room 358 Main. T. S. 11:00.

*Coulter*

115, 116, 117. THE ESSAY. The English essay of the nineteenth century from Lamb to Stevenson. Recent English and American essays. Fall, Winter and Spring Quarters. Three credits each quarter.

M. W. F. 9:00. Room 360 Main.

*Kyle*

120, 121. DEBATING. Fall and Winter quarter. Two credits each quarter.

M. F. 8:00. Room 360 Main.

*Coulter*

125, 126, 127. 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. Room 351 Main.

*Arnold*

130, 131. 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. Room 357 Main.

*Vickers*

140, 141, 142. SHAKESPEARE. Detailed study in class of six plays: Macbeth, Henry the Fourth, King Lear, Hamlet, Othello, Twelfth Night. Collateral reading: various other Shakespearean plays as well as a biography. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00. Room 358 Main.

*Coulter*

150, 151, 152. ENGLISH POETS OF THE NINETEENTH CENTURY.

(Not given 1923-24).

160, 161, 162. RECENT NOVEL. Writers of the twentieth century: Wells, Conrad, Galsworthy, Benne, Howells, Herrick and others. Recent thought tendencies are emphasized. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00. Room 358 Main.

*Coulter*

163, 164, 165. MODERN DRAMA.

(Not given 1923-24).

195. LITERATURE FOR CHILDREN. Study of juvenile poetry and prose. The nursery rhyme, fairy tale, fable, myth, favorite classics, etc. Open to Junior College students on consultation with instructor. Spring quarter. Three credits.

M. W. F. 8:00. Room 358 Main.

*Coulter*

For closely related course see the following:

Philology.	<i>Arnold</i>
Marketing 131. (Writing of Advertisements.)	<i>Robinson</i>
Marketing 151. (Business Letters.)	<i>Robinson</i>
Marketing 152, (Direct Mail Advertising.)	<i>Robinson</i>
Marketing 153. (Business Reports.)	<i>Robinson</i>
Art 107. (Aesthetics.)	<i>Fletcher</i>

## ENTOMOLOGY

I. M. HAWLEY, *Professor.*\*H. J. PACK, *Assistant Professor.*

See Department of Zoology for related work.

## JUNIOR COLLEGE COURSES.

1. AGRICULTURAL ENTOMOLOGY. A brief study of injurious insects with special emphasis on the forms which occur in the intermountain region. Winter quarter. Three credits.

T. Th. S. 8:00.

*Hawley*

3. GENERAL ENTOMOLOGY. A study of the structure, classification and life histories of insects. Special attention will be given to interesting instincts and habits. Methods of collecting, preserving and rearing will be briefly explained. A course for teachers and others who desire a general knowledge of our common insects. Fall quarter. Four credits.

T. Th. S. 8:00. Lab. W. 2:00 to 5:00.

*Hawley*

4. ECONOMIC ENTOMOLOGY. This course considers in detail the life histories and methods of control of our insect pests. Special attention will be given to insecticides and methods of applying them. Prerequisite Entomology 3. Winter quarter. Four credits.

T. Th. S. 9:00. Lab. W. 2:00 to 5:00.

*Hawley*

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\*On leave of absence.

## SENIOR COLLEGE COURSES

102. SYSTEMATIC ENTOMOLOGY. The structure of insects is studied in detail in order that the student will be able 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.

*Hawley*

105. FIELD ENTOMOLOGY. A study of insects in their natural habitats. Special attention will be paid to pests of fruit and truck crops in the vicinity of Logan. One class exercise and one field trip each week. Reports. Prerequisite, Entomology 1 or 3. Spring quarter. Two credits.

T. 10:00. Lab. M. 2:00 to 5:00.

*Hawley*

106. ENTOMOLOGICAL LITERATURE. Each student investigates and reports on the literature of some insect or insects within his state. Historical development of entomology, current entomological literature and bibliographies are considered. Prerequisite, Entomology 3 or 102. Graduate credit will be allowed for this course. Fall, Winter or Spring quarter. Three credits.

Hours to be arranged.

*Hawley*

107. ENTOMOLOGICAL TECHNIC. Detailed studies of methods of collecting, preserving and rearing insects. A course in entomology involving the making of exhibit collections, the methods of breeding unknown forms, the principles of insect photography, etc. A course to fit students for specialized work in entomology. Graduate credit will be allowed for this course. Prerequisite, Entomology 3 or 102.

Hours and credit to be arranged.

*Hawley*



201. 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. Open to undergraduates only by special permission. Prerequisite, Entomology 102 or 3. Graduate credit.

Hours and credit to be arranged.

*Hawley*

## GEOLOGY

WILLIAM PETERSON, *Professor.*

DEAN CARDER, *Instructor.*

### SENIOR COLLEGE COURSES.

102, 103, 104. GENERAL GEOLOGY. Dynamic, structional 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. Students taking Geology 102, 103, 104, should also take Philology 1. Prerequisites, Chemistry 1 and Zoology 3 and 4. Fall and Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00. Room 283 Main.

*Peterson*

105, 106. GENERAL GEOLOGY. The same course material will be presented in Geology 105, 106 as in Geology 102, 103, 104, but it will be given in two quarters, five days a week, instead of in three quarters, three days a week. This course will be given if ten or more students apply for it. Winter and Spring quarters. Five credits each quarter.

Daily, except Th. 11:00. Room 283 Main.

*Carder*

107, 108, 109. **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. Prerequisites, Geology 102, 103, 104 or 105, 106. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00. Room 283 Main.

*Carder*

110. **MINERALOGY.** Individual laboratory work in chrysalography, blow pipe analysis and determinative mineralogy. Prerequisites, Chemistry 1, 2. One recitation and two laboratory periods. Students may start any time. Credit in proportion to work done. Given if ten or more students apply.

*Carder*

111. **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 102, 103, 104 or 105, 106 and Physics 1, 2, 3. Spring quarter. Five credits.

Daily, except Th. 11:00. Room 283 Main.

*Peterson*

112. **ADVANCED PHYSIOGRAPHY.** Prerequisites, Geology 102, 103, 104 or 105, 106. Fall quarter. Three credits.

T. Th. S. 8:00. Room 283 Main.

*Carder*

113. **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 102, 103, 104 or 105, 106; Geology 110 and Chemistry 1. Lectures, reading and laboratory work. Any quarter. Credit to be arranged.

*Carder*

114. Field methods necessary in mapping the detailed geology of an assigned area.

Time and credit to be arranged.

*Peterson*

115. 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 102, 103, 104 or 105, 106. Fall quarter. Three hours. Two or three credits. Laboratory to be arranged.

*Peterson and Carder*

116. 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.

*Peterson*

117. 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. Room 283 Main.

*Peterson*

118. ENGINEERING GEOLOGY. Dynamical and structural geology at it applies to construction work. Special attention is given to materials affecting road construction, dams and excavations. Winter quarter. Five credits.

Daily, except Th. 11:00. Room 283 Main.

*Peterson*

## HISTORY

JOEL E. RICKS, *Professor.*

D. E. ROBINSON, *Professor.*

## JUNIOR COLLEGE COURSES

1. EUROPEAN HISTORY. Survey from the Fall of Rome to 1500. Fall quarter. Three credits.

Sec. 1, T. Th. S. 9:00. Room 356 Main.

*Ricks*

Sec. 2, M. W. F. 11:00. Room 356 Main.

*Ricks*

2. EUROPEAN HISTORY. Survey of the Later Medieval and Early Modern Period, 1500-1789. Winter quarter. Three credits.

Sec. 1, T. Th. S. 9:00. Room 356 Main.

*Ricks*

Sec. 2, M. W. F. 11:00. Room 356 Main.

*Ricks*

3. EUROPEAN HISTORY. Survey of the Modern Period, 1789 to the present. Spring quarter. Three credits. Repeats Summer quarter.

Sec. 1, T. Th. S. 9:00. Room 356 Main.

*Ricks*

Sec. 2, M. W. F. 11:00. Room 356 Main.

*Ricks*

30. ENGLISH HISTORY. Political and Social History of England to 1485. Fall quarter. Three credits.

M. W. F. 9:00. Room 356 Main.

*Robinson*

31. ENGLISH HISTORY. Political and Social History of England, 1485-1815. Winter quarter. Three credits.

M. W. F. 9:00. Room 356 Main.

*Robinson*

32. ENGLISH HISTORY. Political and Social History of England, 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. Room 356 Main.

*Robinson*

#### SENIOR COLLEGE COURSES.

113. UNITED STATES HISTORY. Political, social and economic history from earliest times to 1783. Fall quarter. Three credits.

M. W. F. 8:00. Room 356 Main.

*Ricks.*

114. UNITED STATES HISTORY. Political, social and economic history, 1783-1865. Winter quarter. Three credits.

M. W. F. 8:00. Room 356 Main.

*Ricks.*

115. UNITED STATES HISTORY. Social, political and economic history, 1865 to the present. Spring quarter. Three credits. Repeats Summer quarter.

M. W. F. 8:00. Room 356 Main.

*Ricks.*

131. UNITED STATES HISTORY, THE WEST. 1763-1830. The Development of the West from the Alleghanies to the Mississippi. Fall quarter. Three credits.

T. Th. S. 10:00. Room 356 Main.

*Ricks.*

132. UNITED STATES HISTORY. THE TRANS-MISSISSIPPI WEST. Settlement and development of the West. 1803-1860. Winter quarter. Three credits.

T. Th. S. 10:00. Room 356 Main.

*Ricks.*

133. UNITED STATES HISTORY. HISTORY OF UTAH. Seminar. Spring quarter. Three credits.

T. Th. S. 10:00. Room 356 Main.

*Ricks.*

## HORTICULTURE

T. H. ABELL, *Assistant Professor.*

EMIL HANSEN, *Instructor.*

Note: Students who major in Horticulture are required to take courses, 2, 3 or 5, 102, 103, 104, 108, 109 and Agronomy 109. The remainder of the 24 credit hours must be chosen from the other courses offered in Horticulture. The suggested course of studies outlined on page 92 should be adhered to as closely as possible. Agricultural Economics 102 is especially recommended. Botany 21, 22, 23 should precede or accompany all college courses in horticulture.

## JUNIOR COLLEGE COURSES.

1. ORCHARD AND SMALL FRUITS. A study of the principles of fruit production. Laboratory instruction in fruit harvesting, packing, pruning and care of orchard. Field trips to study orch-



ard problems. This course is designed for students not majoring in horticulture. Fall quarter. Three credits.

Lec. T. Th. 9:00. Lab. Th. 2:00 to 5:00. Room 179 Main.  
*Abell*

2. PLANT PROPAGATION. Study of the principles and practice of propagating plants by spores, seeds, grafting, cutting, layering, and separation. Required for students majoring in horticulture. Prerequisite, Botany 21, 22, 23. Winter quarter. Three credits.

Lec. T. Th. 8:00. Lab. T. 2:00 to 5:00. Room 179 Main.  
*Abell*

3. OLERICULTURE. A study of the principles of vegetable production, both home and commercial. Laboratory work in variety study and field problems. Spring quarter. Three credits.

Lec. W. F. 9:00. Lab. T. 2:00 to 5:00. Room 179 Main.  
*Abell*

4. LANDSCAPE GARDENING AND FLORICULTURE. An introduction to the theory and practice of beautifying the home surroundings, in the city and on the farm. Laboratory instruction in growing flowers, designing of home grounds, plant materials. Sec. 1 for students in School of Agriculture; Prerequisite, Mechanical Drawing 6. Sec. 2 for women students. Fall quarter. Four and three credits.

Sec 1 T. Th. 8:00. Lab. T. and Fr. 2:00 to 5:00. Room 179 Main.

Sec. 2 T. Th. 8:00. Lab. Th. 2:00 to 5:00. Room 179 Main.  
*Abell and Hansen*

5. COMMERCIAL GARDENING. Vegetable production for the market and the canning factory. Winter quarter. Two credits.

Lec. W. F. 9:00. Room 179 Main.

*Abell*

6. NUT CULTURE. The principles and practice of growing nuts in the arid west. This course to alternate with Horticulture 5.

(Not given in 1923-24.)

### SENIOR COLLEGE COURSES.

101. GENERAL HORTICULTURE. Study of various phases of horticulture from the viewpoint of correlation with general and specialized farming. Intended primarily for Senior College Agricultural students not specializing in horticulture. Prerequisite, Botany 1 or 21. Spring quarter. Five credits.

Lec. M. W. F. 10:00. Lab. W. F. 2:00 to 5:00. Room 179 Main. *Abell*

102. SYSTEMATIC POMOLOGY. Botany and origin of fruit species, variety study and identification, scoring and judging of fruit exhibits. This course required for a major in horticulture. Prerequisite, Botany 21, 22, 23, Horticulture 103, 104. Fall quarter. Three credits.

W. 10:00. Lab. W. F. 2:00 to 5:00. Room 179 Main.

*Abell*

103. FRUIT PRODUCTION. Fundamentals of producing of orchard and small fruits. This is an advanced course required of all students majoring in horticulture. Prerequisite, Botany 21, 22, 23, Chemistry 1, 2 and 21, 22, Irrigation 1, and Horticulture 2. Winter quarter. Three credits.

M. W. F. 11:00. Room 179 Main.

*Abell*

104. ORCHARD PRACTICE. Field trips to study orchard problems, and orchard practice in pruning and pest control. Prerequisite, Horticulture 103 and Entomology 104. Required for a major in horticulture. Spring quarter. Three credits.

Lec. M. 9:00. Lab. Th. 1:00 to 6:00.

*Abell*

105. COMMERCIAL HORTICULTURE. Fruit and vegetable harvesting, grading, packing, handling and storing. Fall quarter. Two credits.

Lec. F. 10:00. Lab. T. 2:00 to 5:00.

*Abell*

107. HISTORY OF CULTIVATED PLANTS. Historical consideration of the gradual adaptation of plants to the uses of man, and the factors in their improvement. Prerequisite, Botany 21, 22, 23, Agronomy 109. Winter quarter. Two credits.

T. Th. 11:00.

*Abell*

108, 109. SEMINAR. Review of current literature. Required for seniors and graduate students in horticulture; open also to Juniors. Winter and Spring quarters. One credit each quarter.

Time to be arranged.

*Abell*

### GRADUATE COURSES.

200. HORTICULTURAL BY-PRODUCTS. Utilization of inferior and waste products. Study of modern commercial methods of canning, preserving, drying. Laboratory study of common utilization processes and products. Prerequisite, Horticulture 1 or 103, and 3 or 5, Chemistry 21, 22, Bacteriology 1. Fall quarter. Three credits. Two lectures and one laboratory. Room 179 Main.

Time to be arranged.

*Abell*

201. METHODS OF RESEARCH. Organization and methods used in the investigation of horticultural problems. Analysis and criticism of published reports. Practice in outlining methods of attack. Open to graduate students with adequate preparation in basic sciences and horticulture. Winter quarter. Three credits. Two lectures and one laboratory. Room 179 Main.

Time to be arranged.

*Abell*

202, 203, 204, 205. RESEARCH. Graduate students are required to do research work in some phase of horticulture, a thesis to be submitted on the work done in this course. Fall, Winter, Spring or Summer quarters.

Time and credits to be arranged.

*Abell*

## LIBRARY ECONOMY

HATTIE SMITH, *Acting Librarian.*

1. GENERAL REFERENCE. Classification and arrangement of books, the card catalog, reference books. Text: "List of Reference Books in the Utah Agricultural Library." Winter and Spring quarters. One credit each quarter.

T. 1:00. Library, Main.

*Smith*

## MARKETING

### INCLUDING ADVERTISING AND SELLING

D. E. ROBINSON, *Professor*

W. L. WANLASS, *Professor.*

P. E. PETERSON, *Professor.*

M. H. HARRIS, *Professor.*

C. H. MERCHANT, *Professor.*

W. E. THAIN, *Assistant Professor.*

### SENIOR COLLEGE COURSES.

101. PSYCHOLOGY OF ADVERTISING AND SELLING. A study of the chief human instincts, needs and emotions. How the laws of psychology may be applied to business. Prerequisites or parallel, Economics 1, 2, 3 or 120, 121. Fall quarter. Three credits.

M. W. F. 11:00. Room 352 Main.

*Robinson*

102. ADVERTISING. 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; some experience in the writing of advertisements. Prerequisites or parallel, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

M. W. F. 11:00. Room 352 Main.

*Robinson*

103. SALESMANSHIP. Designed to meet the needs of students who want a general knowledge of the principles underlying selling. Demonstration sales. Prerequisites or parallel, Economics 1, 2 or 120, 121. Three credits.

M. W. F. 11:00. Room 352 Main.

*Robinson*

111. 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 receive special consideration. Prerequisites, Economics 1, 2, 3 or 120, 121. Fall quarter.

T. Th. S. 11:00. Room . . . . . Main.

*Merchant*

112. MARKETING OF FARM PRODUCTS. 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 system will be considered. Prerequisites, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

T. Th. S. 11:00. Room . . . . . Main.

*Merchant*

113. MARKET REPORTS AND PRACTICES. This is a practical course dealing with the interpretation of market reports as they appear in trade journals, and with the actual market practices used in marketing various commodities. Spring quarter. Three credits.

T. Th. S. 11:00. Room.....Main.

*Merchant*

121. GEOGRAPHY OF COMMERCE. This course deals with geography as related to commerce. The environmental factors, natural resources, climate, population, etc., will be studied from the commercial viewpoint. An analysis of their 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. Fall quarter. Three credits.

M. W. F. 10:00. Room 361 Main.

*Harris*

131, 132. RETAIL STORE PROBLEMS. The aim of this course is to present, by means of carefully collected and co-ordinated cases, the management problems of a retail store which arise in shaping its merchandising policies. The problems studied include accounting, statistics, organization, merchandise, selling, stock, buying, personnel, finance, price policies, and general administrative policy. (This course alternates with Modern Scientific Management. See Business Administration 105-106).

(Not given 1923-24).

*Peterson*

141. WRITING ADVERTISEMENTS. An advanced course covering the preparation of advertising copy, the layout of advertisements, typography, media, rates, etc. Prerequisites, Marketing 101 and 102, English 10 (Business English). Fall quarter. Three credits.

(Not given 1923-24).

*Robinson*



142. ADVERTISING CAMPAIGNS. An advanced course covering the planning and execution of advertising campaigns, the duties of the advertising manager and the functions of the advertising agency. Prerequisite, Marketing 102. Winter quarter. Three credits.

(Not given 1923-24).

*Robinson*

151. SALES MANAGEMENT. An advanced course covering the duties of the sales manager, sales policies, routing salesman. Prerequisite, Marketing 103. Spring quarter. Three credits.  
(Not given 1923-24.)

*Robinson*

161. BUSINESS LETTERS. An advanced course covering a study of the business letter, including sales, credit, collection and complaint letters and letters of application. Prerequisite, English 10 (Business English). Fall quarter. Two credits.

T. Th. 9:00. Room 352 Main.

*Robinson*

162. DIRECT MAIL ADVERTISING. An advanced course covering the preparation of direct mail advertising material, including booklets, inclosures, house organs, etc., but excluding sales letters, which are covered in Marketing 161. Prerequisite, English 10 (Business English). Winter quarter. Two credits.

T. Th. 9:00. Room 352 Main.

*Robinson*

163. DIRECT MAIL ADVERTISING. A continuation of Marketing 162. This course includes a study of business reports and correspondence supervision. Prerequisite, English 10 (Business English). Spring quarter. Two credits.

T. Th. 9:00. Room 352 Main.

*Robinson*

171. ADVERTISING AND SALES PROBLEMS. A course in special advertising and sales problems. The student may take up any phase of the subject for which he is adequately prepared. No student may register for this course without first securing the permission of the instructor in charge. Any quarter. Credit will be allowed in proportion to the amount of work completed.

Hours to be arranged.

*Robinson*

### GRADUATE COURSES.

Never before in the history of the United States has there been such widespread and intense interest in the subject of marketing. This is particularly true with reference to the marketing of farm products and livestock. The recently established Bureau of Agricultural Economics is now the largest subdivision of the Federal Department of Agriculture. Most of the States have established marketing agencies of various kinds. If these governmental agencies are to function properly and if a better marketing system is to be evolved, there will be an ever increasing need for men and women who are thoroughly trained in the economics of marketing. It is with the hope that assistance might be given in providing facilities for this kind of training that the following graduate courses are offered.

201. ECONOMICS OF MARKETING. In this course the fundamental principles underlying the present distributive system will be carefully studied. The case method will be used. Fall quarter. Three credits.

T. 2:00 to 4:00. Room 280 Main.

*Wanlass*

202. MARKETING PROBLEMS. This course will be a continuation of course 201, except that special attention will be given to specific marketing problems, particularly those of the intermountain section. Winter quarter. Three credits.

T. 2:00 to 4:00. Room 280 Main.

*Wanlass*

203. SEMINAR IN MARKETING. Early in the year each student will be assigned a definite problem or field for special study. During the spring quarter reports on these special assignments will be made and criticised. This work may be used to satisfy the thesis requirement for the master's degree. Spring quarter. Three credits.

T. 2:00 to 4:00. Room 280 Main.

*Wanlass*

### MATHEMATICS

A. H. SAXER, *Professor.\**

WILLARD GARDNER, *Associate Professor.*

N. E. EDLEFSEN, *Assistant Professor*

HOWARD McDONALD, *Instructor.*

DEAN S. CARDER, *Instructor.*

### JUNIOR COLLEGE COURSES.

20. ELEMENTARY ANALYSIS. Elementary graphical methods for presenting facts. Relation of the graph to algebra, arithmetic and geometry. Review of elementary algebra. Prerequisites, one year high school algebra and geometry. Fall quarter. Three credits. Room 178 Main.

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

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

*McDonald*

21. ELEMENTARY ANALYSIS. A continuation of Mathematics 20. Graphical and algebraical solution of triangles. Trigonometry and the use of trigonometric tables. Use of logarithms, slide rule, etc. Prerequisite, Mathematics 20. Winter quarter. Three credits. Room 178 Main.

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

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

*McDonald*

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\*Absent on leave.

22. ELEMENTARY ANALYSIS. A continuation of mathematics 21. Freshman algebra with applied problems from the various departments of the college. Prerequisite, Mathematics 21. Spring quarter. Three credits. Room 178 Main.

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

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

*McDonald*

45. COLLEGE ALGEBRA. Prerequisite, one and one-half years of high school algebra. Fall quarter. Five credits. Daily, except Thursday, 10:00. Room 178 Main.

*McDonald*

46. TRIGONOMETRY. Prerequisite, Mathematics 45. Winter quarter. Five credits.

Daily, except Thurs. 10:00. Room 178 Main.

*McDonald*

47. ELEMENTARY CALCULUS. An introduction to the Differential and Integral Calculus. Prerequisite, Mathematics 22 or 46. Spring quarter. Five credits.

Daily except Thursday 10:00. Room 178 Main.

*McDonald*

50. GENERAL ASTRONOMY. Prerequisites, General Physics, and Mathematics 22 or 46. Spring quarter. Five credits.

Daily except Saturday, 8:00.

*Carder*

60. MATHEMATICAL THEORY OF INVESTMENT. Prerequisite, Mathematics 22 or 45. Fall quarter. Three credits.

T. Th. S. 8:00.

(Not given 1923-24).

*Saxer*

61. PROBABILITY AND LIFE INSURANCE. A continuation of Mathematics 60. Prerequisite, Mathematics 60. Winter quarter. Three credits.

T. Th. S. 8:00.

(Not given 1923-24).

*Saxer*

### SENIOR COLLEGE COURSES.

107. ANALYTICAL GEOMETRY. Prerequisite, Mathematics 22 or 46. Fall quarter. Three credits.

M. W. F. 9:00. Room 178 Main.

*Edlefsen*

108. DIFFERENTIAL CALCULUS. Prerequisite, Mathematics 107. Winter quarter. Three credits.

M. W. F. 9:00.

*Edlefsen*

109. INTEGRAL CALCULUS. Prerequisite, Mathematics 108. Spring quarter. Three credits.

M. W. F. 9:00.

*Edlefsen*

112, 113, 114. DIFFERENTIAL AND INTEGRAL CALCULUS. A continuation of course 47. Prerequisite Mathematics 47. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00.

*McDonald*

120. ADVANCED ANALYTICAL GEOMETRY. With applications. Prerequisite, Mathematics 109. Fall quarter. Three credits.

T. Th. S. 8:00.

*Gardner*

121. ADVANCED CALCULUS. Together with applications to engineering and the sciences. Prerequisite, Mathematics 120. Winter quarter. Three credits.

T. Th. S. 8:00.

*Gardner*

122. DIFFERENTIAL EQUATIONS AND THEIR APPLICATIONS. Prerequisite, Mathematics 121. Spring quarter. Three credits.

T. Th. S. 8:00.

*Gardner*

## METHODS IN EXPERIMENTATION AND EXTENSION

### METHODS IN EXPERIMENTATION

#### GRADUATE COURSES.

201. METHODS AND PRINCIPLES OF RESEARCH AS APPLIED TO AGRICULTURE. Work done in this course may be used to apply toward the thesis for the master's degree. Any quarter.

Hours and credit to be arranged.

*The Experiment Station Staff*

211. METHODS AND PRINCIPLES OF RESEARCH AS APPLIED TO HOME ECONOMICS. Experimental work in home problems in bacteriology, infant feeding, household chemistry, in the working out of home equipment or in any problems brought in from the field. Work done in this course may be used to apply toward the thesis for the master's degree. Any quarter.

Hours and credit to be arranged.

*The Experiment Station Staff*



**METHODS IN EXTENSION****GRADUATE COURSES.**

201. **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. Winter quarter. Credit to be arranged.

Hours to be arranged.

*Extension Service Staff*

211. **RESEARCH IN EXTENSION METHODS.** Graduate Course. Any quarter.

*Extension Service Staff*

Note.—Students who are preparing for positions as extension workers should include Education 101, 102, 103, 111, 113, and Extension Methods 201 and 211. Extension Methods 201 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.

For closely related course see Education 113.

## MILITARY SCIENCE AND TACTICS

....., *Professor.*

MILTON E. WILSON, First Lieutenant, Quartermaster Corps,  
U. S. A., *Assistant Professor.*

WILFRED A. AUDETTE, Sergeant, Coast Artillery Corps,  
U. S. A., *Instructor.*

EUGENE J. CALLAHAN, Sergeant, Coast Artillery Corps,  
U. S. A., *Instructor.*

....., *Instructor.*

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 in military training is required at this institution of all physically fit male students as a prerequisite for graduation.

This training is an excellent course in leadership, 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. Two branches of the Service or Reserve Officers Training Corps units have been established here: 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 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 both units. It consists of a drill period of three hours duration from 10:00 a. m. to 1:00 p. m., each Thursday throughout the year.

During the Winter quarter, the last hour of the drill period for Freshmen is devoted to lectures and instruction on the following subjects:

Military Courtesy and Discipline  
Personal Hygiene  
First Aid and Sanitation  
Orders and Messages  
Common Law  
Military Law

The Army Rifle  
Interior Guard Duty  
Care and Handling of Arms and  
Equipment  
Pointing and Aiming Drill

During the Winter Quarter and part of the Spring Quarter, the last hour of the drill period for Sophomores of each unit is devoted to lectures and instruction on the following subjects:

**COAST ARTILLERY UNIT:**

37 mm. Gun Infantry  
 Browning Automatic Rifle  
 Browning Machine Gun  
 Powders, Projectiles  
 Primers and Fuses  
 Military Explosives  
 Azimuth Instrument and B. C.  
 Telescope  
 Whistler-Hearn Plotting Board  
 Deflection Board. Pratt Range  
 Board  
 Wind Component Indicator  
 Coast Artillery Plotting  
 Room Drill  
 Artillery Type Telephones  
 Ten Ton Artillery Tractor  
 Artillery Repair Truck  
 8-Inch Howitzer  
 155 mm. G. P. F. (gun)  
 Submarine Mines  
 Warships  
 Bausch-Lomb Self Contained Range  
 Finder

**MOTOR TRANSPORT UNIT:**

The Motor Transport Corps  
 The Motor Transport Company  
 General Principles of Convoy  
 Care of Equipment  
 Signals and Road Rules  
 Map Reading  
 Loading  
 Convoy Problems  
 Knotting and Splicing  
 Technical Inspections  
 The Gasoline Engine  
 Types of Motors  
 Timing and Balancing  
 Ignition  
 Fuel Systems  
 Transmissions  
 The Drive  
 The Differential

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, food, clothing, medical and dental treatment will be furnished free by the government.

After completing the two years Basic Course of instruction, students who have successfully qualified, are eligible to continue their military education in the Advanced Course of the Unit which they selected in their 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 who pursues the Advanced Course receives commutation of rations, about 30 cents a day, until graduation. Travel to and from the camp, rations, clothing, housing, and medical attention are provided free by the United States Government. In addition, the Advanced student receives 70 cents a day while at camp.

During the summer of 1923 the Coast Artillery Basic and Advanced Camps were held at Fort Casey, near Seattle, Washington. The Motor Transport Basic and Advanced Camps were held at the Presidio of San Francisco, California.

During the Junior and Senior years, the advanced students in addition to acting as cadet officers at the Infantry Drills of the Basic Course students, and thus receiving practical instruction in the science

of handling men, receive instruction three times per week in the following subjects:

**COAST ARTILLERY UNIT:**

Coast Artillery Drill Regulations  
Gunnery for Heavy Artillery  
Orientation and Surveying  
Minor Tactics  
Military Law  
Military Policies of the United States  
Rules of Land Warfare  
Heavy Artillery Material  
Tactical Employment of Heavy Artillery

Note: A knowledge of mathematics up to and including plane trigonometry is essential before enrollment in the Advanced Coast Artillery Course.

**MOTOR TRANSPORT UNIT:**

Minor Tactics  
Manual of the Motor Transport Corps  
Convoy Problems  
Administration and Maintenance  
Transportation Surveys  
Motor Vehicle Construction and Design  
Organization Operation  
Military Policies of the United States  
Military Law  
Rules of Land Warfare  
Advanced Automotive Engineering  
Classroom and Shopwork  
Driving and Convoy Practice

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 is qualified. He is authorized when in uniform to wear the same uniform and identical insignia as a Second Lieutenant of the same branch of the Regular Army.

The student who has accepted a commission in the Officers' 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 unit of the Organized Reserves near their place of residence, which will be immediately mobilized upon the proclamation of the President of the United States that a state of war or national emergency exists and that the Organized Reserve Forces of the United States Army are to be mobilized.

The Basic Course grants one credit per quarter, which is in addition to the 180 academic credit hours required for graduation.

Basic Course:

Thursday 10:00 a. m. to 1:00 p. m.

*The Military Department*

The Junior and Senior Advanced students receive four credits each quarter, or 12 credits per year. Counts towards the 180 hours required for graduation. In the School of Basic Arts and Science, Advanced Military Science and Tactics may be submitted as a minor subject for graduation.

## Advanced Course:

Juniors: Thursday 10:00 a. m. to 1:00 p. m., M. W. F.  
10:00 a. m. to 11:00 a. m.

Seniors: Thursday 10:00 a. m. to 1:00 p. m., M. W. F.  
9:00 a. m. to 10:00 a. m.

Note.—Courses are numbered by quarters as follows:

Coast Artillery Basic.—Military Science 1, 2, 3, 4, 5, 6.

Motor Transport Basic.—Military Science 11, 12, 13, 14,  
15, 16.

Coast Artillery Advanced.—Military Science 101, 102,  
103, 104, 105, 106.

Motor Transport Advanced.—Military Science 111, 112,  
113, 114, 115, 116.

## Example of the above:

A student taking the third quarter of the Coast Artillery  
Basic Course would be registered in Military Science 3.

A student taking the sixth quarter of the Motor Transport  
Basic Course would be registered in Military Science  
16.

A student taking the second quarter of the Coast Artillery  
Advanced Course would be registered in Military Sci-  
ence 102.

A student taking the fourth quarter of the Motor Trans-  
port Advanced Course would be registered in Mili-  
tary Science 114.

# MODERN LANGUAGES AND LATIN

F. R. ARNOLD, *Professor.*

## JUNIOR COLLEGE COURSES.

### FRENCH

1, 2, 3. 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. Room 351 Main.

*Arnold*

4, 5, 6. SECOND YEAR FRENCH. French composition for grammatical review and writing in French; Lavis'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. Room 351 Main.

*Arnold*

### GERMAN

1, 2, 3. FIRST YEAR GERMAN. Grammar, reading and conversation. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Room 351 Main.

*Arnold*

### SPANISH

1, 2. FIRST YEAR SPANISH. Grammar, conversation and reading. Winter quarter. Five credits.

M. T. W. Th. F. 9:00. Room 351 Main.

*Arnold*

4. SPANISH. Business correspondence, reading and conversation. Spring quarter. Three credits.

T. Th. S. 9:00. Room 351 Main.

*Arnold*



**LATIN**

1, 2, 3. Grammar and reading and study of English vocabulary. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00. Room 351 Main.

*Arnold*

4. CAESAR AND CICERO. Fall quarter.

M. W. F. 9:00. Room 351 Main.

*Arnold*

SCIENTIFIC VOCABULARY 1. Intensive study of English word formation, derivation, synonyms, and figurative language in order to acquire a large English vocabulary and readily to understand scientific terms. Especially recommended for students in Historical Geology. Fall quarter. Three credits.

M. W. F. 11:00. Room 351 Main.

*Arnold*

**SENIOR COLLEGE COURSES.****FRENCH**

101, 102, 103. Reading course in Balzac's novels. Prerequisite, two years of college French or three of high school. Fall, Winter and Spring quarters. One credit each quarter.

T. 12:00. Room 351 Main.

*Arnold*

104, 105, 106. FRENCH CONVERSATION. Games, dictation, learning of a one act play and writing business letters. Prerequisite, two years of college French or three years of high school. Fall, Winter and Spring quarters. One credit each quarter.

F. 12:00. Room 351 Main.

*Arnold*

107, 108, 109. 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.
- f. Aviation.

The work will consist of outside reading and weekly reports to the instructor. Prerequisite, two years of college French or three years of high school. Fall, Winter and Spring quarters. One credit each quarter.

Hours to be arranged with instructor.

*Arnold*

### GERMAN

101. 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. Spring quarter. Three credits.

M. W. F. 11:00.

*Arnold*

### MUSIC

G. W. THATCHER, *Professor.*

C. R. JOHNSON, *Associate Professor.*

JOSEPH A. SMITH, *Assistant Professor.*

Students may enter the College choir, glee clubs, orchestra or band without taking any other music course. One credit each quarter.

1, 2, 3. ELEMENTARY THEORY. Reviews the ground work necessary for students desiring a thorough knowledge of music.

Keys, scales, intervals, melody writing, sign singing. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00. Room 252 A Main.

*Thatcher*

4, 5, 6. APPRECIATION AND HISTORY OF MUSIC. From text. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00. Room 252 A Main.

*Thatcher*

7. ANALYSIS AND CRITICISM. Arranged to supplement private music study. Fall quarter. Two credits.

T. Th. 10:00. Room 252 A Main.

*Thatcher*

8. AMERICAN MUSIC. Winter quarter. Two credits.

T. Th. 10:00. Room 252 A Main.

*Thatcher*

9, 10, 11. ELEMENTARY HARMONY. Text used. Home study, six 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.

Sec. 1. M. W. F. 10:00. Room 252 A Main.

Sec. 2, M. W. F. 9:00.

*Thatcher*

12, 13, 14. 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.

Sec. 2. M. W. F. 9:00

*Thatcher*

15, 16, 17. COUNTERPOINT AND SMALL FORMS. Prerequisite, Music 4. Fall, Winter and Spring quarters. Five credits each quarter.

Hours to be arranged.

*Thatcher*

18, 19, 20. ORCHESTRA CLASS. Provides study of standard orchestra works. Two hours a week. Two credits each quarter.

T. 11:00-1:00. Room 252 A Main.

*Thatcher*

21, 22, 23. 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. Room Chapel.

*Johnson*

24, 25, 26. 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. One credit each quarter. Room Chapel. Main.

*Johnson*

27, 28, 29. LADIES' CHORUS. Membership is limited and decided by competition. Two hours a week. The Glee Club and Ladies' Chorus join in giving the college opera. Fall, Winter and Spring quarters. One-half credit each quarter. Room 251 A Main.

*Johnson*

30. PUBLIC SCHOOL MUSIC FOR SUPERVISORS. Ability to play and sing required. Applied music in choir or glee club. Deals with theory and methods of teaching, music supervision and programs. Three hours per week. Any quarter. Prerequisite Music 1, 2, 3, 4, 5, 6, 9, 10, 11. Three credits.

Hours to be arranged. Room 251 A Main.

*Johnson*

31. PUBLIC SCHOOL MUSIC FOR GRADE TEACHERS. To prepare the average school teacher to teach music in her own grade. The fundamentals of music and how to present them to children, with special emphasis on singing and song material for children. Care and development of child voice. Fall or Winter quarter. Three credits.

M. W. F. 9:00. Room 152 A Main.

*Johnson*

41, 42, 43. 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.

*Smith*

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.

## PHYSICAL EDUCATION

W. B. PRESTON, M. D., *Associate Professor.*

KATHERINE COOPER, *Associate Professor.*

JOSEPH R. JENSEN, *Assistant Professor.*

E. LOWELL ROMNEY, *Assistant Professor.*

GEORGE NELSON, *Instructor.*

Because physical education determines capacity for efficiently carrying out work which a student prepares for in College it is in modern educational institutions being emphasized more and more each year.

At the beginning of each school year each student is given a medical and physical examination so that he can be properly adjusted to his physical activities.

Physical education is required in the Utah Agricultural College for ten quarters. One credit hour is given for each quarter.

The freshmen are required to meet three times a week for corrective gymnastics, the sophomores are required to take an advanced course meeting twice a week. The juniors and seniors will be allowed a choice of activity, but they must report at least twice a week. If the juniors and seniors have not completed freshman or sophomore courses they must do so.

### *The College Health Service.*

While the Health Service is maintained primarily for the care of students who may become ill during their stay on the campus, it is also looked upon as an educational department to teach preventative medicine and hygiene. Through its consultation, examination, and advice it attempts to point out the causes of ill health and to present clearly the fundamental laws of good health.

### *Professional Courses in Physical Education.*

Because of the great demand for trained leaders in community recreation, playground managers, directors of physical education for high schools, high school coaches, etc., this department offers an opportunity to major or minor in physical education.

## PHYSICAL EDUCATION FOR MEN

All courses given in Men's gymnasium.

1A. ELEMENTARY GYMNASTICS, AND GAMES. Designed to furnish activity of such a kind and in such a way as will insure correct posture and physical efficiency. Required of all freshmen. Every quarter. One credit each quarter.

Sec. 1. M. W. F. 9:00.

Sec. 2. M. W. F. 10:00.

Sec. 3. M. W. F. 12:00.

*Jenson*



1B. PERSONAL HYGIENE. Lectures covering personal and general hygiene, including care of skin, hair, teeth, nails, care of special senses as eye, ear, nose, and throat, study of rest, exercise and recreation. Required of all freshmen and will be given in connection with Physical Education 1. One lecture per week.

T. 1:00; Th. 12:00.

*Jenson*

2. ADVANCED GYMNASTICS. A continuation of Physical Education, with emphasis on more advanced types of gymnastics and heavy apparatus. Required of all sophomores. Every quarter. One credit each quarter.

Sec. 4. T. Th. 9:00.

Sec. 5. M. W. 11:00.

Sec. 6. M. W. 2:00.

Sec. 7. T. Th. 2:00.

Sec. 8. T. S. 10:00.

*Jenson*

3. PHYSICAL EDUCATION. This course is required of all juniors and seniors, and includes a choice of one of the following activities. The student will be held for two periods a week. Various leagues, tournaments, etc., will be arranged to make the work interesting.

a. Handball—Hours to be arranged.

b. Basketball—Sec. 1. T. S. 12:00.

Sec. 2. M. W. 3:00.

Sec. 3. T. Th. 3:00.

Sec. 4. M. W. 8:00.

Sec. 5. T. Th. 8:00.

c. Football, Sec. 1, daily, Fall quarter, 4:00.

*Romney*

d. Wrestling, Sec. 1. M. W. 4:00.

Sec. 2. T. Th. 4:00.

Sec. 3. T. Th. 5:00.

*Nelson*

- e. Track. Hours to be arranged.  
*Romney*
- f. Hikes, every Saturday afternoon.  
*Jenson*
- g. Swimming. Hours to be arranged.  
*Romney and Jenson*
- h. Boxing. 4:00 daily.  
*Romney and Jenson*
- i. Volley ball. Daily 8:00 p. m.  
*Jenson*
- j. Tennis. Hours to be arranged. Fall and Spring quarters.  
*West*
- k. Heavy apparatus. Daily 4:00.  
*Nelson*
- l. Bag punching and rowing. Hours to be arranged.  
*Jenson*
- m. Indoor Baseball. Hours to be arranged.  
*Cooper*
- n. Dancing. Hours to be arranged.

### PHYSICAL EDUCATION FOR WOMEN

All courses given in women's gymnasium.

13, 14, 15. FRESHMAN GYMNASTICS. This course consists of exercises arranged according to their hygienic, corrective and educative value; folk dancing and games; lectures in hygiene. Required for graduation. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1. M. W. 10:00. Lec. Th. 12:00.

Sec. 2. T. Th. 11:00. Lec. T. 1:00.

*Cooper*

16, 17, 18. SOPHOMORE GYMNASTICS. A continuation of Physical Education 13, 14, 15. Required for graduation. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1. M. W. 11:00.

Sec. 2. T. Th. 10:00.

*Cooper*

19, 20, 21. REMEDIAL GYMNASTICS. The work of this course is given for those students who are physically unable to take Physical Education 13, 14, 15 or 16, 17, 18. It is arranged to meet the needs of the individual student, as indicated by the physical examination and study of personal tendencies. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 9:00.

*Cooper*

31, 32, 33. INTERPRATIVE DANCING. This course consists of dancing as based upon natural movements. It offers an opportunity for music interpretation and pantomimic dancing. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 2:00.

*Cooper*

81, 82, 83. ATHLETICS. Open to Juniors and Seniors. A course designed to teach students how to play basket ball, base-ball, volley ball and tennis. Fall, Winter and Spring quarters. One credit each quarter.

(Any two hours in either section may be elected).

Sec. 1. M. T. W. Th. 4:00.

Sec. 2. M. T. W. Th. 5:00.

*Cooper*

91, 92, 93. SWIMMING. Open to Juniors and Seniors. The three sections of the course will cover swimming for beginners,

advanced swimming, diving, and life saving. Fall, Winter and Spring quarters. One credit each quarter.

(Two hours in any section may be elected).

Sec. 1. T. Th. F. 1:00.

Sec. 2. M. T. F. 2:00.

Sec. 3. M. W. F. 3:00.

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### PROFESSIONAL COURSES

Starred courses may be elected by Juniors and Seniors for required work in physical education.

16, 17. FIRST AID AND MASSAGE FOR MEN. This teaches how to apply immediate aid in case of sudden sickness or accident, bandaging, stopping of hemorrhage, resuscitation, application of simple antidotes in case of poisoning, caring for wounds, etc. Theory and practice in Massage. Hours to be arranged.

*Jenson and Nelson*

\*61. GYMNASTIC DANCING AND CLOGGING. For men and women. Hours to be arranged. 1 credit each quarter.

*Cooper*

\*71. THE DRAMATIC GAME. For women. This course takes up the fundamental play rhythms and music; the study of dramatic and singing games, showing their historical and racial significance; the development of simple folk dances from singing games; trade dances; Indian dances; pantomimes and ceremonies. Fall quarter. Two credits.

T. Th. 9:00.

*Cooper*

72, 73. THEORY AND PRACTICE OF PLAYS AND GAMES AND PLAYGROUND ADMINISTRATION. For men and women. Study of the theories offered in explanation of the play tendency with Joseph Lee's Play in Education as collateral reading; methods of

presenting material in school, gymnasium or playground; organization and administration of playground, school and city recreation. Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00.

*Cooper and Jenson*

### SENIOR COLLEGE COURSES.

101, 102. COMMUNITY RECREATION LEADERSHIP. For men and women. Consists of lectures and practical work. Lectures will consider selection of suitable material, and methods of handling various groups. The practice hour will take up games and folk dances. Winter and Spring quarters. Two credits.

W. F. 10:00.

*Cooper and Jenson*

106, 107. KINESIOLOGY. For men and women. Application of anatomical knowledge in reference to gymnastic movements. Text, Applied Anatomy and Kinesiology, Bowen and McKenzie. Fall and Winter quarters. Three credits each quarter.

M. W. F. 8:00.

*Jenson*

108. CORRECTIVE GYMNASTICS. For women. This course is devoted to the application of gymnastics for the correction of such common defects as flat foot, spinal curvature, etc. Open to Juniors or Seniors. Spring quarter. Three credits.

M. W. F. 8:00.

*Cooper*

\*141, 142, 143. ELEMENTARY FOLK DANCING. For men and women. Includes the study of simple folk and national dances. Study made of presentation of dance material to different age groups. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 2:00.

*Cooper*

\*151, 152, 153. ADVANCED FOLK DANCING. For men and women. Continuation of 41, 42, 43. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 3:00.

*Cooper*

161, 162. METHODS OF TEACHING PHYSICAL EDUCATION. For men. This includes a comparison of the various system of gymnastic teaching in vogue today. Also elementary and advanced instruction on various pieces of apparatus, tumbling, swimming, boxing and wrestling. Each student is expected to instruct under supervision. Fall and Winter quarters. Two credits each quarter. Text—Gymnastic Teaching, Skarstrom.

Hours to be arranged.

*Jenson*

170. PHYSICAL DIAGNOSIS AND MEASUREMENTS. For men and women. This course aims to train the prospective physical director to detect the common physical defects. Instruction is given in methods of taking measurements and strength tests. Spring quarter. Four credits.

M. W. F. 9:00. Fourth hour to be arranged.

*Preston*

For closely related courses see:

Physiology 1. Anatomy and Physiology. *Carter*

Physiology 2. Personal Health. *Greaves and Carter*

Physiology 102. Advanced Physiology. *Carter*

Education 10, 11. Physical Development and Health

Education. *Jenson*

Education 140, 141, 142, Methods of Teaching Physical

Education. *Cooper*

Household Administration 25, 26. Home Health and

Nursing. *Dancy*



## PHYSICS

FRANK L. WEST, *Professor.*

WILLARD GARDNER, *Associate Professor.*

N. E. EDELFSEN, *Assistant Professor.*

## JUNIOR COLLEGE COURSES.

1, 2, 3. GENERAL PHYSICS. The elements of physics, including mechanics, heat, electricity and magnetism, sound and light. Physics 2 is open to Winter quarter students. Fall, Winter and Spring quarters. Three credits each quarter.

Lec. T. Th. 9:00. Lab. M. T. W. Th. 2:00 to 5:00. First floor, Chemistry Bldg.

*West*

16. 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. 9:00. First floor, Chemistry Bldg.

*West*

20. 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. First floor, Chemistry Bldg.

*Edelfsen*

21. 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. First floor, Chemistry Bldg.

*Edelfsen*

22. 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.  
First floor, Chemistry Bldg.

*Edelfsen*

40. APPLIED ELECTRICITY. Prerequisite, elementary physics. Fall quarter. Three credits.

M. W. F. 8:00. First floor, Chemistry Bldg.

*Edelfsen*

### SENIOR COLLEGE COURSES.

105, 106. CHEMICAL PHYSICS. Including the atomic theory, kinetic theory of gases; gaseous, liquid and solid states; solutions; thermochemistry, electro chemistry and radio-activity, with special emphasis on osmotic pressure and diffusion. Prerequisites, elementary physics and chemistry. Fall and Winter quarter. Three credits each quarter.

M. W. F. 9:00. First floor, Chemistry Bldg.

*West*

107. ADVANCED LABORATORY WORK. One to five credits each quarter. Recommended to students taking physics 40 and 105.

Time to be arranged.

*Edelfsen*

110, 111. DIRECT AND ALTERNATING CURRENT ELECTRICITY AND ITS APPLICATION TO INDUSTRY. Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00. First floor, Chemistry Bldg.

*Edelfsen*

114, 115, 116. ELECTRICAL THEORY AND MEASUREMENTS. Fall, Winter and Spring quarters. Two credits each quarter.

Lec. T. 1:00. One Lab. any afternoon. First floor, Chemistry Bldg.

*Edelfsen*

117. WIRELESS TELEGRAPHY AND TELEPHONY. Fall, Winter and Spring quarters. Two credits each quarter.

M. W. F. 11:00. First floor, Chemistry Bldg.

*Edelfsen*

118. THERMODYNAMICS AND PHYSICAL CHEMISTRY. Prerequisite or parallel, calculus.

(Not given 1923-24)

*West*

✓  
150. APPLIED MECHANICS FOR ENGINEERS. Fall, Winter and Spring quarters. Three credits each quarter. Prerequisite Calculus.

M. W. F. 10:00. First floor, Chemistry Bldg.

*West*

### GRADUATE COURSES.

209, 210, 211. THEORETICAL MECHANICS. Prerequisite, calculus. Fall, Winter, and Spring quarters. Two credits each quarter.

T. Th. 8:00. First floor, Chemistry Bldg.

*Gardner*

212, 213, 214. HYDRODYNAMICS. Prerequisite, calculus. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00. First floor, Chemistry Bldg.

*Gardner*

215, 216, 217. MATHEMATICAL THEORY OF ELECTRICITY AND MEASUREMENTS. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00. First floor, Chemistry Bldg.

225. SEMINAR. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 11:00. First floor, Chemistry Bldg.

*West*

### PHYSIOLOGY

JOSEPH E. GREAVES, *Professor.*

EZRA G. CARTER, *Assistant Professor.*

### JUNIOR COLLEGE COURSES.

1. ANATOMY AND PHYSIOLOGY. A study of the structure and functions of the human body. Fall or Spring quarter. Five credits.

Daily, except Saturday, 9:00.

*Carter*

2. PERSONAL HEALTH. A study of the principles underlying the health and well being of the individual. Prerequisite, Physiology 1. Winter quarter. Two credits.

T. S. 10:00.

*Greaves and Carter*

### SENIOR COLLEGE COURSES.

102. PHYSIOLOGY. An advanced course in special phases of physiology. Special emphasis will be placed upon the structure and function of the nervous system. Winter quarter. Three credits.

M. W. F. 9:00.

*Carter*

112, 113, 114. **PHYSIOLOGY.** A study of the chemical transformations going on in the animal. Fall, Winter and Spring quarters. Prerequisite, Bacteriology 111. Two credits each quarter.

T. Th. 11:00.

*Greaves*

### **POLITICAL SCIENCE**

F. D. DAINES, *Professor.\**

JOEL RICKS, *Professor.*

ASA BULLEN, *Judge, Logan City Court.*

DEWEY CLYDE, *Assistant Professor.*

### **JUNIOR COLLEGE COURSES.**

1. **GOVERNMENT OF THE UNITED STATES.** The government of the United States will be historically studied. Special attention will be given to the origin and development of the Constitution. Fall quarter. Three credits.

M. W. F. 8:00. Room 352 Main.

*Bullen*

2. **STATE GOVERNMENT.** The relationship of the States and the Nation in our federal form of government. The government of Utah will receive special attention. Winter quarter. Three credits.

M. W. F. 8:00. Room 352 Main.

*Bullen*

4. **MUNICIPAL AND COUNTY GOVERNMENT.** The relationship of the cities and counties in the State and Nation. Special attention will be given to the municipal and county government in Utah.

M. W. F. 8:00. Room 352 Main.

*Bullen*

\*On leave of absence

SENIOR COLLEGE COURSES.

108. GOVERNMENT OF ENGLAND. A historical and critical study of the development of the government of England and of the British Empire. Fall quarter. Three credits.

M. W. F. 10:00. Room 356 Main. *Ricks*

102. AMERICAN POLITICAL THEORIES. A critical study of the fundamental theories underlying American political institutions. Winter quarter. Three credits.

M. W. F. 10:00. Room 356 Main. *Ricks*

103. WORLD POLITICS. A study of the methods and practices governing international relations. Spring quarter. Three credits.

M. W. F. 10:00. Room 356 Main. *Ricks*

104, 105. COMMERCIAL LAW. The law of contracts, agency and commercial paper. Fall and winter quarters. Three credits each quarter. (Not given in 1923-24.)

106, 107. 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. Room 352 Main. *Bullen*

111, 112. IRRIGATION INSTITUTIONS (Given by the Departments of Irrigation and Drainage and Political Science, jointly.) Water right doctrine, laws governing the adjudication and acquirement of water rights and the distribution of water; organization of irrigation enterprises. Prerequisite parallel, a general course in Economics or Sociology. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Winter quarter. *Clyde*

Spring quarter. Room 352 Main. *Bullen*



## PUBLIC SPEAKING

IVA MAUD DUNN, *Assistant Professor.*

### JUNIOR COLLEGE COURSES.

1, 2, 3. VOCAL INTERPRETATION. The vocal interpretation of the printed page. The aim of the course is to develop the ability to appreciate, intellectually and emotionally, any good literature and to interpret it so that others will appreciate it. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 11:00. Room 359 Main.

*Dunn*

4, 5, 6. EXTEMPORANEOUS SPEAKING. Practice in extemporaneous speaking with a definite study of those principles which make speech effective. Class limited to twenty-five. Fall, Winter and Spring quarters. Three credits each quarter.

Section I. M. W. F. 9:00. Room 359 Main.

Section II. M. W. F. 11:00. Room 359 Main.

*Dunn*

### SENIOR COLLEGE COURSES.

101, 102, 103. PUBLIC SPEAKING. A study of the principles of effective speaking in the preparation and delivery of speeches adapted to various audiences. Prerequisites, Public Speaking 4, 5, 6. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00. Room 359 Main.

*Dunn*

104. INTERPRETATION OF POETRY. Oral interpretation of poetry. Ballads, lyrics and epic forms will be studied with special emphasis upon the significance of rhythm. Prerequisite, Public Speaking 1, 2, 3. Fall quarter. Three credits.

M. W. F. 8:00. Room 359 Main.

*Dunn*

105. INTERPRETATION OF SHAKESPEARE. A study of the dramatic reading of Shakespeare. Great scenes will be chosen from different plays and at least one play will be read in its entirety. Prerequisite, Public Speaking 1, 2, 3. Winter quarter. Three credits.

M. W. F. 8:00. Room 359 Main.

*Dunn*

106. DRAMATIC INTERPRETATION. A laboratory course in drama. Plays will be studied from the interpretative side. The class will vocally interpret scenes and plays assigned. Some work will be presented in public. Prerequisite, Public Speaking 1, 2, 3. Spring quarter. Three credits.

M. W. F. 8:00. Room 359 Main.

*Dunn*

## RANGE MANAGEMENT

R. J. BECRAFT, *Assistant Professor.*

### JUNIOR COLLEGE COURSES.

1. RANGE MANAGEMENT. A general course including history, forage plants, poisonous plants, range improvement, carrying capacity, reconnaissance. Prerequisite, Botany 1 or 21, 22, 23, Spring quarter. Four credits.

Lec. M. W. F. 8:00; lab. Th. 2:00 to 5:00. Livestock.

*Becraft*

31. LIVESTOCK MANAGEMENT ON RANGES. Methods of handling sheep and cattle on range lands. Winter quarter. Three credits.

M. W. F. 8:00. Livestock.

*Becraft*

51. GENERAL FORESTRY. A brief survey of forestry practice—forest regions, timber species, management, protection, local problems. Prerequisites, Botany 1 or 21, 22, 23. Spring quarter. Four credits.

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

*Becraft*

### SENIOR COLLEGE COURSE.

101. RESEARCH. For students specializing in Range Management. Time and credit to be arranged.

### RURAL PUBLIC HEALTH

J. E. GREAVES, *Professor.*

H. J. FREDERICK, *Professor.*

....., *Professor.*

W. B. PRESTON, M. D., *Associate Professor.*

EZRA G. CARTER, *Assistant Professor.*

CHARLOTTE DANCY, *Assistant Professor.*

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 101 (Public Health and Preventive Medicine) in addition to the fulfilling of all other requirements.

### JUNIOR COLLEGE COURSES.

1. FIRST AID. Treatment of emergencies and accidents. Two sections. Winter quarter. Two credits.

Hours to be arranged.

*Preston*

2. 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.

Hours to be arranged.

*Dancy*

PATHOGENIC BACTERIOLOGY (see Bacteriology 3).

*Carter*

ANATOMY AND PHYSIOLOGY (See Physiology 1).

*Carter*

### SENIOR COLLEGE COURSES.

101. PUBLIC HEALTH AND PREVENTIVE 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.

*Preston*

SANITATION (see Bacteriology 108, 109).

*Greaves*

PARASITEOLOGY (see Zoology 106).

*Hawley and .....*

ADVANCED PHYSIOLOGY (see Physiology 102).

*Carter*

EUGENICS (see Zoology 112).

*.....*

DAIRY BACTERIOLOGY. (lecture). (see Bacteriology 104).

*Carter*

DAIRY BACTERIOLOGY (laboratory.) (see Bacteriology 105).	
	<i>Carter</i>
SPECIAL DIETS (see Foods 141).	
	.....
SANITARY STATISTICS (see Bacteriology 110).	
	<i>Carter</i>
SCHOOL SANITATION (see Bacteriology 114).	
	<i>Carter</i>
SANITARY ANALYSIS (see Bacteriology 106).	
	<i>Greaves</i>
PHYSIOLOGY (see Physiology 112, 113, 114).	
	<i>Greaves</i>
SANITARY INSPECTION (see Veterinary Science 120).	
	<i>Frederick</i>

## SOCIOLOGY

M. H. HARRIS, *Professor.*

Courses in Sociology are open only to Juniors, Seniors or graduate students and pre suppose a knowledge of economics and some history.

101. RURAL SOCIOLOGY. A study of forces and conditions of rural life as a basis for constructive action in developing and maintaining a scientifically efficient and wholesome civilization in the country will be made. It is aimed to train leaders so that the country can be made a desirable place in which to live as well as a place in which to make a living. Three credits.

(Not given in 1923-24.)

*Harris*

150. PRINCIPLES OF SOCIOLOGY. The foundations of sociology will be studied in order that a plan of social progress may be formulated. The problems of social origins, social structure, public opinion, social activities, social organization and so

cial evolution will be carefully considered. Fall quarter. Three credits.

T. Th. S. 9:00. Room 361 Main.

*Harris*

160. 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 150. Winter quarter. Three credits.

T. Th. S. 9:00. Room 361 Main.

*Harris*

190. RESEARCH IN SOCIOLOGY. The purpose of this course is to direct mature students in original investigations in social problems.

Credit and hours to be arranged.

*Harris*

## STENOGRAPHY AND TYPEWRITING

P. E. PETERSON, *Professor.*

THELMA FOGELBERG, *Instructor.*

### STENOGRAPHY

#### JUNIOR COLLEGE.

1, 2, 3. ELEMENTARY STENOGRAPHY. Thorough drill in the fundamental rules of the Isaac Pitman system of shorthand. Fall, Winter and Spring quarters. Four credits each quarter.

Daily except Th. and Sat. 9:00. Room 305 Main.

*Fogelberg*



4, 5. **ELEMENTARY STENOGRAPHY.** Thorough drill in the fundamental rules of the Gregg system of shorthand. Winter and Spring quarters. Five credits each quarter.

Daily except Sat. 3:00. Room 305 Main.

*Fogelberg*

6, 7, 8. **ADVANCED STENOGRAPHY.** Thorough review of the principles and drill in the attainment of speed. Open to both Gregg and Pitman students. Fall, Winter, and Spring quarters. Four credits each quarter.

Daily except Th. and Sat. 11:00. Room 305 Main.

*Fogelberg*

### **TYPEWRITING**

Students are required to register in two sections and only two and are required to register so that they can have practice five days a week.

Students must consult the instructor in order to arrange for sections.

1, 2, 3. **BEGINNING COURSE.** Correct fingering and proper manipulation of the machine. Fall, Winter and Spring quarters. One credit each quarter. Room 303 Main.

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

Sec. 3 M. W. F. 9:00.

Sec. 5 M. W. F. 10:00.

Sec. 7 M. W. F. 11:00.

Sec. 9 M. W. F. 2:00.

Sec. 2 T. Th. 8:00.

Sec. 4 T. Th. 9:00.

Sec. 6 T. Sat. 10:00.

Sec. 8 T. Sat. 11:00.

Sec. 10 T. Th. 2:00.

*Fogelberg*

4, 5, 6. SECOND YEAR COURSE. Daily exercises in which accuracy and speed are attained. Fall, Winter and Spring quarters. One credit each quarter. Room 303 Main.

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

Sec. 3 M. W. F. 9:00.

Sec. 5 M. W. F. 10:00.

Sec. 7 M. W. F. 11:00.

Sec. 9 M. W. F. 2:00.

Sec. 2 T. Th. 8:00.

Sec. 4 T. Th. 9:00.

Sec. 6 T. Sat. 10:00.

Sec. 8 T. Sat. 11:00.

Sec. 10 T. Th. 2:00.

*Fogelberg*

7, 8, 9. ADVANCED TYPEWRITING. Advanced speed work and intensive drill in tabulation. Fall, Winter and Spring quarters. One credit each quarter. Room 303 Main.

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

Sec. 3 M. W. F. 9:00.

Sec. 5 M. W. F. 10:00.

Sec. 7 M. W. F. 11:00.

Sec. 9 M. W. F. 2:00.

Sec. 2 T. Th. 8:00.

Sec. 4 T. Th. 9:00.

Sec. 6 T. Sat. 10:00.

Sec. 8 T. Sat. 11:00.

Sec. 10 T. Th. 2:00.

*Fogelberg*

**VETERINARY SCIENCE**

H. J. FREDERICK, *Professor.*

**JUNIOR COLLEGE COURSES.**

10. 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. Room 203 Livestock.

Lec. T. Th. S. 8:00; Clinic W. or Th. 2:00 to 5:00. Fall quarter.

Lec. M. W. F. 10:00; Clinic W. or Th. 2:00 to 5:00. Winter quarter.

*Frederick*

20, 21, 22. COMPARATIVE ANATOMY. Especially for students in agriculture and animal husbandry; also students wishing to follow veterinary science. This course is supplemental with practical work in dissection and illustrated by skeletons and models. Fall, Winter and Spring quarters. Three credits each quarter.

Given if 10 students apply.

30, 31. 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. Room 203 Livestock.

*Frederick*

40, 41, 42. **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 ten students register. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00. Room 203 Livestock.

*Frederick*

50, 51, 52. **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. or Th. 2:00 to 5:00; Veterinary hospital.

*Frederick*

60. **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 diseases. Winter quarter; repeated Spring quarter. Three credits.

T. Th. S. 9:00. Room 203 Livestock.

*Frederick*

### SENIOR COLLEGE COURSES.

107. **HYGIENE AND INFECTIOUS DISEASES.** 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, vac-

cination and serum treatment of animals. Winter or Spring quarter. Four credits. Room 203 Livestock.

Lec. T. Th. S. 8:00; clinic 2:00 to 5:00. Winter quarter.

Lec. M. W. F. 10:00, clinic 2:00 to 5:00. Spring quarter.

*Frederick*

118, 119. 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. Room 203 Livestock.

*Frederick*

120. SANITARY INSPECTION. Inspection of slaughter houses, 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.

*Frederick*

## ZOOLOGY

I. M. HAWLEY, *Professor.*

H. J. PACK, *Assistant Professor.\**

C. W. REES, *Assistant Professor.*

See Entomology for related work.

## JUNIOR COLLEGE COURSES.

1, 2. ELEMENTARY GENERAL ZOOLOGY. A study of morphology, physiology, differentiation, adaptation and other zoo-

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\*On leave of absence.

logical 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. This course is recommended for all students except those in Agriculture and General Science who desire a more comprehensive course. 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.

*Hawley and Rees*

3, 4. 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.

*Rees*

5. ECONOMIC ZOOLOGY. Study of the feeding and breeding habits of intermountain vertebrates and 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.

(Not given 1923-24.)

#### SENIOR COLLEGE COURSES.

101, 102. ADVANCED ZOOLOGY. The classification, morphology and comparative anatomy of the vertebrates. Prerequisite, Zoology 1, 2 or 3, 4. Fall and Winter quarters. Five credits each quarter.

Hours to be arranged.

*Rees*



106. PARASITOLOGY. The classification, morphology and life history of human parasites. The disease-producing protozoans, flukes, tapeworms and roundworms receive special study. Arthropods as external parasites and carries of pathogenic organisms receive attention. Fall quarter. Four credits.

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

*Hawley*

111. GENETICS. The biological principles of life and the inheritance of characters. A study of the germ cells with reference to heredity. The questions of variation, mutations, the inheritance of acquired characters, pure lines, Mendelism, sex determination, and genetic principles generally are the main subjects of discussion. Prerequisites, Zoology 1, 2 or 3, 4. Fall quarter. Four credits.

M. W. F. S. 11:00.

*Rees*

112. 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 procedure and other principles which influence the innate qualities of human beings. Prerequisite, Zoology 111. Winter quarter. Four credits.

M. W. F. S. 11:00.

*Rees*

121, 122, 123. HISTOLOGY AND EMBRYOLOGY. A general course of histology and embryology, with special reference to man. Fall quarter, lectures and laboratory work in 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.

*Rees*

### GRADUATE COURSE.

201. 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. Open to undergraduate students only by special arrangement with the department. Thesis.

Time and credits to be arranged.

*Hawley and Rees*

## Thirtieth Annual Commencement

### List of Graduates 1922-1923

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#### MASTERS OF ARTS

##### In Agriculture.

Beach, Floyd Marion

Mortensen, James Leo  
Nuffer, Louis Ferdinand

##### In Agricultural Engineering.

Homer, Leo King *lw.*

Larsen, Ernest Oliver *lw.*

##### In Basic Arts and Science.

McClellan, Charles Eli

Pack, Herbert John

##### In Commerce and Business Administration

Slaugh, Forest Steven

Tippetts, Alfred Irvin

#### BACHELORS OF SCIENCE

##### In Agriculture.

Beach, Floyd Marion

Bjorkman, Swen Robert

Brown, N. Earl

Christiansen, Joseph Rulon

Church, Rudolph

Clegg, Rue Lawton

Conway, Herman May

Crook, Ernest Ray

Eggen, Silas Tellekamp

Evans, James Walton J.

Haldeman, Ward Franklin

Johnston, Peter Rich

Knowlton, George Franklin

Magleby, Rulon Talmage

Maughan, Joseph Salisbury

Mitchell, Joseph Harold

Morris, Arthur John

Morris, Laval Sidney

Parke, Ralph

Price, Jackson

Sanford, Ralph Brown

Schlappy, Henry Arnold

Smith, William Richard

Staker, Ernest Vernon

Taylor, Melvin

Westcott, Warren Kearns

Young, Vernon

### In Agricultural Engineering.

Carter, Charles Harry  
Corbett, Don Melvin  
Fornoff, Homer Smith  
Harris, Karl  
Homer, Leo King  
Kelsey, Blaine John

*Irrig.*  
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Larsen, Floyd Christian  
MacFarlane, Donald Chatterley - *Irrig.*  
Rice, Oscar LeGrand - *Irrig.*  
Siegfried, Joshua Floyd  
Standing, Russell Joseph  
Sumsion, Glen Willis - *Irrig.*  
Wilson, Milton Theurer - *Irrig.*

### In Mechanic Arts.

Egbert, Samuel Roy

20 - 23  
13 9/4

### In Basic Arts and Science.

Allen, Lucille Boletta  
Bennion, Erma  
Bingham, James Warren  
Boss, Anna Elizabeth  
Boothe, John Neff  
Bowman, William Wattis  
Budge, Blanche Isabelle  
Campbell, Alonzo Clem  
Christensen, Constance  
Cooley, Marcus Robert  
Cooper, Hannah LeRene  
Croft, Gordon Yan  
Crowther, Edna  
Edwards, Mary Alice  
Fish, Murland Walter  
Frederick, Elfriede  
Groesbeck, William Berton

Harmer, Mabel Spande  
Hatch, Ina Porter  
Hendricks, Ira King  
Jensen, Hazel Marie  
Jones, Mary Clarice  
Langton, Lucie Gayle  
Lee, Olivia  
Linford, Leon Blood  
McNeil, Inez Isabelle  
Merrill, Olonzo David  
Robison, Myrt Dorwin  
Rosengreen, Harold Nels  
Smith, Elmer Clive  
Sutherland, Thomas Gordon  
Thomson, Wendell Justin  
Williams, John Victor  
Woodside, Margaret Jeanette

Wright, Geneva Ensigen

### In Commerce.

Adams, Claude Harris  
Bachman, Blaine  
Bell, William Harold  
Bigler, Horace James  
Christensen, Wilford Woodruff  
Conroy, Maurice Raphael  
Cowan, Glen Fae  
Daley, David Earl  
Ellis, Reuben Alexander  
Hansen, Nels Severin

Hatch, Lafayette Thatcher  
Holm, Stanley Addison  
Johnson, Eric Alvin  
Larsen, Parley Rudolph  
Peck, Bramwell Leonard  
Pedersen, Lyman Clarence  
Sessions, Elden Bryson  
Stanger, Albert George  
Thompson, Earl  
West, Lawrence Milton

**In Home Economics.**

Ballard, Carmen Treherne  
 Bell, Gretta Johnson  
 Bennion, Deane  
 Buckwalter, Mildred  
 Cook, Leah  
 Forsgren, Hazel  
 Hanson, Carol Marie  
 Hatch, Geneive

Jackson, Miriam  
 McBride, Cora Gordon  
 Merrill, Audene  
 Nelson, Hazel  
 Rogers, Louise  
 Rowland, Priscilla  
 Stock, Josephine Clark  
 Thompson, Rose Jarvis

Worley, Katherine Blanche

## **OFFICERS RESERVE CORPS OF THE ARMY OF THE UNITED STATES**

### **Second Lieutenant, Coast Artillery Corps**

Bullen, Herschel Keith

### **Second Lieutenant, Quartermaster Corps**

Morris, Laval Sidney

## **HONORS 1922-1923**

**SCHOLARSHIP:** The following students have been selected as deserving special distinction for high achievement in scholarship. They have, accordingly, received either Scholarship A's or Honorable Mention.

### **SCHOLARSHIP A's**

William H. Bell  
 Shukri Hussein

Miriam Jackson  
 Mrs. Cora McBride  
 Lloyd W. Tolman

### **HONORABLE MENTION**

Malcolm Merrill  
 Lorenzo Richards

Jackson Price  
 Emery E. Ranker  
 Leon B. Linford

## **DEBATING AND ORATORY**

### **Inter-Collegiate Debating.**

Ira King Hendricks  
 Emery Ranker  
 W. C. Hulme  
 Kenneth Robinson

Preston M. Nielsen  
 Milton B. Jensen  
 E. H. Morris  
 Weston Vernon, Jr.  
 Francis P. Wilcox

**The Howell Medal Awarded to:**

Ira King Hendricks

**The Hendricks Medal Won by:**

Preston M. Nielson

**The Casto Medal Won by:**

Verle Fry

**The Sons of the American Revolution Medal Won by:**

Milton Merrill

**Inter-Class Debating Championship Won by:**

Senior Class, represented by:

W. W. Christensen

Elden B. Sessions

**SCHOLARSHIPS**

The following students were awarded the Johansen Scholarships for 1923-24:

Edith Gordon

Lawrence H. Jones

Horace Kotter

**STUDENT OFFICERS**

**Student Body Officers:**

Reed Baily .....	President
Peter Rich Johnston .....	President
Blanche Budge .....	Vice-President
Audene Merrill .....	Secretary
Ira King Hendricks .....	Managing Editor, "Student Life"
Weston Vernon .....	Associate Editor, "Student Life"
Milton Merrill .....	Associate Editor, "Student Life"
Denton Smith .....	Business Manager, "Student Life"
Malcom Merrill .....	Assistant Business Manager, "Student Life"
Silas Eggen .....	Assistant Business Manager, "Student Life"
Pearson A. Ballinger .....	Editor-in-Chief, "The Buzzer"
Ralph B. Sanford .....	Business Manager, "The Buzzer"



## SPECIAL AWARDS

The Citizenship Award, a medal given for distinguished College Citizenship, was awarded to Peter Rich Johnston.

The Lois Hayball Medal, given to the best student in home economics, was awarded to Mrs. Rose J. Thompson.

The Reserve Officers' Training Corps Medal, given to the member of the R. O. T. C. who best represents the ideals of the Corps, was awarded to Cadet Major Laval Morris.

The William Peterson Science Medal, given to the author of the best paper on some selected scientific subject, was won by Wilford C. Cole.

The Vernon Medal, given to the writer of the best short story written around a western setting, was won by Irene Peterson.

Tau Kappa Alpha Debating Cup—given to the Institution by the U. A. C. Chapter of Tau Kappa Alpha, national honorary debating fraternity, in honor of State Debating Championship won by U. A. C. teams in 1923.

## List of Students, 1922-23

*In the following list "a" stands for agriculture; "aema" for agricultural engineering and mechanic arts; "bas" for basic arts and science; "ho" for home economics; "c" for commerce; "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; "Un" for unclassified.*

Adams, Armenia ho-F	Logan
Adams, Clare bas-So	Logan
Adams, Claude H. c-S	Tremonton
Adams, Geo. T. c-F	Logan
Adams, Harriet ho-F	Logan
Adams, Jos. C. c-So	Logan
Adams, Marion aema-V-Fed	Salt Lake City
Adams, Teresa bas-F	Tremonton
Adams, Verena c-F-ss	Logan
Adamson, David D. a-So-Fed-ss	Pleasant Grove
Adamson, Herbert bas-J	Richmond
Adkin, Olen R. aema-V-Fed-ss	Casper, Wyo.
Aebischer, Jos. K. bas-V	Logan
Aldous, Lester bas-V	Huntsville
Alexander, Viola A. ho-S	Raymond, Alta, Canada
Allen, Denzel C. bas-F	Tuttle, Idaho
Allen, Henry A. ss-Fed	Bountiful
Allen, Geo. O. aema-V	Bountiful
Allen, Glenn J. a-F	Tuttle, Idaho
Allen, Lloyd E. a-V	Logan
Allen, Lucille B. bas-S	Raymond, Alta, Canada
Allen, Marion aema-V	Cove
Allen, Mark P. a-V-Fed-ss	Richmond
Allen, Robert L. a-V	Blanding
Alliston, Chas. R. aema-V-Fed-ss	Benson
Allred, Juston P. a-V-Fed-ss	Vernon
Allred, Leigh R. a-V-Fed	Deseret
Allred, Wendell a-F	Moab
Alvord, Lewis G. c-Un	Logan
Amussen, Flora S. bas-So-ss	Logan
Anderson, Celia ss	Lewiston
Anderson, Edna ss	Sterling
Anderson, Frank H. s-So	American Fork
Anderson, Hans P. ss	Hyrum
Anderson, Jos. W. a-V-Fed	Lyman, Wyo.
Anderson, Lochlin J. a-V-Fed. ss	Salina

Anderson, Mary bas-So	Logan
Anderson, Melvin E. a-So	Logan
Anderson, Olive ss	Ephraim
Anderson, Peter E. aema-V-Fed-ss	Salt Lake City
Anderson, Silas W. a-So	Richmond
Anderson, Sterling J. c-F	Grantsville
Arakawa, Yasuo a-G	Japan
Arave, Vernal L. ss-Fed	Idaho Falls, Idaho
Armispiger, Chester E. a-V-Fed-ss	Telluride, Colo.
Armstrong, Catherine c-F	Logan
Arthur, Walter E. aema-V-Fed-ss	Oakland, California
Atwood, Walter E. a-So-Fed-ss	Sandy
Austin, Lloyd J. a-So-Fed	St. Anthony
Axline, Wm. C. ss-Fed	Lerel, Idaho
Bachman, Blaine c-S	Eden
Backman, Frank A. aema-So	Santaquin
Bailey, L. J. aema-V	Logan
Bailey, Reed W. aema-S-Fed	Nephi
Bair, Amos W. a-So	Richmond
Baker, Cecil a-F	Minersville
Baker, Charmian bas-F	Tooele
Baker, Emma ss	Bicknell
Baker, Leah ss	Bicknell
Baker, Margaret bas-F-ss	Logan
Baker, Otto bas-F	Beaver
Baker, Thos. E. aema-V	Mendon
Ballantyne, Leanore ss	Logan
Ballantyne, Mary S. ss	Logan
Ballantyne, Richard A. aema-V	Logan
Ballard, Afton bas-F	Logan
Ballard, Carmen ss	Logan
Ballinger, Pearson c-J	Ogden
Bankhead, Heber N. c-J	Logan
Bankhead, Rachel bas-So	Logan
Barber, Claire bas-So	Logan
Barber, Ellen ss	Logan
Barber, Margaret ss	Logan
Barber, Solon R. ss	Logan
Barker, Elwood I. bas-So	Ogden
Barker, Horace L. a-So	Ogden
Barker, Malbourn a-F	Logan
Barlow, Naomi bas-J	Bountiful
Barnfield, Rufus aema-V-Fed-ss	Harrisburg, Ill.
Barrett, C. Elmer bas-G-ss	Ogden
Barrett, Eva ss	Logan
Barrett, J. Milton aema-J	Logan
Barrows, Effie S. ss	Logan
Barson, Peter E. aema-V	Clarkston
Bartholomew, Lyman M. c-F	Fillmore
Bartlett, J. Hobart a-J	Declo, Idaho
Bartlett, Marion R. bas-Un	Orleans, Vt.

Bateman, Harold C. c-So	Paris, Idaho
Baxter, Golden bas-F	Hyrum
Beach, Floyd M. a-S-Fed-ss	Bloomington, Mich.
Beasley, K. J. aema-V-Fed	Salt Lake City
Bell, Frederick a-V-Fed-ss	Elsinore
Bell, Greta J. ho-S	Richfield
Bell, Ruth ss	Logan
Bell, Wm. H. c-S	Logan
Belliston, Alva R. ss-Fed	Nephi
Belnap, Rosel c-J	Logan
Benack, Hamer aema-V-Fed-ss	North Adams, Mass.
Bennett, Aura ho-F	Logan
Bennett, Bertha L. ss	Logan
Bennett, Elizabeth L. ho-So	Salt Lake City
Bennion, Deane ho-S	Vernal
Bennion, Elma bas-S-ss	Logan
Bennion, Erma bas-S	Logan
Bennion, Glenn c-F	Vernal
Bennion, Leland c-F	Vernal
Benson, Josephine ss	Ephraim
Benson, Serge N. c-F	Logan
Benson, Sergene ho-So	Logan
Bentley, Benj. F. aema-V-Fed	Halfway, Wyo.
Bergeson, Abraham bas-Un	Logan
Bergstrom, Jared E. aema-Un-Fed-ss	Logan
Berntson, Milton R. c-J	Logan
Berntson, Russell E. c-F	Logan
Berrett, Floyd E. a-F	Murray
Bershaw, Erma bas-V	Logan
Bickmore, C. Irving c-J	Logan
Bickmore, LeRoy J. bas-F	Logan
Bickmore, Wallace O. bas-So	Paradise
Biggs, Ernest O. a-F	Franklin, Idaho
Bigler, Horace J. c-G	Riverside
Bindrup, Leland S. aema-V	Logan
Bingham, D., Ethel bas-F	Montrose, Colo.
Bingham, Hazel ho-J	Ogden
Bingham, Jas. W. bas-So-ss	Montrose, Colo.
Bingham, Loyal S. aema-V	Logan
Binkley, Ralph V. a-V-Fed-ss	Grand Junction, Colo.
Birch, Cora O. ss	Fillmore
Birch, Jas. B. ss	Fillmore
Birch, Rex E. c-Un	Duchesne
Birkes, Wm. H. aema-V-Fed-ss	Independence, Kansas
Bishop, Jos. C. aema-V-Fed-ss	Kaysville
Bjorkman, Robert S. a-S	Heber
Black, Robert W. a-V	Deeth
Blackburn, Thurland H. a-V-Fed	Loa
Blair, Bern B. ss-Fed	Moundridge, Kas.
Blake, Arnold ss	Chicago, Ill.
Blanchard, Raymond aema-F	Logan

Blanke, Wm. V. a-F-Fed-ss	Grand Junction, Colo.
Blotter, Adolph aema-V-Fed	Logan
Blumel, Grace B. ho-V-ss	Logan
Blyth, Godfrey W. aema-So-ss-Fed	Oakland, California
Bodrero, Reta A. ss	Logan
Bohman, Frieda, M. ho-F	Peterson
Bolingbroke, Deltort T. bas-So	Malad, Idaho
Bolton, Frank L. c-V-Fed-ss	Paris, Idaho
Bond, Arthur ss	Heber
Boothe, J. Neff bas-S	Logan
Boss, Anna bas-S-ss	Logan
Boswell, Geo. L. bas-So-Fed-ss	Nephi
Bott, Henrietta bas-F	Brigham
Bowcutt, Delta ss	Riverside
Bowen, Grant R. a-V-Fed-ss	Salt Lake City
Bowles, Clark aema-F	Nephi
Bowman, Will W. bas-S	Ogden
Boyce, Paul a-F	Murray
Bracken, Aaron F. a-G	Nephi
Bracken, Mrs. A. F. bas-V	Nephi
Bradford, Lester G. bas-V-Fed	Spanish Fork
Bradshaw, Thelma ss	Wellsville
Brady, John c-So	Logan
Braithwaite, Martha R. ho-So	Logan
Brassell, Clifton aema-V-Fed-ss	Braxton, Miss.
Brewer, Jos. P. a-V-Fed-ss	Logan
Brewer, Marjorie bas-F	Ogden
Brewer, Reason A. aema-So-Fed	Williams, Iowa
Bright, Clifford M. aema-V	Richmond
Bright, Hazen W. a-V	Lewiston
Brown, Albert aema-V	Ogden
Brown, Ben L. c-V	Logan
Brown, Drusilla ss	Draper
Brown, Edward J. a-V-Fed	Denver, Colo.
Brown, Harold J. aema-V-Fed-ss	Colorado Springs, Colo.
Brown, Mary bas-F-ss	Logan
Brown, N. E. ss	Logan
Brown, Oren M. a-V-Fed-ss	Salt Lake City
Browning, Mary bas-F	Ogden
Brummett, Wesley B. a-J-Fed-ss	Duchesne
Buckwalter, Mildred ho-S	American Fork
Budge, Blanche I. bas-S	Logan
Budge, Wendell O. bas-So	Logan
Buehler, Parley O. a-V-Fed	Bern, Idaho
Buhler, Lloyd F. aema-V	Logan
Bullen, Helen bas-So	Logan
Bullen, Herschel K. aema-S	Logan
Bullock, Constance ss	Providence
Burge, Russell J. a-V-Fed-ss	Agate, Colo.
Burgess, Eva D. ho-F	Salina
Burgoyne, David A. c-G-ss	Logan

Burgoyne, Ivan E. a-So-ss .....	Logan
Burgoyne, John M. aema-S .....	Montpelier, Idaho
Burgoyne, Lucile ss .....	Logan
Burnham, Erma bas-So .....	Logan
Burnham, Janet ss .....	Logan
Burnham, Lydia L. ss .....	Brigham
Burnham, W. Kendall aema-V .....	Logan
Burningham, Josephine ho-J .....	Bountiful
Burnside, Nathaniel M. a-V-Fed .....	Mt. Pleasant
Busby, Thos. D. a-V-Fed-ss .....	Logan
Butts, Clyde A. a-So-Fed-ss .....	Monticello
Byrnes, Mike M. aema-V-Fed .....	Rochester, Minn.
Caffey, W. Paul c-F .....	Salt Lake City
Caine, Kinne C. ho-F-ss .....	Logan
Call, R. Russell ss .....	Brigham
Cameron, Geo. A. aema-V-Fed-ss .....	Panguitch
Campbell, A. Clem bas-S .....	Logan
Campbell, Leo a-V-Fed-ss .....	Moab
Campbell, Mary c-F .....	Ogden
Capener, Arthur D. a-V .....	Garland
Card, W. LaVoir bas-F .....	Logan
Carder, Dean S. bas-G .....	Medford, Oregon
Cardon, Sybil bas-So .....	Logan
Cardon, Thos. B. c-F .....	Logan
Carlisle, Jos. F. c-F .....	Logan
Carlson, Conrad S. bas-G-ss .....	Logan
Carlson, Elva ss .....	Logan
Carlson, Helen ss .....	Logan
Carlson, John W. a-G .....	Logan
Carlson, Venice ho-So .....	Logan
Carlson, Daniel S. a-V-Fed-ss .....	Vernal
Carter, Agnes S. bas-So .....	Ogden
Carter, Chas. H. aema-S .....	Vernal
Carter, Lawrence R. c-So .....	Vernal
Cartwright, Albert E. aema-V .....	Richmond
Castleberry, Sidney R. aema-F-Fed-ss .....	Trenton, Ga.
Chadwick, Leroi C. aema-Un .....	Brigham
Chamberlain, Karl S. aema-S-Fed-ss .....	Provo
Chamberlain, Thelma C. bas-So .....	Logan
Chapman, Floyd aema-V .....	Preston, Idaho
Chapell, Sperry ss .....	Lyman
Chappell, Wm. LaVon bas-F .....	Lyman
Chase, Ferron B. bas-V .....	Nephi
Cheney, Frank B. ss-F-Fed-ss .....	Alamosa, Colo.
Chidester, T. Carlyle ss .....	Panguitch
Childs, Florence J. ho-So .....	Springville
Chivers, Della c-V .....	Malad, Idaho
Christensen, Claude bas-F .....	Rigby, Idaho
Christensen, Clifford a-V .....	Manilla
Christensen, Constance bas-S .....	Malad, Idaho
Christensen, Lee c-V .....	Emery



Christensen, Leo G. c-F	Shelley, Idaho
Christensen, Maree D. bas-So	Salt Lake City
Christensen, Morley aema-F	Brigham
Christensen, Nathala A. c-So	Jerome, Idaho
Christensen, Oswald bas-G	Logan
Christensen, Ruth A. ss	Clarkston
Christensen, Sophrona ss	Bear River City
Christensen, Wallace aema-V	Tremonton
Christensen, Wilford W. c-S-ss	Garland
Christiansen, Jos. A. a-F	Pleasant Grove
Christiansen, Jos. a-S	Fountain Green
Church, Rudolph a-S	Panguitch
Clark, Chas. R. a-V-Fed-ss	Hotchkiss, Colo.
Clark, Ernest ss	Iona, Idaho
Clark, Glendon F. aema-V	Farmington
Clark, Harold c-F	Logan
Clark, LeGrand a-F-ss	Coalville
Clark, Leroy B. c-V	Logan
Clark, Lucius ss	Treasureton, Idaho
Clark, Tom A. aema-Un	Logan
Claypool, Lavon ss	Smithfield
Clegg, Rue L. a-S	Heber
Clegg, Wm. D. a-V	Bench, Idaho
Clements, Chas. J. bas-So-Fed-ss	Ogden
Cluff, Millard K. a-Un	Mesa, Arizona
Clyde, Lora M. bas-F	Heber
Coburn, Maude ss	Weston, Idaho
Coffin, May ho-F	Sterling, Alta, Canada
Cole, Emma bas-F	Nephi
Cole, Florence bas-F	Nephi
Cole, Ralph C. aema-So	Nephi
Cole, Russell W. bas-So	Logan
Cole, Wilford C. a-J	Nephi
Coleman, Leila ss	Teasdale
Coles, Elverne c-So	Tremonton
Coles, Herschel H. aema-J	Tremonton
Coloma, Francisca bas-Un	Bangar, P. I.
Condit, Lillie I. ss	Salina
Condit, Amanda ss	Logan
Condit, Philippa C. ss	Logan
Conner, Chas. H. a-V-Fed-ss	Riverton
Conrad, Jas. M. a-Fed-V-ss	Fowler, Colo.
Conroy, Maurice R. c-S	Ogden
Conway, Herman M. a-S-Fed-ss	Seymour, Ind.
Cook, Jerome a-V-Fed-ss	Delta
Cook, Leah ho-S	Springville
Cooley, Lavell I. bas-So-ss	Logan
Cooley, Marcus R. bas-S	Newton
Cooley, Walter W. aema-So	Ogden
Coon, Wilfred a-V-Fed	Bacchus
Cooper, Albert aema-F	Pleasant Grove

Cooper, Geo. ss	Wellsville
Cooper, H. LaRene bas-S	Pleasant Grove
Coray, Clarence A. aema-J	Ogden
Corbett, D. Melvin aema-S	Smithfield
Coryell, Emmett W. c-Un	Logan
Cowan, Glen F. c-S-Fed	Payson
Cowley, Gloyd C. c-So	Salt Lake City
Cowley, Samuel P. c-J	Logan
Cox, Belva ho-So	Fairview
Cox, Byron G. a-F	Manti
Cox, Stanley aema-So	Fairview
Cox, Verona ho-J	Fairview
Cragun, Katie ss	Smithfield
Crane, Anna bas-Un	Logan
Crane, Louise ho-F	Logan
Cranney, Adelbert G. c-So	Logan
Cranney, Clara bas-J-ss	Logan
Cranney, Florence bas-So	Oakley
Cranney, Kimball c-J	Logan
Croft, Gordon Y. bas-S	Ogden
Croft, John a-J	Ogden
Croft, Lenore bas-F	Ogden
Crook, Albert a-So	Logan
Crook, Ernest R. a-S	Smoot, Wyo.
Crook, Lawrence M. ss-Fed	Logan
Crook, Nellie ss	Heber
Crook, W. C. ss	Logan
Crookston, Edna ss	Logan
Crosland, Lawrence ss-Fed	Holden
Crowther, Bessie bas-F	Logan
Crowther, Edna bas-S-ss	Logan
Crowther, Marilla ss	Logan
Crowther, Thelma ss	Malad, Idaho
Croxford, Naomi ho-F	Murray
Culpepper, Clemmie O. a-V-Fed	Logan
Cutler, Ralph a-F	Salt Lake City
Dahle, Andrew aema-V	Logan
Dahle, John L. aema-V	Logan
Dahle, Norman G. aema-V-Fed-ss	Logan
Dailey, Ephraim aema-V-Fed	Paragonah
Daines, Hazen ss	Hyde Park
Daines, Luella P. ss	Logan
Daley, David E. c-S-Fed-ss	Provo
Daley, Leland aema-V-Fed-ss	Salt Lake City
Dalley, Luella A. ss	Logan
Dalton, Blanche c-F	Parowan
Dalton, Hyrum E. aema-S-Fed-ss	Logan
Dalton, Marsena bas-F	Beaver
Dancy, Charlotte E. bas-Un-ss	Logan
Daniels, Clyde a-V-Fed	Texarkana, Texas
Daniels, Fred a-Un-Fed-ss	Middle Inlet, Wis.

Daniels, Theo M. bas-F	Logan
Datwyler, Jos. aema-V-Fed-ss	Logan
Davenport, Ralph aema-V-Fed-ss	Butte, Mont.
Davies, C. H. ss	Provo
Davis, Parley O. a-So	Salt Lake City
Davis, Roland W. aema-So	Logan
Davis, William S. aema-V-Fed-ss	Salt Lake City
Day, Elmer B. ss-Fed	Lakewood, Ohio
Day, Willard E. ss-Fed	Fillmore
DeBree, Marinus a-V-Fed-ss	Scotch Plains, N. J.
Decker, Eugene M. ss	Malad
Decker, Ivan ss	Parowan
Decker, Jas. A. ss	Thatcher, Arizona
Decker, Mabel S. ss	Kemmerer, Wyo.
Degn, Cecelia M. ss	Preston, Idaho
DeGraff, Chas. D. ss	Heber
Delano, Arlie aema-V-Fed	Frannie, Wyo.
Deschamps, Louis a-So	Malad, Idaho
Despain, Robert E. a-So-Fed-ss	Lovell, Wyo.
Despain, Wm. Q. a-F	Logan
Dickson, Leroy S. c-V	Ogden
Diehl, Clair M. aema-V-Fed	Columbus, Ga.
Dillon, Thos. a-V-Fed	Hazleton, Ind.
Domgaard, Hyrum J. a-V-Fed-ss	Gusher
Doolas, Geo. Z. a-V-Fed-ss	Greece
Dopp, Gladys bas-F	Logan
Douglas, Melbourne c-F	Ogden
Drake, Virgil W. ss	Alamosa, Colo.
Dunbar, Wallace E. aema-F-Fed-ss	Logan
Durfee, Edmond F. a-V-Fed-ss	Randlett
Dutson, Clyde a-V	Logan
Dutson, Richard G. a-V-Fed-ss	Rigby, Idaho
Eagar, Jas. H. a-J-Fed	Logan
Eagar, Mattie C. ho-S	Logan
Eames, Ilah ho-So	Preston, Idaho
Edmond, Alfred S. a-V-Fed-ss	Denver, Colo.
Edwards, Albert W. a-V-Fed-ss	Charleston
Edwards, John H. c-V	Emery
Edwards, Mae ss	Logan
Edwards, Verd c-V	Emery
Egbert, S. R. aema-S-ss	Logan
Eggen, Silas T. a-S-Fed-ss	Salt Lake City
Eggen, Virginia B. ho-So	Logan
Elder, Ernest A. a-J	Salt Lake City
Eliason, Drue L. bas-So	Logan
Eliason, Jos. R. bas-V	Logan
Eliason, Orville L. bas-V	Logan
Ellis, Henry J. aema-V-Fed-ss	Paris, Idaho
Ellis, Reuben A. c-S	Pleasant Grove
Ellsworth, bas-F	Rigby, Idaho
Ellsworth, Von T. a-J-Fed-ss	Logan

Elsmore, Aldia ho-J	Silver City
Ensign, Geneva bas-S	Logan
Erickson, A. Leroy a-V	Logan
Erickson, Elgin W. c-J-Fed-ss	Sandy
Erickson, Esther E. ss	Logan
Evans, Daisy M. bas-So	Malad, Idaho
Evans, David M. a-V-Fed-ss	Huntsville
Evans, Geo. C. aema-V-Fed	Bennett
Evans, Glenn A c-F	Safford, Arizona
Evans, Jas. W. J. a-S	Logan
Evans, Morrill a-S	Lehi
Everton, Marion K. bas-F	Logan
Faatz, Sarah ss	Mayfield
Falsley, Marinus J. aema-V-Fed-ss	Logan
Farley, Albert S. a-V-Fed-ss	Durango, Colo.
Farnsworth, Burton K. ss	Brigham
Farnsworth, Mabel P. ss	Brigham
Fausett, Iva ho-F	Price
Fawcett, Jas. A. aema-V-Fed	Sanford, Colo.
Fawcett, J. R. a-Un	St. George
Fawcett, Nina ho-V	St. George
Fawson, LeGrande a-F	Grantsville
Faux, Ruth ss	Moroni
Felt, Jos. E. ss	Huntsville
Fenton, J. Stanley ss	Provo
Fenton, Robert T. ss	Pleasant Grove
Ferguson, Hollis D. a-So-Fed-ss	Jacksonville, Ill.
Field, Elvin H. a-F	Logan
Fife, Aaron c-V	Providence
Fife, Alon aema-V	Logan
Fife, Ila ho-J	Logan
Fife, Milton J. bas-J	Logan
Fifield, Allen bas-F	Smithfield
Fillerup, Irva ss	Idaho Falls, Idaho
Finlayson, Emerson F. bas-So	Logan
Fish, Edith W. ho-Un	Logan
Fish, Ida R. ho-V	Logan
Fish, Murland W. bas-S-ss	Logan
Fisher, Louise ho-F	Ogden
Fitzgerald, I. E. a-F	Kamas
Fleming, Mabel G. ss	Ogden
Fletcher, Eula ss	Logan
Flowers, Wm. J. aema-Un	Logan
Folkman, Jos. T. a-V-Fed	Logan
Fonnesbeck, Luna E. ss	Logan
Ford, Alene R. ho-J	Spanish Fork
Ford, John W. c-So-Fed-ss	Peru, Ill.
Ford, Merrill a-F	Malad, Idaho
Forbush, Esther ss	Sandy
Fornoff, Harold L. c-So	Ogden
Fornoff, Homer S. aema-S	Ogden

Forsgren, Hazel ho-S	Brigham
Forsgren, John C. a-J	Logan
Fowers, Geo. c-F	Shelley, Idaho
Fowles, Jos. D. aema-J-Fed-ss	Logan
Francis, Neil G. aema-V-Fed-ss	Spanish Fork
Frandsen, Gertrude ho-So	Price
Frazer, Lucian E. a-V-Fed-ss	Buhl, Idaho
Frazier, Fay M. aema-V-Fed-ss	Oakley
Frederick, Elfriede ss	Logan
Frederick, Harold H. a-F	Logan
Free, Josephine ho-Un	Salt Lake City
Freeman, Ernest a-V-Fed-ss	Gadsden, Alta, Canada
Freestone, Allie K. ho-So	Kamas
Freestone, Geo. A. aema-V-Fed-ss	Oakley
Frew, Eugene ss-Fed	Hooper
Frischknecht, Carl ss	Manti
Frizell, Pearl ho-V	Holden, Mo.
Frizell, Ruby S. a-V-Fed-ss	Elbert, Colo.
Froerer, David L. aema-F-Fed-ss	Ogden
Froerer, Wilford F. aema-V	Ogden
Frost, Anthony J. c-J	Ephraim
Frost, Chas. G. aema-V-Fed-ss	Spanish Fork
Froyd, Elna ss	Cedar City
Fry, Mabel bas-J-ss	Logan
Fry, Verle N. bas-J	Logan
Fuhriman, Leonard aema-V	Providence
Fuhriman, Rulon L. aema-V	Providence
Fuller, Willard aema-F	Murray
Funk, Claudia L. bas-J	Richmond
Funk, Gayla R. bas-F	Richmond
Gale, Rowena ss	Beaver
Gardner, Bertrand R. a-So	Sandy
Gardner, David I. aema-So	Sandy
Gardner, Floyd S. c-F	Sandy
Gardner, Geo. bas-G	Logan
Garfield, Katie ho-F	Draper
Garner, Ray D. a-J-Fed-ss	Rexburg
Garrett, Louis G. c-F	Nephi
Garrett, Samuel Ray aema-V-Fed	Salt Lake City
Garrison, Russell L. ss-Fed	Goodlands, Kan.
Garton, Percy F. a-F-Fed-ss	Delta
Gassman, Walter E. c-F	Logan
Gavina, Antonio B. aema-Un-Fed	Bangar, P. I.
Gavina, Claro M. c-F	Bangar, P. I.
Gaylor, Benj. A. aema-V-Fed-ss	Elbert, Colo.
Geddes, Elmer S. c-Un-Fed	Logan
Geddes, Faung c-F	Logan
Geddes, Martha ho-J	Preston, Idaho
Geddes, William S. a-F	Preston, Idaho
Gessell, Louise ss	Logan
Gimlin, John F. c-F	Ogden

Glauser, Alfred aema-V .....	Logan
Glesing, Harry C. aema-V-Fed-ss .....	Logan
Goates, Elijah J. aema-V-Fed-ss .....	Lehi
Goodsell, Dean C. c-F .....	Logan
Goodsell, Violet ho-So-ss .....	Logan
Gordon, Edith bas-So .....	Smithfield
Gospill, Howard W. a-J .....	Milford
Gourley, David ss .....	Pleasant Grove
Gowers, Clarence A. c-F .....	Nephi
Graff, Geo. F. a-V-Fed .....	Cannonville
Gray, Gladys bas-So .....	Grace
Greaves, Ethelyn O. ss .....	Logan
Green, Earl H. a-V-Fed .....	Mona
Green, Edward E. aema-V .....	Kanesville
Green, Effie M. ss .....	Logan
Green, Hortense L. bas-F .....	Layton
Green, LaVon ss .....	Layton
Green, Raymond W. ss-Fed .....	Wellsville
Greenhalgh, Alma c-So-ss .....	Logan
Gregory, Fred E. a-So-Fed-ss .....	Dolores, Colo.
Griffin, Lorin W. a-F-Fed .....	Escalante
Griffin, Louis H. c-So .....	Ogden
Griffin, Walter T. aema-V-Fed-ss .....	Ogden
Griffiths, Robert c-So .....	Smithfield
Griffith, Wm. H. ss .....	Brigham
Groebli, Otto bas-Un .....	Logan
Groesbeck, W. Berton bas-S .....	Springville
Gubler, Emma L. bas-F .....	Santa Clara
Guerin, Thos. M. aema-V-Fed-ss .....	Denver, Colo.
Gunderson, Howard aema-F .....	Murray
Gunn, Mrs. Clytia H. ho-V .....	Garland
Gunn, Geo. L. a-V .....	Hoytville
Gunnell, Elsie ss .....	Wellsville
Gurell, Gladys ss .....	Randolph
Gurell, Norbert A. aema-So-Fed-ss .....	Randolph
Hadfield, Edward a-J .....	Salt Lake City
Haldeman, Ward F. a-S .....	Pine Grove, Pa.
Hales, Heber Lee a-J-ss .....	Salt Lake City
Hall, H. Vernon a-So .....	Hurricane
Hall, Oreta bas-So-ss .....	Logan
Halverson, Mamie bas-F .....	Brigham
Halverson, Roy bas-So .....	Paradise
Hammond, Owen Cyril c-So .....	Logan
Hancy, J. Everett ss .....	Smithfield
Hansen, Alton bas-F .....	Paradise
Hansen, Amelia bas-F .....	Blackfoot, Idaho
Hansen, Carol ho-S .....	Bountiful
Hansen, Clifton F. c-V .....	Salt Lake City
Hansen, Dwight E. aema-V .....	Logan
Hansen, Elda ss .....	Richfield
Hansen, Elmer S. a-V-Fed .....	Paradise



Hansen, Everett aema-F	Monroe
Hansen, Harvey M. aema-F	Tremonton
Hansen, Joseph ss	Logan
Hansen, Lina ho-F	Richfield
Hansen, Lincoln c-V	Salt Lake City
Hansen, Merrill V. aema--V	Logan
Hansen, N. Severin ss	Logan
Hansen, Norma bas-So	Logan
Hansen, Omer M. aema-V	Logan
Harding, Frank J. aema-V-Fed-ss	Magna
Harding, Mary bas-F	Malad, Idaho
Hardy, Edna ss	Moroni
Hardy, Leon D. c-G	Logan
Harmon, Ardell bas-Un	Provo
Harmon, Lida ss	Salt Lake City
Harmon, Laurence B. ss	Provo
Harris, Charles bas-So	Tremonton
Harris, Ervin C. c-F	Boise, Idaho
Harris, Karl aema-S	Logan
Harris, Luella bas-F	Tremonton
Harris, Sterling R. c-J	Logan
Harrison, Lee B. bas-J	Logan
Hart, Chas. J. a-G	Logan
Harward, Bert O. c-F	Willard
Hassell, Howard J. aema-F	Mammoth
Hatch, Edna C. bas-F	Franklin, Idaho
Hatch, Geneive ho-S	Woods Cross
Hatch, Ina P. ss	Franklin, Idaho
Hatch, Lafayette T. c-S	Logan
Hatch, Lerleen C. bas-V	Franklin, Idaho
Hatch, Lorenzo H. ss	Franklin, Idaho
Hatch, Waldo M. c-So	Logan
Hathaway, Jesse P. a-V-Fed-ss	Monte Vista, Colo.
Hawley, Luell c-So	Logan
Haycock, Obed C. bas-So	Burley, Idaho
Hayes, Harry M. a-V-Fed-ss	Grand Junction, Colo.
Hayward, Clem J. ss	Logan
Hayward, Ira N. ss	Paris, Idaho
Heaton, Merrill W. a-V	Alton
Heinrich, Esther J. ss	Smithfield
Hemming, Ella ss	Morgan
Hempill, Archie B. aema-V-Fed	Myton
Hemphill, Ernest C. a-V-Fed-ss	Hayden, New Mexico
Henderson, Jesse H. a-V-Fed-ss	Clifton, Idaho
Hendricks, Abbie bas-J	Logan
Hendricks, Chas. D. c-So	Logan
Hendricks, I. King bas-S	Logan
Henricksen, Jessie ss	Salt Lake City
Henrie, Irvn L. ss	Manti
Henry, Merrill aema-V-Fed-ss	Vernal
Hessenthaler, Herbert C. a-V-Fed-ss	Milwaukee, Wis.

Heywood, David E. ss	Mesa, Arizona
Heywood, Velma bas-ss	Mesa, Arizona
Hickman, Juanita L. ss	Logan
Hickman, Leon M. bas-Un	Logan
Hickman, Radino L. c-So	Logan
Hickman, Valko L. aema-V	Logan
Hicks, Mark a-V-Fed	Kanab
Higbee, Loren S. aema-V-Fed-ss	Toquerville
Hirst, Chas. M. bas-F	Logan
Hirst, Lester L. bas-So	Logan
Hitzker, Albert J. aema-So-Fed	Winona, Minn.
Hofacre, John P. ss-Fed	Logan
Hokanson, Ola aema-V	Grover, Wyo.
Hoff, Jennie ss	Georgetown, Idaho
Hogenson, Lydia B. ss	Logan
Holibaugh, C. Lloyd ss-Fed	Los Angeles, Cal.
Holliday, Fred bas-F	Pleasant Grove
Holm, Stanley A. c-S	Hyrum
Holman, Chas. W. a-V-Fed	Marble Falls, Texas
Holman, Hall a-V-Fed-ss	Gladstone, N. Mex.
Holton, Grant J. aema-V-Fed	Brigham
Holton, Leroy B. ss-Fed	Bennington, Vt.
Homer, Albert J. aema-V	Smithfield
Homer, Chas. M. a-So	Burley, Idaho
Homer, Leo K. aema-S-Fed-ss	Oakley, Idaho
Hoopes, Geo. A. ss	Rexburg, Idaho
Horsley, Ruth bas-J-ss	Brigham
Hosney, Jas. J. a-V-Fed-ss	Montrose, Colo.
Hotchkiss, Emery A. a-V-Fed-ss	Centerville, Pa.
House, Arthur A. aema-V-Fed	Lowanda, Pa.
House, Willis G. aema-V-Fed	LaJunta, Colo.
Hovey, Angus R. ss	Millville
Howard, E. Maud bas-So-ss	Huntington
Howe, Velma ss	Provo
Howell, Wesley c-F	Logan
Hubbard, Wesley W. a-V	Grace, Idaho
Hudson, Myron aema-V-Fed-ss	Smithfield
Hull, Irvin c-F	Hooper
Hull, Robert R. a-So	Hooper
Hulme, Rita bas-So	Logan
Hulme, W. Craig c-So	Logan
Hunter, Lewis F. a-V-Fed-ss	Logan
Hunter, W. Spencer a-J	Lewisville, Idaho
Hurd, Lucille ss	Salt Lake City
Hurd, Myrtle ss	Salt Lake City
Hussein, Shukri, a-S-ss	Turkey
Hussey, Norma hoJ	Ogden
Hyde, Oneita ss	Hyde Park
Hyde, Wendell O. aema-J	Logan
Illum, Edgar S. a-V-Fed-ss	Malad, Idaho
Irving, Jack c-F	Sandy

Isbell, Percy L. a-V-Fed	Richfield
Ivins, Harold R. a-F	Lund, Nevada
Ivins, Loraine R. aema-J	Lund, Nevada
Izatt, Lloyd c-V	Logan
Jackson, Leroy N. aema-V-Fed	Pueblo, Colo.
Jackson, Miriam ho-S	Logan
Jackson, Wm. J. c-F	Park City
Jacobs, Nathalie bas-F	Logan
Jacobsen, Ashlaug ho-F	Weston, Idaho
Jacobsen, Frederick C. ss	Logan
Jacques, Ana Belle c-V	Logan
James, David W. aema-F	Malad, Idaho
Jefferies, Lola ho-F	Grantsville
Jeffs, Armond aema-So	Logan
Jenkins, Alton bas-F	Logan
Jenness, Geo. W. a-V-Fed-ss	Manchester, N. H.
Jennings, Retta Z. ss	Logan
Jensen, Achton C. aema-V	Smithfield
Jensen, Clifford M. a-J-Fed-ss	Brigham
Jensen, Don I. ss	Brigham
Jensen, Elda ss	Hyrum
Jensen, Hazel ss	Brigham
Jensen, Hyrum S. aema-V-Fed-ss	Ogden
Jensen, Kindon R. aema-V	Richfield
Jensen, Leslie O. a-V-Fed-ss	Manti
Jensen, Milton B. bas-S	Mendon
Jensen, Ruel L. c-V	Huntington
Jensen, Vernal bas-V-Fed-ss	Providence
Jeppson, Edvenia ss	Brigham
Jeppsen, Ernest aema-F	Geneva
Jeppson, Robert B. a-J-Fed-ss	Logan
Jessop, Beatrice ss	Logan
Jessop, Donald bas-J	Millville
Johnson, Carl B. ss	Richmond
Johnson, Clover V. bas-J	Logan
Johnson, Delbert c-C	Morgan
Johnson, Eric A. c-S	Logan
Johnson, Hilda A. bas-F	Richfield
Johnson, Otilia ss	Logan
Johnson, Phyllis bas-V	Logan
Johnson, Rolla V. ss	Huntington
Johnson, Thaddeus O. a-V-Fed-ss	Holden
Johnston, Afton bas-J	Hooper
Johnston, Paul A. aema-V-Fed	Torrington, Wyo.
Johnston, P. Rich a-S	Blackfoot
Jones, Aaron B. aema-J-Fed-ss	Salt Lake City
Jones, Daniel O. c-F	Malad, Idaho
Jones, Harley Lee aema-V-Fed-ss	Powell, Wyo.
Jones, Henry D. a-F	Malad, Idaho
Jones, Jennie bas-So	Heber
Jones, Lawrence W. a-J	Monroe

Jones, Lee P. a-V-Fed	Vernal
Jones, Mabel M. ss	Logan
Jones, Mary C. bas-S	Salt Lake City
Jones, Paul L. c-V-Fed-ss	Riverton
Jones, Seth M. ss	Enterprise
Jones, Sylvester c-Un	Malad, Idaho
Jorgensen, Ernest a-V-Fed	Manti
Judah, Courtney T. aema-F	Logan
Karren, Lawrence L. c-V-Fed	Salt Lake City
Karren, Thos. c-V	Vernal
Kartchner, Floy ss	Overton, Nevada
Keate, Neal D. aema-V-Fed	St. George
Keller, Allen D. bas-J	Logan
Keller, Oliver aema-V	Mink Creek, Idaho
Kelley, John H. ss-Fed	Price
Kelsey, Blaine J. aema-S	Springville
Kendrick, Harold J. aema-V-Fed	Salt Lake City
Kennard, Frank bas-J	Logan
Kennard, John G. c-F	Logan
Kilburn, Hyrum P. bas-F	Morgan
Kimball, Chester C. a-V-Fed-ss	Ft. Duchesne
Kimball, Harry T. a-V-Fed	Holly, Colo.
Kimball, Ralph W. a-V-Fed	Holly, Colo.
King, Emma ho-F	Kamas
King, Ralph T. bas-So-Fed-ss	Logan
King, Vanetta ss	Logan
Kingsford, Kenneth a-F	Grace, Idaho
Kirby, John V. a-V	Grace, Idaho
Kiry, Annie ss	Pleasant Grove
Kirk, Harvey a-So	Tooele
Kirkbride, Jas. W. a-G-ss	Smithfield
Kirkup, Wm. aema-V	Logan
Kjar, Ruth ss	Manti
Knudsen, Hyrum C. ss-Fed-a-V	Bluewater, New Mexico
Knudsen, Margie C. ss	Logan
Knowles, Willard B. a-So	Logan
Knowles, Wm. c-F	Logan
Knowlton, Geo. F. a-S	Salt Lake City
Kotter, Horace c-J	Brigham
Kuramoto, K. a-V-Fed-ss	Colorado Springs
Langton, Lucie G. bas-S	Salt Lake City
Larsen, Andres F. a-V-Fed-ss	Rockport
Larsen, Dean a-V-Fed-ss	Oakley, Idaho
Larsen, Dennis W. a-V-Fed-ss	Oakley, Idaho
Larsen, Ernest O. aema-G	Santaquin
Larsen, Eva ss	Hyrum
Larsen, Floyd C. aema-S	Logan
Larsen, Guy I. a-V-Fed-ss	Logan
Larsen, James aema-V-Fed-ss	Oracle, Arizona
Larsen, Lars H. bas-F	Logan
Larsen, Lucille bas-F	Logan

Larsen, Mathilda ho-V .....	Logan
Larsen, Melva bas-So .....	Logan
Larsen, Merlin J. bas-F .....	Preston, Idaho
Larsen, Myrtle ss .....	Smithfield
Larsen, Parley R. ss-Fed .....	Logan
Larsen, Phyllis ss .....	Newton
Larsen, Teresa ss .....	Logan
Larson, Orville bas-F .....	Moroni
Larson, Raymond a-V .....	Preston
Larson, Roldo a-V-Fed-ss .....	Axtell
Lashus, Harold D. bas-F-Fed .....	Ogden
Lass, Paul W. aema-V-Fed .....	Bellevue, Colo.
Lassen, Bernard a-F .....	Fairview
Last, Chas. H. aema-So .....	Lewiston
Lathrop, Alla C. ss .....	Logan
Laub, Emma K. ss .....	Logan
Law, Jos. B. aema-V .....	Mapleton
Lawrence, Alvin J. aema-V-Fed .....	Richmond
Layton, Harold H. aema-F .....	Kaysville
Layton, Malcolm B. c-F .....	Kaysville
Leavitt, LaSelle c-F .....	Lewiston
Ledingham, Clarence B. c-So .....	Bountiful
Lee, Blanche bas-F .....	Price
Lee, Glen S. bas-V .....	Panguitch
Lee, Olivia bas-S-ss .....	Brigham
Lehner, Chester H. ss-Fed-aema-Fed .....	Chicago, Ill.
Lehner, Robert H. aema-V-Fed-ss .....	Chicago, Ill.
Lemon, Cleon bas-F .....	Willard
Lemon, Melvin W. bas-So .....	Hyrum
Leonhardt, Ida ho-V .....	Providence
LeSueur, Walter B. c-So .....	Salt Lake City
Lettenmaier, Henry G. a-V-Fed-ss .....	Southwick, Idaho
Lewis, Daniel J. a-V-Fed-ss .....	Salt Lake City
Lindquist, Josephine ho-F .....	Logan
Lindsay, Claude T. c-So .....	Ogden
Lindsay, Della bas-So .....	Heber
Lindsay, William c-G-ss .....	Logan
Linford, Hooper a-F .....	Logan
Linford, Leon B. bas-S .....	Logan
Linford, Maurice B. a-G .....	Logan
Liston, Alonzo ss-Fed .....	Escalante
Little, Clara ss .....	Logan
Little, Willis R. aema-V .....	Kanab
Logan, John S. aema-J-Fed-ss .....	Sharptown, Md.
Longhurst, Geo. L. a-So-Fed .....	Woodruff
Loose, Clarence C. c-J .....	Provo
Lougee, John a-J-ss Fed .....	Sharon, Idaho
Love, Vernon c-F .....	Kaysville
Loveland, Chester a-V-Fed .....	Logan
Loveland, Cloyd F. bas-Un .....	Logan
Loveland, Gertrude E. ho-V .....	Logan

Lowe, Aletha c-F	Franklin, Idaho
Lowe, Mamie ho-F	Park City
Lowe, Morris D. ss	Paris, Idaho
Lowe, Ora M. ho-F	Hooper
Lund, Nettie B. ho-So-ss	Logan
Lundstrom, M. Wesley c-V	Logan
Lung, K. L. a-G-ss	Canton, China
Lunt, Anthon H. a-F	Salt Lake City
Lybbert, Jacob N. ss	Vernal
Lyman, E. R. c-So	Parowan
Lyon, Frank M. aema-V-Fed-ss	Elsinore
Lyon, Fred T. aema-V-Fed	Washington, D. C.
McAllister, John H. c-F	Ogden
McBride, Cora G. ho-S-ss	American Fork
McCarroll, Boyd D. aema-V-Fed-ss	Agency, Iowa
McClellan, Chas. E. bas-G-ss	Logan
McCulloch, Anna ss	Logan
McCulloch, Lawrence c-So-Fed-ss	Logan
McCullough, Herman W. ss-Fed	Rigby, Idaho
McDonald, Howard aema-G-Fed-ss	Logan
Macfarlane, Caseel S. ss	Logan
Macfarlane, Donald C. aema-S	St. George
Mackay, Ina ho-J	Salt Lake City
McKellips, Marion E. c-F	Provo
McKenzie, Ray a-V	Springville
McKnight, Harold C. aema-V-Fed	Ogden
McKnight, Stanley B. a-F	Minersville
McLane, Leroy aema-V-Fed-ss	Afton, Wyo.
McMurdie, Evan B. c-V	Logan
McNeil, Inez bas-S-ss	Logan
McNeil, Jennetta ho-F	Logan
Magleby, Clifford A. a-F	Richfield
Magleby, Karl J. a-F	Monroe
Magleby, Ronella S. ho-F	Monroe
Magelby, Rulon T. a-S	Monroe
Mackinson, Elizabeth, ss	Salt Lake City
Manning, LeRoy W. a-V-Fed	Garland
Marrott, Deane ss	Pleasant Grove
Martell, Wm. A. aema-V-ss	Spanish Fork
Martin, Hyrum a-V	Burley, Idaho
Martini, Wm. L. O. aema-So	Salt Lake City
Martineau, Aileen ss	Logan
Marsh, Strawn aema-V-Fed	Denver, Colo.
Marwedel, Marie c-V	Logan
Mason, Olive bas-F	Brigham
Mathews, Conan E. bas-V	Providence
Maughan, Angus M. ss	Logan
Maughan, Hyrum C. bas-V-ss	Logan
Maughan, Jas. C. aema-V	Benson
Maughan, Jos. S. a-S	Wellsville
Maughan, Ruth ss	Logan



May, Lucilla ho-So .....	Logan
May, R. Golden bas-F .....	Logan
May, Sterling bas-F .....	Logan
Mecham, J. Arthur ss .....	Logan
Meek, Jerald a-So .....	Preston, Idaho
Menard, Arthur S. aema-V-Fed .....	Berchire, Mass.
Merrill, Ariel C. bas-F .....	Richmond
Merrill, Asa J. bas-So-ss .....	Logan
Merrill, Audene ho-S .....	Richmond
Merrill, Casper W. a-So .....	Richmond
Merrill, Hattie bas-F .....	Logan
Merrill, LaVille H. bas-J .....	Richmond
Merrill, Leonard M. aema-V .....	Logan
Merrill, Malcolm H. bas-So .....	Richmond
Merrill, Marriner H. c-F .....	Richmond
Merrill, Milton R. a-F .....	Logan
Merrill, O. David bas-S .....	Richmond
Merrill, Ray S. c-J .....	Richmond
Merrill, Rulon S. c-Un .....	Richmond
Merrill, Wilford J. c-G .....	Logan
Meyrick, Jos. c-So .....	Logan
Mickelson, Frank S. a-V-Fed-ss .....	Kanawha, Iowa
Michaelson, Lydia ss .....	Afton, Wyo.
Midgley Alvin R. a-J .....	Salt Lake City
Miles, Donald O. bas-F .....	Paradise
Miller, Alfred aema-V-Fed .....	Salt Lake City
Miller, Zenith R. a-V .....	Shelley, Idaho
Mills, Geo. a-V-Fed .....	Lewiston
Miner, Acel bas-F .....	Fairview
Minium, Jess E. aema-V-Fed-ss .....	Pagosa Springs, Colo.
Minor, Clarence C. ss-Fed .....	Logan
Mitchell, Jos. H. a-S .....	Parowan
Mitchell, Leland R. ss .....	American Fork
Mitchell, Maude c-V .....	Logan
Moench, Louis F. bas-V .....	Logan
Monroe, Ralph M. a-V-Fed .....	Scipio
Monson, Cyril c-J .....	Richmond
Monson, Ezra P. c-F .....	Logan
Monson, Horace E. ss .....	Pleasant Grove
Monson, John P. c-F .....	Richmond
Monson, O. Wilford aema-F-Fed .....	Pleasant Grove
Monson, Ray ss .....	Payson
Montague, Vivian a-V-Fed .....	Payson
Montgomery, Myrtle bas-F .....	Ogden
Moore, Jas. H. ss .....	Duchesne
Moosman, David D. a-J-Fed-ss .....	Vernal
Morehead, Halene E. ss .....	Callas
Morehead, Isabelle M. ss .....	Callas
Morgan, Orrin P. a-V-Fed-ss .....	Logan
Morgan, Samuel ss .....	Kaysville
Morimoto, Geo. a-V .....	Japan

Morrell, Della bas-G	Logan
Morrell, Marriner D. c-F	Hyde Park
Morris, Arthur J. a-S-ss	Sandy
Morris, Dorris A. a-V-Fed	Gainsville, Texas
Morris, Elgin H. bas-So-ss	Sandy
Morris, Jas. C. a-V-Fed	Salt Lake City
Morris, Laval S. a-S	Salt Lake City
Morris, Richard A. bas-G	Logan
Morris, Sadie O. ho-G	Logan
Mortensen, Henry B. a-V-Fed-ss	Spanish Fork
Mortensen, Hyrum K. a-J	Thatcher, Arizona
Mortensen, Jas. Leo ss	Logan
Mortensen, Martha ss	Logan
Mosher, Henry R. ss-Fed	Logan
Motsick, Chas. aema-V-Fed-ss	Rippey, Iowa
Muir, Curtis aema-V	Heber
Murdock, Clara ho-F	Heber
Murdock, Clarence a-J	Heber
Murdock, Douglas T. a-V	Heber
Murray, Seymour B. a-V-Fed	Wellsville
Naisbitt, Irene H. ss	Logan
Naylor, John J. aema-V-Fed-ss	Providence
Neath, Grant S. a-F	Bountiful
Nebeker, Ivalue P. ho-V	Brigham
Nebeker, Wendell P. a-V-Fed-ss	Brigham
Neibaur, Thos. C. a-V-Fed	Sugar City, Idaho
Nelson, Clara V. ho-V	Logan
Nelson, Conrad L. aema-V-Fed	Murray
Nelson, Daniel H. bas-G	Mink Creek, Idaho
Nelson, Ella ho-F	Salt Lake City
Nelson, Elnora M. ss	Smithfield
Nelson, Erma bas-F	Logan
Nelson, Etta ss	Logan
Nelson, Geo. T. aema-V-Fed-ss	St. George
Nelson, Hazel ss	Logan
Nelson, Howard aema-F	Weston, Idaho
Nelson, Kathleen B. ss	Brigham
Nelson, Lela ho-V	Enterprise
Nelson, Leo aema-V	Smithfield
Nelson, Leslie W. a-F	Morgan
Nelson, Mamie bas-So	Logan
Nelson, Myra bas-S-ss	Logan
Nelson, Peter a-G-ss	Logan
Nelson, Rebecca A. bas-Un	Logan
Nelson, Wm. John aema-V	Logan
Newman, Clarence a-V-Fed	Lander, Wyo.
Newton, Fred M. aema-F-Fed-ss	Denver, Colo.
Nicholes, David Jr. a-V-Fed-ss	Coyoto
Nichols, Mark H. a-J	Brigham
Nicholls, Wm. L. a-So	Salt Lake City
Nielsen, Edith ho-J	Hyrum

Nielsen, Lillie bas-F-ss	Logan
Nielsen, May bas-F	Hyrum
Nielsen, Myrtle ss	Logan
Nielsen, Oscar W. a-V-Fed-ss	Millville
Nielsen, Preston M. c-So	Logan
Noble, Flora M. ss	Logan
Noble, Willard a-So	Smithfield
Norby, Joris C. aema-So-Fed	Ada, Minn.
North, Foster bas-V	Smithfield
North, Izetta ss	Smithfield
Nuffer, Louis F. a-G	Logan
Nuttall, Willis R. a-F	Wells, Nevada
O'Brien, Timothy aema-So-Fed-ss	Canada
O'Reilly, Thos. J. aema-V-Fed-ss	New York, N. Y.
Oberhansley, Frank R. a-F	Logan
Oberhansley, Henry bas-G-ss	Logan
Obray, Afton ss	Logan
Obray, Clyde T. bas-F	Paradise
Obray, Ernest S. bas-So-Fed-ss	Paradise
Odell, Florence ss	Logan
Oldham, Delia ss	Logan
Oldham, Mildred c-V	Rexburg, Idaho
Olsen, Austin a-V-Fed-ss	Rochester
Olson, Cora ss	Smithfield
Olsen, Daniel F. ss	Logan
Olsen, Delno aema-V	Logan
Oleson, Einar B. ss	Logan
Olsen, Elvera C. ho-F	Salt Lake City
Olsen, Elva ho-V	Logan
Olsen, Frank aema-V	Cornish
Olsen, Geneva E. ho-V	Preston, Idaho
Olsen, Harold H. aema-V	Peterson
Olsen, Hilda ho-V	Preston, Idaho
Olsen, John Jr. ss	Brigham
Olsen, Lillie bas-V	Logan
Olsen, Lillian L. ss	Moroni
Olsen, Lillian ss	Hyrum
Olsen, Oscar W. c-V	Logan
Olsen, Retta M. ho-F	Logan
Olsen, Ray A. bas-V	Logan
Olsen, Stella L. K. ss	Logan
Olsen, Winnie ho-V	Logan
Osmond, Alfred W. c-So	Logan
Osmond, Constance bas-F	Logan
Osmond, Iona bas-So	Logan
Osmond, Lloyd Waldo bas-J	Logan
Overstreet, Cecil C. aema-V-Fed	Granada, Colo.
Owen, Lucile B. bas-F	Logan
Owen, Luella B. bas-V	Logan
Owens, Wm. W. c-G	Logan
Pack, Ada c-F	Kamas

Pack, Herbert J. a-G	Logan
Pack, Rowena bas-So	Kamas
Packer, Grant P. a-So-ss	Preston, Idaho
Packer, Oren M. aema-V-Fed-ss	Preston, Idaho
Painter, Robert bas-F	Logan
Palmer, Della bas-So	Malad, Idaho
Palmer, Gladys B. bas-F	Logan
Parenzin, Peter A. ss-Fed	Salt Lake City
Parke, Claire A. ho-F	Kamas
Parke, Ralph a-S-Fed-ss	Kamas
Park, William J. c-V	Sandy
Parker, Clayton A. a-V	Richfield
Parker, Ethel ho-So	American Fork
Parker, Iona Mae c-V	Richfield
Parkinson, Don B. bas-F	Logan
Parkinson, Harold W. c-F	Wellsville
Parry, Winifred ho-So	Richfield
Parsons, Beatrice bas-F	Newton
Patrick, Inga A. bas-S-ss	Logan
Paulson, Agnes c-V	Logan
Pavitt, Perry ss-Fed	Shields, N. D.
Pearce, Rulon C. aema-F	Montpelier, Idaho
Pearce, Ruth ho-F	Brigham
Pearson, Essie N. aema-V-Fed-ss	Logan
Peart, J. P. c-V	Richmond
Pedersen, Alice E. ho-J	Logan
Pedersen, Edna ho-F	Logan
Pedersen, Lyman C. c-S	Logan
Pendleton, Millie ss	St. George
Penfield, Marion G. a-V-Fed-ss	Vernal
Perkins, Ruth ho-F	Payson
Perkins, Walter G. bas-J	Wellsville
Perry, Marguerite ss	Logan
Perry, Myron aema-V-Fed	Vernal
Petersen, Allie c-So	Newton
Peterson, Chas. Newell a-F	Logan
Petersen, Constance bas-F	Hyrum
Petersen, Dora D. ss	Ferron
Peterson, Ella ss	Tremonton
Peterson, Franklin O. aema-V-Fed	Logan
Peterson, Howard Glen bas-F	Preston, Idaho
Peterson, Irene bas-So	Logan
Peterson, James L. ss	Logan
Peterson, Lena ss	Salina
Peterson, Lester c-V-Fed-ss	Logan
Peterson, Mell bas-F	Logan
Peterson, Moylen c-So-ss	Preston, Idaho
Peterson, Myrtle ho-J	Scipio
Peterson, Reba ho-F	Salt Lake City
Peterson, Valera L. ho-F	Logan
Peterson, Victor E. c-V	Logan

Peterson, Vinal F. c-So	Salt Lake City
Phelps, Guy E. aema-F	Fillmore
Phillips, Mrs. Olive A. ss	Logan
Pike, Marybelle H. ss	Cornish
Pippin, Roscoe ss-Fed	Gillette, Wyoming
Pixton, Robert C. ss	Lehi
Pittman, Don W. a-G	Logan
Platt, Edward a-V	Mona
Pond, Edith ss	Lewiston
Pond, Horace c-V	Lewiston
Pope, Gladys ss	Garden City
Porter, Jessie bas-J	Rexburg, Idaho
Porter, Thos. H. ss	Logan
Porter, Veda ss	Morgan
Porter, Virga M. bas-F-ss	Jerome, Idaho
Poulter, Liliuo bas-F-ss	Logan
Poulter, Manilla ss	Logan
Powell, Ethel ss	Ogden
Powell, Kathleen E. ho-So	Beaver
Price, Jackson a-S	Provo
Pugh, Beth bas-So	Kanab
Pugh, Cecil a-F	Kanab
Pugh, Delsa bas-F	Kanab
Pulley, Hamlet C. bas-So	Logan
Purser, Joseph aema-V	Logan
Quayle, Cora May ss	Logan
Quayle, James a-So	Logan
Quayle, Mary ss	Logan
Raddon, Vladimir aema-F	Park City
Rainey, Gladys ss	Logan
Rallison, Kenneth a-V	Preston, Idaho
Rallison, Robert L. ss	Coalville
Ramsperger, Emma bas-So-ss	Logan
Randall, Lottie bas-F	Ogden
Ranker, Emery R. a-J-ss	Glen Allen, Calif.
Rasmussen, Leona ss	Bear River City
Rawlins, Aerial a-V	Lewiston
Rawlins, Alvira ss	Logan
Rawlins, Elsie bas-So-ss	Logan
Raymond, George c-F	Logan
Raymond, Lorraine M. bas-F	Logan
Redden, Richard E. aema-V-Fed-ss	Hoytsville
Reed, Joseph aema-G	Logan
Reed, Reta M. bas-So	Logan
Reeder, Howard a-So	Brigham
Reese, Annice ss	Logan
Reese, Athen L. aema-V	Benson
Reese, LeOna ss	Brigham
Reich, Ben a-V-Fed-ss	Vernal
Reid, Dalton M. a-J-Fed-ss	Abraham
Reid, Ralph A. a-V	Ogden

Rencher, John U. a-J	Swan Lake, Idaho
Rex, Alfred E. c-F	Logan
Rhoades, Walter a-V-Fed-ss	Hoopup, Colo.
Rice, Inez ss	Logan
Rice, James c-F	Farmington
Rice, Oscar LeGrand aema-S	Logan
Rich, Elwood P. c-F	Logan
Rich, Lyman H. a-F-ss	Paris, Idaho
Rich, Moses L. bas-So	Logan
Richards, Ella O. ss	Logan
Richards, Iva L. ss	Logan
Richards, Lorenzo A. bas-F	Brigham
Richards, Lynn S. c-F	Salt Lake City
Richardson, Clara C. ss	Midville
Richardson, Stanley S. a-So	West Jordan
Richman, LeRoy bas-F	Paradise
Richman, Lyle M. bas-F	Paradise
Ricks, Paul C. aema-J-ss	Logan
Riddell, Donald H. a-V	Deeth, Nevada
Ritchie, Gladys bas-So	Logan
Riter, J. Randolph bas-F	Logan
Roberts, Benson a-V-Fed	Weiser, Idaho
Roberts, Bernice ss	Clearfield
Roberts, Harold a-V-Fed	Ft. Bridger, Wyo.
Robbins, LaVon aema-F	Logan
Robinson, Geo. W. c-F	Ucon, Idaho
Robinson, Kenneth C. c-J	Logan
Robison, M. Dorwin Jr. bas-S-ss	Logan
Robinson, Sarah bas-F	Laketown
Rochel, Albert a-V-Fed-ss	Altona
Rogers, Louise ho-S-ss	Pima, Arizona
Rogers, Theodore bas-F	Fillmore
Rose, Cora Louisa ss	Hyrum
Rosengreen Eldon aema-F	Logan
Rosengreen, Harold N. bas-S-ss	Logan
Roseberry, Jessie M. ss-Fed	Cincinnati, Ohio
Roskelley, Edith ss	Smithfield
Roskelley, Marriner W. ss	Smithfield
Rossiter, Ruth M. c-V	Providence
Rowland, Priscilla ho-S	Logan
Rudy, Czar a-V-Fed	Fort Duchesne
Ruff, Enid E. ss	Logan
Russell, Howard R. aema-So	Springville
Ruud, Edna bas-V	Logan
Ryan, Arvilla c-So	Logan
Ryan, Venice c-F	Logan
Sanford, Ralph B. a-S	Delta
Sant, Jeneva c-V	Smithfield
Sant, May c-V	Smithfield
Sarata, Walter a-V-Fed	Jackson, Mich.
Satterthwaite, Vella ss	Logan



Savage, Willis ss .....	Hyrum
Schaffner, Lulu G. aema-V-Fed-ss .....	Casper, Wyo.
Schank, Leroy C. a-J .....	Providence
Schaub, George W. aema-So .....	Logan
Schaub, Ruth ho-F .....	Logan
Scheby, Vera ss .....	Logan
Schlappy, H. Arnold a-S .....	Delta
Schmutz, George bas-V .....	Harmony
Schow, Adolph F. aema-F .....	Richmond
Schvaneveldt, Melvin aema-V .....	Logan
Schweberger, Anna M. ss .....	Logan
Scott, Ida M. c-Un .....	Logan
Scott, Henry D. c-Un .....	Logan
Searles, Marcia ho-F .....	Salt Lake City
Seegmiller, Carlos W. aema-So .....	Ogden
Seegmiller, Charles R. a-S-Fed-ss .....	St. George
Seegmiller, Keith L. ss .....	Logan
Selby, Arthur J. a-V-Fed .....	Sugar City, Idaho
Sessions, Alice ss .....	Logan
Sessions, Alwyn C. a-J .....	Logan
Sessions, Elden B. c-S-ss .....	Logan
Sessions, Sarah ho-So .....	Logan
Shaw, Clarke C. a-J-Fed-ss .....	Myton
Shepard, Dorothy bas-So .....	Logan
Shepard, Idalah ho-V-ss .....	Logan
Shoell, Thelma ho-So .....	Pleasant Grove
Shostrom, Marie bas-F .....	Pocatello, Idaho
Shostrom, Norma c-F .....	Pocatello, Idaho
Shurtliff, Orla C. a-J .....	Logan
Siddoway, Ray c-F .....	Vernal
Siegfried, Joshua F. aema-S .....	Brigham
Sims, Thomas E. a-V-Fed-ss .....	Gordon City
Simmons, Zilpha ss .....	Layton
Singh, Bahindar a-F .....	India
Skaggs, Frank aema-V-Fed-ss .....	Boise City, Okla.
Skancky, Alphonso O. bas-So-ss .....	Logan
Skeen, Allison J. c-F .....	Ogden
Skidmore, Leah bas-V .....	Preston, Idaho
Skinner, Joseph F. ss .....	Sandy
Slaugh, Forest S. c-G .....	Vernal
Slaugh, Kimball G. a-F .....	Vernal
Slaugh, Theresa bas-V .....	Logan
Smart, Gene c-F .....	Logan
Smart, Twila M. ss .....	Sandy
Smith, Ardella B. bas-J .....	Logan
Smith, Blanche ss .....	Bicknell
Smith, Byron J. aema-J .....	Logan
Smith, Clyde a-F .....	Bountiful
Smith, Delmer E. a-So .....	Beaver
Smith, Editha ho-F .....	Beaver
Smith, Elmer C. bas-S .....	Logan

Smith, Farrell P. a-J	Redmond
Smith, Gwendolyn ss	Franklin, Idaho
Smith, Harold A. bas-F	Pleasant Grove
Smith, J. Fish ss	St. David, Arizona
Smith, James S. aema-V-Fed-ss	Garrison
Smith, LaVon G. ss	Logan
Smith, Lola ho-F	Vernal
Smith, Marjorie bas-So	Logan
Smith, M. W. ss	Logan
Smith, Norma E. ho-F	Logan
Smith, Ralph A. bas-J	Logan
Smith, R. Denton c-J	Logan
Smith, Rufus R. a-V-Fed	Grand Junction, Colo.
Smith, Ruby ss	Logan
Smith, Rulon bas-J	Logan
Smith, S. Cooper a-So	Logan
Smith, Sylvan R. aema-V-Fed-ss	Lehi
Smith, Veda C. bas-Un	Smithfield
Smith, Wayne P. c-V	Shelley
Smith, William R. a-S	Logan
Snow, Byron aema-V	Kingston
Sobie, Steven ss-Fed	Denver, Colo.
Somerville, Loyd a-V	Moab
Sorensen, Emma ss	Payson
Sorensen, Gordon W. aema-V	Centerfield
Sorenson, Lawrence bas-So	St. Charles, Idaho
Sorenson, Philip aema-J-Fed-ss	Ogden
South, Mayme bas-Un-ss	Logan
Spackman, Verda ho-F	Logan
Spande, Mabel V. ss	Logan
Spande, Ruth ss	Logan
Spencer, Claron a-F	Salt Lake City
Spencer, George Q. a-J	Salt Lake City
Spencer, Pearl bas-F	Logan
Spencer, Verna bas-F	Logan
Spenny, Addison L. aema-J-Fed-ss	Columbus, Ga.
Spent, Effie ss	Logan
Spent, Lila ss	Logan
Sperry, Leo W. aema-V-Fed-ss	Salt Lake City
Stafford, Earl E. a-V-Fed-ss	Lamesa, Texas
Stafford, Mae P. bas-V-ss	Logan
Staker, Ernest V. a-S	Mt. Pleasant
Staker, Nellie c-F	Menan, Ida.
Standing, Arnold R. a-F	Brigham
Standing, Russell J. aema-S	Brigham
Stanger, Albert G. c-S	Idaho Falls, Idaho
Stanger, Vera ho-F	Idaho Falls, Idaho
Stanton, Alonzo G. aema-V-Fed-ss	Hyrum
Stanton, Earl F. aema-V-Fed-ss	Logan
Starr, LeRoy A. a-J	Springville
Stayner, Lavon bas-F	Brigham

Stephens, Alleen bas-F	Logan
Stephens, F. E. ss	Heber
Stevens, Guy P. a-F	Logan
Stevens, Justus M. a-J-ss	Fairview
Stevenson, Frank J. a-F-Fed-ss	Riverton
Stewart, Dean c-F	Springville
Stewart, George a-G	Logan
Stirland, Byron J. ss	Providence
Stirland, Medora ss	Providence
Stobaugh, Frank M. aema-V-Fed-ss	Silt, Colo.
Stock, Josephine, C. ho-S	Logan
Stock, Owen R. aema-V	Fish Haven, Idaho
Stubbs, Peter K. bas-V-Fed-ss	Gunnison
Sumsion, Glen W. aema-S	Springville
Sumsion, Spafford a-F	Chester
Sutherland, Allene ho-So	Logan
Sutherland, Earl C. bas-J	Logan
Sutherland, Francilda ho-So	Logan
Sutherland, Thomas G. bas-S	Logan
Sutton, Matthew L. c-V	Salt Lake City
Swanson, Harry N. a-V-Fed-ss	Henderson
Sweet, Archie M. ss-Fed	McClove, Colo.
Swenson, Cleo L. c-F	Logan
Taft, Ellis V. ss	Bicknell
Taggart, Ethelyn ss	Lewiston
Taggart, Warren c-V-Fed	Lewiston
Tamminen, Leander ss	Lehi
Tanner, Arthur a-S	Payson
Tanner, O. Allen bas-Un	Logan
Tanner, Ray S. a-J	Fairview
Taylor, D. M. ss	Payson
Taylor, Horace F. c-V-Fed	Logan
Taylor, H. Warren ss	Logan
Taylor, Melvin ss-Fed	Murray
Taylor, Preston ss	Loa
Tell, William F. ss-Fed	Logan
Terry, Victor L. a-F	Hinckley
Thain, Aldyth bas-G	Logan
Thain, J. Henry c-F	Logan
Thain, Theodore c-F	Logan
Thatcher, J. Kenneth c-F	Logan
Thatcher, Iionel W. c-F	Ogden
Thatcher, Martha E. bas-So	Logan
Thibadeau, Clarence B. a-V-Fed-ss	Dillon, Mont.
Thayne, Chester ss-Fed	Washington
Thomas, Duke D. aema-V-Fed-ss	Gadsden, Ala.
Thomas, Florence M. bas-V-ss	Logan
Thomas, Floyd c-F	Ogden
Thomas, Frances bas-F-ss	Logan
Thompson, David W. aema-V-Fed	Logan
Thompson, Earl c-S-ss	Logan

Thompson, Elmer J. bas-F	Hyrum
Thompson, Ezra C. aema-So-Fed	St. George
Thompson, Frank W. c-F	Logan
Thompson, Oney L. a-V-Fed	May
Thompson, Rose J. ho-S	St. George
Thomson, Lenore ss	Ephraim
Thomson, Wendell J. bas-S	Richmond
Thornley, Eileen ss	Smithfield
Thornley, Lormor R. aema-V	Layton
Thornley, Lilla M. ss	Smithfield
Thornley, Wilson R. ss	Smithfield
Thorpe, Everett C. bas-V	Providence
Thorsen, Fred a-V-Fed	Brigham
Thurman, Delora ss	Grover, Wyo.
Tibbitts, Ira J. aema-V	Providence
Tingey, Delmar C. a-G-ss	Brigham
Tingey, Mabel A. ho-J-ss	Brigham
Tingey, Teresa bas-F	Salt Lake City
Tingey, Thelma bas-F	Brigham
Tippetts, Alfred I. c-G-ss	Hinckley
Tippetts, Alice ss	Preston, Idaho
Tippetts, Eda C. ho-Un	Hinckley
Tittensor, Russell a-V-Fed	Bedford, Wyo.
Titus, Albert C. bas-So	Logan
Tollestrup, Wanda L. ss	Cedar City
Tolman, Mrs. Alice ss	Preston
Tolman, Lloyd W. bas-F-ss	Richmond
Toolson, Adrain V. ss	Smithfield
Torgerson, Alfred R. ss	Bicknell
Tracy, Emily E. c-Un	Ogden
Trask, James W. aema-J-Fed-ss	Denver, Colo.
Trimble, Cuthbert ss	Fillmore
Trüplett, Tosso M. aema-V-Fed-ss	Cody, Wyo.
Truman, Rex c-Un	Shoshone, Idaho
Tueller, Lamont a-So	Paris
Turley, Ernest a-J	Colo Juarez, Chih. Mex.
Tuttle, Ray L. ss	Brigham
Vallentine, LaMar H. c-F	Brigham
Van Orden, Helvie H. ss	Cornish
Varley, William H. a-V-Fed-ss	Ogden
Vaterlaus, Ernest W. aema-V	Providence
Vernon, Aldyth ss	Logan
Vernon, Lais ss	Logan
Vernon, Weston Jr. c-So-ss	Logan
Vickers, Pearl bas-Un-ss	Logan
Vickers, Wallace J. bas-G	Logan
Victor, Rudgar M. aema-F	Brigham
Vogelzang, John H. a-V-Fed	Ogden
Wadsworth, Harold M. aema-F	Logan
Wagstaff, Arthur aema-F	Murray
Wahlen, LaReta ss	Hyrum

Waldie, Walter C. ss-Fed .....	Colorado Springs, Colo.
Walker, Dilworth ss .....	Rexburg, Idaho
Wall, John E. a-J .....	Logan
Wall, Nora ss .....	Kaysville
Wallace, Dosia W. a-V-Fed-ss .....	Harwood, Mo.
Wallwork, Alta ss .....	Trenton
Walters, Emmett J. ss-Fed .....	Colorado Springs, Colo.
Walter, Henry G. a-F .....	Richmond
Walther, William C. aema-V .....	Elko, Nevada
Walton, Devena ss .....	Logan
Walton, Reuben H. ss-Fed .....	Afton, Wyo.
Warner, Charlotte ho-So .....	Grace, Idaho
Warr, Morell J. a-V .....	Park City
Watkins, Norma bas-So .....	Logan
Weatherston, Bertha ss .....	Ogden
Webb, Milton c-F .....	Richmond
Webster, H. Henry a-F-ss .....	Cedar City
Webster, Mae ss .....	Preston, Idaho
Weeks, Norma ss .....	Logan
Weiss, Viola ss .....	Logan
Welch, Ruby ho-V .....	Paradise
Welch, Wilford W. c-So .....	Paradise
Wennergren, Owen a-V .....	Logan
West, Grant D. aema-So .....	Brigham
West, James H. a-V .....	Smithfield
West, Lawrence M. c-S .....	Ogden
West, Loyal A. a-V-Fed-ss .....	Ogden
West, Mont bas-F .....	Logan
Westcott, Warren K. a-S .....	Salt Lake City
Whatcott, Clemouth ss .....	Kanosh
Whatcott, Isabell ss .....	Kanosh
Wheeler, Paul c-So .....	Ogden
Whipple, George A. Jr. c-F .....	Ogden
White, A. Earl ss .....	Salt Lake City
White, Rodney E. a-V-Fed .....	Beaver
Whitney, Byron M. aema-S .....	Mendon
Whornham, George a-J .....	Beaver
Wilcox, Francis R. c-F .....	Lehi
Wiley, Mark H. aema-F-Fed-ss .....	Limon, Colo.
Willesen, W. H. aema-S-Fed-ss .....	Clearbrook, Minn.
Williams, E. L. ss .....	Wellsville
Williams, John V. bas-S .....	Malad, Idaho
Williams, Ramond H. bas-So .....	Ogden
Williams, William a-V .....	Cleveland, Idaho
Willie, Leon ss .....	Mendon
Willie, Vernal a-G .....	Mendon
Willis, Georgia bas-Un .....	Provo
Wilson, Alma L. a-G .....	Farmington
Wilson, Floyd F. aema-V .....	Logan
Wilson, Gwynn J. aema-V .....	Logan
Wilson, LeMoyné bas-V .....	Logan

Wilson, LeRoy V. bas-F	Logan
Wilson, Milton T. aema-S	Logan
Wilster, Rose ss	Logan
Winborg, Paul ss	Millville
Winkler, Aarel, P. a-So	Mt. Pleasant
Winkler, Owen bas-F	Mt. Pleasant
Winn, Carl D. aema-J-Fed-ss	Lehi
Winters, N. Blaine bas-So	Garland
Wittwer, Samuel M. bas-J	Santa Clara
Wood, Catherine bas-J	Logan
Wood, Delores ho-J	Woods Cross
Wood, Ila ss	Auburn, Wyo.
Woods, John O. a-V-Fed-ss	Clayton, N. Mex.
Wood, Wm. Edwin bas-So	Logan
Woodruff, Angus O. a-F	Smithfield
Woodruff, Oliver C. a-J	Smithfield
Woodside, Howard bas-So	Logan
Woodside, Jean R. ss	Logan
Woodside, Josephine C. ho-So-ss	Logan
Woodside, Margaret J. bas-S-ss	Logan
Woodward, Rollo W. a-So	Franklin, Ida.
Woolley, Ray c-So	Grantsville
Woolstenhulme, Tean c-F	Kamas
Wootton, David A. bas-S	Logan
Wootton, Edward a-V-Fed-ss	Heber City
Worley, Dorothy bas-F	Logan
Worley, Katherine Blanche ho-S	Logan
Worsley, John H. a-V-Fed-ss	Farmington
Wright, Hattie ss	Logan
Wright, Ianthus a-F	Hinckley
Wrigley, Robert L. a-G	Logan
Wunker, Henry A. c-V-Fed-ss	Cincinnati, Ohio
Wyatt, Sidney L. ss	Wellsville
Yeates, Lorna ss	Logan
Young, Eugene H. ss-Fed	Pleasant Grove
Young, Karl E. bas-So	Moab
Young, Mabel B. ss	Logan
Young, Joseph a-V-Fed	Custer, Idaho
Youngberg, Karl J. aema-V-Fed-ss	Lyman, Wyo.
Zollinger, Eugene aema-V	Logan
Zollinger, Ezra aema-V	Logan
Zollinger, Florence bas-V-ss	Providence
Zalsman, William a-V-Fed	Holland, Mich.



## SUMMARY OF ATTENDANCE 1922-1923

	Agriculture Men	A. E. M. A. Men	Basic Arts & Science Men	Basic Arts & Science Women	Commerce Men	Commerce Women	Home Economics Women	Total	
Collegiate									
Graduate .....	16	3	10	2	7	...	1	39	
Seniors .....	28	21	17	16	18	...	15	115	
Juniors .....	39	14	15	11	16	...	15	110	
Sophomores ...	35	20	28	38	31	4	23	179	
Freshmen .....	51	30	38	56	68	9	38	290	
Unclassified ...	3	5	6	9	8	2	3	36	
	172	93	114	132	148	15	95	769	769
Unclassed .....	148	148	18	11	29	10	17	381	381
Summer Quarter (1922)									582
Total Resident Enrollment .....									1,732

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## ANALYSIS OF SUMMER QUARTER REGISTRATION

	Men	Women	Total	
Graduates .....	32	22	54	
Undergraduates .....	324	204	528	
	356	226	582	
Correspondence Department and Extension Classes—Men			427	
Women .....			332	759
				2491
Less Names Repeated—Men .....			269	
Women .....			61	330
Net Total Registration .....				2161

## CONVENTIONS AND SHORT COURSES

Farmers' Encampment, Logan—Men .....	798	
Women .....	646	1444
Scout Masters School, Logan—Men .....		86
Round Up, Logan—Men .....	38	
Women .....	13	51
Farmers' Convention, Cedar City—Men .....	96	
Women .....	2	98
Housekeepers' Conference, Cedar City—Women .....		85
Net Total Registration at Conventions and Short Courses .....		1764

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