1935

General Catalogue 1935

Utah State University

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Utah State Agricultural College Bulletin

CATALOGUE ISSUE
1935 - 1936

FORTY-SIXTH YEAR

Published by the College
July, 1935
LOGAN, UTAH
### 1935 Calendar

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College Calendar for the Year 1935-36

FALL QUARTER

September 23, Monday.............Registration of Freshmen.
September 24, Tuesday.............Registration of other students.
September 25, Wednesday...........Instruction begins.
October 14, Monday.................Prospective graduates submit applications for candidacy.
October 21, Monday................Last day for changing registration.
November 28, 29, Thurs., Fri..Thanksgiving recess.
December 2, Monday................Instruction resumes.
December 6, Friday................Fall quarter closes.

WINTER QUARTER

December 9, Monday...............Registration for all students.
December 10, Tuesday..............Instruction begins.
December 17, Tuesday..............Candidates should submit applications for graduation.
December 21, Saturday.............Christmas recess begins.
January 6, Monday................Instruction resumes.
January 15, Wednesday.............Last date to submit applications for graduation without penalty.
January 20, Monday...............Last day for changing registration.
February 12, Wednesday...........Lincoln’s birthday (holiday).
March 8, Sunday...................Founders’ Day.
March 13, Friday...................Winter quarter closes.

SPRING QUARTER

March 16, Monday................Registration for all students.
March 17, Tuesday................Instruction begins.
April 13, Monday..................Last day for changing registration.
May 29, Friday.....................Last day of classes.
May 30, Saturday...................Memorial Day. Alumni Reunion (evening).
May 31, Sunday....................Baccalaureate Sermon.
June 1, Monday...................Commencement.
SUMMER SESSION

June 8, Monday................Summer session begins.
July 17, Friday................Summer session closes.

CALENDAR OF SPECIAL EVENTS

September 30, Monday........President's Assembly.
October 14, Monday........Honors Societies Assembly.
November 2, Saturday.........Alumni Homecoming.
November 7, 8, 9, Thurs.,
    Fri., Sat........................College Play.
November 11, Monday.........Armistice Day Assembly.
November 20, Wednesday......Combined Glee Clubs Concert.
November 25, Monday.........Thanksgiving Assembly.
December 2 to 13, Mon. to
    Fri. ................................Adult Leaders' Training School.
December 19, Thursday......Christmas Assembly.
February 17, Monday.........Washington-Lincoln Assembly.
February 21, Friday..........Military Ball.
February 24 to 29, Mon. to
    Sat. ................................Club Leaders' Training School.
March 2, 3, Mon., Tues......College Opera.
March 9, Monday..............Founders' Day Assembly.
March 20, Friday..............College Band Concert.
April 10, Friday...............Easter Assembly.
April 23, 24, 25, Thurs.,
    Fri., Sat........................Shakespearean Play (Little Theatre).
May 1, Friday..................High School Senior Guest Day.
May 8, Friday..................Mothers' Day Assembly, Co-ed Day.
May 12, Tuesday..............Military Review, Annual Inspection.
May 14, Thursday.............Livestock Exhibit and Horse Show.
May 18, Monday...............Scholarship and Awards Assembly.
May 24, Sunday.................College Symphony Orchestra Concert.
May 25, Monday...............Senior Assembly.
May 29, Friday...............Sunset Festival.
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FREDERICK P. CHAMP .......................................................... Logan
C. G. ADNEY ............................................................................ Corinne
FRANK B. STEPHENS ................................................................... Salt Lake City
MRS. MINNIE W. MILLER ........................................................ Salt Lake City
M. J. MACFARLANE ..................................................................... Cedar City
FRED M. NYE .............................................................................. Ogden
CLARENCE E. WRIGHT ............................................................. Salt Lake City
P. H. MULCAHY ......................................................................... Ogden
LOF NELSON ................................................................................ Logan
JOSEPH B. WHITE ........................................................................ Paradise
MRS. CLAIRE P. DORIUS ................................................................ Salt Lake City
MELVIN J. BALLARD ..................................................................... Salt Lake City
MILTON H. WELLING, Secretary of State, (ex-officio) Salt Lake City

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C. G. ADNEY ............................................................................ Vice-President
RUSSELL E. BERNTSON ............................................................... Secretary-Treasurer

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Committee on Agriculture—Adney, Mrs. Miller, Macfarlane, White.
Committee on Engineering and Mechanic Arts—Mulcahy, Wright, Nelson, Nye, White.
Committee on Home Economics—Mrs. Dorius, Macfarlane, Ballard.
Committee on Commerce—Wright, Mrs. Dorius, Stephens.
Committee on Arts and Science—Macfarlane, Mrs. Dorius, Mulcahy.
Committee on Education—Nye, Macfarlane, Stephens.
Committee on Experiment Station—White, Wright, Mrs. Dorius, Macfarlane.
Committee on Extension Division—Stephens, Mrs. Miller, Adney, Nye.
Committee on Faculty and Course of Study—Nye, Nelson, White, Ballard.
Committee on Live Stock—Adney, Mrs. Miller, White, Mulcahy.
Committee on Heat, Power and Light—Wright, Nelson, Welling, Mulcahy.
Committee on Branch Agricultural College—Macfarlane, Mrs. Miller, Adney, Welling.
Committee on Legislation and Finance—Mrs. Miller, Stephens, Mulcahy, Ballard.
Committee on Summer School—Ballard, Adney, Nelson, Wright.

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President

William Peterson, B.S.
Director, Extension Division

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Dean, School of Engineering and Mechanic Arts

James Henry Linford, B.S., D. Did.
Director of Summer Session

*William Lawrence Wanlass, A.M., Ph.D.
Dean, School of Commerce

Neils Alvin Pedersen, A.M., Ph.D.
Dean, School of Arts and Sciences

Edward Jackson Maynard, B.S., M.S.
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Dean, School of Education

Christine Bockholt Clayton, B.S., M.S.
Dean, School of Home Economics

Lenore Lewis, B.S.
Dean of Women

Russell Ellwood Berntson,
Executive Secretary and Treasurer

John Thomas Caine, B.S.
Auditor

William H. Bell, B.S., M.S.
Registrar

C. Lester Pocock, B.S.
Chairman, Public Relations

Milton R. Merrill, B.S., M.A.
Assistant Director Summer Session

*On leave.
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(Arranged Alphabetically)

BYRON ALDER, B. S.
   Professor of Poultry Husbandry

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

REED W. BAILEY, B. S., M. S.
   Director Intermountain Forest and Range Experiment Station. Non-Resident Professor of Forestry

ELSA BROWN BATE, B. S., M. S.
   Assistant Professor of Child Development

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

GEORGE T. BLANCH, M. S.
   Associate Professor of Agricultural Economics

EDITH Bowen, B. A., M. S.
   Supervisor of Training School

GRANT Bowen, B. S.
   Consulting Landscape Architect

AARON F. BRACKEN, B. S., M. S.
   Associate Professor of Agronomy

HOWARD E. C. BREITUNG, Lt. C. A. C.
   Assistant Professor of Military Science and Tactics

JOHN DUNCAN BRITE, A. B., M. A.
   Assistant Professor of History

JOSEPH D. BROWN, Major, C. A. C.
   Professor of Military Science and Tactics

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

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

KATHARINE COOPER CARLISLE, B. S., M.A.
   Professor of Physical Education for Women

EZRA G. CARTER, M. S., D. P. H.
   Professor of Public Health and Physiology

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   Assistant Professor of Geology

N. WOODRUFF CHRISTIANSEN, B. S.
   Associate Professor of Instrumental Music

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John Croft, B. S.
Assistant Director of Athletics

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Assistant Professor of Agricultural Economics

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Professor of Political Science

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Assistant Professor of Physiology and Nursing

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Extension Forester, and Associate Professor of Forestry

Samuel Roy Egbert, B. S.
Assistant Professor of Foraging

Alma Esplin, B. S.
Assistant Professor of Wool Management in the Department of Animal Husbandry

Robert J. Evans, Ph. D.
Professor of Agronomy

Calvin Fletcher, B. Pd.
Professor of Art

Thelma Fogelberg, B. S., A. M.
Assistant Professor of Stenography and Business Practice, and French

Hyrum John Frederick, D. V. M.
Professor of Veterinary Science

Carl Frischknecht, M. S.
Assistant Professor of Poultry Husbandry

Walter U. Fuhriman, B. S., M. S.
Associate Professor of Agricultural Economics

Willard Gardner, M. S., Ph. D.
Professor of Physics

Vernal Delroy Gardner, B. S., M. B. A.
Associate Professor of Business Administration

Joseph Arch Geddes, A. M., Ph. D.
Professor of Sociology

Wallace A. Goates, B. A.
Assistant Professor of Speech

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*On leave
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R. L. McLAUGHLIN, Ph. D.
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aARON NEWEY, B. S.
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ARDEN B. OLSEN, Ph. D.
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WILLIAM PETERSON, B. S.
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PARLEY ERASTUS PETERSON, A. B., C. P. A.
Professor of Accounting

HENRY PETERSON, A. B., A. M.
Professor of Psychology

DON WARREN PITTMAN, B. S., M. S.
Professor of Soils in the Department of Agronomy

WILFORD D. PORTER, B. S., M. S.
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ALFRED H. POWELL
Associate Professor of Farm and Auto Mechanics

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Assistant Professor of Wild Life Management

HARRY R. REYNOLDS, Graduate of Chicago Art Institute
Assistant Professor of Art

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HATTIE SMITH
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Associate Professor of Radio and Automotive Electricity

GEORGE STEWART, Ph. D.
Senior Ecologist (Inter-Mt. F. and R. E. S.), Non-Resident Professor of Range Management and Agronomy

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Associate Professor of Agronomy

*VANCE H. TINGEY, B. S., M. S.
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W. PRESTON THOMAS, M. S.
Professor of Agricultural Economics

ELSES M. TROEGER, M. S.
Assistant Professor of Foods and Director of the Commons

FANNIE MAUGHAN VERNON
Assistant Professor of English Extension

WALLACE J. VICKERS, A. M., Ph. D.
Associate Professor of English

*WILLIAM LAWRENCE WANLASS, A. M., Ph. D.
Professor of Economics

*F. B. WANN, A. B., Ph. D.
Associate Professor of Plant Physiology

WALTER WELTI, B. A., M. A.
Associate Professor of Vocal Music

*On leave
Franklin Lorenzo West, B.S., Ph.D.
Special Lecturer
Ray Benedict West, B.S.C.E., C.E.
Professor of Engineering
J. Stewart Williams, Ph.D.
Professor of Geology
Alma L. Wilson, B.S., M.S., Ph.D.
Professor of Horticulture and Gardening

INSTRUCTORS

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Instructor in Education
Ruth Moench Bell, B.S.
Instructor in English
Vera Carlson
Secretary to the President
Alta Orser Crockett, B.S.
Instructor in Textiles and Clothing
Eugene Gardner, B.S.
Instructor in Physics and Mathematics
Wilford L. Hansen, B.S.
Instructor in Forestry and Range
Alvin Hess, B.S., M.S.
Instructor in Education
Maxine Heiss, B.S., M.A.
Instructor in Physical Education for Women
L. H. Linford, B.S., Ph.D.
Instructor in Mathematics and Physics.
Lenore Lewis, B.S.
Instructor in Education
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Instructor in Education
Glen B. Miner, A.B.
Instructor in Spanish
Floyd Morgan, B.S.
Instructor in Speech
Evan B. Murray, M.S.
Instructor in Economics
L. Mark Neuberger, B.S., M.S.
Instructor in Business and Office Practice
Mary Sorenson
Assistant Librarian
Everett Thorpe
Instructor in Art
Edna Ann Wilson, B.S.
Assistant Librarian
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ASSISTANTS

Allie Burgoyne, B. S.
Assistant Registrar

Bert L. Dryden, B. S., M. S.
Assistant in Animal Husbandry

August J. Hansen, B. S.
Assistant in Library

Eric A. Johnson, B. S.
Assistant Secretary

George Nelson
Trainer and Wrestling Coach

Rudolph L. Van Kampen, B. S.
Freshman Coach

Charles Batt
Superintendent of Water System and Heating

Rasmus Olus Larson
Superintendent of Buildings and Grounds

STANDING COMMITTEES

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

Advanced Standing—Mr. Bell.

Attendance and Scholarship—Professors Henderson, Dancy, Bercraft, Hill, Croft, Major Brown, Mr. Bell.

Athletic Council—Professors Sorensen, Caine, Romney, Mr. Berntson.

Awards and Honors—Professors Maynard, Ricks, McClellan, Caroline M. Hendricks, Vickers.

Boy Scout Activity—Professors Fletcher, Richards.

Campus Improvement—Professors Clyde, Fletcher, Bowen, Maynard, Taylor, Mr. R. O. Larson.

Certification of Teachers—Professors McClellan, Jacobsen, Mr. Bell.

College Assemblies—Professors Pedersen, Henderson, Caroline M. Hendricks.
Credits from Sectarian Institutions—Professor Kepner, Mr. Bell.
Curriculum—Professors Maeser, Alder.
Debating—Professors Vickers, Merrill, Mr. E. B. Murray.
Entrance—Professors Hirst, Egbert, Mr. Bell.
Exhibits—Professors West, Alder, Moen, Hansen, Merrill.
Graduate Work—Professors Maeser, Greaves, Evans, Willard Gardner, Clayton, P. E. Peterson, Mr. Bell.
Graduation—Professors L. B. Linford, Cutler, Mr. Bell.
High School Relations—Mr. C. Lester Pocock, Professors V. D. Gardner, Humpherys, King Hendricks, D. P. Murray.
Incomplete Grades—Professor Ricks.
Library—Professors West, Pedersen, Merrill, Miss Smith.
Loan Fund—Mr. Berntson, Professors Maynard, Dancy.
Personnel—Professors Henderson, Jacobsen, Mr. Bell.
Radio Programs—Messrs. Pocock, Burgoyne, Porter.
Rhodes Scholarship—Professors Maeser, Sorensen.
Recommendation for Employment—Professors West, Maynard.
Registration—Professors King Hendricks, L. B. Linford, Mr. E. B. Murray, Mr. Bell, Mr. Berntson.
Sectioning—Mr. E. B. Murray, Professors Carter, Kyle.
Schedule and Catalog—Professors Kepner, L. B. Linford, Sorensen, Mr. Bell, Mr. Eugene Gardner.
Social Affairs—Professors J. R. Jenson, V. D. Gardner, Croft, Maynard, Dancy, Caroline M. Hendricks, Miss Lewis, Miss Carlson, President of Student Body, President of A. W. S.
Student Employment—Mr. C. Lester Pocock.

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Ernest A. Jacobsen, A. B., A. M., Ed. D.
Dean, School of Education

Charles E. McClellan, A. B., M. A.
Director of Teacher Training

Edith Bowen, B. A., M. A.
Supervisor of Training School
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EDITH SMITH, B. S.
In Charge of Sixth Grade

FRANCIS HOLYOAK, B. S.
In Charge of Fifth Grade

*WANDA ROBERTSON
In Charge of Fourth Grade

THELMA GARFF
In Charge of Fourth Grade

ELLEN S. HUMPHREYS
In Charge of Third Grade

ADDIE SWAPP, B. S.
In Charge of Second Grade

MYRTLE JENSEN
In Charge of First Grade

EMMA ECCLES JONES, B. S., M. A.
In Charge of Kindergarten

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REUBEN LORENZO HILL, Ph. D.
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ORSON WINSO ISRAELSEN, Ph. D.
Irrigation and Drainage Engineer

BYRON ALDER, B. S.
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WILLARD GARDNER, Ph. D.
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BERT LORIN RICHARDS, Ph. D.
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WILLIAM WILLIAMS HENDERSON, Ph. D.
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ROBERT JAMES EVANS, Ph. D.
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Irrigation and Drainage Engineer

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Associate Agronomist

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Associate Agronomist

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*On leave
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Alice E. Pedersen, B. S.
Assistant Professor, Home Demonstration Extension Agent, Utah County
The Utah State Agricultural College is in Logan, the county seat of Cache county, one of the most prosperous agricultural sections in the State. The city has a thrifty and progressive population of about 12,000; it is quiet, orderly, clean and generally attractive. Logan is on the Yellowstone Highway, the Utah-Idaho Central Electric line, and the Oregon Short Line Railroad.

Situated on a broad hill overlooking the city, one mile east of Main Street, the college 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 farms are located. The beauty and geological significance of the location are perhaps unsurpassed. A half mile to the south is Logan river. A mile to the east is a magnificent mountain range with a picturesque canyon. In other directions are 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.

The Utah State Agricultural College provides, in accordance with the spirit of the 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, music, speech, 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 Utah State Agricultural College is to be of service in the upbuilding of the State and the great West to which it belongs. The instruction in agriculture and engineering, in addition to the purely professional
aspects of these fields of study, deals with the special problems relating to the conquest of the great areas of unoccupied lands, the development of engineering structures, the proper use of the water supply, and the kinds of crops or live stock which in Utah may be 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 Constitution of Utah establishes the Utah State Agricultural College and the University of Utah as the two public institutions of higher learning in Utah. Each of these institutions is independent in government, although each is a part of the public school system. Each, under the Constitution and the Statutes of Utah and in harmony with the rulings of its governing board, offers undergraduate and graduate work leading to the Bachelor's and Master's degrees. The College, in addition to this high status given it in Utah under the Constitution, is one of the forty-eight institutions in the United States definitely recognized by the Federal Government as the institutions of higher learning in the respective states for the development of the Federal program of education included in the Morrill and Nelson Acts of the Federal Congress.

HISTORY

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

Under the Hatch Act, approved in 1887, the State receives $15,000 annually for the Experiment Station. Under the Adams Act of 1906, the State receives an additional $15,000 annually for research work by the Experiment Station. Under the Morrill Act of 1890, amended by the Nelson Act of 1907, the State receives $50,000 annually for instruction at the Agricultural College. Under the Smith-Lever Act, the State receives annually about $34,000 for agricultural extension work to be done by the Agricultural College. Under the Purnell Act, the State received in 1928-29 an appropria-
tion of $50,000, which will increase by $10,000 each year until an annual income of $60,000 has been reached, for special work in agriculture and home economics.

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 most of the buildings described in a later section, besides providing for instruction, experimentation, and extension work.

Special maintenance appropriations are made by the legislature for general support, and for building. The State, moreover, provides additional revenue for extension purposes and experimental work.

In September, 1890, the Institution was opened for the admission of students. Degree courses were offered in agriculture, domestic art, 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. 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 1927 the divisions of instruction were established as follows: The School of Agriculture, the School of Engineering, the School of Home Economics, the School of Commerce, the School of Arts and Sciences, and the School of Education.

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

In 1926, the College was admitted to the accepted list of the Association of American Universities.

In 1929, the State Legislature codified the laws of the State relating to the College, and changed the name of Utah State Agricultural College.

In 1931, the department of Child Development was added to the School of Home Economics.
GOVERNMENT

The government of the College is vested in the Board of Trustees and, under its 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-law 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 and Forestry, Education, Home Economics, Engineering, Commerce, Arts and Sciences, Education—the Dean of the Faculty, the Director of the Summer Session, and the Directors of the Experiment Station and the Extension Service. 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 BUDGET COMMITTEE, which is advisory to the President, consists of the Deans of the six Schools and the Executive Secretary of the Institution, the Dean of the Faculty being chairman of the Committee. In all budget matters involving the Experiment Station or Extension Service, the respective Directors become members of the Budget Committee.

THE COLLEGE COUNCIL consists of the President of the College and all members of the Faculty holding the rank of Professor, Associate Professor, or Assistant Professor. Questions of discipline and policy are decided by this body.
THE COLLEGE FACULTY includes the President, Professors, Associate Professors, Assistant Professors, Ranking Professors, Instructors, and Assistants. It is concerned with ordinary questions of methods and discipline, and with other matters pertaining to the general welfare of the College.

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 their various organizations—all these 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 of departments and their associates and assistants. The staff is engaged in the investigation of problems peculiar to agriculture and rural welfare in this part of the country. It is further responsible for the circulation, through its various publications and correspondence, of such information as is of practical value to the farming communities.

THE EXTENSION SERVICE consists of the President of the College, the Director of the Extension Service, and the various Specialists, County Agents, and Home Demonstrators.

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.
PHYSICAL PLANT

BUILDINGS

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

The Main Building contains the large auditorium, seating about 1,500, the administrative offices of the College and the Experiment Station, and many class rooms and laboratories.

The New Home Economics and Commons Building, most imposing of the campus buildings, will be the social center of the College. Offices and recreational rooms for students and faculty, a beautiful, modern cafeteria, and an attractive lunch room will add materially to the comfort and culture of students and teachers. And just as admirably, the building will fit the needs of the School of Home Economics.

The Thomas Smart Gymnasium contains a main exercise hall, 114 by 70 feet, a smaller floor for women, a running-track, a hand-ball court, wrestling and boxing room, pool, shower baths, and dressing rooms with steel lockers.

The Extension Service Building, noted for its friendly atmosphere, contains the offices of the Extension Service staff.

The Mechanic Arts Building, a two-story brick structure with a floor area of 40,000 square feet, 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.

Widtsoe Hall, thoroughly modern in plan and equipment, is occupied by the Departments of Chemistry, Physics, and Bacteriology.

The Livestock Building of three stories is exceptionally well fitted with facilities for the study of dairying, hog, horse, poultry 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, and Farm Mechanics including Auto and Tractor work.
THE LIBRARY BUILDING, cultural center of the College, is one of the best of its kind in this region. It is appealing in design and furnishings, and contains a children's library, and a beautiful reading room.

THE PLANT INDUSTRY BUILDING is a four-story brick building, thoroughly modern in arrangement. It houses the departments of Agronomy, Botany, 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 GREEN HOUSES 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, stalls for patients, and up-to-date fixtures.

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

LABORATORIES

The Bacteriological, Chemical, Mineralogical, Physical, Physiological, Zoological and Entomological, Botanical and Plant Pathological, Soil Physics, and Farm Crops Laboratories have an adequate supply of equipment for accurate work.

Art Rooms and Commercial Rooms are supplied with standard equipment.

LIBRARY

The Library is the laboratory for every course given at the College. It contains 58,792 books, and a large number of pamphlets. The books, classified by the Dewey decimal system, are made easily available by a complete alphabetical index under author, title, and subject.
One hundred fifty magazines, fifty gift magazines, newspapers of the State, and the New York Times are on the regular subscription list. Up-to-date dictionaries and encyclopedias, and standard reference works are distributed in the reading room, which is beautiful and comfortable, and provided with modern facilities for study.

The Library is a depository for United States documents and for the Carnegie Institute. The files of the United States Department of Agriculture and publications of Experiment Stations are nearly complete. The bulletins are bound and made easy of access by printed card catalogues.

MUSEUM

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 and other material of value to the museum, are appreciated. All gifts are labeled and preserved and the names of the donors are recorded.

STADIUM

The Stadium is located on a ten-acre tract of land affording a beautiful view of the east mountains and Cache Valley. Athletic contests and open air exercises are made more attractive by the natural beauty and harmonious surroundings of this laboratory of physical education. Adjoining it, practice fields for various sports are being developed.

CAMPUS AND FARMS

The land occupied by the College embraces about 155 acres. Of this, forty acres constitute the campus, laid out with flower beds, broad stretches of lawn, tennis courts, wide drives and walks, shrubs and trees.

Immediately east of the main building is the quadrangle of about ten acres containing the famous green lawn upon which numerous recreational events are held. Around this lawn, the chief buildings of the College are grouped.

The farms comprise 97 acres, the orchards and the small fruit and vegetable gardens, 10 acres.

Other farms are maintained under the direction of the Experiment Station in various parts of the State.
## STUDENT EXPENSES

### Resident Students

<table>
<thead>
<tr>
<th>Fee</th>
<th>Fall Only</th>
<th>Winter Only</th>
<th>Spring Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Fee</td>
<td>$10.00</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>Tuition Fee</td>
<td>27.00</td>
<td>18.00</td>
<td>9.00</td>
</tr>
<tr>
<td>General Fee</td>
<td>13.00</td>
<td>11.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Student Body Fee</td>
<td>15.00</td>
<td>10.00</td>
<td>9.00</td>
</tr>
</tbody>
</table>

If a resident student wishes to attend all three quarters but pay the fees on a quarter basis, the payments are divided as follows: Fall, $38.00; Winter, $15.00; Spring, $12.00, making a total of $65.00.

### Non-Resident Students

<table>
<thead>
<tr>
<th>Fee</th>
<th>Fall Only</th>
<th>Winter Only</th>
<th>Spring Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Fee</td>
<td>$35.00</td>
<td>$35.00</td>
<td>$35.00</td>
</tr>
<tr>
<td>Tuition Fee</td>
<td>27.00</td>
<td>18.00</td>
<td>9.00</td>
</tr>
<tr>
<td>General Fee</td>
<td>13.00</td>
<td>11.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Student Body Fee</td>
<td>15.00</td>
<td>10.00</td>
<td>9.00</td>
</tr>
</tbody>
</table>

If a non-resident student wishes to attend all three quarters but pay the fees on a quarter basis, the payments are divided as follows: Fall, $63.00; Winter, $15.00; Spring, $12.00, making a total of $90.00.

All students taking courses in laboratory and shop work are charged a laboratory fee of 50c per credit hour.

All students registered in Military Science and Tactics are required to pay a $5.00 Military Suit deposit, which is refunded when the suit is returned.

A Class Fee of $1.00 is charged each student at the time of registration.
OTHER FEES—

Locker Rental ................................................. $1.00
Excess registration, per hour ...................... 1.00
Changing Course Fee, each change ................... .50
Registration as listener in lecture course in which no credit is desired, per subject ............... 5.00
Registration for 6 hours or less, 1 or 3 quarters 15.00
Graduation Fee ................................................... 5.00
Late registration fee, per day ....................... 1.00
(Minimum $5.00)
Transcript of credit ........................................ .50
(Additional transcripts may be had for 25 cents if obtained at same time)
Teacher placement fee ...................................... 1.00

Special examinations may be taken in subjects not registered in, on approval of the Special Examination Committee, and upon payment of 50 cents per credit hour, minimum fee, $2.50.

After the first week of each quarter, changes of registration 50 cents for adding and 50 cents for dropping a subject.

Registration is not completed until the student has presented his fee card at the cashier’s window, Secretary’s Office, and settled for his fees, and filed his registration cards with the Registrar’s office.

All students when paying fees are given official receipts from the Secretary’s Office. These receipts must be presented before refunds are allowed. The students, therefore, should exercise care that the receipts are not lost or mislaid.

All fees except registration fee will be refunded to any student withdrawing from school the second week of the quarter. No refunds are allowed after the second week.

By state law, the Institution may relieve worthy and deserving students from payment of the registration fee, provided that not more than ten per cent of the total student body be relieved of the fee in any one year.

According to the constitution of the Student Body, every regular student must obtain at time of registration a Student Body card.
which will admit him to all activities controlled by the Student Body organization; athletic events—football, baseball, tennis and track—dramatics and musical entertainment, socials, lectures, etc., and in addition, give 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.

Since all women 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, Home Nursing and Household Administration 150, must provide herself with the following: Two washable white uniforms, and two white work aprons.

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 for board and room, are $60.00 for the quarter.

Good board and room in a private home costs from $4.00 to $6.00 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 State Agricultural College:

<table>
<thead>
<tr>
<th>Low</th>
<th>Average</th>
<th>Liberal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, books, fees, etc.</td>
<td>$70.00</td>
<td>$70.00</td>
</tr>
<tr>
<td>Room and board</td>
<td>130.00</td>
<td>180.00</td>
</tr>
<tr>
<td>Incidentals or miscellaneous</td>
<td>65.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$265.00</strong></td>
<td><strong>$350.00</strong></td>
</tr>
</tbody>
</table>

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.

**SELF HELP**

A large number of the students of the Utah State Agricultural College earn part of their expenses while in residence. The College itself gives employment to many students, and college officers are glad to be of assistance to students in finding work.
Young people who expect to earn their way through college should first of all, by earnest labor and careful economy, accumulate as large a college expense fund as possible. It is desirable, if possible, that this sum be sufficient to cover the expense of the first year. Correspondence or conference with the College Secretary usually reveals some way to earn the additional amount needed. After one year in college, the earnings of the student in vacation and during the college year generally enable him to continue his course without interruption.

It is the policy of the College to encourage and aid in every possible way earnest, ambitious young men and women who want an education and an opportunity to help themselves.
SCHOLARSHIPS AND AWARDS

The Johansen Scholarship Fund of $5,000, a gift of the late Mrs. Johana Johansen, provides six scholarships annually, worth in the aggregate from $250 to $300, for help of worthy students of Junior or Senior rank. Applications for this scholarship must be filed with the chairman of the committee on Awards and Honors before April 15, for the succeeding year.

The One Thousand Dollar Liberty Bond Endowment contributed by the faculty, 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 12, and who has need of financial help and who has demonstrated a high degree of scholarship in the work of previous quarters.

The 1927 Class Gift to the College yields an annual income sufficient to provide three scholarships of $125. Application should be made by Juniors to the Awards and Honors Committee on or before April 15. Applications must be accompanied by an approved outline of a proposed study project to be completed during the Senior year and submitted to the Awards and Honors Committee not later than May 1. Two copies of the completed thesis are to be filed in the College library.

The U. S. 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.

Rotary Club Senior Loan Fund. The Logan Rotary Club has provided a special loan fund to assist Seniors in meeting their expenses during the last year of their college course. Further information may be obtained from Mr. N. D. Salisbury, First Security Bank, Logan, or the Chairman of the Awards and Honors Committee.

The College Award is conferred annually upon the male student of the institution who shows evidence of being able in greatest measure to repay the nation the investment which it has made in him, on the basis of the following rating:

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

(b) His patriotism, honesty, and good judgment as a stu-
dent 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 and his qualities of social leadership, as shown in student affairs, based upon physical and moral cleanliness and strength of character (50 points).

The College Award is conferred annually upon the woman student of the institution who shows evidence in greatest measure of:

(a) Potential vocational or professional efficiency as shown in scholarship, industry, and natural ability (50 points); and

(b) Womanly qualities, development of the social graces, not necessarily social prominence, and attitude of mind (50 points).

The Rhodes Scholarships. A number of candidates for the Rhodes Scholarships in Oxford University, England, are selected each year from the State of Utah. They are of the value of $2,000.00 a year, and are tenable for three years. Students who wish to apply for them must have some social and athletic distinction as well as high scholarship in mathematics, science, or letters. All applicants must also have three years of French, and it is advisable to have Latin, German, and English history, as well as high school mathematics. Full information and application blanks may be secured at the President's Office or from Professor Sherwin Maeser, chairman of the Rhodes Scholarship Committee. Students who wish to apply for these scholarships are advised to start preparing for them in the Freshman year. They are usually given to Seniors or graduate students.

The American Legion Scholarship Medal is awarded each year to the letterman on the football team who maintains the highest scholastic record during the football season, and meets the requirements in Military Science as approved by the R. O. T. C.

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 American Legion Military Medal is given to a letterman who exhibits the most wholesome attitude toward military training during the year in which he earns his letter.

The Phi Upsilon Omicron Scholarship of $25.00 is given annually by the Kappa Chapter of that organization to the freshman girl in the School of Home Economics ranking highest on the following points:

(1) Scholarship.
(2) Participation in student activities.
(3) Service and cooperation.
(4) Leadership.
(5) Moral character.
(6) Judgment and reliability.

In addition, the candidate must be a member of the Home Economics Club.

Alpha Kappa Psi Scholarship Award. Alpha Kappa Psi Fraternity, Alpha Theta Chapter of which is established at the Utah State Agricultural College, awards annually the Alpha Kappa Psi Scholarship Medallion to the male student of the Junior Class in Commerce who possesses the highest scholastic average for three years of work taken in this College.

The Home Economics Medal is to be awarded annually to a senior student in the School of Home Economics on the following basis:

(a) Qualities of womanhood, as represented by health, physical and moral cleanliness, personality, cooperation, and leadership.
(b) Application of home economics principles.
(c) Scholastic attainment.

The Utah State 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.

An Annual Scholarship of $25.00 will be awarded by the Chi Omega Fraternity to the girl majoring or minoring in the
Social Sciences who gives evidence of Superior Scholarship, and ability to make a contribution to organized group life; and who writes the best 2000 word essay on a subject to be approved by a committee before the close of the fall quarter and to be finally submitted not later than April 15.

The committee of award shall be appointed by the Chi Omega Fraternity, each year, from the teaching staffs of the departments of Sociology and Economics.

Scholarship A's in the form of gold pins are given at the close of each year to the students who have "A" grades for the year.

**AWARDS OFFERED IN SCHOOL OF AGRICULTURE**

**THE DANFORTH FOUNDATION SUMMER FELLOWSHIP.** This award of $103.00 covering the expenses for two weeks in St. Louis and vicinity, and two weeks of leadership training at the American Youth Foundation Camp on Lake Michigan, Shelby, Michigan, is given each spring to an outstanding member of the junior class in the School of Agriculture. Thirty students from as many colleges are awarded this fellowship.

Application blanks are furnished through the Dean's Office by the Danforth Foundation and final selection is made by the Danforth Foundation.

**THE ROLLA M. RICH MEMORIAL SCHOLARSHIP** yields each year the interest from a $1000 endowment fund established by Mrs. Emily Mathews Rich, in memory of her son Rolla M. Rich, a former student of the College.

This sum is awarded annually to a needy student of the senior college who is a member of both Delta Phi and the Agricultural Club.

Selection is made by the President of the College, the Director of the Institute and the Dean of Agriculture with equal emphasis placed on character, scholarship and leadership in agriculture.

**THE LEADERSHIP CHALLENGE CUP** is a gift to the College by Kenneth C. Ikeler and is to be awarded each year to a Senior student in Agriculture who has exhibited the greatest measure of constructive organization and leadership in the School of Agriculture through his College course.
The John K. Madsen Challenge Cup is a gift to the College by John K. Madsen, Mt. Pleasant, Utah, and is awarded each year to the student who shows the most proficiency in the judging of sheep.

The Ogden Union Stock Yards Challenge Cup is a gift to the College by the Union Stock Yards Company of Ogden and is to be awarded each year to the student who shows the most proficiency in the judging of beef cattle.

The Hawaiian Steam Ship Company's Challenge Cup is a gift from the Hawaiian Steam Ship Company and is to be awarded each year to the student who shows the most proficiency in the judging of wool.

The Salt Lake Union Stock Yards Company Challenge Cup is a gift to the College by the Union Stock Yards Company of Salt Lake City and is to be awarded each year to the student who shows the greatest proficiency in the judging of hogs.

The John M. Richie Challenge Cup is a gift to the College from John M. Richie of Charleston and is to be awarded each year to the student who exhibits the most proficiency in the judging of horses.

The American Packing Company Challenge Cup is a gift to the College from the American Packing Company of Ogden and is awarded each year to the student who shows the most proficiency in the judging of meat.

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

A list of the recipients of various honors will be found at the back of the catalogue.
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. This society has control, under faculty direction, of the following student activities:

1. a. Athletics, for men;
   b. Athletics, for women.

An intra-mural program, including all seasonal sports for which awards are given.

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

3. Theatricals. In the past, She Stoops to Conquer, Pygmalion, Milestones, The Admirable Crichton, What Every Woman Knows, Twelfth Night, Hamlet, and various other productions have been presented.

4. Opera. The vocal and instrumental departments of the College unite each year in the production of an opera. With successful trials at classics such as Rigoletto, Faust, and Il Trovatore, grand opera has become traditional at Utah State.

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

6. 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 Scribbler’s Club publishes The Scribble; the Agricultural Club, the Ag. Club Beehive. Interest in journalistic work is stimulated by the presence on the campus of the chapter of the national honorary journalistic fraternity, Pi Delta Epsilon.

7. Lyceum Course. Each year the Student Body presents from six to eight numbers of national or local repute. These entertainments are free to members of the Student Body.
GENERAL REQUIREMENTS

ADMISSION

FRESHMEN: Entrance to the Freshman class is based upon graduation from an accredited high school, or upon the presentation of 15 approved high school units of work, or by examination of those students who have had special training not obtained in high school. Prospective students are urged to send a record of their credits to the Registrar at least two weeks before the opening of school, and in any case to bring them on the day of registration. Students who expect to become candidates for any degrees or diplomas from any of the Schools of the College should include among the units presented for entrance 10 units in the following five groups: English, Mathematics, Social Science, Natural Science, and Modern Languages, to be distributed as follows:

- English ........................................... Three Units
- Algebra ........................................... One Unit
- Geometry ......................................... One Unit
- Social Science .................................... One Unit
- Natural Science (requiring laboratory work) One Unit
- Elected (from the above groups and Modern Languages) ....................... Three Units

Students may not receive more than Sophomore standing until the above requirements have been met.

When a deficiency exists; that is, when a student has 15 units of high school work but lacks one or more units specified above, he will be required to complete nine quarter hours of college work for each unit in which he is deficient, in addition to the regular group requirements in that field.

A student who has less than 15 units of high school work cannot enter unless he is beyond high school age; in which case he must register as a vocational student (see below).

Physical education and Military Drill will not be accepted in the fifteen approved units.

TRANSFERS FROM OTHER COLLEGES. (ADVANCED STANDING): The College does not grant credit for excess high school work. Advanced standing for work of satisfactory grade done in some other accredited college, after the completion of 15 units of high school work, 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. Transcripts submitted for evaluation become the property of the Institution, and will not be returned. Advanced standing credits, while they may be acceptable toward a degree, will not be included on a transcript of college credits until after a degree has been conferred. Transcripts should be sent to the Registrar two weeks in advance of registration. It is necessary to have them at the time of registration, in order to arrange the course of study properly.

Vocational Students: Persons 19 years of age, or over, who have less than 15 units of high school work and who have not been in attendance at any high school within one year preceding the time of application for admission to the Utah State Agricultural College, may, at the discretion of the Entrance Committee, be admitted as vocational students. Such persons are not candidates for a degree, and have no collegiate rating. They may register for any courses which their previous training or experience will enable them to carry successfully, but only after consultation with the instructors concerned, and their written approval.

If the applicant has been in attendance at a high school within one year preceding the time of application for admission to the Utah State Agricultural College, his application will not be considered unless it is accompanied by a statement from the principal of the high school attended, to the effect that the applicant is a person worthy of admission to the College, and that in his opinion, the applicant could be better served at the Utah State Agricultural College than at the high school concerned.

Such persons may receive college standing, and become candidates for a degree:

1. By using the credits obtained while vocational students to satisfy college entrance requirements. In such cases 12 quarter hours will be taken for each deficient high school unit.

2. By passing written entrance examinations. These examinations will be offered the third day of each quarter. This examination will be under the direction of the College Entrance Committee and will consist of mental tests, subject achievement tests and tests in the fundamental tool subjects. These examinations shall be administered in such a fashion as to select only the more promising students.

No credits obtained prior to the quarter in which college standing was established can be used toward a degree.

Quarter Credits (Definition): A quarter hour credit is the
credit given for one hour of lecture or three hours of laboritory work each week for 12 weeks.

Class Standing: Forty-five hours of approved college work, in addition to the prescribed entrance requirements, are required for Sophomore rank; 90 hours and Senior College standing (see page 48) for Junior rank; and 130 hours and Senior College standing for Senior rank. The foregoing requirements are to be exclusive of the required courses in Physical Education or Military Science.

Registration Dates: The Fall quarter opens on Monday, September 23. Freshmen will register on Monday, September 23, and other students will register on Tuesday, September 24.

The registration of all students for the Winter quarter will be on Monday, December 9; for the Spring quarter, on Monday, March 16; and for the Summer session, on Monday, June 8.

Students registering at the Utah State Agricultural College for the first time should report first to the Entrance Committee, Room 133, Main Building.

Late Registration: Registrations after the last date given above for each quarter are considered late. A fee of one dollar per day will be charged for those who register late, with a maximum fee of five dollars. In case the registration cannot be completed by the prescribed day, owing to some delay caused by the College or its officers, an exemption may be obtained upon application to the Registrar on the regular day of registration. 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 a student is late in registering.

Normal Registration: Fifteen hours, exclusive of the one hour of required Physical Education or Military Science, is the normal registration for any one quarter. A student may, however, with the consent of the Dean or Adviser, register for seventeen hours.

Excess Registration: Registrations in excess of 17 hours, exclusive of the one hour of required Physical Education or Military Science, can be granted only by the Attendance and Scholarship Committee upon petition and the payment of a fee of $1.00 per quarter hour of excess credit. The necessary forms may be obtained at the Registrar's Office. Excess credit is added to the student's registration by the Registrar's Office after the petition is granted. The registration is construed to include any Extension,
Correspondence, or other work carried by the student for credit during the period of the school year in question. This rule does not apply to students taking a prescribed course requiring excess registration as in the School of Engineering.

If by oversight the registration cards are allowed to be filed with excess credit, the registration will be reduced to the allowed limit as soon as the error is detected.

No student will receive credit for work which is not included on his registration card. Students who wish to attend regularly any class for which they are not registered, must obtain a written permit from the Dean of the School. No credit will be allowed for such attendance.

**Low Scholarship and Probation:** Students who have not maintained an average grade of C or better, students failing to obtain passing grades in 12 or more hours of work, and students who fail to do satisfactory work in Military Science and Tactics during the preceding quarter are automatically placed in the low scholarship group.

Students in the low scholarship group may not participate in student activities other than regular class work. Students in the low scholarship group may be placed on probation for poor scholarship.

Students on probation who violate the terms of their probation are subject to immediate suspension from the College.

When in doubt regarding any of the regulations affecting them, students on probation should consult with the Attendance and Scholarship Committee. This committee alone has the authority to waive or modify the terms of probation.

Students in the low scholarship group may not register for more than 15 hours, exclusive of Physical Education or Military Science.

**Incomplete Work:** Students are required to complete, by the end of the quarter, all courses for which they have registered. This includes Correspondence courses for which the student may be registered on the residence registration fees. Incomplete grades can be granted by an instructor only when permission is granted by the Committee on Incomplete Grades before the close of the quarter. The necessary petition forms may be obtained at the Registrar's Office.

Incomplete work must be finished, and a passing grade given in the course, within one year of the close of the quarter, otherwise the grade is interpreted to mean failure.
DIVISIONS OF THE COLLEGIATE WORK

The collegiate work of the institution is divided into two divisions: Junior College and Senior College. Courses numbered from 1 to 99, inclusive, are Junior College courses. Those listed from 100 to 199, inclusive, are Senior College courses. All courses with numbers 200 and over are graduate courses.

Qualified students may enter courses in any quarter, unless a statement to the contrary appears in the description of the courses. Junior College students will not be allowed to enter Senior College courses except upon approval of the Dean or Adviser, and the instructor of the course.

THE JUNIOR COLLEGE

The Junior College comprises the work of the Freshman and Sophomore years. The main purposes of this division are to provide a broad and integrated background in the principal fields of human knowledge, and to fulfill the prerequisites for the major work upon which he will concentrate in the upper division.

Provisions are made in several departments of the College for the issuance of Certificates of Completion for two years of work as prescribed by such departments.

Students who expect to become candidates for the Bachelor's degree should plan their courses with great care through consultation with their Deans or Faculty Advisers, in order to insure the proper foundation for their advanced work. Failure to do this may necessitate an extra year to complete the work for the desired degree.

Beginning with the Freshman class entering in the Fall of 1934, students must satisfy the following requirements, in order to complete the Junior College work:

1. Completely satisfy the entrance requirements (page 41).
2. Complete 96 credit hours of work (including Military Science and Physical Education).
3. Prepare a foundation of at least 15 hours for the field of specialized study in the Senior College.
4. Satisfy the Group, Military Science, and Physical Education requirements as follows:
   Groups: Forty-five hours of work must be taken from the following prescribed courses, and distributed in the five groups listed below.
<table>
<thead>
<tr>
<th>COURSE</th>
<th>DEPARTMENT</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LANGUAGE ARTS GROUP—10 HOURS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman Composition</td>
<td>Eng.</td>
<td>5</td>
</tr>
<tr>
<td>Fundamentals of Speech</td>
<td>Speech</td>
<td>5</td>
</tr>
<tr>
<td>Courses in General Literature of Junior College</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>College Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(To be chosen from English 31, 50, 51, 53, 54, 55, 60, 70, 80, 81).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXACT AND PHYSICAL SCIENCES GROUP—10 HOURS**
(Not more than 5 hours in any department)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DEPARTMENT</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Chemistry</td>
<td>Chem.</td>
<td>5</td>
</tr>
<tr>
<td>General Physics</td>
<td>Phys.</td>
<td>5</td>
</tr>
<tr>
<td>Physical Geology</td>
<td>Geol.</td>
<td>5</td>
</tr>
<tr>
<td>Algebra</td>
<td>Math.</td>
<td>5</td>
</tr>
</tbody>
</table>

**SOCIAL SCIENCE GROUP—10 HOURS**
(Not more than 5 hours in any department except that Economics 1 and 51 may be used to fill the group)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DEPARTMENT</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Social Science</td>
<td>Econ.</td>
<td>5</td>
</tr>
<tr>
<td>General Economics</td>
<td>Econ.</td>
<td>5</td>
</tr>
<tr>
<td>Principles of Sociology</td>
<td>Soc.</td>
<td>5</td>
</tr>
<tr>
<td>*Principles of Agricultural Economics</td>
<td>Ag. Econ.</td>
<td>5</td>
</tr>
<tr>
<td>General Political Science</td>
<td>Pol. Sci.</td>
<td>5</td>
</tr>
<tr>
<td>Elementary Psychology</td>
<td>Psyc.</td>
<td>5</td>
</tr>
<tr>
<td>World Civilization</td>
<td>Hist.</td>
<td>5</td>
</tr>
<tr>
<td>Modern European History</td>
<td>Hist.</td>
<td>5</td>
</tr>
<tr>
<td>Modern U. S. History</td>
<td>Hist.</td>
<td>5</td>
</tr>
</tbody>
</table>

**BIOLOGICAL SCIENCE GROUP—10 HOURS**
(Not more than 5 hours in any department)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DEPARTMENT</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Zoology</td>
<td>Zoo.</td>
<td>5</td>
</tr>
<tr>
<td>(Zoo. 3 and 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Botany</td>
<td>Bot.</td>
<td>5</td>
</tr>
<tr>
<td>(Bot. 21 and 22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy and Physiology</td>
<td>Physio.</td>
<td>5</td>
</tr>
<tr>
<td>General Bacteriology</td>
<td>Bact.</td>
<td>5</td>
</tr>
<tr>
<td>Principles of Nutrition</td>
<td>Foods</td>
<td>5</td>
</tr>
<tr>
<td><em>For students in the School of Agriculture only.</em></td>
<td></td>
<td></td>
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</tbody>
</table>


GROUP REQUIREMENTS

ARTS APPRECIATION GROUP—5 HOURS
(Not more than 3 hours in any department)

Music Appreciation........................................... Music 1 ............... 3 hours
or Music 80 or 81 2 hours
Art Appreciation............................................. Art 3, 22, 26 or 33 3 hours
Drama Appreciation.......................................... Speech 60 ............... 3 hours
Orientation in Physical Education........ P. E. 1................. 2 hours

Courses listed in parentheses are the ones which may be substituted for the regularly listed course. In no case can more credit toward filling a group, than is allowed above, be obtained in one department. The prescribed courses for filling the groups, as well as the courses which may be substituted for them, are listed at the heads of the departmental lists of courses.

In departments where there is a prescribed course of study such as in Engineering, Pre-medical work, Forestry, and Smith-Hughes Teacher Training courses, the completion of such courses shall substitute for the above requirements provided the student remains in that field: Students in Mechanic Arts have special requirements listed in description of work of the School of Engineering (page 67).

PHYSICAL EDUCATION: Six quarters of work in Physical Education activity classes are required of all women students, and also of all men students who do not take the required courses in Military Science (see Military Science and Tactics).
THE SENIOR COLLEGE

On and after the Fall of 1936, only such students as have completed the Junior College requirements as listed above may be registered in the Senior College.

Graduates of standard normal schools and junior colleges and students from other colleges who present at least 90 hours of college work, exclusive of the courses in Physical Education, required at the institution from which they are transferring, may be registered in the Senior College, even though they lack some of the group requirements of the Junior College, provided they register so as to remove these deficiencies within two quarters of the time of registration.

**MAJOR SUBJECT:** The student should select a major subject upon entering, or early the first year, but in no case later than entrance in the Senior College. The Dean will assign the student to the professor in charge of this major who will register the student during his Junior and Senior years, and act as his Adviser.

The Major Department has the authority to prescribe not less than 30, and not more than 50 hours of work in the major subject (exclusive of any courses which may have been used to satisfy Junior College requirements in any of the groups). The Major Department and the Dean shall also prescribe such other related courses as may be considered desirable, provided always that the students' free electives may not be reduced below 36 hours.

**MINOR SUBJECT:** The student is permitted to choose his own minor. The minor shall consist of 18 credit hours either in one department or in two departments closely related in nature of subject matter, provided that if the minor is in more than one department it must have the approval of the Dean and the Major Professor.

**OLD GROUP REQUIREMENTS**

Candidates for the Three-year Normal Diploma in the spring of 1936, and the Bachelor's degree in the spring of 1937 or before, must satisfy the old group requirements, which consist of 54 hours distributed as follows:

**LANGUAGE Group:** 18 hours. (English, Modern Languages or Speech). Must include English 10, 11, unless excused by the English Department.
GRADUATION

Social Science Group: 12 hours. (History, Economics, Political Science, Sociology, Agricultural Economics).

Biological Science Group: 12 hours. (Botany, Zoology, Entomology, Public Health, Bacteriology, Physiology).

Exact Science Group: 12 hours. (Chemistry, Physics, Mathematics, Geology, except Geology 5; Accounting 100, 102, 103, when preceded or paralleled by Mathematics 15 or 34).

The Physical Education and Military Science regulations of the Junior College, and the major and minor requirements of the Senior College, remain unchanged.

GRADUATION

The College offers Certificates of Completion for two years of applied work in certain departments, Three-year Normal Diplomas in the School of Education; the degrees of Bachelor of Science and Master of Science in all of the Schools of the College, and gives work to fulfill the requirements of the State Board of Education for the Professional High School Certificate.

IMPORTANT: The College reserves the right to change at any time the requirements for graduation, and every candidate for a certificate, a diploma, or a degree shall be held to compliance with such changes, as far as the uncompleted part of his course is affected.

Students who do not graduate in the class with which they entered are held to the requirements, including entrance, of the class with which they graduate.

REQUIREMENTS FOR THE TWO-YEAR CERTIFICATE

The Schools of Agriculture and of Home Economics offer two-year, non-degree courses in practical studies leading to a certificate of completion, for those who wish to fit themselves better for their vocation and for life, and who cannot spare the time for the regular four-year course leading to the B. S. degree. While these short courses are designed to develop a broader understanding of the sciences underlying these fields and to lay the foundations for good citizenship, they offer a considerable range of selection of practical courses of both the Junior and Senior College grade.
The courses are arranged so that the student may at a later date complete the four-year course with a minimum loss of time.

The general requirements for this Certificate are:
1. Satisfy the entrance requirements (page 41).
2. Completion of 96 quarter hours of work, which includes the required work in Physical Education or Military Science (page 47).
3. The completion of a Major of 30 hours in one or more closely related departments of the School in which the Certificate is granted.
4. The completion of a Minor of 15 hours closely related or basic to the Major field. This need not be in the same school.
5. Twenty-four hours in the basic groups as follows: Language, 9, which shall include English 10; Exact Science, 5; Biological Science, 5; and Social Science, 5.
6. Twenty-one hours of elective work.

Junior College credit only may be obtained for work taken during the short course, even though some Senior College courses be taken.

For additional information, see descriptions of work in the School concerned.

REQUIREMENTS FOR THE THREE-YEAR NORMAL DIPLOMA

Candidates for the Normal Diploma must meet all entrance requirements (page 41) and must present 135 quarter hours of college work, exclusive of the requirements in Military Science and Physical Education (page 47). Candidates for the Normal Diploma in 1936 must meet the old group requirements (page 48) and include English 105. Beginning with the candidates for the diploma in the spring of 1937 and thereafter, the old group requirements are replaced by the new Junior College requirements (page 45), and in addition English 11 and 105 must be completed.

All candidates must fill a special group of 12 hours in one field applicable to elementary school teaching. For example, Music, Art, Literature, Physical Education.

It is suggested that Psychology 3 and English 10 be taken in the first year, English 11, Education 80 and Physiology 14 in the second year, and Education 104, 105, 106, 111, 121 and English 105 in the third year. It is advisable to fill the group requirements, as
far as possible, during the first two years. This course leaves about 42 hours of electives.

Students with special experience or training in certain of the required fields may have some of the requirements waived.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

The College confers the degree of Bachelor of Science in Agriculture, Forestry, Arts and Science, Agricultural Engineering, Civil Engineering, Commerce and Business Administration, Home Economics, Education, or Mechanic Arts upon students who meet the requirements specified herewith:

Before a student can become a candidate for a baccalaureate degree, the abstract of his record in the College must show: first, that he has satisfied the entrance requirements as prescribed for the class with which he expects to be graduated; second, that the collegiate work for which he has credit, his conditional and other pending credits, the completion of which is reasonably assured, and the work for which he is registered or is planning to register, together satisfy the requirements for graduation including Physical Education and Military Science as prescribed for his class.

Students who are planning to graduate at the next commencement should apply for candidacy not later than the 4th week of the fall quarter. The Graduation Committee will then check over the records and admit to candidacy all students whose records show that the conditions specified above have been fully met. Students who have not fully met the conditions as specified will be officially notified of their deficiencies and withheld from candidacy until such time as the deficiencies have been removed.

SUMMARY OF REQUIREMENTS FOR GRADUATION

For students who will graduate in the spring of 1937 or before, the following requirements must be met after satisfying the requirements for admission (page 41):

1. Six quarters work in Physical Education by men and women, provided that candidates who are officially excused from Physical Education present one credit of other work for each quarter that they have been excused.

2. Six quarters of work in Military Science for men unless officially excused from this requirement. Men who take the work
in Military Science are excused from the Physical Education requirement mentioned in paragraph one (1) above.

3. One hundred eighty credits of collegiate work, exclusive of the required hours in Physical Education or Military Science.

4. Fifty-four hours of Senior College work taken after the candidate has presented at least ninety college credits, in addition to the required courses in Physical education or their substitutes.

5. The completion of a major, a minor, and related work as outlined under Senior College (see page 48).

6. The completion of required work in the four basic groups, as listed under the Old Group Requirements (page 48).

Paragraphs 5 and 6 above do not apply to students who are pursuing a prescribed course of study such as Engineering, Mechanic Arts, Pre-medical work, Forestry, and Smith-Hughes Teacher Training courses.

7. Of the 186 hours required for graduation at least 102 must have been earned in resident courses. Resident courses are defined as courses taught on the campus, as a part of the regular teaching load of the instructor giving the class, and taught as listed in the catalogue or schedule bulletin. Non-resident credits include credits earned through correspondence courses, extension courses, and special examinations. Of the 84 allowable non-resident credits limitations have been placed on the three groups as follows: Maximum by correspondence 37 quarter hours; maximum by extension 74½ quarter hours; maximum by special examinations 18½ quarter hours.

8. Candidates must have been in residence at the Utah State Agricultural College during three full quarters. During this period the candidate must have obtained at least 45 full term resident credits. The last 45 credits presented for the degree must have been earned in the College, and of these 45, at least 30 must have been earned in residence. The residence requirement may be satisfied by residence Summer School work.

9. An average grade of "C" or higher; credits of "D" grade not to exceed one-fifth of those used toward graduation; and no credit for courses having a grade lower than "D".

10. Written application to graduate, filed with the Graduation Committee before January 15, containing information requested. A special fee of one dollar will be charged those applying later than that date.

11. Recommendation for graduation in writing by:
(a) The professor in charge of the major subject.
(b) The Dean of the school in which the major work is done, and
(c) The Committee on Graduation.

12. The candidates must be of good moral character and must have discharged all college fees.

13. Attendance in person at the Commencement and Baccalaureate exercises at which the candidate expects to secure the degree, unless excused in writing by the Graduation Committee for very urgent reasons.

For candidates for the Bachelor's Degree in the Spring of 1938, or thereafter, the above requirements will be changed as follows: Paragraph 6 will read: The completion of the requirements of the Junior College as outlined on page 43, and the completion of English 11. Paragraph 4 will read: Fifty-four hours of Senior College work taken after the candidate has been granted Senior College standing.

REQUIREMENTS FOR THE HIGH SCHOOL TEACHER'S CERTIFICATE

Students satisfying the following requirements in addition to a standard Bachelor of Science degree will be recommended by the College for the Professional High School Certificate given by the State Board of Education.

The candidate must present 27 hours of professional educational subjects, which shall include Psychology 102, and Education 111, 115, 121, 129 or their equivalents; the Candidate's Biological Science group must include Physiology 108 or 109 and the Social Science group shall include 10 hours in Ethics or Sociology, or 5 hours in these subjects and 5 hours in Political Science or Economics.

Graduates of Standard Normal courses, or those who have had one or more years of successful teaching experience, may have some of these requirements waived. Consult the Dean of the School of Education in regard to this matter.

REQUIREMENTS FOR THE MASTER'S DEGREE

Registration of all graduate students shall be made by the chairman of the Committee on Graduate Work.
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 three full quarters after receiving the standard Bachelor's degree (or after having met the requirements for this degree), and must obtain forty-five (45) full time resident credits of which at least twenty (20) must be of graduate grade.

To be admitted to candidacy for the Master's degree the student must have his course of study approved on or before the first Friday of the Winter quarter, or at least five 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 (from 9 to 15 credits) must be prepared by May 1, and must be approved and accepted by a committee of five, which is appointed by the professor who directs the research. At least two copies of the thesis must be filed with the college librarian.

The candidate must successfully pass an oral examination (not public), 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, his thesis committee, and two professors to be selected by the committee on graduate work.

No examinations will be given after May 20 for candidates who are to graduate in June.

Graduate students should not register for more than 15 credit hours. Students who have established records of high scholarship may be permitted to register for additional credits (not to exceed 17 per quarter) by the dean of the Graduate Division.

GRADUATION AT THE CLOSE OF THE SUMMER SESSION

Any student who can satisfy the requirements for graduation by the close of the Summer Session 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 proper authorities of the College as soon as their work is completed.
DIVISIONS OF THE COLLEGE

The work of the College falls into three distinct divisions: first, the College Proper, giving instruction on the home campus of the College; second, the Research Division, having for its object the discovery of new truth or the new application of established truth, for the advancement of life; third, the Extension Division, which carries instruction to the people who can not come to the College Campus.

To accomplish this work the following administrative divisions exist:

I. The College Proper.
   The Schools of Agriculture and Forestry.
   The School of Arts and Sciences.
   The School of Commerce.
   The School of Education.
   The School of Engineering.
   The School of Home Economics.
   The Summer Session.

II. Research.
   Experiment Station.

III. Extension.
   The Extension Service.

The instructional and investigational forces with the 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.
SCHOOLS OF AGRICULTURE AND FORESTRY

E. J. Maynard, Dean

Today, agriculture's newest problems challenge the best thought and initiative of the nation. A basic training in crop and husbandry practices and a sound knowledge of the scientific principles of agricultural economics are essential for those who want a hand in the development of a progressive agricultural program for the future.

The Utah State Agricultural College is well equipped to teach both practical and scientific agriculture; to train men in the efficient management of crops and livestock on farms and ranches; for technical positions with State and Federal Departments of Agriculture and for many other positions of responsibility in investigational, extension and commercial work.

The College farm, dairy manufacturing plant, experimental livestock feeding plants, plant breeding plots, gardens, orchards and technical equipment offer an excellent opportunity for the combination of theoretical study and practical experience. Outstanding representatives of those principal livestock and poultry breeds best adapted to Utah conditions afford a "standard of perfection" in desirable type and form for the student judge.

Western agriculture needs clear thinkers and energetic leaders to solve present day problems and achieve success in its many fields of endeavor, and this school is equipped and prepared for their necessary training.

In the School of Agriculture, students may major in the following departments: Agricultural Economics, Agronomy, Animal Husbandry, Botany and Plant Pathology, Dairy Husbandry, Dairy Manufacturing, Entomology, Forestry and Range Management, Horticulture, Poultry Husbandry, Veterinary Science, Wild Life Management, and General Agriculture. For prescribed major in General Agriculture see the Dean of the School.

For the requirements for admission, certification, and graduation see pages 41 to 54.

OUTLINE OF FOUR-YEAR COURSE LEADING TO THE B. S. DEGREE IN AGRICULTURE

JUNIOR COLLEGE REQUIREMENTS

During the first two years in College the student in agriculture should accomplish his basic science work and obtain a general view of the field of agriculture through completion of the prescribed
orientation courses. This will facilitate the wise selection of major and minor work on entering the senior college.

The work of the first two years is similar for all departments in this school. Courses listed in the general outline below are required for all junior college students.

**Required of Students Seeking the B.S. Degree in Agriculture**

**FRESHMAN**

<table>
<thead>
<tr>
<th>Course</th>
<th>F. W. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math. 15*</td>
<td>5</td>
</tr>
<tr>
<td>Botany 21, 22</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 1</td>
<td>5</td>
</tr>
<tr>
<td>Physics 1</td>
<td>5 or 5</td>
</tr>
<tr>
<td>English 10</td>
<td>5</td>
</tr>
<tr>
<td>Rural Soc. 10</td>
<td>3 or 3</td>
</tr>
</tbody>
</table>

*Students desiring a complete foundation in Mathematics for agriculture will take Math. 15, 16 and 75. In this case Math. 15 should be taken in the fall quarter.

**SOPHOMORE**

<table>
<thead>
<tr>
<th>Course</th>
<th>F. W. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 10, 11, 12**</td>
<td>5 5 5</td>
</tr>
<tr>
<td>Economics 51</td>
<td>5</td>
</tr>
<tr>
<td>Ag. Econ. 53</td>
<td>5 or 5</td>
</tr>
<tr>
<td>English 11</td>
<td>4</td>
</tr>
<tr>
<td>Agronomy 6</td>
<td>4 or 4 or 4</td>
</tr>
<tr>
<td>Agri. Eng. 12A</td>
<td>3</td>
</tr>
</tbody>
</table>

**Students may take Chem. 3, 4 and 5 in place of 10, 11 and 12 with approval of Chemistry Department.**

Basic courses listed above required of all four-year students in School of Agriculture except by special arrangement with Dean of School.

Six orientation courses in agriculture are required during the Freshman and Sophomore years, including Animal Husbandry 1, Agronomy 1, and four of the following five courses: Dairy 1, Poultry 1, Vet. Science 10, Hort. 1, Hort. 4. Not more than two orientation courses may be taken in any one quarter. All seven orientation courses required with General Agriculture major.

**SHORT COURSE IN AGRICULTURE**

The School of Agriculture offers a two-year non-degree course in practical agriculture leading to a Certificate of Completion. This short course makes available all regular non-prerequisite production and marketing courses in the School of Agriculture to those students who cannot arrange to take the full four-year course.

The orientation course in any department is considered a prerequisite for other courses in that department. The extensive facilities of the School of Agriculture including laboratories, experimental plots, livestock and agricultural equipment will be made available to students who register for this course.

Courses open to short course students in the various departments of the Schools of Agriculture and Forestry are indicated by an asterisk (*).

For requirements for admission, and the Certificate of Completion see pages 41 to 49.
SCHOOL OF FORESTRY
T. G. TAYLOR, In Charge

Forestry, Range Management, and Wild Life Management majors as presented in the School of Forestry are professional courses dealing with the proper handling of wild land resources. In addition to these three majors, special instruction is offered in the field of Forest Recreation.

Native crop lands in Utah comprise over 90 per cent of the total state area. The comparative newness of the fields of forestry, range, wild life and forest recreation, and the unquestioned need for correlated use and proper management present excellent opportunities for those desiring to participate in these fields of public service. The purpose stressed is the legitimate handling of our wild lands so that they may be of continuing benefit for present and future generations of citizens.

The course of study constitutes four years training for each of the three majors, and calls for completion of the courses as prescribed.

It is the aim of the curricula of this school to train men for private, government, or state work in (1) technical Forest Management, (2) technical Range Management, and (3) technical Wild Life Management.

In cooperation with the Utah Extension Service and the U. S. Department of Agriculture, a forest tree distribution program has been operating for five years. The presence of a forest nursery, situated on the campus, furnishes a considerable amount of work for students of the school.

The fortunate geographical location of the School of Forestry, the opportunity for self help for qualified men and the great need for better management of forest, range and game resources provide a happy combination of circumstances and opportunities for training in these fields.
### SCHOOL OF ARTS AND SCIENCES

**N. A. PEDERSEN, Dean**

Since its founding the Utah State Agricultural College has offered strong courses in the Sciences and also in the Arts, to carry out the technical work of the Schools of Agriculture and Forestry, Home Economics, Commerce, Education, and Engineering, and to assure to these students a liberal education and training for efficient citizenship.

An efficient instructing force and complete modern equipment have been provided in the natural and physical sciences, as well as in English and Speech, Mathematics, History, and Languages. 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, constituting the School of Arts and Science and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science.

The School of Arts and Science includes the departments of Bacteriology and Biochemistry, Chemistry, English and Speech, Geology, History, Mathematics, Modern Languages and Latin, Physics, Physiology, Public Health and Hygiene, and Zoology and Entomology.

Students taking Pre-medical work should register in the School of Arts and Science and see Dr. Maeser for the required courses.

For the requirements for admission, certification, and graduation see pages 41 to 54.

SCHOOL OF COMMERCE
W. L. WANLASS, Dean

The purpose of the School of Commerce is to give opportunity for 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, business administration, merchandising, secretarial work, economics, political science, sociology, agricultural economics and marketing.

For the professions of law and medicine the commercial courses afford excellent preparation. Graduates are prepared for positions as teachers in commercial schools. Many desirable positions as industrial managers are open to those who are qualified by training and experience. In the field of retail and wholesale merchandising are unlimited opportunities.

Special attention is called to the many opportunities for service in sociological and governmental work. (See Training for Government Service.) The Departments of Political Science and Sociology offer basic and professional courses in these fields.

In the School of Commerce, students may major in the following subjects: Accounting, Business Administration, Merchandising, Secretarial Work, Economics, Political Science, Sociology, Agricultural Economics and Marketing.

For requirements for admission, certification, and graduation see pages 41 to 54.

Note: All students in the School of Commerce are urged to take Textiles and Clothing 15 and Principles of Nutrition 5.
TRAINING FOR GOVERNMENT SERVICE

The Federal Government during recent years has employed increasing numbers of College-trained men and women who are qualified for service in its various departments. In all probability this expansion of government activity will continue for several years. In suggesting the following courses the School of Commerce has attempted to indicate lines of study which will be helpful in preparing for government service. With slight modification these courses will serve equally well to qualify the student for commercial positions outside the field of government service, as the basic requirements in both fields are similar.

After completing these basic courses in satisfying graduation requirements and after qualifying for a government position by passing a civil service examination, the government frequently provides courses of intensive training, covering a period of from forty-five to sixty days, in which the applicant is given special instruction in the routine and duties of the particular governmental division to which he has been appointed.

SUGGESTED COURSES

I. Accounting: Accounting 1, 2, 30, 100, 102, 103, 104, 111, 120, 121, 127.

II. Land Economics: Economics 4, 51, 52; Agronomy 6; Political Science 51; Business Administration 141; Agricultural Engineering 1, 12; Geology 3, 5.

In addition the student should satisfy the requirements for a major in Agricultural Economics.

III. Marketing: Economics 4, 51, 52; Mathematics 15, 16, 60, 75.

Agricultural Economics:

The student should satisfy the requirement for a major in this department.

In addition a thorough preparation should be made in the special fields in which it is desired to work such as wool, dairying, etc.

IV. Consular and Diplomatic Service: Political Science 11, 12, 13, 51, 102, 103, 104, 105, 106, 107; Foreign Language, German, French, or Spanish, depending upon the location desired; English 10, 11, 31; Economics 51, 52, 140.
V. General Administrative Training:

It is felt that anyone contemplating government service should have an intimate knowledge of the workings of our government and its relationship to industry. To supply that need the following courses are suggested: Political Science 51, 120, 128.

VI. Statistics: Mathematics 34 and 35 or 15 and 16, 60, 75; Economics 4, 51, 52, 131.

VII. Secretarial Science:

First Year
- Stenography 75, 76, or 78
- Typewriting 86, 87, 88, or 89, 90, 91.
- Calculator Operation 93, 94.
- English 10.
- Secretarial Science 30.
- Mathematics 15.
- Accounting 1 and 2.
- Economics 1.
- Textiles & Clothing 5.
- Art 3.
- Psychology 3.

Second Year
- Advanced Stenography 80, 81, 82.
- Typewriting 89, 90, 91.
- English 11.
- Business Administration 25, 54 or 55.
- Economics 51, 52.
- Political Science 11, 12, 13.
- Art 32.
- Sociology 4, 61.
- Burroughs Posting 98, 99.

Third Year
- Secretarial Science 83, 84, 85, 175.
- Exact Science
- Biological Science
- Sociology 70.
- Accounting 100.
- Speech 5.
- Psychology 101.

Fourth Year
- Secretarial Science 176, 178.
- Business Administration 152, 153 or 161, 162, and 136.
- English 105.

VIII. Sociology:

For Case Work:
- Psychology 101, 103, 110.
- Child Development 140, 150.
- Sociology 4, 70, 140, 170, 172, 173, 176, 185, 203.
- Economics 1.
For Social Research:
Mathematics 15 or 34 and 75.
Sociology 70, 202, 204.
Thirty hours of factual courses in the Department.
Field Work under supervision.

SCHOOL OF EDUCATION
E. A. Jacobsen, Dean

The School of Education at the Utah State Agricultural College was authorized by enactment of the State Legislature in 1927. Its major function is to provide the professional courses in Psychology and Education required for the various certificates and diplomas authorized by the State Board of Education.

Supplementing the various courses in theory and method are facilities for demonstration and practice teaching. On the kindergarten and elementary school level, these activities are conducted in the Whittier School, which is operated under the auspices of the School of Education. On the secondary school level, practice teaching is conducted in the secondary schools of Logan City under the direct supervision of the teacher training director of the College.

The School of Education comprises the departments of Education, Psychology, Art, Music, and Physical Education. Candidates for the Normal Diplomas and candidates for the Bachelor's degree in Education, Art, Music, and Physical Education register in this school.

The Bachelor of Science degree with a major in Education is designed primarily for those students desiring to meet requirements for administrative and supervisory credentials. Other students will find it advisable to take their Bachelor's degree in the particular school in which their major work is chosen. Arrangements have been made with the different Schools of the College to provide the candidates for their respective degrees with the necessary professional courses to qualify them to teach in these fields.

For the requirements for admission, certification, and graduation see pages 41 to 54.
SCHOOL OF ENGINEERING
RAY B. WEST, Dean

It is the aim of this school to give the students a broad foundation in the fundamental principles of Engineering, together with sufficient knowledge of professional practice to enable them to apply these principles.

The School consists of four major divisions: Civil Engineering, Agricultural Engineering, Mechanic Arts, and Military Science, the first three of which offer courses leading to a degree of Bachelor of Science in their special fields. Civil Engineering students may choose their major in Irrigation and Drainage, Highways, Structural Design, or Sanitation, by arranging certain optional courses with the Dean. Agricultural Engineering students may specialize in Irrigation and Drainage, Farm Machinery and Farm Power, or Farm Structures, by choosing the electives in these fields.

ADMISSION

See statement of entrance requirements of the College on page 41.

Prospective engineering students are advised that they will be somewhat handicapped if they do not present for entrance one and one-half units of algebra and one unit of geometry.

REQUIREMENTS FOR GRADUATION IN ENGINEERING

Candidates for the Bachelor of Science Degree in Civil Engineering or in Agricultural Engineering must complete any one of the prescribed courses listed on the following pages, together with two years of Military Science and two years of Physical Education unless officially excused from either or both. Each candidate for a degree in Engineering must prepare a satisfactory thesis on a problem to be assigned by the department in which he elects his major. See C. E. 198.

The degree of Master of Science will be awarded upon completion of any one of the optional courses listed below, and additional work as outlined on page 53 under the general requirements for the Master's Degree.
# Prescribed Courses in Civil Engineering

The Freshman, Sophomore and Junior years are common to all C. E. Courses, and the Freshman C. E. Course constitutes also the Freshman A. E. Course.

## Freshman Courses

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## Sophomore Courses

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## Senior—Irrigation Major

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PREScribed COURSES IN CIVIL ENGINEERING

**SENIOR—Highway Major Courses**

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**SENIOR—Structural Major Courses**

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**PRESCRIBED COURSES IN AGRICULTURAL ENGINEERING**

Freshman year common to all Engineering Courses.

**SOPHOMORE YEAR**

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**JUNIOR YEAR**

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**SENIOR YEAR**

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**ToTals**

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**Electives**

| Electives | 5 3 |

**ToTals**

| ToTals | 17 16 17 | ToTals | 17 16 17 |
MECHANIC ARTS

This division offers a four-year course leading to the degree of Bachelor of Science in Mechanic Arts, with the object of training efficient auto mechanics and garage foremen, auto electricians, machine shop foremen and High School shop teachers. It lays an Engineering and Mechanical foundation for building and contracting. Two years' trade courses in Machine Work, Forging, Woodwork, Auto Mechanics, and Auto Ignition are provided for those who wish to become proficient tradesmen in these lines.

The shops are modern and well equipped, and ample floor space is provided.

REQUIREMENTS FOR GRADUATION

Candidates for the degree Bachelor of Science in Mechanic Arts must meet in full all college entrance requirements and present 180 quarter hours of college work as outlined below, exclusive of the required courses in Physical Education or Military Science. This degree may be taken with a major in Auto Mechanics, Forging, Machine Work, Radio, Aviation, Automotive Electricity, and Woodwork.

THE FOUR BASIC GROUPS

The candidate must present the following number of quarter hours of work in each of the basic groups: Language Group, 12 hours, (must include English 10, 11); Social Science Group, 10 hours; Biological Science Group, 10 hours; Exact Science Group, 18 hours; Special Group, 18 hours; Special Technical Group, 30 hours.

MAJOR AND MINOR

A major of 30 hours and a minor of 18 hours are required. For further explanation of these see page 48. The Mechanic Arts courses from which the Major, Minor, and Special Technical groups must be selected are announced under Courses of Instruction.
SCHOOL OF HOME ECONOMICS
Christine B. Clayton, Dean

The School of Home Economics is organized for study in the fields essential to successful home life in modern society. The activities of the present day household include the promotion of the health and comfort of its members through proper food, clothing and shelter, the fostering of satisfactory family relationships and the functioning of the family group as an important part of the community.

The courses in this School are arranged in three major fields as follows: Child Development and Parental Education; Foods and Nutrition; and Textiles and Clothing. Students desiring to prepare for specialization may major in any one of these fields.

Some expansion in the curriculum will occur this year as a result of the greatly improved laboratory facilities of the new Home Economics Building. Courses in Institution Cookery and Management will be offered in connection with the new Cafeteria and Lunch Room, and courses in Consumer Education, Textiles Testing and Experimental Foods will also be added.

Students who desire to prepare themselves for specialization in one field of Home Economics should consult department write-ups for requirements. In addition to the major and minor requirements they must take 15 hours of work in other phases of Home Economics before graduation. These 15 hours may be included in the special group or be used toward the minor requirements. This specialized training leads to the vocations of: commercial demonstration and salesmanship; journalism; radio broadcasting; nursery school teaching; hospital dietitianships; cafeteria and tea room management; scientific research and social service work.

All students contemplating high school teaching in Utah or neighboring states should register for the “Smith-Hughes” course. This is a carefully planned sequence of subjects extending over four years and leading to a Bachelor of Science Degree with high school and Smith-Hughes certification. This course gives the broadest preparation for teaching in either high school or extension service and is also the best preparation for intelligent home making.

Many service courses in Home Economics are offered for the benefit of students who are registered in other schools of the College. These are:

Textiles 1..............................Clothing Construction.
Foods 5.................................Principles of Nutrition.
School of Home Economics

Foods 8.......................... Meal Preparation for Men.
Foods 9.......................... Meal Preparation and Serving.
Home Economics 10............ Survey in Home Economics.
Textiles 15....................... Clothing Appreciation and Selection (For Men).

Home Economics 25........... Care of the Sick.
Home Economics 50.......... Consumer Education.
Child Development 60...... Child Management.
Child Development 125..... Mothercraft.
Home Economics 149....... Household Management.
Home Economics 150....... Residence in the Home Economics Cottage.

Foods 180........................... Institutional Cookery

SUGGESTED COURSE IN STUDY FOR A TEACHING MAJOR IN HOME ECONOMICS
(Smith-Hughes Course)

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<th>JUNIOR YEAR</th>
<th>COURSES</th>
<th>F. W. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 14</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psychology 102</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Education 111</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Home Ec. 149 ..</td>
<td>4</td>
<td></td>
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<tr>
<td>Speech 1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Foods 106</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Foods 180</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17 17 17</strong></td>
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</table>
## SENIOR YEAR

<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>Dietetics 140</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Methods 120</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Practice Teach.</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Cottage</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Devel. 135</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing 160, 161</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Sociology 171</td>
<td>3</td>
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<table>
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<th>S</th>
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<tbody>
<tr>
<td>Public Health 108</td>
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<td></td>
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<tr>
<td>Education 121</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Econ. 145 of</td>
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</tr>
<tr>
<td>Consumption</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Dev. 135</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>Electives</td>
<td>4</td>
<td>1</td>
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</table>

| Totals           | 16 | 16| 16|

*Cottage and Practice Teaching may be alternated.

## SUMMARY OF REQUIREMENTS FOR A TEACHING MAJOR IN HOME ECONOMICS

(Smith-Hughes Course)

| Group and prerequisite requirements          | 62 hours |
| Foods 5, 9, 20, 106, 140, 180                | 18 hours |
| Clothing 10, 11, 115, 125, 160, 161          | 16 hours |
| Child Development 13, 60, 125, 135, 171      | 15 hours |
| General Home Economics 10, 25, 50, 149, 150 | 18 hours |
| Education—Psychology 3, 102; Education 111, 119, 120, 121, 122 | 28 hours |
| Art 1, 2 and 123                              | 11 hours |
| Public Health                                 | 5 hours  |
| Physical Education                            | 6 hours  |

The 67 hours in Home Economics courses replace the major and minor requirements.

## TWO-YEAR TERMINAL COURSE

A two-year terminal course in Home Economics is offered to accommodate those young women who wish a well balanced and practical course in home-making but who cannot take the four-year course leading to a degree. A certificate will be awarded upon the successful completion of the two years' work.
SUGGESTED REGISTRATION FOR THE TWO-YEAR TERMINAL COURSE

<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>Art 1 and 3</td>
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<tr>
<td>Textiles 1 and 5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Botany</td>
<td></td>
<td>5</td>
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<tr>
<td>C. D. 60.</td>
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<tr>
<td>Gen. Soc. Science</td>
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<tr>
<td>H. E. 10.</td>
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<tr>
<td>English 10 and 86.</td>
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<td>2</td>
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<tr>
<td>Foods 9</td>
<td></td>
<td>3</td>
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<tr>
<td>Speech 1</td>
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SECOND YEAR

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<td>Music 80</td>
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<td>H. A. 149</td>
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</tr>
<tr>
<td>Physics 2</td>
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<td>5</td>
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<td>Sociology 171</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Care of the Sick</td>
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<tr>
<td>Psychology 3</td>
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<tr>
<td>Nutrition 5</td>
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<td>Consumer Edu.</td>
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<tr>
<td>English 14</td>
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<td>P. E.</td>
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<td>Elective</td>
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<tr>
<td><strong>Totals</strong></td>
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SUMMARY OF REQUIREMENTS FOR TWO-YEAR SHORT COURSE

<table>
<thead>
<tr>
<th>Hours</th>
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<tbody>
<tr>
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<tr>
<td>Botany and Physiology</td>
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<tr>
<td>Economics</td>
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<tr>
<td>Sociology 171</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Psychology 3</td>
<td>5</td>
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<td></td>
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<tr>
<td>Child Development</td>
<td>6</td>
<td></td>
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<tr>
<td>Foods</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td>5</td>
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<tr>
<td>Home Ec. (General)</td>
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<tr>
<td>Music</td>
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<tr>
<td>Horticulture</td>
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<td></td>
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<tr>
<td>P. E.</td>
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</tr>
</tbody>
</table>
THE SUMMER SESSION

For over twenty-five years the College has conducted Summer Sessions as an important part of its curriculum. Since 1924 the curriculum has been materially enlarged and enriched and a very efficient lecture course established. The purpose of this large educational undertaking is to bring to Logan, with its delightful summer climate and its many recreational features, a number of the leading educators of the nation, and build, in the intermountain west, a summer school of wide influence.

During the Summer sessions nearly all of the departments of the College are represented, the courses of instruction being arranged to meet the particular needs of Summer students.

The courses offered in Education, Psychology, and related departments make it possible for the students to meet nearly all of the requirements for Utah certification in School Administration and Supervision for High Schools, Junior High Schools, and Grammar Schools; also the subjects offered will meet most of the requirements for certification in surrounding states.

The departments of Botany, Geology, and Zoology are especially emphasized because of the location of the School. Cache Valley, Logan Canyon, and nearby Bear Lake afford unparalleled opportunities for the study of plant and animal life and geological formations, while Bear River Bay near Brigham City, only thirty-five miles from the College campus, affords possibly as fine an opportunity as can be found anywhere in America for the study of water fowl and fish life.

Students desiring to make up certification requirements or prepare for advanced standing are given all the assistance possible. The entire equipment of the Institution is available, and every care is taken to preserve the standard and the spirit of the College.

GRADUATE CREDIT

Summer session students are allowed six years in which to satisfy requirements for the Master's degree. This makes it possible to secure this degree without giving up present teaching employment. Those who expect to register for work leading to this degree should submit their credits to the Dean of the Faculty several weeks in advance of registration and indicate the subject in which they wish to major. This will make it possible to have the course of study approved at the time of registration.
The Agricultural Experiment Station, a major division of the College, is charged with the responsibility of conducting research in Utah under provisions of the Hatch, Adams, and Purnell Acts of Congress, and of various acts of the Utah State Legislature.

Most members of the Experiment Station staff are also members of the teaching Faculty of the College; some of them also divide their time with the Extension Service of the College. A few members of the Station staff devote their entire time to research.

The main offices of the Agricultural Experiment Station are on the College campus, on the first floor of the South Wing of the Main Building. Most of the research laboratories used by the Experiment Station are also on the campus, distributed as necessary among the various College buildings. Other laboratories and the experimental farms are located in other parts of the state.

The research laboratories have a three-fold importance in the institution: First, they make it possible for the teaching faculty to fortify instruction with the results of original research; second, they afford to advanced students an opportunity to keep in touch with research methods and facilities; and third, they offer some employment to students qualified to act as research assistants or laboratory aids. Between fifty and one hundred students, thus employed, are on Station payrolls each month of the school year. A few find employment in certain laboratories during the summer months.

The Library of the Agricultural Experiment Station is quite complete insofar as current research requirements are concerned, and this library, under certain restrictions, is available to advanced students in the various departments of the College.

The major lines of research now in progress include projects in the departments of Agricultural Economics, Agronomy and Soils, Animal Husbandry (including Dairy and Poultry Husbandry and Veterinary Science), Chemistry and Bacteriology, Entomology, Geology, Home Economics and Human Nutrition, Horticulture, Irrigation and Drainage, Physics, Plant Pathology and Physiology, Range Management, and Rural Sociology.
THE EXTENSION SERVICE
Wm. Peterson, Director

The Smith-Lever Act, passed by Congress in 1914, created the Extension Service, which is a cooperative service representing the United States Department of Agriculture and the Utah State Agricultural College.

In 1915, under sections 5290 to 5296, the Utah legislature accepted the provisions of the Smith-Lever Act which provides: "That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the state agricultural college or colleges receiving the benefits of this act."

The National administrative staff which has charge of the work for the nation, is at Washington, D. C., and the Utah state organization is located at the Utah State Agricultural College as a division of the Institution. The state organization includes a director, two assistant directors, supervisors and subject-matter specialists, and the county staff consists of one or more county agents in each county that fulfills prescribed requirements necessary to secure the services of an agent.

The Extension Service is financed by appropriations made by the Federal Government and the state government. The counties in which agents are employed appropriate travel and office expenses for the respective agents.

Briefly enumerated, the objectives of Extension work are:

1. To increase the net income of the farmer through more efficient production and marketing and the better use of capital and credit.

2. To promote better homes and a more satisfactory standard of living on the farm.

3. To develop rural leaders, through short courses and individual direction.

4. To promote the mental, social, cultural, recreational, and community life of rural people.
5. To implant a love of rural life in farm boys and girls. This is accomplished largely through the program of the 4-H clubs.

6. To acquaint the public with the place of agriculture in the national life.

7. To enlarge the vision of rural people and the nation on rural matters.

8. To improve the educational and social life of rural people.

The Extension Service works preferably with existing rural organizations as a means of reaching the largest possible number of people. Individuals may receive attention, however, upon personal requests. Assistance is given to men, women, boys and girls in problems of the farm and home. Information on problems that are of common interest to groups is given in project form, and followed up progressively until satisfactory solutions are found and approved practices established. Information is also disseminated by demonstrations, lectures, film strips, motion pictures, news articles, radio, and illustrations. Materials for much of the scientific data imparted by the Extension workers are supplied by the Experiment Stations. The State Specialists work with the County Agricultural and Home Demonstration agents in assembling information and determining methods of solution. Voluntary project leaders chosen from local communities are trained by Specialists and County Agents to assist in organizing and leading project groups.

The list of projects carried by the Utah Extension Service Staff throughout the state, follows:


The Extension Service has definite responsibility in connection with the Agricultural Adjustment Administration program and in the Federal Credit program as it may affect the financing of the farm operations in the state.
CORRESPONDENCE-STUDY

The Utah State Agricultural College was one of the first educational institutions of the inter-mountain region to establish a Correspondence-study department. Correspondence-study furnishes an excellent opportunity for systematic instruction to students of high school or of college grade; the same is true also of the teacher, the professional or business man, the club woman, the project leader in extension work—to all who cannot leave home.

Students must be nineteen years of age, or submit fifteen units of high school work, or be graduates of a high school for admission to Correspondence-study courses of college grade.

One-fifth of the credits necessary for a degree may be earned through this department.

Courses offered:


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

3. Preparatory, or high school studies, for those who have been unable to complete their high school courses and who wish to satisfy the entrance requirements of the College; also for those who wish to fit themselves for careers in which the equivalent of a high school education is necessary.

In isolated communities, there are many who cannot obtain a good high school education because of the expense involved in leaving home. There are also those even in favored communities who, on account of the necessity of bread winning, are unable to leave their employment for nine or ten months of the year. Both of these classes may now receive a high school education.

A special catalogue of Correspondence-study courses will be mailed on request.
DEPARTMENTS OF INSTRUCTION
(Arranged alphabetically)

Agricultural Economics and Marketing

Agricultural Engineering
  a. Rural Architecture
  b. Farm Machinery and Farm Motors

Agronomy and Soils

Animal Husbandry

Art

Auto Mechanics

Bacteriology and Biochemistry

Botany and Plant Pathology

Business Administration
  a. Accounting
  b. Business Administration
  c. Merchandising

Chemistry

Child Development and Parental Education

Civil Engineering
  a. Applied Mechanics and Design
  b. Highways
  c. Irrigation and Drainage
  d. Mechanical Drawing
  e. Surveying

Dairy Husbandry and Manufacturing

Economics

Education

English and Speech

Foods and Nutrition and Household Administration

Forestry

Forging and General Blacksmithing

Geology

History

Horticulture

Machine Work

Mathematics

Military Science and Tactics

Modern Languages and Latin

Music

Physical Education
  a. For Men
  b. For Women

Physics

Physiology, Public Health and Hygiene

Political Science

Poultry Husbandry

Psychology

Radio, Aviation and Automotive Electricity

Range Management

Secretarial Science

Sociology

Textiles and Clothing

Veterinary Science

Wild Life Management

Woodwork

Zoology and Entomology
COURSES OF INSTRUCTION
(Arranged alphabetically)

AGRICULTURAL ECONOMICS AND MARKETING
(Administered jointly by the Schools of Agriculture and Commerce)
W. P. Thomas, Professor; W. U. Fuhriman, George T. Blanch,
Associate Professors; H. H. Cutler, Assistant Professor.

Agricultural Economics 53 may be used by students in the School of Agriculture in filling the New Social Science Group.

Students in either the School of Agriculture or the School of Commerce may major in this department. The choice of school in which to register should be determined by the school in which the student intends to do his minor work.

53. PRINCIPLES OF AGRICULTURAL ECONOMICS. A general study of the more important economic principles, forces and institutions affecting agricultural income, production, finance, prices, labor, land utilization, tenancy, tariff, etc.; the inter-relation of these factors; and the relation of agriculture to other industries. Prerequisite, Economics 51 or equivalent. Five credits. Winter, Daily 11; Spring, Daily 8.

Cutler and Fuhriman

62. PRINCIPLES OF MARKETING. The principles or marketing, relation of production to marketing, consumer demand, economic factors affecting sales, marketing agencies and sale policies, function of middlemen, channels of distribution. Prerequisite, Economics 51. Three credits. Spring, M. W. F. 10.

Fuhriman

70. FARM MANAGEMENT. The keeping and analysis of farm accounts. This course deals with the keeping, use, interpretation, and analysis of farm accounts and records. The meaning of various measures of farmers' financial success, the methods of computing the common efficiency factors, etc., will be considered. Prerequisite, Economics 51. A fee of $1.00 will be charged for materials supplied. No textbook need be purchased. Three credits. Spring, T. Th. 10, F. 1.

Fuhriman

71. FARM MANAGEMENT LABORATORY. It is desirable that students who expect to major in Agricultural Economics register
for this course to accompany Farm Management 70. Three credits. Spring, M. W. F. 2-4.

Cutler

102. **Principles of Farm Management.** An analysis of the principles and problems of farm organization and management. A study of the problems of choosing, buying, organizing, and managing the various types of farms. Discussion of proper size, balance, diversity, and the relationship between the various enterprises. Prerequisite, Economics 51. A fee of $2.00 will be charged for materials supplied. No textbook need be purchased. Three credits. Fall M. W. F. 8.

Blanch


Cutler

105. **Agriculture Finance.** A study of agricultural credit with regard to requirements, facilities, instruments, and methods of financing agriculture. This involves an analysis of our present financial organization and its relation to agriculture. Special attention will be given to the agencies authorized by the Federal Government to provide financial aid and credit to farmers and farmers' organizations. Prerequisite, Economics 51. Three credits. Winter, M. W. F. 8.

Fuhriman

106. **Land Economics.** Principles underlying the utilization, valuation, tenure, and conservation of our land resources available for crops, pastures, and forests. Prerequisite, Economics 51. A fee of $2.00 will be charged for materials supplied. No textbook need be purchased. Three credits. Fall, T. Th. 8, F. 1.

Blanch

107. **Land Utilization.** A more advanced course in Land Economics. Emphasis will be given to the bases for determining proper land use and to methods and technique of mapping land. Some practice will be had in reading maps and in using legal descriptions of land. It is advisable that 106 precede this course. A fee of $2.00 will be charged for materials supplied. No textbook need be purchased. Three credits. Winter, M. W. F. 10.

Blanch
112. Cooperative Marketing Laboratory. To accompany Cooperative Marketing 113. For students who desire more work in the business analysis of cooperatives than can be given in lectures. Two credits. Winter, T. Th. 2-5.

Fuhriman

113. Cooperative Marketing. This course deals with the fundamental principles of cooperative marketing of agricultural products, the legal status of cooperation, and the growth and development of cooperative marketing in the United States as a whole. Emphasis will be given to the development of cooperative marketing in Utah and to the present problems of the cooperatives of the state. Three credits. Winter, M. W. F. 9.

Fuhriman

114. Marketing Fruits and Vegetables. Trends in production, consumption, and marketing fruits and vegetables in the United States as a whole and in Utah, together with special problems of overproduction, local and foreign competition, quality of products, and transportation factors. Grading, inspection, and marketing methods will be given consideration. Prerequisite, Economics 51. Three credits. Spring, M. W. F. 2.

Fuhriman

116. Marketing Livestock and Livestock Products. The production and marketing factors as they relate to the marketing of livestock and livestock products with special reference to Utah's condition. Winter Quarter. (Not given 1935-36.)

120. Agricultural Prices. Relationship between production and prices of agricultural products; trends in prices of agricultural commodities in comparison with prices of non-agricultural products, and cycles in their relation to agriculture. State and national agricultural outlook as it applies to Utah will be given special consideration. The aim of the course is to make application of principles in prices, production and marketing to an agricultural program for the individual and the group. Prerequisite, Economics 51. A fee of $2.00 will be charged for materials supplied. No textbook need be purchased. Three credits. Winter, M. W. F. 11.

Thomas

121. Price Analysis. A more detailed course in price analysis than is given in 120. Emphasis will be given to the application and interpretation of various statistical measures used in an analy-
sis of price and other economic data. Prerequisites, Agricultural Economics 120 and Math. 75. Three credits. Fall, M. W. F. 11.

191. **Advanced Farm Management.** A detailed farm management analysis, including methods of making surveys, collecting, tabulating, organizing, and analyzing data and a study of the application of results toward the improvement of the farm business. The student will be expected to do some actual field work and to analyze the farm management data in the laboratory. Prerequisite, Agricultural Economics 102. A fee of $2.00 will be charged for materials supplied. No textbook need be purchased. Three credits. Fall, T. Th. 11, Lab. Th. 2-5.

Blanch

201. **Public Problems of Agriculture.** A general course designed to familiarize the student with the economic implications of some of the outstanding problems confronting agriculture today. Three credits. Spring, M. W. F. 11.

Thomas

210. **Research in Agricultural Economics.** Any quarter. Time and credit arranged.

Thomas and Blanch

211, 212, 213. **Agricultural Economics and Marketing Seminar.** All seniors 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 Marketing. One credit each quarter. Time arranged.

Staff


Staff

**Suggested Course of Study for Majors in Agricultural Economics**

Students intending to major in Agricultural Economics in the School of Agriculture, should include Agricultural Economics 62, 70, and Mathematics 75 in their sophomore year in addition to meeting the requirements for all students in the School of Agriculture. In order to do this, English 11 and Agricultural Economics 53 should be taken before the spring quarter of the sopho-
more year. Students majoring in Agricultural Economics in the School of Commerce are required to include the following courses during their freshman and sophomore years: Mathematics 15 and 75, Economics 51, Agricultural Economics 53, 62, and 70, Accounting 1, and Rural Sociology 10.

It is suggested that most of the courses taken during the junior and senior years be selected from the following:

**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>F. W. S.</th>
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<tr>
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<td>Ag. Econ. 211, 212</td>
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**SENIOR YEAR**

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**AGRICULTURAL ENGINEERING**

Ray B. West, O. W. Israelson, Geo. G. Clyde, Professors; A. H. Powell, L. R. Humphreys, H. R. Kepner, Associate Professors; S. R. Egbert, V. H. Tingey, Assistant Professors.

AE 1, 2. Agricultural Surveying. For students of Forestry and Agriculture. Practice in handling of surveying instruments, leveling, and traversing. The surveying of forest roads. Public Land surveys and the retracing of section lines. Four credits each quarter. Fall and Spring, T. Th. 2-5.
AE 3. **Agricultural Drawing.** The use and care of instruments and orthographic projection. Farm structures. Two credits. Time arranged.

Kepner

AE 4. **Agricultural Mapping.** Maps and topographical drawing of farm problems. Two credits. Time arranged.

Kepner

AE 6. **Farm Structures.** The arrangement, design and construction of barns, stables, poultry houses, silos and other farm structures. Three credits. Winter. Time arranged.

Humphreys

AE 9. **Concrete Construction for Agricultural Purposes.** Various mixtures of cement and their uses; the use of concrete in making barns, water troughs, posts, etc. Three credits. Spring, time and credit arranged.

West

AE 11. **House Construction.** Various methods of constructions, the frame, two brick, three brick, stucco, cement block and stuccoed hollowed tile; cost and economy of each; interior finishing. Five credits. Winter, time arranged.

West

AE 12. **Irrigation and Drainage Practice.** Water measurements, effects of soil and plants on time and frequency of irrigation, duty of water, design of farm ditches and preparation for farm drainage. These courses may be used as a major or minor in the Department of Agronomy. Lab. F. 2-5. Four credits. Spring, M. W. F. 8.

Israelensen

AE 12A. **Irrigation Principles and Practices.** A study of factors underlying efficient and economic use of water in irrigation. Emphasis is given irrigation methods and their relation to soils and irrigation efficiencies; the plant and irrigation; and irrigation water supply and its physical control. Brief consideration is given social and administrative aspects of irrigation. Major research problems in irrigation, and the irrigation of standard crops are stressed. Three credits. Spring, M. W. F. 10.

Israelensen
AE 13. Farm Motors. This course will cover the care, adjustment and lubrication of the automobile, tractor, the stationary gas engine, and the home lighting and water systems, the care of this equipment when not in use, and precautions to be taken when preparing it for operation. It will also include bearings and bearing adjustment, babbitting and fitting of babbitted bearings, soldering and fundamental principles of power transmission by the use of belting and pulleys, care of belts and speed calculations. Three credits. Fall, T. Th. 2-5.

        Powell

AE 14. Farm Shop Repair Work. This course is especially arranged for agricultural students. The application of forging operations to repairs on the farm. The repairing of the following farm implements will be included in the course: the plow, wagon, harrow, hay rake, mowing machine, binder, header, etc.; making and tempering punches and cold chisels; sharpening and tempering harrow teeth, picks, etc. Two credits. Fall or Spring, time arranged.

        Egbert

AE 15. Farm Machinery. A complete assembling, adjusting, care and repair of the various types of farm implements and farm machinery. Three credits. Spring, T. Th. 2-5.

        Powell

AE 16. Gasoline Tractor Operation and Repairing. The overhauling of the tractor, including babbitting of bearings, fitting of new parts and operation of tractor. Three credits. Fall, M. W. F. 2-5; Spring, T. Th. 10-12.

        Powell

AE 102. Tractor Repair and Operation. An advanced course for men wishing to specialize in tractor service work. It includes field work, operating problems, trouble shooting and repairs. Four credits. Fall, time arranged.

        Powell

AE 201. Research in Irrigation and Drainage. Specially prepared under-graduate, or graduate students in civil or agricultural engineering 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 arranged.

        Clyde or Israelsen

Evans and Tingey

5. Identification and Judging of Farm Crops. General Classification, identification, displaying, judging and testing of farm crops and seeds. Two credits. Fall, W. 8, Lab. arranged.

Evans

6. Soils. Review of the entire field of soils study; designed as a foundation course for all students of agriculture. Four credits. Fall or Spring, M. W. Th. F. 11; Winter, T. W. F. 9, Th. 8 or T. W. F. 10, Th. 11.

Pittman

7. Soils Laboratory. A brief general laboratory course in soils. Must be accompanied or preceded by Agronomy 6. One credit. Any quarter, time arranged.

Pittman


Bracken

*102. Root Crops. Sugar beets, potatoes, mangels, turnips, other root crops, and beans; cultural methods, market types, and commercial possibilities are studied in detail. Three credits. Fall, M. W. F. 10.

Tingey

*103. Forage and Miscellaneous Crops. Alfalfa, clovers, grasses and other forage; methods of handling hay; meadow and pasture management, and soiling crops are discussed. Three credits. Spring, T. Th. 9, Lab. T. 2-5.

Tingey


Tingey
105. **Seed Analysis and Testing.** Impurities of farm and garden seeds; methods of analysis and testing; the inspection and marketing of seeds. Not given except on application of two or more students. Any quarter. Two or more credits. Two or more laboratory periods a week. Time arranged.

*Tingey*

*108. Soil Management.** The composition, nature, and management of soils of arid regions; special attention to water relations, erosion control, alkali, rotations and other problems in the management of arid soils. Prerequisites—Agronomy 6 and either Geology or Bacteriology 1, preferably both. Three credits. Fall, T. Th. 10, Lab. T. 2-5.

*Pittman*

109. **Plant Breeding.** The principles and practices of plant breeding, varieties of field crops, technique and improvement by selection and hybridization, attention of the methods of plant breeding as practiced in America and Europe. Must be accompanied by Agronomy 115. Prerequisites—Genetics and Botany. Three credits. Winter, M. W. F. 11.

*Tingey*

110. **Soil Fertility.** Principles of soil fertility; fertilizers and their most productive use; review of experimental work in America and Europe. Prerequisites—Chemistry 10 and Agronomy 6. Three credits. Spring, T. Th. 10, Lab. Th. 2-5.

*Pittman*

111, 112, 113. **Seminar.** Current agronomic literature; agricultural problems; assigned topics. Required of all seniors in Agronomy; open also to juniors. One credit each quarter. T. 11.

*Evans*

114. **History of Agriculture.** Development of agriculture, with emphasis on practical and scientific phases; the successive steps by which modern agriculture has attained its present status. Three credits. Winter, M W. F. 9.

*Bracken*

115. **Biometry.** Application of biometric principles to plant breeding and other biological data. Should be preceded by Math. 75. Two credits. Winter, W. 2-5.

*Tingey*
116. Dry Farming. Principles of dry farming from practical and scientific standpoints; a survey of agricultural work in the Great Plains and the Mountain regions; an analysis of the possibilities in typical climatic areas and on important soil types. Selecting and organizing a dry farm unit. Advanced students may obtain additional credit for extra work. Three credits. Winter, M. W. F. 8.

Bracken

117. Geography of Agriculture. A brief review of the fundamental principles of climatic controls. The principal agricultural regions of the world will be studied from the standpoint of their topography, climate, soils, population, and other industries, as related to agriculture. Three credits. Winter, M. W. F. 10.

Evans

119. Crop Products. Nature, importance, and uses of various crop products; their physical and chemical nature, their effects on the market value of the crop; and their place in agricultural technology. Related soil problems are also discussed. Three credits. (Not given in 1935-36.)

Bracken

122. Soil Survey. Soil classification, the influence of environmental factors on soil profile development, and the methods and technique of soil mapping are covered in this course. Laboratory work in the field is required. Registration only by arrangement with the department. Five credits. Fall, time arranged.

Jennings

The following graduate courses can be taken only by arrangement with the Department. In all cases time is to be arranged.

207. Soil Technology. An advanced course in soil technology for students who wish fundamental work in soil science. A study of the formation, classification, and functions of soils in relation to their environments. Prerequisites—Bacteriology and Geology. Two or more credits. Winter.

Pittman

208. Management of Arid Soils. Special problems in the management of arid soils. Original papers are considered in addition to regular lectures and discussions. Three lectures, one lab. Three credits. Fall.

Pittman
209. **Advanced Plant Breeding.** The science and practice of plant breeding. Original papers and lectures. Three lectures, one or more labs. Three to six credits. Winter.

_Evans_

212. **Graduate Seminar.** Current scientific papers and topics in Agronomy. One to three credits. Any quarter.

_Evans_

214. **History of Agriculture.** Development of scientific agriculture with emphasis on recent period. Original papers and lecture material. Two to five credits. Winter.

_Bracken_

215. **Research Methods in Plant Production.** Analysis of research methods; reviews of the scientific literature. Open to approved senior college students. Three credits. Spring.

_Evans and Tingey_

217. **Geography of Agriculture.** Relation of geography to development of agriculture. Two to five credits. Winter.

_Evans_

218. **Special Problems or Advanced Laboratory.** Students desiring to do advanced laboratory work, or to make a special study of any particular problem will make a complete study of available literature on this problem under supervision of the instructor, and write a thesis. One to five credits. Any quarter.

_Staff_

230. **Research and Thesis.** Organizing and prosecuting a thesis, or a research problem without thesis. Two or more credits each quarter. Any quarter.

_Staff_

222. **Advanced Soil Survey.** The work in this course will include more advanced work than that given in course 122. Two or more credits.

_Jennings_

Suggested Courses for Students minoring in Agronomy.

*Courses open to short course students.

**ADDITIONAL SUGGESTED COURSES FOR STUDENTS MAJORING IN AGRONOMY**
Mathematics 16, 75; Bacteriology 1; Zoology 13; Ag. Engineering 12; Agronomy 5; Range Management 162; Agronomy
101, 102, 103, 104, 109, 110, 114, 115, 116, 117, 119, 122; Botany 80, 120, 130, 138; Animal Husbandry 10; Chemistry 102, 103; Geology 100; History 4; Agricultural Economics 102; Dairy 109; German 1, 2, 3; English 108; French 1, 2, 3.

Majors desiring to teach should consult the Department of Education for requirements.

All agronomy majors must have at least two quarters of seminar.

ANIMAL HUSBANDRY

E. J. Maynard, George B. Caine, Professors; Harry H. Smith, Associate Professor; A. C. Esplin, Assistant Professor; Bert L. Dryden, Assistant

The Department of Animal Husbandry offers instruction in the selection, breeding, feeding, management, and marketing of cattle, horses, sheep, and swine; in the slaughtering, cutting, and curing of meats, and in the production and grading of wool.

The following courses should be taken by students who major in Animal Husbandry: 1, 5, 10, 100, 105, and two of (110, 115, 120, 125, 130) (140 or 145) 150, 155, 160, D. H. 109 or 110 and A. H. Seminar 180, 181 or 182. Courses in Dairy Husbandry, Dairy Manufacturing, Poultry Husbandry, and Veterinary Science may be used to strong advantage in the major. Accounting, Agronomy and Soils, Agricultural Economics and Marketing, Bacteriology, Botany, Commercial Law, Entomology, Farm Mechanics, Geology, Horticulture, Irrigation, Mathematics, Organic Chemistry, Physics, and Range are among the supporting courses most strongly recommended for graduation in Animal Husbandry.

*1. General Animal Husbandry. The fundamentals of animal husbandry as applied to Utah conditions. Numbers and location of livestock, principal breeds of cattle, sheep, swine and horses. Simple breeding and feeding problems as well as general livestock management; studies and judging of commercial animals. For all students of agriculture and a prerequisite for Animal Husbandry 110, 115 and 125. Three credits. Fall or Winter, T. Th. 10, Lab. T. 2-4.

Smith and Caine
4. **General Livestock Production (For Forestry and Range Students).** The practical selection and judging of commercial and breed types of horses, cattle and sheep. Three credits. Spring, T. Th. 2, Lab. T. 3-5, or T. Th. 11, Lab. Th. 3-5.  

Smith

*5. Principles and Practices of Judging Livestock.** This is a course designed for students who wish to register for Animal Husbandry 160 and become candidates for the Livestock Judging team the following fall. Two credits. Spring, W. F. 2-5.  

Smith


Smith

*100. Breed Types of Livestock.** The origin, history, characteristics, and selection of the economic breeds of horses, cattle, sheep, and swine. Five credits. Spring, Daily 8.  

Smith and Caine

*105. Classifying and Grading Market Livestock.** The commercial classes and grades of market cattle, sheep and hogs. Students will compile market quotations and will classify and evaluate animals for market. Prerequisite, A. H. 1 or 100. Three credits. Spring, M. W. 2 and M. 3.  

Smith

*110. Beef Cattle Production.** The selection, feeding, and marketing of range and feeder cattle, and the management of the breeding herd of beef cattle. This course includes a trip to Ogden and Salt Lake Stock Yards for study purposes. Three credits. Fall, M. W. F. 9.  

Smith

*115. Horse Husbandry.** A study of market types and the breeding, feeding, handling and selling of draft and light horses. Two credits. Spring, T. Th. 9.  

Caine

*120. Swine Management.** The management of the breeding herd of hogs, feeding for market, and the fitting for show. The relation of the industry to dairy cattle farming. Two credits. Winter, T. Th. 9.  

Smith
*125. Sheep Husbandry. A study of the methods of producing sheep for meat and wool under range and farm conditions. Also a study of sheep husbandry of the leading sheep producing countries of the world. Special emphasis is placed upon sheep and wool production upon the ranches and the farm. The farm sheep include small commercial herds, pure bred herds, and winter lamb feeding. Three credits. Winter, M. W. F. 9.


*140. Fitting and Showing Livestock. Proper methods for fitting and training livestock for show. Clipping, washing, curling, waving, carding, blocking and trimming as these practices are indicated for the various classes of livestock in the show ring. One to three credits. Spring, arranged.

*145. Practical Problems in Livestock Production and Feeding. This course affords the Animal Husbandry student an opportunity to plan a definite livestock enterprise based on subject matter acquired in previous agricultural courses. A study is made of the relationship of location, feed crops, general cropping system, and marketing facilities to the number and kind of livestock produced. Livestock selection, feeding and care, equipment, sanitation and marketing are points considered in the development of a plan in which each individual outlines a definite livestock operation. Three credits. Winter, M. W. F. 9.


Smith

*160. Live Stock Judging. The comparative judging of breeding and market horses, cattle, sheep, and swine to prepare students for officiating at livestock shows. Herds away from the college will also be studied for the purpose of selecting a livestock judging team. Four credits. Fall, M. W. F. 2-5.

Smith

165. Advanced Livestock Judging. This course designed to give special training to students in order to fit them for participation in judging contests at the larger shows. Four credits. Fall, M. W. F. 2-5.

Smith and Maynard

*170. Farm Meats and Meat Products. The slaughtering of farm animals and the cutting and curing of meats on the farm. Trips will be taken to local meat shops and to the Ogden and Salt Lake packing houses. The students will evaluate the animals on foot and measure their judgment of the dressing per cent and quality of the product in the carcass. Three credits. Winter, T. Th. or W. F. 2-5.

Smith

175. Selection of Meats for the Household. A study of principles and practices in the selection of quality meats for the table. This course is open for women students. Two credits. Winter, W. F. 10.

Smith


Smith, Caine and Esplin

200. Graduate Research. Students working towards a graduate degree in Animal Husbandry are required to conduct research
in some branch of the subject. Any quarter. Time and credit arranged.

Staff

203. **Scientific Meat Studies.** A study in the cutting and curing of meats; for senior college and graduate students. It emphasizes the physical structure and the chemical composition of meats, and their relationship to nutritional qualities. Prerequisite, Organic Chemistry. Winter. Time and credit arranged.

Smith


Esplin

205. **Special Problems.** This is a survey of the research conducted in the breeding or feeding of livestock. Prerequisite, Animal Husbandry 150 and 155. Three credits. Spring, arranged.

Maynard, Esplin, Smith

207. **Animal Experimentation.** The organization of livestock experiments. Any quarter. Time and credit arranged.

Staff

210. **Graduate Thesis.** The outlining, prosecuting and summarizing of Animal Husbandry research data for a thesis. Two to five credits. Any quarter, arranged.

Staff

215. **Graduate Seminar.** Weekly check-up and report on graduate work. Any quarter. Time and credit arranged.

Staff

*Open to short course students.*

**Suggested Course of Study for Majors in Animal Husbandry in the School of Agriculture**

Students who plan to major in Animal Husbandry should take Animal Husbandry 5 and 10 during their first two years in addition to the regular courses prescribed for all students in the School of Agriculture.
JUNIOR YEAR

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ART

**Calvin Fletcher, Professor; H. R. Reynolds, Assistant Professor; Everett Thorpe, Instructor.**

Art 3, 22, 26, or 33 will count in the New Arts Appreciation Group.

Students majoring in Art with a view to teaching in High Schools should have an acceptable knowledge of drawing, painting, modelling and two crafts. Also Art 1, 2, 31, 32, 33, 122, 123, 124, 125, 126, 151 and 10 or 113 (4 hours).

Majors other than teaching majors must show special proficiency in some field of fine arts or crafts and must submit an approved grouping about this field.

Teaching minors should present 32, 33, 123, 126, 151 and show some ability in drawing and design.

Three year normal specializing in the art field are recommended to elect Art 4, 5, 6, 7, 10 and must have 51, 52.

Students wishing to spend all their time in the department as in regular art schools may do so by consulting with the Professor in charge. Training for artists, sculptors, illustrators, commercial artists and decorators is provided thus. This work does not lead to the degree.

1. **Elementary Design and Nature Appreciation.** Expression in terms of design of the natural and artificial forms found in one’s environment. Three credits. Fall, T. Th. 8, F. 1, or M. W. F. 9.

*Fletcher and Reynolds*
2. Design and Color. Principles of design as applied in color, form, and pattern in the common things about us. Prerequisite, Art 1. Three credits. Winter, T. Th. 8, F. 1, or M. W. F. 9.

Fletcher and Reynolds

3. Art Appreciation. Designed to give an understanding of the principles underlying architecture, landscape gardening, interior decoration, sculpture, painting, the art of the book, pottery and other things met in every day life today, which increase enjoyment through the sense of sight. Three credits. Fall, M. W. F. 8, Winter, M. W. F. 8 and 11; Spring, M. W. F. 8 and T. Th. 8, F. 1.

Fletcher and Reynolds


Thorpe

32. Color. Color as used in stage lighting, painting, design, and every day life. Its physical, psychological and artistic phases are correlated. Designed for the business man, layman, dramatic artists, art teachers, and artists alike. Three credits. Spring, M. W. F. 10.

Reynolds

34. Art for Young Children. Designed to meet the needs of child development specialists, mothers in the home, kindergarten and first grade teachers. Normals should register for 51, 52 and 53 as this course is not adequate to their needs. Two credits. Winter T. Th. 1.

Fletcher

51. Drawing for Elementary Grades. Methods of teaching drawing, painting, etc. in the grade schools. How to make art contribute to the social aesthetic and creative needs of the child. Should be taken by all normals who expect to teach art in the grades. Three credits. Spring, M. W. F. 11.

Fletcher

52. Design for Elementary Grades. Methods of teaching design and color in the grades. Should be taken by normals who expect to teach art in the grades. Three credits. Fall, M. W. F. 11.

Reynolds


Reynolds
22, 122. Home Planning, Construction and Design. House design, garden design, house planning, building construction, heating, lighting, plumbing, etc. How to select the type of house and properly supervise the construction and equipment of the home. Adapted to the needs of all home builders. Special assignments required for 122 credit. Three credits. Fall, M. W. F. 11.

Fletcher

123. Interior Decoration. Period styles, selection of furniture, draperies, rugs, pottery and all furnishings for the home. How to group and assemble these to create a beautiful room. Art 1, 2, 3, and 22 or 122 should precede this course if possible. Four lectures and one laboratory. Five credits. Spring, M. T. W. F. 9, Lab. F. 2-5.

Fletcher

124. Perspective. The principles of cylindrical, parallel, oblique and modernistic perspective as used in the arts will be covered. Three credits. (Not given 1935-36.)

Fletcher

125. Anatomy and Figure Drawing. Study of art forms in the human figure by means of artistic anatomy and creative expression by the use of the human figure. Three credits. Fall, M. W. F. 10.

Fletcher

26, 126. History and Appreciation of Architecture. The characteristics of the great styles of building and their evolution and the development of a taste for good architecture. Adapted alike to the layman, homemaker or teacher. Three credits. Winter, M. W. F. 10.

Fletcher

33, 133. History and Appreciation of Painting. Designed for the layman desiring to extend his knowledge of the work of great painters as well as for teachers and artists. Three credits. Spring, M. W. F. 11.

Fletcher

151. Art Education for High Schools. What to teach and how to present it. Drawing, painting, design, crafts and theory are all considered. Prerequisite, a basic knowledge of drawing and design. This course is prerequisite to practice teaching in Junior or Senior High School Art. Three credits. Winter. (Not given 1935-36.)

Reynolds
STUDIO COURSES

Conducted as individual laboratory work and all courses given simultaneously. Three hours' work each week required for each credit. Two, three or more credits may be taken each quarter in each subject listed. Students must file their arrangement of time with the professor in charge, during the first week of their attendance.

All studio courses are given in 330 Main Building until the completion of the new building.

One or more examples of student's work may be retained during the succeeding year for exhibition and advanced students may be called upon to exhibit their work from time to time.

Pose drawing will meet Wednesday and Friday during the winter from two to five P. M.

Sketch classes will be organized for outdoor work on Wednesday, 2 to 5 P. M., during the fall and spring quarters. Additional landscape work may be done by arranging definite time schedules with the instructor. Sketching is recommended to painting, drawing and illustration students.

4. FREEHAND DRAWING. Any type for artists, illustrators, geologists, scientists, architects, teachers may be taken up.

    Fletcher

5. ELEMENTARY PAINTING. Oil, water color or pastel.

    Fletcher

6. MODELLING. Antique, pose, animals, composition, casting in plaster.

    Fletcher

7. ILLUSTRATION. Elementary illustration and processes for newspapers, books and magazines.

    Fletcher

8. EMBROIDERY DESIGN. For colored, white and lace.

    Fletcher

9. HISTORIC ORNAMENT. Egyptian, Assyrian, Greek, French, Renaissance and Modern styles.

    Fletcher

10. ELEMENTARY SHOW CARD. Elementary lettering, show card and sign writing.

    Fletcher and Thorpe
11. **Pottery.** Elementary, including building, throwing, turning, glazing, firing, etc. *Reynolds*

12. **China Painting.** Elementary painting processes. Pre-requisite, Art 1, 2 or equivalent. *Fletcher*

13. **Copper Work.** Exercises in sawing, raising, repoussé and riveting. *Reynolds*

14. **Leather Work.** Elementary etching, dyeing, cutting and tooling of mats, purses, card cases, bags, etc. *Reynolds*

15. **Basketry.** Weaving in reed, raffia and grass. *Reynolds*

16. **Enamelling and Jessou.** Work on wood, ivory, polychrome, etc. *Reynolds*

17. **Textile Decoration.** Stenciling, batik, block printing, etc. *Reynolds*

20. **Puppetry.** Designing and making puppets; construction of puppet stage. Two or more credits. Winter, M. W. 2-5. *Reynolds*

104. **Advanced Drawing.** Life from draped figure, animal drawing, landscape forms, scientific technique or composition. *Fletcher*

105. **Advanced Painting.** Oil, water color or pastel. *Fletcher*

106. **Advanced Modelling.** Composition, animal or life modelling, stone and wood carving. *Fletcher*

107. **Advanced Illustration.** Newspaper, magazine, costume and decorative illustration, illumination, poster work or cartooning. Opportunity is also given to take scientific illustration. Students will elect one line at a time. *Fletcher*

108. **Advanced Wood Ornamentation.** Carving, inlay, marquetry, jesso, picture framing and gilding. *Fletcher*
109. **Fancy Lettering and Illumination.** Pin lettering and decoration for memorials, documents, Xmas greetings, place cards, etc.

*Reynolds*

110. **Advanced Lettering and Signs.** Show card, gold work, road work and other technical sign processes may be taken.

111. **Professional Design.** Choice of one of the following lines:

A. Textile and Wallpaper Design  
B. Stage Design  
C. Interior Decoration  
D. Furniture Design  
E. Costume Design: Prerequisites, Textiles 105 and 115  

*Fletcher*

112. **Advanced China Painting.** Advanced processes, incrusted work, enameilling, lustre, paste, etc.

*Fletcher*

113. **Advanced Art Metalry.** Any technical phases of silver or copper smithing may be taken up.

*Fletcher*

114. **Advanced Leather Work.** Technical.

*Fletcher*

115. **Graphic Art.** Etching, wood block, monotypes.

*Fletcher*

116. **Jewelry.** Sawing, wire work, filigree, stone setting, enameiling, soldering will be treated in connection with making of brooches, rings, lavallieres, pins, chains, etc.

*Reynolds*

117. **Advanced Textile Decoration.** Advanced work in batik, dyeing, stenciling, blockprinting and painting.

*Reynolds*

204. **Advanced Drawing.**

*Fletcher*

205. **Advanced Painting.**

*Fletcher*

206. **Advanced Modelling.**

*Fletcher*

211. **Professional Design.**

*Fletcher*

Courses numbered above 200 are open to graduates only.
AUTO MECHANICS AND WELDING

All courses taught by A. H. Powell, Associate Professor

MA 1. Principles of Automobile Construction and Operation. 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. The course or its equivalent must be taken by all students who wish to specialize in any branch of automobile work. Three credits. Fall, M. W. F. 8-10.


MA 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 cutting, fitting of piston rings, etc., will be taken up, along with many other problems that the average owner has to be familiar with if he is going to do his own repairing and care for his car properly. Three credits. Winter, M. W. F. 10-12.

Note: Mechanic Arts 4, 101, and 102, are advanced courses. They must be taken by all students who intend to specialize in garage management, garage practice, teaching, or repairing. The course will cover the detailed theory, operation, advantages in design and construction of all modern makes of car, and automobile equipment and appliances. Methods of systematic location of trouble, dismantling, repairing, and assembling. Modern shop methods, tools and equipment. Prerequisites, Mechanic Arts 1 and 2, or their equivalent.

MA 4. Automobile Repair. Three credits. Fall, M. W. F. 10-12; Winter, T. Th. 2-5; Spring, M. W. F. 8-10.

MA 5. Automobile Care, Adjustment and Lubrication. For automobile owners and others desiring a course that will enable them to do their own service work on automobiles, to enable them to operate the car in the most efficient way and to reduce to a minimum the cost of operation. It will include all phases of lubrication, carburetion, brake adjustment, tappet adjustment and cor-
rect general principles of operation. Two credits. Fall, M. W. F. 8; Winter M. W. F. 10.

MA 21. OXY-ACETYLENE AND ELECTRIC WELDING. A study of the oxy-acetylene welding process, equipment, 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 pre-heating 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 for all students taking this course. Three credits. Winter, T. Th. 8-10.


MA 80. DIESEL ENGINES. A study of the principles and design of diesel engines used in trucks, tractors and stationary power plants. The application and adaptability to various types of work; its operation and limitations, adjustments and repair, a study of the mechanism of all types of diesel power. Three credits. Fall or Winter, T. Th. 10-12.


MA 103. GASOLINE ENGINE, CARBURATION, AND CARBURETOR. Internal combustion, engine fuels, and a thorough treatise on the principles of carburetion, the construction of carburetors and their relationship to successful gas engine operation. Practice in repairing, overhauling and adjusting of carburetors, thorough study of the modern devices and improvements on new models will be taken up. Prerequisite MA4. Three credits. Fall or Spring, T. Th. 8-10.

MA 104. FARM MACHINERY RESEARCH. The economic application of power and machinery to farm crop production, and costs of operations. Four credits. Fall or Spring, time arranged.

MA 112B. ALTERNATING CURRENT MACHINERY. Servicing, repairing, and overhauling alternating current equipment, motors, generators, compensators and relays, power plant care and operation, repairing windings and rew windings of alternating current motors, and switch board wiring. Prerequisite, MA 112 or equivalent. Three credits. Spring, M. W. F. 10-12.
BACTERIOLOGY AND BIOCHEMISTRY

J. E. Greaves, Professor; Kenneth R. Stevens, Assistant Professor.

Bacteriology 1 will count in the New Biological Science Group.

Students majoring in the Department of Bacteriology must complete Physics 21, 22, Math. 46, Chemistry 122, Bacteriology 1, 2, 100, 104, 106, 109, 110 and 111.

1. General Bacteriology. This course deals with the biology and significance of bacteria. The following are considered: The development of bacteriology; the morphology and physiology of bacteria; bacteria in air, food and water, and the role they play in the arts, industries and the production of diseases. Where possible this course should be accompanied by Bacteriology 2. Five credits. Fall, Daily 9; Winter, Daily 8 and 9; Spring, Daily 11.

Greaves and Stevens

2. General Bacteriology Laboratory. It is desirable that this course accompany Bact. 1. Two credits. Fall or Winter, T. Th. or W. F. 2-5; Spring, W. F. 2-5.

Greaves and Stevens

100. Industrial Microbiology. This course deals with the part played by microorganisms in the arts and industries. Prerequisites, Bacteriology 1, 2, and Chem. 12 or 122. Three to five credits. Spring, M. W. F. 8, Lab. T. Th. 2-5.

Stevens

101, 102. Soil Bacteriology. Bacteria are considered in relation to soil fertility. Graduate students should arrange with the professor in charge for graduate credit, and register for 202. Prerequisites, Bacteriology 1, 2, and Chem. 12 or 122. Two credits. Fall and Winter. (Not given in 1935-36.)

Greaves

103. Soil Bacteriology. Methods used in bacteriological investigations. Should accompany Bacteriology 101, 102. Prerequisites, Bacteriology 1, 2, and Chem. 103. Fall and Winter. Time and credit arranged.

Stevens

104. Dairy Bacteriology. The bacteria of milk, butter and cheese, and their relation to disease. Prerequisite, Bacteriology 1 and 2. Three or five credits. Fall, M. W. F. 8, Lab. T. Th. 2-5.

Stevens
106. **Pathogenic Bacteriology.** The pathogenic bacteria are considered in relation to disease, and the subject of immunity is stressed. Prerequisites, Bacteriology 1 and 2. Three or five credits. Spring. (Not given in 1935-36.)

*Stevens*

107. **Determinative Bacteriology.** Opportunity is given for individual work in isolating, identifying and classifying bacteria. Prerequisites, Bacteriology 1 and 2. Two credits. Any quarter, T. Th. 2-5.

*Stevens*

108. **Microbiology of Food.** This course deals with the desirable and undesirable activities of microorganisms in foods. Prerequisites, Bact. 1, 2, and Chem. 12 or 122. Two Credits. Spring. Time arranged. (Not given for less than 10 qualified students.)

*Greaves*

109, 110. **Advanced Bacteriology.** A course dealing with special phases of Bacteriology. Prerequisites, Bacteriology 1, 2 and Chem. 12 or 122. Two credits each quarter. Fall and Winter, M. W. 10.

*Greaves*

111. **Biochemistry.** The transformation going on in the plant and animal. Prerequisites, Chemistry 12 or 122. Five credits. Spring, Daily 10.

*Greaves*

112. **Biochemistry.** A laboratory course which may accompany Bacteriology 111. Prerequisites, Bacteriology 111 and Chem. 103. Two credits. Spring, W. F. 2-5.

113, 114, 115. **Advanced Biochemistry.** A study of the chemical transformations going on in the animal body. The class will be conducted much as a seminar. Graduate students should arrange with the professor in charge for graduate credit, and register for 213, 214, 215. Two credits each quarter. T. Th. 1.

*Greaves*

116. **Sanitary Analysis.** Methods used by the sanitary inspector in examining water, milk and other foods. Prerequisites, Chemistry 103 and Bacteriology 1 and 2. Any quarter. Time and credit arranged.

*Greaves and Stevens*
207. Research. The laboratory and library facilities are especially equipped for advanced students in bacteriological investigation in agriculture, household science, the industries, sanitary science and veterinary science. One to five credits. Any quarter, time arranged.

Greaves and Stevens


Greaves and Stevens

BOTANY AND PLANT PATHOLOGY

B. L. Richards, Professor; *F. B. Wann, Associate Professor; Bassett Maguire, Assistant Professor

Botany 1 will count in the New Biological Science Group. May be replaced by Botany 21 and 22.

Botany 21, 22, 23, 30, 116, 120, 130, 131, 150, 234, and 240, or equivalent, required for students majoring in Botany.

Botany 21, 22, 23, 116, 120, 122, 130, 131, 133, 135, 150, 234, and 240 or equivalent, required for students majoring in Plant Pathology.

1. Elementary Botany. An introduction to the more important biological principles as exemplified by plants. The nature of protoplasm, the structure and physiological activities of plants, the relation of plants to the environment and to human needs will be treated. Credit in this course cannot be used as a prerequisite for any course in Botany or Plant Pathology. Not open to regular students in Agriculture. Five credits. Fall or Winter, Daily 9. Lab. T. or Th. 2-5; Spring, Daily 11, Lab. T. or Th. 2-5.

Staff

21, 22, 23. General Botany. A general course in plant biology dealing with the structure, nutrition, growth, reproduction, and relationships of plants. Continuous through three quarters. Consideration will be given successively to: anatomy and function of the flowering plants; comparative study of representatives of the plant kingdom from an evolutionary point of view; inheritance; and recognition of important vascular plant families. Three credits each quarter. Lec., T. Th. 8 or 10. Lab., M. W. or F. 8-11 or any day 2-5.

Staff

*On Leave
25. **PLANT MORPHOLOGY.** Life histories and structural relationship of plants representative of the four big groups. The course is so organized as to give a broad view of the processes of evolution. Prerequisite, Botany 21, 22, 23, 30. Three lectures, two labs. Five credits. Spring, time arranged.

Staff

30. **TAXONOMY OF VASCULAR PLANTS.** A fundamental course dealing with the kinds, relationships, and classification of the vascular plants chiefly of this region. Prerequisites, Botany 21, 22, 23, or equivalent. Four credits. Spring, M. W. 9, Lab. M. W. 2-5.

Maguire

102. **ADVANCED TAXONOMY.** A continuation of course 30. Any quarter or summer, by special arrangement. Time and credit arranged.

Maguire

108. **AGROSTOLOGY.** A taxonomic study of native and imported grasses of the Western ranges. Special attention given to species playing an important part in grazing and soil binding. Two lectures, two labs. Four credits. Winter, arranged.

Staff

116. **HISTOLOGICAL TECHNIQUE.** Methods of killing and preserving botanical specimens and the preparation of permanent sections of plant material. Designed especially for teachers of Botany and research students. Winter. Time and credit arranged.

Staff

118. **PLANT CYTOLOGY.** Anatomy and physiology of the cell, with reference to cytogenetic applications. Two lectures, two labs. Four credits. Fall, arranged.

Staff

120. **ELEMENTARY PLANT PHYSIOLOGY.** A course dealing with fundamental principles of absorption, mineral nutrition, food manufacture, metabolism, translocation, and growth. Prerequisite, Botany 21, 22, 23. Should be preceded or accompanied by organic chemistry. Five credits. Spring, T.Th. 9, W. 12, Lab. T.Th. 2-5.

Richards

121. **WATER RELATIONS OF NATIVE PLANTS.** Consideration of rooting habits, sap concentration, transpiration and water re-
requirements of native plants in relation to distribution and adaptation to the environment. Three credits. Winter. (Not given 1935-36.)

Wann

122. Advanced Plant Physiology. Special problems in mineral nutrition, water relations and toxicity. A study of the abnormalities in plant growth caused by physiological disturbances. Prerequisite, Botany 120. Three credits. Winter. (Not given 1935-36.)

Wann


Wann


Maguire

*130. Principles of Plant Pathology. Fundamental principles underlying diseases in plants. The types of diseases and methods of study are such as will give the student a comprehensive view of the subject of plant pathology. Prerequisite, Botany 21, 22, 23. Three credits. Fall, W. 11, Lab. M. F. 2-5.

Richards

*131. Truck Crop Diseases. Diseases of vegetable crops with special emphasis on the factors underlying their cause, development, and control. Prerequisite, Botany 130. Three to five credits. Winter. (Not given 1935-36.)

Richards


Richards

*135. Orchard Crop Diseases. Diseases of orchard and small fruits. Prerequisite, Botany 130. To alternate with Botany 140. Three credits. Winter, Th. 10, Lab. T. Th. 2-5.

Richards

140. Forest Crop Diseases. Study of nature, cause and control of diseases, and decay of forest trees and woods. Prerequisite,
Botany 130 and 150. Winter. Three credits. To alternate with Botany 135. (Not given 1935-36.)

Richards

150. Mycology. Morphological and taxonomic relations of fungi with emphasis on economic forms. Prerequisites: Botany 21, 22, 23. Three credits. Fall, Th. 11, Lab. T. Th. 2-5.

Richards

160, 161, 162. Laboratory Methods. Open to qualified senior or graduate students majoring in Botany. Two credits each quarter. Time arranged.

Staff


Maguire

221. Pathological Technique. Special methods as applied to Plant Pathology, Physiology, and related subjects. Students may register for courses 221, and 222 only by special permission. Three or five credits. Winter. (Not given 1935-36.)

Richards and Wann

222. Photographic Technique. Fundamental principles of photography as applied to advanced work in biology and plant pathology. Special attention is given to micro-photography and lantern slide production. One lecture, two labs. Three credits. Winter, arranged.

Richards

234, 235, 236. Special Problems. Open to qualified students majoring in taxonomy, plant physiology, or plant pathology. Two to four credits. Time arranged.

Staff


Staff

250. Research. Open to all qualified senior college students in Taxonomy, Physiology, and pathology. Any quarter. Time and credit arranged.

Staff

*Open to short course students.
BUSINESS ADMINISTRATION
[Including Accounting and Merchandising]

P. E. Peterson, *W. L. Wanlass, Professors; V. D. Gardner, Associate Professor; *M. D. Ketchum, Thelma Fogelberg, Arden B. Olsen, Assistant Professors; L. Mark Neuberger, Instructor.

Accounting 100, 102, 103 may be used to satisfy in part the old group requirements in Exact Science if preceded or paralleled by Mathematics 15 or 34. No other courses in accounting may be so used.

Students majoring in the Department of Business Administration and Accounting may concentrate in the fields of Accounting, Finance, Management, Merchandising, and Secretarial Science. In addition to the recommended basic work in the first two years the student is advised to complete the courses listed in the following table according to his field of concentration. (Students majoring in the field of Secretarial Science should register under the advice of the Department head.)

[To be included either in the major or special group]

<table>
<thead>
<tr>
<th>Fields of Concentration</th>
<th>Recommended Courses</th>
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</thead>
<tbody>
<tr>
<td>Accounting:</td>
<td>Accounting 100, 102, 103, 104, 111, 120, 121, 122; Economics 131, 206; Political Science 104, 105, 106, 107, 108; Business Administration 130, 135, 146.</td>
</tr>
<tr>
<td>Finance:</td>
<td>Business Administration 45, 130, 135, 136, 141, 146, 149; Economics 131, 165, 167, 168, 206; Political Science 104, 105, 106, 107, 108; Accounting 100, 102, 103, 111.</td>
</tr>
<tr>
<td>Management:</td>
<td>Business Administration 45, 130, 133, 135, 136, 137, 149, 152, 153, 161, 162, 163; Accounting 101, 102, 103, 111; Economics 131, 145, 206; Political Science 104, 105, 106.</td>
</tr>
<tr>
<td>Merchandising:</td>
<td>Business Administration 45, 135, 136, 152, 153, 157, 158, 161, 162, 130, 149; Accounting 100, 102, 103, 111; Economics 131, 145, 206; Political Science 104, 105, 106, 107, 108.</td>
</tr>
<tr>
<td>Secretarial Science:</td>
<td>See outlined Course of Study in Secretarial Science.</td>
</tr>
</tbody>
</table>

*On Leave
ACCOUNTING

ACCOUNTING 1, 2. INTRODUCTORY ACCOUNTING. The purpose of this course is to present the basic principles of accounting and to furnish working material in the form of questions, problems, and practice sets which require the application of the theory advanced. Principles learned here will be useful as a basis for further study of accounting and as an aid in the understanding and control of the more common problems of business. Technique will be strongly emphasized. Five credits each quarter. 1 Fall or Winter and 2 Spring, M. W. F. 11, Lab. T. Th. 2-5.

Gardner

30. INTRODUCTION TO GOVERNMENTAL ACCOUNTING. A study of basic principles underlying the treatment of public or governmental accounts. Typical matters to be discussed are: Funds, The Budget, Revenues and Appropriations, Trust Funds, Property Accounts and Financial Reports for Governments. The course should be of particular interest to prospective employees and officers of governmental subdivisions and to prospective public accountants. Three credits. Fall, M. W. F. 8.

Gardner

100. FUNDAMENTALS OF ACCOUNTING. A basic course in fundamental theory. Emphasis will be given to the construction and interpretation of accounts. Required of all students majoring in Business Administration and Accounting. Graduate credit may be allowed upon the completion of some additional work. Prerequisite, Mathematics 15 or 34. Five credits. Fall, Daily 9.

Peterson

102, 103. PROBLEMS IN ACCOUNTING PRINCIPLES. This course logically follows course 100 and brings to the classroom some of the vividness of the real problems as they arise in business. Selected cases and problems will be used. A critical understanding of accounting as it serves the executive is the aim of the course. Required of all majors in Business Administration and Accounting. Graduate credit may be allowed upon the completion of some additional work. Prerequisite, Mathematics 15 or 34. Three credits each quarter. Winter and Spring, M. W. F. 9.

Peterson

104. C. P. A. PROBLEMS. A selection of typical problems taken from the examination questions of the various State Boards of Accountancy and the American Institute of Accountants. This
is an essential course for students majoring in accounting. Five credits. Fall, Daily 9.

Gardner

108. **Accounting for Non-Commercial Students.** A brief course in the study of those principles of Business Organization, Management and Accounting necessary to meet the needs of students in the School of Engineering, and other non-Commercial students. Three credits. Winter, M. W. F. 10.

Peterson

111. **Industrial Cost Accounting.** A detailed study of the principles of cost accounting as applied to manufacturing industry, with particular stress upon methods of burden distribution and interpretation of cost statistics. Lectures with assigned problems and cases. Fall. Five credits. (Not given 1935-36.)

Gardner

120. **Auditing Principles and Practices.** A study of the fundamental principles of auditing with opportunity to engage in a limited amount of actual practice. Lecture and laboratory. Four credits. Winter, T. Th. 10, Lab. M. W. 2-5.

Peterson

121. **Auditing Practice.** A laboratory course in which a complete set of working papers will be prepared including a finished audit report. Three credits. (Not given 1935-36.)

Peterson

122. **Problems in Auditing.** A case course. Prequisites, Auditing 120, 121. (Not given 1935-36.)

Peterson

124. **Seminar.** A reading and research course for graduates, seniors, and specially approved juniors in accounting. Required of all accounting majors. Current development in the field will be considered in lectures and reports. Two credits. Spring, T. Th. 9.

Peterson

127. **Income Tax Accounting.** A study will be made of the important provisions of the Federal and State Income tax laws. Practical problems in Income Tax Accounting will be considered. Fall. Two credits. (Not given 1935-36.)

Peterson
BUSINESS ADMINISTRATION

25. INTRODUCTORY BUSINESS ADMINISTRATION. An introductory course in the fundamentals of business administration. It is intended that this course shall furnish the students with a background for the study of the more complex problems of business. Not open to freshmen. Lectures and reports. Five credits. Fall, daily 10.

Peterson

26. APPLICATION OF ENGINEERING TO BUSINESS. Engineering applications of heating, lighting, ventilation, power, transportation as they affect the business executives in solving their problems of economy. Fall. Two credits. (Not given 1935-36.)

R. B. West

27. MATERIAL HANDLING, PLANT LAYOUTS, BLUE PRINT READING. Survey of material handling equipment, office and factory layouts, reading common blue prints, fundamentals of orthographic projection, simple drawings. Winter. Two credits. (Not given 1935-36.)

Kepner

28. BUSINESS FINANCE. This course treats of the structure of the corporate enterprise; providing for a new company; expansion of existing companies; recapitalization and reorganization of the corporation. Financial and operating ratios will be discussed. Proper financial plans and methods of marketing securities will also be considered. Open to qualified Sophomores. Prerequisites, Economics 51, 52, or equivalent, and Accounting 1 and 2. Five credits. Winter, Daily 10.

Gardner

31. (Art 31.) COMMERCIAL ART AND POSTERS. Design in advertising display, lettering, etc. Three credits. Any quarter. Time as for Art Studio.

Thorpe

32. (Art 32). COLOR. Color as used in display, in stage lighting, painting, design and in everyday life. Its physical, psychological and artistic phases are correlated. Designed for the business man, layman, dramatic artist, art teacher, and artist alike. Three credits. Spring, M. W. F. 10.

Reynolds

40. MATHEMATICAL THEORY OF INVESTMENT AND LIFE INSURANCE. (Math. 60). (Not given 1935-36.)
54. Business Psychology. A study of (1) psychological facts and principles applicable to the business functions of production, marketing, finance and labor and personnel, and (2) psychological methods of attack upon business problems. Three credits. Spring, M. W. F. 10. Olsen

55. Personnel Administration. A critical analysis of the problems of labor management which confront the manager of a business enterprise and of policies and methods of dealing effectively with these problems. Five credits (Not given 1935-36.) Ketchum

10, 110. (Art 10, 110). Show Card and Sign Writing. Any quarter. Time and credit arranged. Fletcher

75. Elementary Statistical Methods. (See Math. 75.) Cutler

130. Problems in Investment. With concrete cases used as a basis of discussion the varying investment needs of different classes of people will be studied in the first part of the course. In the second part, attention will be given to different types of investment houses; while in the third, types of investment securities will be analyzed. Five credits. Spring, daily 10. Peterson

131. Business Statistics. (See Econ. 131.) Gardner

133. Industrial Management Problems. Selected cases will be taken up for study and report. Problems in industrial location; on choice of site; on buildings and layouts; on selection, purchase, and arrangement of equipment; on purchasing and stores; on organization; on industrial research; on labor relations, and on problems in managerial control. Prerequisite, Business Administration 25. Three credits. Fall, T. Th. 8, F. 1. Gardner

135. Budgets. A study in the development and application of a system of budgetary control in American industry. Five credits. (Not given 1935-36.) Peterson

136. Business and Professional Ethics. After a general survey of the science of ethics special consideration will be given to
those principles of professional conduct which are rapidly being introduced into modern business. The work of trade associations and professional organizations will be critically analyzed. Two credits. Spring, T. Th. 10.

Wanlass

137. MANAGEMENT SEMINAR. A course for seniors and specially proved juniors in which current developments in the field will be considered in lectures and reports. Two credits. Winter, T. Th. 9.

Peterson

141. REAL ESTATE AND INSURANCE. The technique of real estate appraisal, transfer, legal restrictions, and the forms and papers used in real estate transactions. The various types of life and property insurance policies and their uses. Three credits. (Not given 1935-36.)

Ketchum

146. RISK AND RISK-BEARING. This course deals with risks, why they exist, their influence on economic activity, who are subject to risks and the various ways of dealing with risks. The risks of the investor, worker, consumer, and business manager are treated, involving the study of speculation, research, forecasting, business judgment, the prices paid for risk-bearing services as insurance, and a critical appraisal of our present risk-bearing organization. Five credits. Winter, Daily 9.

Olsen

149. BUSINESS POLICY. This is a co-ordinating course aimed to develop perspective and judgment. Problems will be discussed in finance, control, legal and ethical aspects. Required of all majors in Business Administration. Five credits. Spring, daily 8.

Gardner

MERCHANDISING

152, 153. PROBLEMS IN MERCHANDISING. The aim of this course is to present by means of carefully selected cases the manager's merchandising problems. Methods of marketing merchandise; selection of channels of distribution for consumers and industrial goods; sale organization and control; advertising and sales promotion; stock-turn price policies. Five credits each quarter. Winter and Spring, daily 11.

Peterson
157. Principles of Advertising. A study of advertising as a device in facilitating the distribution of commodities. The course includes a study of the structure of advertisements, the appeals used in the preparation of advertisements for different products, the choice of media, and the work of advertising departments and agencies. Prerequisites, Economics 51, 52 and Agricultural Economics 62. Three credits. (Not given 1935-36.)

Ketchum

158. Marketing Management. A consideration of the problems which confront the modern sales executive and the development of techniques which have been found useful in their solution. Prerequisites, Economics 51, 52 and Agricultural Economics 62. Three credits. Fall, M. W. F. 9.

Olsen

161, 162. Problems in Retail Distribution. This course is designed to meet the needs of students who wish to gain an understanding of the marketing field from the viewpoint of the retail distributor. The problems given major attention are: accounting and statistics, types of retail institutions, store location, store layout and merchandise classification, sales policies, service policies, merchandising, pricing, Brand policies, relation with merchandise sources and organization and administrative policies. The case method. Five credits each quarter. Winter and Spring. (Not given 1935-36.)

Peterson

163. Problems in Retail Store Management. This course logically follows course 162. A case course. The point of view of management is stressed. Problems in merchandise control, buying, advertising, display, sales promotion, personnel, plant operation, organization for store operation, accounting, credit, finance and general store management. Five credits. Fall, daily 11.

Peterson

CHEMISTRY

R. L. Hill, Sherwin Maeser, Professors; C. T. Hirst, Associate Professor.

Chemistry 1 will count in the New Exact Science Group. May be replaced by Chemistry 3 or 10.

Courses 102, 103, 104, 105, 106, 123, 160; Mathematics 98; and Physics 20, 21, 22 are required for a major in chemistry.
CHEMISTRY

1. Introductory Chemistry. An informational course in beginning college chemistry designed for students who have not had high school chemistry and who desire a brief applied survey of the field of inorganic chemistry. This course cannot be used as a prerequisite for organic chemistry. Students with credits in high school chemistry will not be given credit in this course. Five credits. Fall, daily 11.

Maeser

3, 4, 5. Inorganic Chemistry. A complete course in inorganic chemistry, including a beginning in qualitative analysis. Prerequisite, high school chemistry or physics, or college physics. This course is designed specially for Chemistry or Physics majors and for Pre-medics. Students in Agriculture and Home Economics should register in Chemistry 10, 11, and 12. Three lectures and two labs. Five credits each quarter. M. W. F. 8, Lab. M. W. or T. Th. 2-5.

Maeser

10, 11, 12. General Chemistry. A year's course in chemistry for students majoring in Agriculture, Home Economics, Engineering, etc. This course will emphasize the fundamental principles of inorganic and organic chemistry. Both the lecture and the lab. will be adapted to the needs of students in Agriculture and Home Economics. Prerequisites, high school chemistry or physics, or college physics. One section of Chemistry 10 and 11 will be repeated Winter and Spring quarters. Five credits each quarter. Chem. 10. Fall, M. W. F. 10 or 2. Labs. M. W. 8-11 or 9-12; or T. Th. 9-12 or T. Th. or W. F. 2-5; Winter M. 1, T. Th. 8, Lab. T. Th. 2-5; Chem. 11. Winter. Same as Chem. 10. Fall, Spring. Same as Chem. 10. Winter. Chem. 12. Spring, M. W. F. 10; Lab. T. Th. 8-11 or 9-12 or T. Th. or W. F. 2-5.

Hill and Hirst


Hirst

102, 103. Quantitative Analysis. A course in the fundamental principles of gravimetric and volumetric analysis. Prerequisite, Chemistry 5 or 15. Three credits each quarter. Winter and Spring, T. Th. F. 2-5.

Hirst
104, 105, 106. **Physical Chemistry.** Including atomic, kinetic, and electron theories, gaseous, liquid and solid states; solutions and thermodynamics. Prerequisites, Physics 20, 21, 22; Chemistry 5; Mathematics 98. Three credits each quarter. T. Th. 9, F. 12.

**Maeser**

109, 110, 111. **Physical Chemistry Laboratory.** To accompany Chemistry 104, 105 and 106. One credit each quarter. F. 2-5.

**Maeser**

107. **Dairy Chemistry.** The chemistry of milk and milk products, including tests for adulterants, preservatives, and the routine quantitative methods of the analysis of dairy products. Prerequisite, Chemistry 12 or 122. Four credits. (Not given 1935-36.)

**Hill**

108. **Dairy Chemistry Laboratory.** To accompany Chemistry 107. Three credits. (Not given 1935-36.)

**Hill**

116. **Inorganic Preparations.** An advanced laboratory course in practical laboratory methods of synthetic inorganic chemistry. Prerequisites, Chemistry 5 or 15, and 103. Any quarter. Time and credit arranged.

**Maeser**

120 or 220. **Special Courses in Quantitative Analysis.** Advanced courses in the analysis of Water, Food, Soil, Urine, and Gas. Prerequisite, Chemistry 103. Winter or Spring. Time and credit arranged.

**Hirst**

121, 122, 123. **Organic Chemistry.** Fundamental principles of Organic Chemistry. The aliphatic and aromatic hydrocarbons and their derivatives, including a study of the more important theories and reactions employed in organic chemistry. The laboratory work in the spring quarter will be an advanced course in organic synthesis. Three lectures and two labs. The lecture in the Spring quarter is largely on chemical theories and reactions. Students desiring a ten hour course may register for 121, and 122, without 123. Prerequisite, Chemistry 5.

Students desiring to register for the laboratory or lecture separately in chem. 123 should register for 123a 3 hour credit for
CHEMISTRY

lecture and 123b. Credit proportional to registration for laboratory. Five credits each quarter. 121, 122 Fall and Winter, T. Th. 10, F. 1. Lab. M. W. 2-5. 123 Spring, Lec. arranged, Lab. M. W. 2-5.

160 or 260. CHEMISTRY SEMINAR. Required of all seniors majoring in Chemistry. Two credits. Spring, time arranged.

180 or 280. RESEARCH. Senior or Graduate students majoring in Chemistry may elect research in any branch of the subject. Any quarter. Time and credit arranged.

MAESER

CHEMISTRY SEMINAR

Students who elect Child Development and Parental Education as their major are required to complete the following courses: Child Development 35, 55, 60, 103, 110, 125, 135, 140 and 190. Selections to complete their major may be made from the other courses listed, according to the needs and interests of the student.

13. CHILDREN’S LITERATURE. Introduction to the prose and poetry of childhood and adolescence. The course should be helpful to teachers and parents. A dollar and a half library fee is required. Three credits. Fall, M. W. F. 9.

PEDERSSEN

34. ART FOR YOUNG CHILDREN. Designed to meet the needs of child development specialists, mothers in the home, and kindergarten teachers. Simple handiwork, color, design, and drawing expression will be considered as an educational and recreational activity in the life of the child. Two credits. Winter, T. Th. 1.

FLETCHER

35. NUTRITIONAL GROWTH AND DEVELOPMENT OF CHILDREN. A study of the growth and development of infants and children as influenced by nutrition. The food requirements of children from infancy to school age are considered together with problems in child
feeding. Lecture course with field trips. Three credits. Fall, M. W. F. 2; Spring, M. W. F. 8.

Clayton


Gull

38. Music for Young Children. A study of music appreciation for little children, chiefly through participation in song singing and bodily response to various rhythms. The procedure of rote song teaching, the careful selection of song material, other music for listening lessons, and care of the child voice. One hour credit. Fall, T. 10.

Welti

55. Children's Clothing. A study of styles, material and decoration suitable for different ages of children. Construction emphasizing comfort, beauty, convenience and self-help for the rapidly growing child. Prerequisites, Clothing 10, 11, and 50, or 20. Two credits. Winter, T. Th. 3-5; Spring, M. W. 1-3.

Moen

60. Child Management. Open to all girls in the college wishing to acquire a knowledge of and a degree of skill in the management of young children. This course should be helpful to prospective homemakers and to elementary school teachers. Laboratory in the nursery school arranged. Three credits. Any quarter, M. W. F. 2.

Bate

103. Psychology of Adolescence. Open to students who have had Psychology 101 or equivalent. A study of the behavior of adolescents. Three credits. Spring, W. 1, T. Th. 10.

Peterson


Peterson

111. Heredity and Eugenics. A non-technical study of the more evident behavior of the germ cells in reproduction and the simpler principles underlying the inheritance of traits. Consider-
ation is given to the eugenic value of human races, inferior and superior families, sexual selection and marriage, birthrate, immigration and other principles having eugenic significance. Three credits. Fall, M. W. F. 11; Winter, M. W. F. 8.

Henderson

112. Principles of Genetics. A technical study of the cytological and experimental bases underlying heredity and variation. This course is a fundamental requirement for all students of plant breeding, animal breeding or human heredity. It considers qualitative and quantitative traits, factor independence, interaction, linkage relations, gene and somatic mutations, sex determination and modification and related subjects. Students taking this course must have had course 111 or some good general course in Biology. Graduate credit allowed. Five credits. Spring, Daily 10.

Henderson

125. Mothercraft. This course includes a study of the anatomy and physiology and of the reproductive system, preparation for motherhood, and the physical care of mother and child from the prenatal period to the end of the first year of the child's life. Prerequisite, Physiology. Three credits. Fall, M. W. F. 11; Spring, M. W. F. 10.

Dancy


Bate

140. Special Problems in Child Development. An opportunity for students to obtain further experience in managing children in the nursery school, or to work out a problem in child development in which they are particularly interested. One to three credits. Any quarter, time arranged.

Bate

150. Environmental Factors of Child Life. Home conditions are dealt with briefly in this course in natural and adopted homes. The principal emphasis is on community influences and pressures which assist in the development of the personality. Field trips
will supplement lectures as a means of coming into contact with societies, organized agencies, and institutions. Three credits. Spring, M. W. F. 9.

_Geddes_

170. Juvenile Delinquency. A study of juvenile offenders. The causes of delinquency are considered with the purpose of arriving at intelligent remedies. Various methods of home, social, and institutional treatment are studied; parental cooperation, personal supervision allied with probation and parole, institutional treatment, etc. Three credits. Winter. (Not given 1935-36.)

_Hendricks_

171. Social Problems of the Family. In this course the relations of the family with outside groups, agencies, and institutions are stressed. Attention is also paid to the inter-relation between the different members of the family. Home life is treated as a changing, developing, basic organization which should be in constant reciprocal relation with outside agencies. Three credits. Fall, M. W. F. 9; Spring, M. W. F. 11.

_Hendricks_

190. Seminar in Child Development. Two credits. Winter, W. 3-5.

_Bate_

For closely related courses, credit for which is applicable on a Child Development Major, see P. E. 81, Rhythms and Dramatic Games; Music 30 and 31, Public School Music; Art 51, Drawing for Elementary Grades; Art 52, Design for Elementary Grades; Art 53, Handwork for Elementary Grades.

CIVIL ENGINEERING

Ray B. West, O. W. Israelson, George D. Clyde, Professors; Aaron Newey, H. R. Kepner, Associate Professors; V. H. Tingey, Assistant Professor.

APPLIED MECHANICS AND DESIGN

CE 1, 2. Materials of Engineering. The chemistry of steel, the alloys, etc., and their special use in machine parts; strengths composition and proper use of wood, plaster, glass, glue, paint, brick, cement, sand and gravel. Mechanical analysis curves,
water-cement ratio, cement and concrete testing. Fall and Spring Quarters. Three credits each quarter. 1. Fall, T. Th. 2, Lab. F. 9-12; 2. Spring, T. Th. 11, Lab. Th. 2-5.

Newey and West


Kepner

CE 103. Applied Mechanics and Strength of Materials. The simple machine, reactions, moments, and shears; the design of beams and columns. (See also Physics 152.) Five credits. Fall, M. W. F. 8, Lab. T. Th. 2-5.

Clyde


Kepner


Kepner


Kepner


Kepner

CE 113. Elementary Structural Design. Design of timber, steel, and masonry structures. Emphasis is placed on the fundamental principles of designing members of steel and timber frame works and application of methods of reinforced concrete de-
sign to bridges, walls and other masonry structures. (Prerequisite CE 106, 109.) Eight credits. Fall, Daily 11, Lab. T. Th. F. 2-5.

Kepner


Kepner

CE 202. Graduate Structural Theory. A brief review of the common methods of structural analysis followed by the study of such structures as suspension bridges, space frameworks, steel arches, or other structures of especial interest to the student. Prerequisite CE 110. Four credits. Time arranged.

Kepner


Kepner

HIGHWAYS

CE 120. Highway Construction and Design. Location, grade, drainage, resistance to traction, road materials, construction methods and cost, road and pavement design. Five credits. Fall, M. T. Th. F. 9, Lab. W. 2-5.

West


West


West
IRRIGATION AND DRAINAGE


Clyde


Clyde

CE 145. DESIGN OF DRAINAGE SYSTEMS. Preliminary survey, location of drains, flow in open channels, and construction of drainage systems, with special reference to drainage of irrigated lands. Prerequisite, CE 141. Three credits. Spring, T. Th. 11, F. 2-5.

Israelsen

CE 146, 147. DESIGN OF IRRIGATION SYSTEMS. Sources of water supply, diversion works, canal alignment and cross section, flumes, drops, and spillways. Prerequisites, CE 141 and CE 101, 102, 103. Five credits each quarter. Fall, M. T. W. 9, Lab. M. W. 2-5; Winter, M. T. W. 8, W. F. 2-5.

Israelsen


Israelsen

CE 149. IRRIGATION INSTITUTIONS AND MANAGEMENT. Laws governing the acquirement, adjudication, and distribution of water rights, irrigation and drainage enterprises, valuation of water rights, delivery of water to irrigators, annual water charges, operation and maintenance organizations, and costs. Five credits. Fall, Daily 10.

Clyde
CE 241, 242. Research in Irrigation and Drainage. Specially prepared undergraduates 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. Time and credit arranged.

Israelsen or Clyde

ENGINEERING DRAWING

Drawing rooms are open from 8:00 a.m. to 5:00 p.m., daily. Supervised instruction given from 2:00 to 5:00 p.m. A student may register for any number of credits. Three hours per week are required for one credit. All classes conducted simultaneously in Room 307, Engineering Building.

All courses in Drawing to be given by Professor Kepner.

CE 60. Engineering Drawing for Foresters. Use of instruments, lettering, applied geometry, elements of orthographic projection and pictorial drawing. One credit. Winter, M. W. or F. 3-5, 1 Lab. arranged.


CE 71. Map Reading and Topographical Drawing. Topographical lettering, symbols, enlargement and reduction of maps, construction of topographical models. Three credits. Any quarter, time arranged.

CE 75. Architectural Drawing. Principles of perspective, shades and shadows, building details and architectural symbols. A complete set of drawings for a small dwelling house is made. Three credits. Any quarter, time arranged.
SURVEYING

CE 81. PLANE SURVEYING. Use of tape, transit, level, compass, etc., in field problems and traverses. Differential and profile leveling, plotting, mapping, care of instruments used by engineers. Four credits. Fall, M. W. 10, Lab. M. W. 2-5.

CE 82. PLANE SURVEYING. Topographical surveying, hydrographic surveying and some rural and city surveying. Prerequisite, Trigonometry. Four credits. Spring, M. W. 10, Lab. M. W. 2-5.

CE 83. MAPPING AND OFFICE PRACTICE. Practice in the mapping of the various kinds of surveys that may be encountered by the engineer. Two credits. Winter, T. 1-5, Th. 3-5 or M. W. F. 3-5.

CE 181. RAILROAD AND HIGHWAY CURVES AND EARTHWORK. Instructions and practice in railroad and highway curves, transition curves, and earthwork computations. Prerequisites, CE 81, 82. Five credits. Spring, M. W. F. 9, T. Th. 2-5.

GENERAL


CE 191. RAILROADS. Economics of railroad location, and railroad construction. Three credits. Winter, T. Th. 9, W. 12.


CE 196. **Heat and Power Machinery.** Steam generation; fuels and combustion; construction and operation of boilers; elementary thermodynamics. Types, details, and tests of steam engines and gas engines. Measurement of power. See also Physics 118. Three credits. Spring, M. W. F. 10.

*Gardner*

CE 197. **Electric Machinery.** Principles of continuous and alternating current generators and motors; transmission and distribution; air compressors. See also Physics 112. Three credits. Winter, T. Th. F. 10.

*Linford*

CE 198, 199. **Undergraduate Thesis.** Senior year, one credit each quarter. Fall and Winter, time arranged.

*Staff*

**DAIRY HUSBANDRY AND MANUFACTURING**

*George B. Caine, Professor; A. J. Morris, Associate Professor*

Students majoring in Dairy Husbandry must complete the following major courses for graduation. Dairy 1, 5, and 6; Animal Husbandry 1, 10, 150, 155, as well as all courses listed in the Department of Dairy Husbandry. Chemistry 107 and Bacteriology 104 will also be required. Courses in Botany, Crops, Accounting, Advertising, English and Mechanics should be followed carefully to fill other groups.

1. **General Dairy.** Designed for students who desire a short, general course in dairying. Especially taught for students majoring in other departments of the School of Agriculture, for Smith-Hughes students and for prospective county agents. The following will receive consideration: history and present status of the dairy industry, the Babcock test for milk and cream, the manufacture of some dairy products; kinds, uses and care of farm utensils, best and most sanitary methods of handling milk, methods of starting dairy herds, breeds of cattle, cow testing associations and testing circles, bull associations, advanced registry, boys' and girls' clubs and herd records. Three credits. Fall or Winter, T. Th. 9, Lab. T. Th. 2-5.

*Caine and Morris*

2. **Dairy Farming.** A general course in dairy production designed for all students in the School of Agriculture wanting further training in this phase of dairying. A study of the basis for suc-

Caine

12. **Breeds of Dairy Cattle.** Study of history and development of all breeds of dairy cattle. Special emphasis on the various families within the breeds. Requirements for official testing. Pedigree and Herd Book Study. Four credits. Fall, M. W. F. 9, Lab. M. 2-5.

Caine


Caine


Caine

*111. Dairy Cattle Judging.** A study of the types of the various breeds of dairy cattle. Visits to important herds. Valuation of dairy cattle. Prerequisite, Animal Husbandry 1 and 100, or Dairy Husbandry 12. Two credits. Spring, T. Th. 2-5.

Caine

115. **Seminar.** Discussion and reports of current literature. Any quarter. Time and credit arranged.

Staff

150. **Special Problems.** A course for students wishing to study certain specialized phases of the dairy industry. Reading of recent research literature and a certain amount of individual investigational work required. This course requires a thesis. Students majoring in Dairying are required to carry at least six hours of this course during their senior year. Any quarter. Time and credit arranged.

Staff
216. Research. Original research work on problems in the dairy industry. Graduate students only. Any quarter. Time and credit arranged.

*Open to students in the short course.

Staff

DAIRY MANUFACTURING

A prescribed course is set up for students majoring in Dairy Manufacturing. Students should study this course rather carefully and adhere to it as closely as possible. It is expected that students spend at least six months in a commercial dairy manufacturing establishment before graduation. It is strongly recommended that more than six months be spent in dairies if possible. This can usually be arranged by securing summer work through the department. Very good cooperation exists between the department and the commercial dairies, and frequent trips are made to them during this course of study.


Morris


Morris


Morris

*7. Dairy Practice. A course for short course students only. Practice in plant operation will be emphasized. Any quarter. Time and credit arranged.


Morris

*103. Manufacture of Cheese. A study of the factors involved in the manufacture of cheese. Cheddar, Colby, cottage cheese and casein are manufactured and studied in detail. Five credits. Fall, M. W. F. 10, Lab. Th. 11-5.


105. Management and Operation of Dairy Manufacturing Plants. Forms of organization of dairy manufacturing enterprises. Personal problems, advertising, selling, managerial use of accounting records and other principles underlying successful management and operation are considered. All operations of the creamery are conducted by this class. The manufacturing work is divided into eight departments and a student is placed in charge of each department for one month at the end of which time he is rotated to a new one until he has had experience in every department. A business and operation report is made by each student at the end of each month. The class is limited to 10 students, each of whom must pass a physical examination, be of Senior College standing and have above an average of "C" grade for his Junior College work. Application for admittance must be made in writing. Two credits each quarter. Any quarter. One lecture, one lab. Time arranged.

*106. Varieties of Cheese. A study of the history, importance and manufacture of some of the most common varieties of cheese found on the American markets besides those of the Cheddar group. Five credits. (Not given 1935-36.)

*Open to students in the short course.
ECONOMICS

W. L. Wanlass, F. D. Daines, Jos. A. Geddes, Professors; V. D. Gardner, W. U. Fuhriman, Associate Professors; *M. D. Ketchum, Arden B. Olsen, Assistant Professors; E. B. Murray, Instructor.

Economics 1 and 51 will count in the New Social Science Group.

Students majoring in this Department should include the following senior college courses in either the major or special group. Economics 125, 131, 135, 140, 155, 165, 167, 180, 181, 182, 205, and 206; Agricultural Economics 113; Accounting 101 and 102; Political Science 105, 106, 107, 108, 116, 117 and 120.

1. GENERAL SOCIAL SCIENCE. A freshman course designed as an introduction to the field of the social sciences. Modern economic, political and social institutions and problems will be considered historically, critically and scientifically. Five credits. Fall, Daily 8, 9, 10 or 11; Winter, Daily 8, 10, or 11; Spring, Daily 9, 10 or 11.

Staff

4. ECONOMIC RESOURCES OF THE UNITED STATES. An analysis of the resources and industries of the United States, with emphasis upon their regional distribution. Effects of the physical and geographic environment upon population and the social system. Particular attention is paid to those forces bringing about changes in our economic structure. Three credits. Fall or Winter, M. W. F. 11.

Olsen

5. ECONOMIC RESOURCES OF THE WORLD. A review of the natural and economic resources of the world by continents. The natural and human aspects of geography will be emphasized. Three credits. Spring, M. W. F. 11.

Olsen

10. GEOGRAPHY OF UTAH. (Geology 5). Review of different physiographic provinces and land and water relationships. Geographic distribution and economic importance of water power, timber and mineral resources, and the manner in which they have influenced the settlement and industry of the state. This course does not count in the Social Science group. Five credits. Winter, daily 10.

Christensen

*On leave.
25. **Economic Development of Western Europe.** A survey of the development of economic institutions and systems in those countries of Europe which have contributed most to and are most intimately connected with the economic life of the United States. Comparison and contrast between European and American economic institutions. The development of trade relationships between Europe and the United States. The procedures and practices involved in the conduct of European-American trade. Three credits. Winter, M. 1, T. Th. 8.

_Olsen_

30. **Economic Development of the United States.** This course indicates the dominance of economic forces in history. A critical study of the evolution and progress of American agriculture, industry, commerce, transportation, banking, labor organizations, etc., from the Colonial period to the present time, ending with a survey of existing institutions. Three credits. Spring, M. W. F. 9.

_Olsen_

51. **General Economics.** An introductory course covering the entire field of Economics. After a brief survey of man's economic development, a careful study is made of those fundamental principles upon which modern economic life is based. Attention is also given to such subjects as money, credit, banking and labor problems. (Not open to Freshmen.) Five credits. Fall, Daily 8, 10; Winter, Daily 9, 10, 2; Spring, Daily 8, 10, 2.

_Staff_

52. **Advanced General Economics.** This course is especially designed for students of the School of Commerce and others who desire a more thorough grounding in Economics. A more intensive study of economic laws will be made with special reference to their application to present economic problems. Required as a prerequisite to all senior college courses in the School of Commerce except in Agricultural Economics and Marketing. Prerequisite, Economics 51. (Not open to Freshmen.) Five credits. Fall, Daily 9; Winter, Daily 8, 11; Spring, Daily 8.

_Staff_

125. **Labor Economics.** A study of the development, government, governmental problems, policies and relations of labor organizations. The course will include a study of labor legislation, the main divisions of which relate to the legal minimum wage,
women and child labor and the various phases of social insurance against the hazards of unemployment, sickness, and old age. Five credits. Fall, Daily 11.

Murray


Gardner

135. Transportation Economics. Emphasis is placed chiefly on railroad transportation in the United States. Some attention will be given to highways transportation. The underlying economic principles will receive more attention than the practical phases of transportation. Special attention will be given to those problems that are peculiar to the intermountain section. Prerequisites, Economics 51, 52. Three credits. Spring. (Not given 1935-36.)

Wanlass

140. International Economic Relations. Special attention will be given to the basic economic relationships existing between the industrial nations of the world, international commerce, tariffs and trade restrictions, international debts and finance, and various means of promoting progress on a basis of sound economics. Prerequisites, Economics 51, 52. Three credits. Spring, M. W. F. 10.

Wanlass

145. Economics of Consumption. There is an economics of consumption that is quite as important as the economics of production. This course deals with personal and group expenditures, standards of living, budgets, variations in consumption, etc. Prerequisite, Econ. 51. Two credits. Spring. (Not given 1935-36.)

Wanlass

150. Types of Economic Organization. A study of the various forms of economic organization that have been proposed, including some of the Utopias, Marxian Socialism, Collectivism, the Single Tax, Consumer's Cooperatives, Syndicalism, Guild-Socialism, Communism, Fascism, and Capitalism. Three credits. Spring, M. W. F. 11.

Murray
155. **PRINCIPLES OF TAXATION.** After a brief survey of the fundamental economic principles of public finance, a critical examination of our federal, state, and local taxes and the various business taxes will be studied. Special attention will be given to tax problems in Utah. Prerequisites, Economics 51, 52. Five credits. Winter. (Not given 1935-36.)

Wanlass

165. **MONEY AND CREDIT.** The nature, development and uses of money and credit. Special attention given to bimetallism, the gold standard, the money market and the relation of money and credit to prices. Prerequisite, Economics 51, 52. Five credits. Fall, Daily 9.

Wanlass

167. **BANKING.** The functions and operation of such financial institutions as commercial banks, savings banks, and trust companies will be studied critically. This will be followed by an historical treatment of banking in the United States and a survey of European and Canadian banking in comparison with our Federal Reserve System. Varied reading and reports on pertinent problems will be part of the course. Prerequisites, Economics 51, 52 and 165. Five credits. Winter, Daily 9.

Wanlass

171. **ECONOMICS OF BUSINESS CYCLES.** A study of the theory, history and statistics of business cycles and of problems of their prediction and control. Prerequisites, Economics 51, 52. Three credits. Fall, M. 1, T. Th. 8.

Olsen

172. **INDUSTRIAL COMBINATIONS AND MONOPOLIES.** This course deals with the causes of the tendency toward combination on the part of industrial enterprises, the significance of this tendency as related to various phases of economic life, and the social problems which have arisen as a result of this tendency. Prerequisites, Economics 51, 52. Three credits. Fall, T. Th. 9, W. 12.

Olsen

175. **PUBLIC UTILITY ECONOMICS.** A study of the economic principles involved in the furnishing of communication and urban transportation services and the provision of light, heat and power facilities by the public service companies of the United States. Prerequisites, Economics 51, 52. Three credits. Winter, M. W. F. 8.

Olsen
180, 181, 182. **Current Economic Problems.** (Economics 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. Two years credit allowed. One credit each quarter. T. 11.

**Wanlass**

200. **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.

**Wanlass**

205. **History of Economic Doctrines.** A critical study of the origin and development of the economic theories of the leading thinkers in the leading nations of the world from 1750 to the present time. Two credits. Spring, T. Th. 9.

**Wanlass**

206. **Advanced Economic Theory.** A critical analysis of present day economic theories and doctrines. The purpose of the course is to enable students to get a better grounding in economics and to correlate the work of the various courses in economics. Only senior and graduate students who have had considerable work in economics will be admitted. Two credits. (Not given 1935-36.)

**Wanlass**

**EDUCATION**

E. A. Jacobsen, Professor; C. E. McClellan, L. R. Humpherys, Associate Professors; Edith Bowen, Elsa Brown Bate, Assistant Professors; George W. Bates, Alvin Hess, Lenore Lewis, Instructors.

For a major in education the student must complete 41 quarter hours of work in the field of psychology and education, 14 hours of which must be upper division work including at least one course in each of the following fields: Advanced Administration or Supervision, History or Philosophy of Education, Tests and Measurements or Statistics, Advanced Educational Psychology, and special work in Education Seminar.

A major in education requires a teaching major of 30 quarter hours, and a minor of 18 hours, in subjects taught in secondary schools. Requirements for general teaching certificate must be met. (See page 53.)

Pond and Staff

Ed. 31. Elements of Scoutmastership. A study and practice in the arts of scouting and acquaintance with the skills involved in the practice of scouting. The organization and methods of scouting will be stressed. Two credits. Spring.

Pond

80. Orientation in Education. An introductory course for the purpose of orientating students in the field of education, with special reference to teaching. The professional preparation and the personal qualifications for successful teaching will be considered, and various aptitude tests given. A chief function of the course will be professional guidance. Three credits. Fall or Winter, M. W. F. 9.

Bowen

104. Elementary School Curriculum. This course is designed to familiarize prospective elementary teachers with the content of the elementary curriculum and the objectives and standards to be realized in the grades. Three credits. Any quarter, T. Th. 8, F. 1.

Bowen


Bowen

106. Practice Teaching. This course is for juniors who have had educational psychology, principles of education and methods. The apprentice plan is followed which requires an initial period of observation with minor responsibility but with gradual increase of work and responsibility as trainee’s ability is demonstrated. The quarter during which the student is to do practice teaching must be arranged for at the time of registration in the Fall quarter. Ten credits. Any quarter, time arranged.

Bowen
109. HISTORY OF AMERICAN EDUCATION. The evolution of the American Public School system; its colonial and European origins; development of public control and support, expansion of activities and scope. Two credits. Spring, T. Th. 10.

110. HISTORY OF EDUCATION. A brief review of the historical development of educational theories and practices from the Greeks to the present. Special emphasis will be placed upon the relation of education to the social, religious, political and industrial conditions of the period. Important educational reforms and reformers will be studied for the lessons they may teach to modern education. Two credits. Winter, T. Th. 11.

111. PRINCIPLES OF EDUCATION. A study of the scientific data of education as related to the processes and methods used in teaching. Consideration will be given to educational values and objectives and to tests and measurements by which standards are determined. Prerequisite, Psychology 102. Three credits. Any quarter, T. Th. 8, F. 1.

114. METHODS IN SECONDARY EDUCATION. The study of problems and principles involved in the learning process: relationship between learner, subject matter, and method; objectives, motivation, presentation, discipline, evaluation, and other fundamental considerations. To accompany the course in directed observation. Two credits. Any quarter, M. W. 8.

115. DIRECTED OBSERVATION AND TEACHING. A course dealing with the application of the principles of education. High school classes will be visited, reports on observations made, lesson plans created and some apprentice teaching done. Evidence will be sought through various tests to discover the fitness of students for the teaching profession. Prerequisite to Education 117. Four credits. Any quarter, time arranged.

116. CLASSROOM MANAGEMENT AND TECHNIQUES. This course accompanying Practice Teaching, Education 117, will consider details of teaching: personality problems of the teacher, individual differences among students, lesson assignments, study procedures,
types of teaching, discipline, examinations, grades, and other such problems. Two credits. Any quarter, T. Th. 8.

McClellan

117. Practice Teaching in High School. Required for Junior High or Senior High certificate. Open only to seniors and graduate students. Prerequisites, Psychology 102, or 103; ten hours of education, including Education 80, 111, 114, and 115, or equivalent courses; and 18 hours in subject in which student expects to do practice teaching. Applications for this course to be made at least two quarters in advance. Four credits. Any quarter, time arranged.

McClellan


Bate


Bate

121. The Organization and Administration of Education. (a) The State Law and regulations of the State Board of Education pertaining to public schools; (b) courses of study, including the Utah State course; (c) organization, duties and activities of the teaching staff and the student body. Three credits. Fall or Spring, M. W. F. 10.

Jacobsen

122. Practice Teaching in Home Economics. Supervised teaching carried on in the Logan High School (for twelve weeks). One group and two individual conferences with each girl weekly. Prerequisite, Education 119. Four to eight credits. Any quarter, time arranged.

Bate

124. Methods of Teaching Shop Work. The analysis and classification of trade knowledge. Establishing an effective instruc-

_Humpherys_

125. **Practice Teaching in Shop Work.** Supervised observation and practice teaching in various shop units in selected schools near the College. Individual conferences and round table discussion. Prerequisite, Education 124. Four to eight credits. Winter or Spring, time arranged.

_Humpherys_

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 classroom, laboratory and field; visual and extension methods of teaching. Prerequisite, Education 111 or its equivalent. Five credits. Winter, Daily 9.

_Humpherys_

127. **Practice 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, North Cache High School, and the South Cache High School. Prerequisite, first three years of Smith-Hughes course. Four to eight credits. Winter or Spring, time arranged.

_Humpherys_

129. **Guidance and Personnel.** A study of the meaning, purpose, trends and present status in the guidance movement. An analysis of the various agencies in guidance and personnel work and how to organize them in our secondary school system. Three credits. Winter, M. W. F. 10; Spring, M. T. Th. 9.

_Humpherys_


_Jacobsen_

*Humpherys*

160. **Philosophy of Education.** The dependence of education upon the methods and deductions of modern thinking; with an attempt, also, to evaluate the functions of and relationships between the various factors that comprise our system of public education. Two credits. Spring, time arranged.

*McClellan*

229. **Educational Administration.** A study of state, city, and rural school systems, with the principles underlying their organization and administration; an examination of the powers, duties and responsibilities belonging to state and local boards of education, and upon superintendents, principals, and other school officials. A review of the literature of the field. Two credits. Fall, T. Th. 10.

*Jacobsen*

230. **Educational Supervision.** A study of the objectives, ideals and present practices of the school; an examination of courses of study as a means of reaching desired objectives; a study of psychological principles as applied to present practices in teaching; a consideration of the technique necessary for the supervisor in determining success or failure on the part of the teacher. Specially arranged visits to teachers at work will constitute a part of the course. Two credits. Winter, time arranged.

*McClellan*

237. **Education Seminar.** This course gives opportunity for the investigation and report of individual problems and for group discussion and criticism on these reports. One credit. Any quarter, time arranged.

*Staff*

267, 268. **Introduction to Research in Education.** An inquiry into the nature and source of research problems, with a study of the underlying principles and the methods of working out such problems in the field of education. Some attention is given to the matter of thesis writing as a problem related to research. Two credits each quarter. Fall, time arranged; Winter, T. Th. 11.

*Jacobsen and McClellan*
271. **Research in Education.** This course provides for individual work in thesis writing with the necessary guidance and criticism. Nine to fifteen credits. Any quarter, time arranged.

**Staff**

**ENGLISH AND SPEECH**


To fill the New Language Group take English 10, and select five hours from English 31, 50, 51, 53, 54, 55, 60, 70, 80, 81, and Speech 1. Speech 60 will count in the New Arts Appreciation Group.

English 10, 11, 105, 108, 109, 140, 141, 150, 153, together with two years of French or German, and English History for one quarter are required of majors in English. They must also maintain a “B” grade in their major subjects.

A comprehensive written examination in English and American literature, given during the Spring quarter of the senior year, is also required of all English majors.

**English A.** A basic review of grammar, spelling, and the essentials of correct writing. Required of students who need further training in English in order to carry satisfactorily other collegiate courses. No credit. Winter and Spring, Daily 8.

**Porter**

10. **Freshman Composition.** Fundamentals in sentence and paragraph structure; drills and tests for accuracy; practice in outlining and organizing material; attention to correct usage; emphasis on expository writing. Five credits. Fall, Daily 8, 9, 10, 11, or 2; Winter, Daily 8, 9, 10, 11, 2, or 3; Spring, Daily 8, 9, 11, or 2.

**Staff**

11. **Sophomore Composition.** Open to sophomores who have completed English 10. Freshmen may not register for this course, or receive credit for it, if taken without written permission from the head of the department at time of registration. Practice in selecting and organizing material; drill in effective presentation

§English 10 and 11 are required of all students for graduation from the College.
ENGLISH

of subject matter; diction; narrative and descriptive writing; research and argumentative papers. Four credits. Fall, M. T. W. Th. 9, 10, or 11; or M. W. Th. F. 8; Winter, M. W. Th. F. 8; M. T. W. F. 8 or 11; or M. T. W. Th. 10; Spring, M. T. W. Th. 8, 9, 10, or 11.

Staff

12. NEWSPAPER REPORTING AND EDITING. Lectures, practice, and group discussions on the work of the reporter, correspondent, and copy reader. Also, ethics, social responsibilities and problems of newspaper reporting. Students are required to cover assignments for local, state, and college newspapers and receive personal criticism of written work. Not open to freshmen. Three credits. Fall, Winter, and Spring, M. W. F. 11.

Porter

13. COMMUNITY JOURNALISM. Discussion of problems pertaining to the writing, editing, and publishing of a weekly newspaper; news sources and methods for community correspondents. Consideration will be given to writing for the farm and home. Not open to freshmen. Three credits. Fall and Winter, M. W. F. 9.

Porter

14. CHILDREN'S LITERATURE. Introduction to the prose and poetry of childhood and adolescence. A $1.50 library fee is required. This course is helpful to teachers and parents. Three credits. Fall, M. W. F. 9; Spring, M. W. F. 11.

Pedersen

16, 17, 18. SCANDINAVIAN LITERATURE IN TRANSLATION. Selected readings from recent and traditional writers—short stories, novels, and poetry. One credit each quarter. T. 1.

Hansen

19. VOCABULARY. A study of English words and expressions as a means of building a working vocabulary. Three credits. Fall, M. W. F. 11

Hendricks

31. WORLD LITERATURE. A survey course including a study of epic and romance, tragedy, comedy, satire, etc., as these forms have appeared in Greek, Roman, Hebrew, Italian, French, German, English, and American Literature. Five credits. (Not given in 1985-86.)

Vickers
32. Ballads. Readings of famous English and American ballads with a study of their origin and place in literature. Attention will be given to both the traditional and the modern popular ballad. Three credits. Winter, M. W. F. 9.

Hendricks

33 Comparative Literature. A comparative study of masterpieces of Modern Europe and England, emphasizing the growth and interrelation of ideas, moods and forms in the various literatures. Three credits. Spring, T. Th. 9, F. 1.

Hendricks


Sorensen

51. Readings in Poetry. The purpose of this course is to aid the student in seeing what is enjoyable in poetry. Three credits. Winter, M. W. F. 11.

Vickers


Kyle


Kyle

70. The Short Story. A study of the technique of the short story. Stories by Poe, Maupassant, Hawthorne, Bret Harte, Kipling, O. Henry, and others will be analyzed. Attention will be given to the best short stories appearing in current magazines. Four credits. Winter, M. T. W. Th. 11.

Kyle

82. American Literature. A course designed to give students the essential facts about literary trends in America, together with an appreciation for the works of the important American writers. Five credits. Spring, Daily 10.

Kyle
86. Emerson. His principal essays and speeches. Fall. (Not given 1935-36.)

87. Carlyle. A study of selected masterpieces. Two credits. (Not given in 1935-36.)

88. Browning. Principally a study of Browning's monologues. Two credits. Fall, T. Th. 11.

Sorensen

English 10 and 11 are prerequisites for all courses in English that follow.

105. College Grammar. Five credits. Fall or Spring, Daily 11.

Vickers


Pedersen

110. The Writing of Special Feature Articles. Lectures and practice in preparing special articles for newspaper and magazine publication. Analysis of periodicals will be made to determine available markets and what editors buy. Not open to students below junior year. Three credits. Spring, M. W. F. 9.

Porter


Sorensen


Hendricks

130. The Bible as English Literature. The literature of the Bible arranged chronologically and studied in its relationship to the historical, social, and religious background of the Hebrews. Five credits. (Not given in 1935-36.)

Vickers
131. INTRODUCTION TO GREEK DRAMA. This course provides an opportunity to become acquainted with the greatest of all ancient drama. The plays are read in translation. Five credits. (Not given in 1935-36.)

Vickers

133. MEDIEVAL LITERATURE. English and some Continental literature is studied by types: the epic, the lyric, the romance, etc. The reading is done in translation. Five credits. Spring, Daily 10.

Vickers

134. ENGLISH POETRY, 1500-1660. A study of the development of the non-dramatic poetry of the period. Five credits. (Not given in 1935-36.)

Vickers


Pedersen

143. MILTON. Selected prose and poetry, with emphasis upon Paradise Lost. Five credits. (Not given in 1935-36.)

Vickers

145. WORDSWORTH AND THE ROMANTIC MOVEMENT IN POETRY. Two credits. Spring, T. Th. 9.

Kyle

147. A COMPARISON OF THE NATURE POETRY OF SHELLEY AND BYRON, stressing their Swiss tour. Two credits. Fall, T. Th. 9.

Kyle

150. HISTORY OF ENGLISH LITERATURE. Designed for those who intend to teach literature in high school. A comprehensive review of periods, forces, and personalities in the field of English Literature. Five credits. Spring, Daily 10.

Sorensen

151. ANGLO-SAXON LITERATURE IN TRANSLATION. Selected readings from the beginning of the period to the coming of the Normans under William the Conquerer in 1066. Three credits. Fall, M. W. F. 2.

Hendricks
152. **History of the English Language.** A treatment of the evolution of the English language from the Anglo-Saxon times to the present. Three credits. Winter, M. W. F. 10.  

*Hendricks*

153. **Chaucer.** Extensive reading course. Attention is paid to pronunciation. Five credits. Spring, Daily 8.  

*Pedersen*

163. **The Modern Drama.** A study is made of the plays of Ibsen, O'Neill, Galsworthy, Andreyev, Benavente, Bieux, Gorki, Maeterlink, Rostand, Strindberg, Wedekind, and others. Three credits. (Not given in 1935-36.)  

*Pedersen*

166. **Types of Fiction.** Period restricted to the eighteenth and nineteenth centuries. The appearance and development of important types in England and America, together with a comparative study of selected European fiction in translation. Two to five credits. (Not given 1935-36.)  

*Sorensen*

175. **Biography.** An appreciative study of great personalities in the light of their times. Boswell, Cellini, Strachey, Ludvig, Bradford and others will be studied. Five credits. Winter, Daily 11.  

*Sorensen*


*Vickers*


*Sorensen*

186. **Elizabethan Drama.** A study of the predecessors of Elizabethan dramatists, with emphasis on the contemporaries and the followers of Shakespeare. Five credits. (Not given in 1935-36.)  

*Sorensen*

187. **English Drama 1660-1820.** Representative dramas of the period, with attention to such types as Heroic and Romantic Tragedy, Sentimental Drama, Melodrama, and Satiric and Romantic Comedy of Manners. Five credits. (Not given in 1935-36.)  

*Sorensen*
188. Arnold. Studies in the prose of Matthew Arnold, with emphasis on Arnold's contribution to nineteenth century thought. Two credits. (Not given in 1935-36.)

Sorensen

189. Victorian and Later Poets. English poetry from Tennyson to Yeates, with particular attention to Browning, Rossetti, Swinburne, and Hardy. Five credits. Fall, Daily 10.

Sorensen

SPEECH

Students desiring to major in Speech must complete all requirements of the five Lower Division Groups before being allowed to register for any upper-division courses (courses numbered above 100). It is intended that junior and senior speech students be able to devote the maximum amount of time to their major field.

Before a student may begin upper division work with a view to majoring in Speech, he must have completed satisfactorily the lower division courses in his particular field; must have completed all requirements of the five Lower Division Groups; and must have applied to the department for permission to take an entrance examination preparatory for his major work, and have successfully completed that examination. The examination will serve as a review of the subject matter (theory and practice) covered in the lower division speech courses, and it will serve as a basis for judgment as to the student’s ability to major successfully in Speech. The test will be both written and oral.

Enrollment in all classes is limited. Students must register personally with the instructor of the course.

All students majoring in Speech must complete the following courses: Speech 2, 3, 4, 5, 7 or 171, and 58.

It is recommended that all Speech minors complete all the above courses.

Speech majors must select one of the following groups and complete all the courses of that group:

Drama: Speech 50 a, b, c or 150 a, b, c; 152 a, b; 156. Recommended: 180.

Platform Reading: Speech 6 or 8; 103 or 108; 114, 152a, or 158; 10; 104; recommended 180 and 112.

Public Address: Speech 9, 11, 103, 107, 111, 121. English 108 or 109. Additional Speech courses recommended: Speech 8, 123, 152a, 158, 108. Recommended: 8, 123, 152a, 158, 112, 180.
All students expecting departmental recommendations for teaching Speech must complete Speech 111 and 113.

The following allied subjects are recommended as electives in the fields indicated:


COURSES

1. Speech Orientation. A comprehensive survey course designed to introduce the student into the field of speech. Each division of the Speech field is dealt with briefly. Effort is made to provide the student with a general understanding of the vital relationship of Speech to man's successful living. Not credited toward a Speech major. Five credits. Any quarter, Daily, 10 or 11.

   Myers and Morgan

2. Oral Interpretation. A beginning course aimed to develop the ability to interpret and appreciate good literature both for one's self and for others. Theory is minimized and emphasis is placed upon practical application through oral delivery. A foundational and cultural course preparatory to later courses in interpretation. Five credits. Fall, Daily 11; Spring, Daily 9.

   Myers and Morgan
3. **Extemporaneous Speaking.** Practical application and discussion of the basic principles of effective extemporaneous speaking, including a brief consideration of delivery and composition. A general course designed to fit the needs of beginning untrained students desiring basic work in public address and personal daily communication. Three credits. Winter, M. W. F. 8 or 10; Spring, M. W. F. 8 or 10.

*Morgan*

4. **Principles of Reading.** An analysis and study of the printed page; its mechanics, technique, and how to read it. Of particular benefit to those who wish to read effectively and correctly either orally or silently. Also of value to teachers of reading. Five credits. Fall, daily 10; Winter, Daily 11.

*Myers and Morgan*

5. **Speech Delivery.** A course designed to give the speaker the command of the forces necessary for effective delivery. Considers at length the practical elements of voice, body and mind, practical demonstration and participation are carried throughout the entire study. Individual difficulties will be considered. Five credits. Spring, Daily 10.

*Goates*

6. **Dialect.** A study of the most prominent dialect forms—their principles and uses. The dialect work of such writers as Burns, Kipling, Drummond, Riley, Dunbar, Harris, and Kirk will be studied, discussed and learned. Prerequisites, Speech 2, 4, 7. Five credits. Spring, Daily 9.

*Myers*

7. **Voice and Phonetics.** The study of correct speech sound formation, pronunciation and diction, based upon considerations of vocal structure and function, and phonetics. Students are given opportunity for special application and are trained according to their needs and abilities. Five credits. Fall, Daily 10.

*Goates*

8. **Story Telling.** The story as an educational factor; analysis and classification of typical stories with reference to each period of the child’s development. Study of sources; adaptation of material; and actual practice in story telling. The work is designed to meet the needs of student, teacher, librarian, and parent. Five credits. Fall, Daily 9.

*Myers*
9. SPEECH ORGANIZATION. A specific course dealing almost entirely with the principles of effective composition of speeches. The fundamentals of preparation, selection of material, outlining, etc., are considered in detail and applied to speeches given before the class. Four credits. (Not given 1935-36.)

Goates

10. ADVANCED INTERPRETATION. An intense study of the intellectual and emotional components of oral or silent interpretation. Through analysis and application the course aims at an understanding of the elements, materials, and problems of interpretation and how to meet them for both one's self and others. Considers the factors of atmosphere, emotion, values, rhythm, etc. Prerequisites, Speech 2, 4, and 7. Five credits. Spring, Daily 11.

Myers

11. ADVANCED PUBLIC ADDRESS. Practice and criticism in the delivery and composition of speeches adapted to audiences and conditions. Extensive work in the development of skill in speaking and applying the principles of effective speech. Analysis and study of certain effective and great speeches, including those of contemporary speakers. This course not open to freshmen. Should be preceded by Speech 5, 7, 9. Three credits. (Not given 1935-36.)

Goates

12. PRIVATE INSTRUCTION. Individual attention given in private to particular needs of the student in an effort to eliminate personal defects, develop skill, and solve individual speech problems. Recommended for anyone needing personal speech attention and to freshmen and sophomores majoring in speech. Special fee. Two to four credits. Any quarter, time arranged.

Staff

50 a, b, c. DRAMA PRODUCTION. Study and application of the fundamentals of physical stage production and management. Same as Speech 150a, b, c. (Not given 1935-36.)

Goates

58. ACTING. Technique of the actor, reading of lines, make-up, handling of body, stage procedure, wearing of costumes, rehearsal routine. Effected through the study and production of one-act plays presented publicly. Five lectures, two-hour laboratory. Five credits. Fall, M. T. Th. F. 9, T. Th. 8.

Morgan
60. Drama Appreciation. A brief survey course especially planned for those who desire to enlarge their understanding of the Drama—who enjoy plays or who want more fully to enjoy them—who want a non-technical introduction into the theatre. The course briefly deals with the story of the drama; the plan and structure of the play—kinds of plays and types of drama; the theatre and motion picture studio at work; today’s theatre—plays, works, and people. Course open to any student. (Not credited toward a Speech Major.) Three credits. Fall, M. W. F. or T. W. Th. 9; Winter, M. W. F. or T. W. Th. 10.

Goates

103. Persuasion. The study of the nature of individual and audience response; suggestion and rendering groups suggestible; belief sources; audience types; instincts and motivations; rousing of interest; securing of audience’s attention, holding it and winning response; mental states of audiences and methods of adapting spoken appeal to them; emotional and logical persuasion. Three credits. (Not given 1935-36.)

Goates

104. Platform Reading. By mastering significant selections from the great writers for audiences on important occasions, the student sees himself as an interpreter of permanent literature. Reading from manuscript and from memory. Three credits. Winter, M. W. F. 11.

Pedersen

107. Forms of Public Address. A study and analysis of the various forms of public address used on specific formal and informal occasions. Consideration is also given in some detail to parliamentary procedure. Students are required to deliver speeches of the various types and also to conduct meetings correctly under parliamentary rule. Three credits. (Not given 1935-36.)

Goates

108. Radio Speech. A study of Speech in radio presentation. Preparation and presentation of various types of radio programs will be part of the work. Attention will be given to the writing of radio continuities. An attempt will be made to place the best programs with some commercial radio station. Prerequisites, Speech 2, 4, 7, 6 or 8. Three credits. (Not given 1935-36.)

Myers
110. Program Building. A study of types of interpretative material suitable for presentation before various kinds of audiences. Reading of short stories, plays, and novels, etc., to determine suitability. The cutting of literary types and material to suitable form and length for public reading. Prerequisites, Speech 2, 4, 7, 6 or 8. (Not given 1935-36.)

Myers

111. Psychology of Speech. A study of speech as a psychological problem. Consideration is given to the problems of conception, purpose, memory, imagination, belief, thought, personality, audience technique, and audience-speaker relationships. The course considers the physical and psychological basis of human behavior as relates to speech and the speaking situation. Five credits. (Not given 1935-36.)

Myers

112. Professional Reading. Advanced specialized work in the individual desires and needs of the student. Special attention is given to the student’s deficiencies in speech. Research work is done in such as story, drama, novel, poetry and the various literary forms. Each student will present at least one public recital. Prerequisites, Speech 6 or 8, and 10. Special fee. It is recommended that all speech majors have five hours. Two to eight credits. Any quarter, time arranged.

Staff

113. Pedagogy of Speech. A study of the methods and problems peculiar to the teaching of Speech. A study of the organizations of courses and lesson plans is included. Students may register only with the permission of the instructor. Two credits. (Not given 1935-36.)

Myers

114. Children’s Theatre. Creative dramatics for children. A course in educational dramatics for students who wish to prepare to direct children in dramatic work. A study will be made of plays suitable for primary and intermediate schools. Courses in dramatics will be outlined, stories dramatized, and plays produced. The College Training School will afford opportunity for this work. Of special interest to those working in platoon systems. Prerequisite, Speech 58. Five credits. Winter, M. W. F. 11, Lab. Arranged.

Myers
121. ARGUMENTATION AND DEBATE. A study of the forms of evidence on which sound argument is based; practice in constructing and presenting argument; formal debating. The course should be useful to other students as well as those who wish to participate in debate as an activity. Five credits. (Not given 1935-36.)

Vickers

123. ADVANCED DEBATING. Credit to those who are elected to the College Debate Team. Any quarter. Time and credit arranged.

Vickers

150a, b, c. DRAMA PRODUCTION. Study and application of the fundamental principles of scenic design and construction, stage lighting, costuming; equipment, organization, management and handling of the stage and theatre. Consideration of the elements of a play; play classification and selection; types, styles, and schools of drama. Lectures, research, and practical work with the College and local Little Theatre productions. Practical work and participation are emphasized. Evening or afternoon crew work is required. The course runs through three consecutive quarters. Three days each week and crews arranged. Four credits. Fall quarter, and five credits Winter and Spring quarters. (Not given 1935-36.)

Goates

152 a, b. DIRECTING. Lectures and laboratory demonstrations of principles of directing for professional, semi-professional, or amateur productions. Considerations of composition, picturization, movement, rhythm, pantomimic dramatization, and technical and theme values. Treats the elements, means, and methods in interpreting the emotional and intellectual concepts of a play in terms of dramatic sound and action. The course runs through two consecutive quarters. Four credits Fall; five credits Winter, M. W. F. 11; M. W. 12.

Goates

154. ADVANCED DIRECTING. An advanced course dealing with the relation of actor and director; theories of subjective and objective acting; directing of tragedy, comedy, farce, melodrama, pageants, interpretation of roles; advanced body expression; responsiveness; period technique. Open only to students who have completed Speech 152 with distinction. Five Credits. Spring, M. W. F. 11, M. W. 12.

Goates
156. Development of Drama. Origin and development of the various drama forms in the different countries and through the successive movements from the beginnings to the present time. Material and information will be presented which is absolutely necessary background for all work in drama and dramatic literature and which will make drama appreciation more comprehensive and enjoyable. Extensive reading and lectures. Five credits. Winter, Daily 9.

Goates


Morgan

171. Introduction to Speech Pathology. A comprehensive presentation of the generally known facts regarding the symptoms, nature, causes and management of the types of defective speech and deviations from the normal speech. Lectures, demonstrations and case studies are included. Five credits. Spring, Daily 9.

Goates

180. Problems in Speech. Especially selected work, individually assigned, handled and directed in consultation with the student. Consult the instructor for permission to register. Any quarter. Time and credit arranged.

Goates

FOODS AND NUTRITION AND GENERAL HOME ECONOMICS

Christine B. Clayton, Professor; Charlotte E. Dancy, Frances K. Gull, Elsie M. Troeger, Sadie O. Morris, Assistant Professors.

Foods 5 will count in the New Biological Science Group.

Students who elect Foods and Nutrition as their major are required to complete the following courses: Foods 5, 9, 20, 21, 35, 106, 140, 141, 180, and 190. Those preparing for Hospital dietitian-internships should include Biochemistry and a course in Accounting. Majors in Foods should register for Chemistry 3, 4, 121, 122.
5. **Principles of Nutrition.** This course includes a study of the relation of food to physical fitness, and the practical application of such information to the college student. Open to men and women. Five credits. Fall, Daily 9; Winter or Spring, Daily 8.

*Morris*

8. **Meal Preparation for Men.** This class is designed for men students who wish to obtain practical training in cookery and meal preparation. Two credits. Fall, T. 4, Lab. Th. 4-7; Winter, M. 3, Lab. W. 3-6.

*Morris and Gull*

9. **Meal Preparation and Serving.** A study of methods of preparing and serving of simple meals. Open to all women students of the college. Three credits. Fall, T. 10, Lab. M. W. 10-1; Winter, M. 2, Lab. T. Th. 2-5; Spring, F. 2, T. Th. 2-5.

*Gull*


*Gull and Morris*

35. **Nutritional Growth and Development of Children.** A study of the growth and development of infants and children as influenced by nutrition. The food requirements of children from infancy to school age are considered together with problems in child feeding. Prerequisite, Foods 5 or equivalent. Lecture course with field trips. Three credits. Fall, M. W. F. 2; Spring, M. W. F. 8.

*Clayton*

36. **Meal Preparation for Pre-school Children.** A laboratory course in menu planning and in the preparation and serving of foods for pre-school children. Two credits. Spring, Daily 11.

*Clayton*

106. **Food Engineering.** This course includes laboratory practice in the most efficient methods of preparing and serving meals with consideration given to money, time, and energy. Required of

Clayton

140. Dietetics. A review of the fundamentals of biochemistry most closely related to the nutrition of man. The quantitative basis of human nutrition is studied and illustrated through laboratory procedure in the calculation and preparation of dietaries. This course is open to Home Economics majors and students of medicine or public health. Prerequisites, Organic Chemistry and Nutrition 5 or its equivalent. Four credits. Fall, M. W. F. 9, Lab. T. 9-12.

Clayton

141. Advanced Nutrition. This course includes the study of dietotherapy with application to the nutritional diseases of man. Prerequisite, Dietetics or Biochemistry. Four credits. Winter, M. W. F. 9, Lab. T. 9-12.

Clayton and Morris

160. Problems in Nutrition or in Advanced Cookery. Individual or group problems are selected as a result of suggestions from preceding courses. Open only to advanced students. Time and credit arranged.

Staff

180. Institutional Cookery. Deals with problems involved in preparation of food in large quantities; standardization of formulas in relation to quantity, manipulation and cost; efficiency of serving; requirements of different types of institutions; use of power equipment. Three credits. Spring, M. 10, Lab. W. F. 10-1.

Troeger


Clayton and Morris


Staff
GENERAL HOME ECONOMICS

10. **Survey in Home Economics.** Deals with the orientation of the student to her college environment and her guidance in the choice of a vocation related to the field of Home Economics. Open to all college women. One credit. Fall, T. or Th. 1. *Clayton*

25. **Home Hygiene and Care of the Sick.** A course in home nursing and first aid to the injured. The first hour is devoted to discussion, the laboratory to demonstrations and practice. Reading of reference material and writing of special reports required. Laboratory apron needed. See instructor. Class limited to 18. Three credits. Any quarter, T. 10, Lab. Th. 10-1. *Dancy*

50. **Consumer Education.** A study of consumer problems in foods, clothing and shelter, as they relate to the homemaker at the present time, giving emphasis to kinds, quality and price trends. Prerequisite, Economics 51. Five credits. Spring, Daily 9. *Morris*

149. **Household Management.** An application of scientific management to the home. Four credits. Fall, M. W. F. S, Lab. W. 2-5. *Gull*

150. **Residence in Home Economics Cottage.** This course affords an opportunity for senior and graduate women to live in the cottage for a period of one quarter, to assume the responsibilities involved in managing a home. Prerequisite or parallel, H. E. 149. Five credits. Any quarter, time arranged. *Gull*

**FORESTRY**

T. G. Taylor, Professor; P. M. Dunn, R. P. McLaughlin, Associate Professors; W. L. Hansen, Instructor.

Upon completion of the prescribed course, students are granted the degree of bachelor of science in Forestry. (See general write-up, page 58.)

2, 3. **Conservation.** A view of the fields of forestry, range, and wild life. Lecture or lab. One credit each quarter. Fall and Winter, time arranged. *Staff*
12. **Dendrology I.** Important American conifers—characters, distribution, economic importance. Two lectures, one lab., field trips. Three credits. Spring, T. Th. 8 or 10, Lab. M. W. or F. 8-11. McLaughlin

13. **Dendrology II.** Hardwoods. Three lectures, one lab., field trips. Four credits. Fall, T. Th. 10, F. 1, Lab. F. 3-6. McLaughlin

106. **Forest Measurements I.** Measuring logs, trees, and stands. Log rules and volume tables. Four credits. Fall, M. W. F. 8, Lab. W. 2-5. Dunn

107. **Forest Measurements II.** Growth rate, yield, and their application to timber survey and management. Prerequisite, For. 106. Three credits. Winter, T. Th. 11, Lab. F. 2-5. Dunn

114. **Silviculture I.** Climatic, physiographic and biotic factors. Natural regeneration of timber stands. Prerequisites, For. 12, 13. Five credits. Fall, Daily 11. Taylor

115. **Silviculture II.** Silviculture practices in the various forest regions of the U. S. Prerequisite, For. 114. Three credits. Winter, M. W. F. 10. Taylor

116. **Forest Planting.** Seed collection and storage, nursery practice and field planting. Three credits. Spring, T. Th. 8, Lab. W. 2-5. Taylor


121. **Forest Management.** The place of forest management in forestry practice, forest organization and regulation. Prerequisite, For. 115. Four credits. Fall, M. T. W. F. 10. Dunn
122. **Forest Finance.** Land values, forest values, fire loss, insurance, taxation. Prerequisite, For. 115. Five credits. Winter, Daily 8.

125. **Logging.** Methods of handling timber from tree to mill for different forest regions of U. S. Three credits. Fall, M. W. F. 11.


132. **Forest Administration.** Organization and work of the U. S. Forest Service. Three credits. Winter, T. Th. 9, F. 1.

133. **Forest Economics and Policy.** The economic problem in forestry. Development of Federal and State forest policies. Three credits. (Not given 1935-36.)

143, 144. **Forestry Seminar.** Current forestry problems and practice. Two credits each quarter. Fall and Winter, time arranged.

145. **Forestry Thesis.** Individual accomplishment of an original problem. Two to six credits. A total of six credits allowed. Any quarter, time arranged.

154. **Forest Recreation.** History and theory of forest recreation, classification of forest lands for various recreational uses, types of development. Three credits. Spring, M. W. F. 11.

155. **Recreation Improvements.** Design and construction of various structures used in forest recreation developments. Four credits. Spring, M. W. F. 9, Lab. F. 2-5.

(See page 59 for basic course)

Hansen

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<td>For. 121, 122</td>
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Required:  
Language (in addition to English 10 and 11) ............. 9  
Social Science (in addition to Eco. 51) ............. 5  

RECOMMENDED ELECTIVES

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<tr>
<td>Extemporaneous Speaking, Speech 3</td>
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<td>Advanced Writing, Eng. 108, 109</td>
<td>6</td>
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<td>Invertebrate Zoology, Zoo. 3</td>
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<td>General Bacteriology, Bact. 1</td>
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<td>Water Supply &amp; Hydrology, C. E. 143</td>
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<td>Soil Technology, Agron. 207</td>
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<td>Meteorology, Phyx 16</td>
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<tr>
<td>Forest Recreation, For. 154</td>
<td>3</td>
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<td>Recreation Improvements, For. 155</td>
<td>4</td>
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<tr>
<td>Designs for Recreational Areas, For. 156</td>
<td>4</td>
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<tr>
<td>Range Forage Plants, Range 176</td>
<td>5</td>
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<tr>
<td>Forestry Thesis, For. 145</td>
<td>4</td>
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FORGING AND GENERAL BLACKSMITHING

All courses taught by S. R. Eggbert, Assistant Professor

An average of one-third of the time of all courses in forging is spent in demonstrating and lecturing. All courses are given in the forge rooms, Mechanic Arts Building. All courses, except as otherwise specified, are repeated each quarter and they are all open to vocational students.

MA 31, 32, 33. FORGE PRACTICE. Forging, welding, tempering, tool making and other operations essential to forge work. MA 31, three credits, M. W. F. 2-5. MA 32, two credits, T. Th. 2-5. MA 33, five credits, Daily 2-5.

MA 34, 35, 36. FORGE SHOP OPERATION. Advanced and general repair work, including plow work, spring work, axle and tire setting, and horse-shoeing. Prerequisites, Forge Practice 31, 32, 33. MA 34 (Fall), three or two credits. MA 35 (Winter), three or two credits. MA 36 (Spring), three or two credits. Three credit courses, M. W. F. 2-5; two credit courses, T. Th. 2-5.

MA 37. SELECT WORK FROM FORGE PRACTICE 31, 32, 33. For automobile and tractor students who cannot spend each day in the shops. Two credits. M. W. F. 3-5 or T. Th. 2-5.

MA 40, 41, 42. FARM SHOP WORK. This course is especially arranged for students in agriculture. The application of forging operations to repair on the farm. The repairing of the following farm implements will be included in the course: plow, harrow, wagon, hayrake, mowing machine, binder, header, etc. Making and tempering punches and cold chisels, sharpening and tempering harrow teeth, picks, etc., welding. Two credits each quarter. MA 40 (Fall); MA 41 (Winter), M. W. F. 3-5 or T. Th. 2-5; MA 42 (Spring), M. W., T. Th., or W. F. 2-5.

MA 43. FENDER AND BOOT REPAIR. Straightening and welding of broken fenders. Servicing and painting of automobile fenders and bodies. MA 43, two credits. Spring quarter. MA 43, two credits. Fall or Spring, time arranged.

MA 131. 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 34, 35, 36. Credit will be given for unfinished courses according to work done. Not less than two credits will be given. Two to four credits. M. W. F. 2-5 or T. Th.
MA 132, 134. Smith-Hughes Unit. Metal Work. Cold metal, hot metal, soldering, sheet metal and plumbing. Three credits each quarter. MA 132, Fall or Spring, T. Th 2-5. MA 134, Fall or Spring, M. W. 2-5.

MA 133. Foundry. Operated for demonstration and the making of castings. If sufficient number of students apply, the foundry will be run for instructional purposes also. Two credits. Spring, arranged.

For additional courses see Ag. Eng. 14.

GEOLOGY

James Stewart Williams, William Peterson, Professors;
A. Lee Christensen, Assistant Professor.

Geology 3 will count in the New Exact Science Group.

2. Mineralogy. A study of the properties and occurrences of the common minerals, and their identification by simple tests. Required of all who major in Geology. Five credits. Winter, Daily 2, Laboratory T. and Th. 3.

3. Physical Geology. A study of the earth including its origin, its age, the materials of which it is composed, its structure and surface features. Also the physical agencies such as the atmosphere, running water, waves, moving ice and volcanic activity, which are continuously at work upon its surface.

Geology 3 is required of all who major in Geology. It is desirable that it be followed with Historical Geology. Five credits. Fall, Daily 9; Winter, Daily 8 or 11.

4. Historical Geology. A study of the history of the earth as interpreted from the rocks and their contained fossils. The distribution of land and sea as it has changed through the ages, and the succession of plants and animals that have inhabited the earth. Required of all who major in Geology. Five credits. Winter, Daily 9; Spring, Daily 8.

5. Geography of Utah. Review of different physiographic provinces and land and water relationships. Geographic distribution and economic importance of water power, timber, and mineral resources, and the manner in which they have influenced the set-
tlement and industry of the state. This course does not count in the Exact Science group. Five credits. Winter, Daily 10.

10. Engineering Geology. A course emphasizing those parts of Geology of particular value to the engineer. The general properties, textures, and structures of the common rocks, including the manner in which they weather; their economic and engineering uses; surface and underground waters; landslides; flood control; the interpretation of topographic and geologic maps. Five credits. Spring, M. W. Th. F. 9. Laboratory T. 2-5.

Christensen

11. Agricultural and Forest Geology. Planned especially for students in Agriculture and Forestry. The general properties of the common rocks and the manner in which they weather; the processes of erosion and the resulting land forms; surface and underground waters. Five credits. Fall, Daily 8 or 11; Spring, Daily 11 or 2.

Christensen

15. College Geography. Study of physical environment of man, including climate, topography and location, and the way in which these factors influence or govern his activities and development. This course does not count in Exact Science Group. Five credits. Fall, Daily 10.

Christensen

104. Geomorphology. A study of the land forms produced under the various climatic regimes. Particular emphasis will be given those forms developed in semi-arid regions. Field trips. Prerequisite, Physical Geology. Five credits. Fall, Daily 8.

Williams

106. Invertebrate Paleontology. An introduction to the study of fossils. A living example of each of the groups of animals with important fossil representatives will be used as an introduction to the fossil forms of that group. Methods of preparation and study will be developed from work upon material collected by the student himself. Open to Zoology majors. Prerequisite, Zoology 1 or Geology 4. Five credits. Winter, M. W. F. 3, 4 hours of laboratory to be arranged.

Williams

108. Stratigraphy. An introduction to the processes by which the sedimentary rocks have been formed, and to their original structures, followed by a study of the stratigraph systems

Williams

110. STRUCTURAL GEOLOGY. Rock structures and their deformation, including mountain formation. Field trips and reports required. Particular emphasis on folding and faulting. Prerequisite, Geology 3. Five credits. Spring, Daily 8.

Christensen

111. GEOLOGY OF GROUND WATER. A study of structure to determine the cause of springs, artesian wells, etc. Structures that will yield water either through tunneling or boring. Prerequisite, Physical Geology. (Not given 1935-36.)

112. ECONOMIC GEOLOGY. A study of the geology of ore deposits, coal, petroleum and gas, clay, cement materials, building stones and fertilizers. Study will be directed particularly to the natural resources of Utah. Prerequisites, Mineralogy and Physical Geology. (Not given 1935-36.)

114. FIELD GEOLOGY. Field practice in the measurement of the attitude and thickness of formations, in the field use of topographic and geologic maps, in note taking and mapping. Through the winter when field work is not possible, the time will be spent in practice on the field determination of rocks. Prerequisites, Mineralogy and Physical Geology. Time and credit to be arranged. (Not given 1935-36.)

116. SEMINAR. Individual reading and reports upon assigned problems. Time and credit to be arranged.

Williams and Christensen

HISTORY

JOEL E. RICKS Professor; MILTON R. MERRILL, Associate Professor; JOHN DUNCAN BRITE, Assistant Professor.

History 3, 4, or 15 will count in the New Social Science Group. Students majoring in the Department of History should include the following classes in major: History 1, 13, 14, 15, 32, 124, 125, 127, 128, 159, 171, 197. Students majoring in History should consult the head of the Department.

1, 2, 3. EUROPEAN HISTORY. Survey of European History from the Fall of Rome to the present. Five credits each quarter. Daily 9; 3. Winter, Daily 10.

Merrill, Brite
4. **World Civilization.** Survey of civilization of the world from ancient times to the present. Attention will be given to the life, principal contributions and significance of past civilizations. This course is planned to meet the needs of students who wish to understand the main currents in world development and who do not have time for more detailed courses. Five credits. Fall or Spring, Daily 11.

13, 14, 15. **United States History.** Survey of United States History from the earliest times to the present. Five credits each quarter. Daily 10; 15. Fall, Daily 10; 15. Winter, Daily 11.

31, 32, 33. **English History.** Survey of the history of England and the British Empire from the earliest times to the present. Three credits each quarter. M. W. F. 8.

105. **Greek History.** A study of Greek civilization and culture from the earliest times to the rise of Rome, with a preliminary survey of Egyptian, Babylon, Assyrian and Persian civilizations. Four credits. Fall, T. W. Th. F. 10.

106. **Roman History.** From the beginning of the Roman Republic to the decline and fall of the Empire in the Fifth Century A. D. Three credits. Spring, M. W. F. 10.


128. **European History.** Twentieth Century World. Three credits. Winter, M. 1, T. Th. 9.


197. Seminar in United States History. Required of all Seniors majoring in History. Two credits. Winter, time arranged.

HORTICULTURE

A. L. Wilson, Professor; Francis M. Coe, Assistant Professor

The State of Utah and the Intermountain and Pacific Coast regions offer excellent commercial opportunities to men with fundamental and practical horticultural training. The wide variety of fruit and truck crops for market and cannery offers excellent possibilities for college-trained men who plan to farm. The widespread interest in beautification makes the allied fields of landscape gardening, floriculture, and nursery business attractive to qualified men and women. Opportunities are also open in high school Smith-Hughes and college teaching, in inspection and regulatory work, in experiment station and extension work, in the government service, and in many allied industries, such as seed, nursery, spray material, agricultural journalism, and fruit and vegetable marketing.

Major, minor, or elective work is offered in Pomology (fruit culture), Vegetable Crops, and Landscape Gardening and Floriculture. Emphasis is placed on the practical art, as well as on the fundamental science of Horticulture. Work in laboratories, greenhouses, gardens, and orchards of the College and surrounding country is used to supplement the lectures and recitations, and field trips are made to commercial fruit and truck farms to study practical problems at first hand.

Students majoring in Horticulture should, in addition to the junior college courses in this department, secure a thorough grounding in Chemistry (including organic), Botany and Plant Pathology, entomology, and Soils in preparation for advanced work in Horticulture. Courses in Agronomy, Animal Husbandry, Dairy and Poultry Husbandry, Agricultural Economics and Marketing, Irrigation and Drainage, and Farm Mechanics are especially suitable to accompany course work in Horticulture. Courses in speech and writing are also advised. Students are urged to confer with the departmental staff in arranging their courses of study.

For a major in Horticulture the following courses are required: 3, 101, 105, 108, 151, 152, 158, 154, 205 or 210.

1. General Horticulture. This course, which covers in an introductory way the field of horticulture, may be used to satisfy the orientation course requirement in the School of Agriculture. Lecture, recitation, and laboratory work on the outlook, opportunities and methods of profitable fruit production in the intermountain
region. Brief lectures on vegetable gardening, plant propagation, landscape gardening and floriculture. Participation in the annual Horticultural and Crops Show is required. Three credits. Fall, T. Th. 11, Lab. M. 3-5; Spring, T. Th. 9, Lab. T. 2-5.

3. Landscape Gardening. Theory and practice of laying out and beautifying home grounds in the city and on the farm. Trees, shrubs, vines, perennial and annual flowers and their use in ornamental gardening. Garden appreciation. This course is designed to meet the needs of women as well as men students and should be particularly valuable to teachers. Landscape trip required. Three credits. Spring, T. Th. 10, W. 2-5.

4. Vegetable Crops. In this course special emphasis will be placed on (a) types of vegetable production and factors underlying the industry; (b) location and plan of the home and commercial garden; (c) garden soils, soil management and garden fertility; (d) seeds and seed growing; (e) plant growing and plant growing structures; (f) harvesting, handling and storage of vegetables. Varieties and cultural practices for individual crops will receive only brief attention (see course 105). Three credits. Winter, T. Th. 10, Lab. M. 2-5.

5. Plant Propagation and Greenhouse Practice. Principles and methods of propagation of plants. One lecture, one lab. Should be preceded by Botany 1. Fall quarter. Two credits. (Given alternate years; given 1935-36.)

6. Greenhouse Practice. Reports and practice work on the propagation and culture of greenhouse ornamental plants and floral crops. One lecture, one lab. Winter quarter. Two credits. (Alternates with Hort. 8; given 1936-37.)

7. Garden and Nursery Practice. Reports and lectures on nursery management, culture of ornamental trees, shrubs, vines and flowers; tree surgery; practical work in the ornamental garden and nursery. Annual landscape trip required. One lecture, one lab. Spring quarter. One credit. (Alternates with Hort. 9; given 1936-37.)

8-9. Vegetable Forcing. Principles of greenhouse construction, heating and management, with special emphasis on vegetable
HoRTICULTURE

forcing. Prerequisite, Hort. 4. One lecture, one lab. Winter and Spring quarters. Will not be given for less than six students. Two credits each quarter. Winter and Spring. Time arranged.

Wilson

101. Orchard Management. Lectures and reports on problems of orchard management including establishing orchards, varieties and their selection, propagation, soil management, pruning, thinning, etc, accompanied by laboratory work and field trips. Participation in the annual Horticultural and Crops show required. Four credits. Fall, M. W. F. 8, Lab. W. 2-5.

Coe

105. Major Vegetable Crops. This course includes a brief discussion of the origin, commercial importance, culture and varieties of all vegetable crops. However, special emphasis will be placed on those crops of major importance, particularly those grown in Utah, such as canning crops, onions, cabbage, celery, etc. Hort. 4 and Agronomy 1 should precede this course, although they are not required. Three credits. Fall, T. Th. 9, Lab. T. 2-5.

Wilson

107. Spraying. Fungicides and insecticides used in the control of fruit and vegetable insects and diseases; their preparation, properties and use in spraying; spray machinery and equipment, dusts and dusting; spray schedules; economics of spraying; fumigation; rodent control. Laboratory work in the preparation, mixing and application of spray materials. Prerequisites, Chem. 10, 11, Botany 130 (Plant Pathology); and Zool. 14; (Ec. Entomology). Four credits. Winter, M. W. F. 9, Lab. W. 2-5.

Coe

108. Small Fruits. Commercial and home culture of strawberries, blackberries, raspberries, gooseberries, currants and grapes. This course will include a general survey of the industry with emphasis on the following phases: (a) the location of vineyards and berry-plantations; (b) soils, including management, irrigation and fertility; (c) propagation, planting and culture; (d) pruning and training; (e) harvesting and preparation for market. Three credits. Spring, T. Th. 11, M. 2-5.

Wilson

to canneries and by-products plants. Three credits. (Not given 1935-36.)

Coe

110, 111. Orchard Practice. Field work in seasonal orchard operations. Fall quarter includes picking, grading and packing of fruits, and field trips to orchards. Spring operations are pruning, renovation, grafting, planting, spraying, cultivation, irrigation, and thinning. Must be preceded or accompanied by Hort. 1 or 101, Orchard Management. One credit each quarter. Fall, W. 2-5; Spring, Time arranged.

Coe

120. Advanced Landscape Design. Continuation of Course 8. Students work on assigned projects under supervision of instructor. Prerequisites, Hort. 3, Art 4 or Mechanical Drawing (C. E. 61). Two credits. Winter, time arranged.

Coe

125. Plant Material. The identification, adaptation and characters of ornamental trees, shrubs, vines, perennial and annual flowers used in landscape gardening. Prerequisite, Hort. 3, Botany 30. One lecture, one lab. Landscape trip required. Spring quarter. Two credits. (Not given 1935-36.)

Coe

130. History and Literature of Horticulture. Brief study of the history of horticulture and survey of the literature to acquaint students with sources of horticultural knowledge. Two credits. Winter, time arranged.

Coe

131. Subtropical Fruits and Nut Culture. Culture of citrus fruits, avocados, figs, dates, bananas, and other tropical and subtropical fruits; walnuts, almonds, filberts, pecans, and other nuts. Two credits. Winter, time arranged.

Coe

151. Systematic Pomology. Varieties of fruits; their classification, identification, and adaptation; critical study of many varieties of fruits; the more important fruit groups and their inter-relationships. Breeding and improvement of fruit plants. Practical work in variety identification, fruit exhibition and judging. Assigned readings on fruit varieties. Participation in the Horticultural and Crops Show required. Prerequisites, Hort. 1, Botany 30. Five credits. (Given 1936-37.)

Coe
152. COMMERCIAL POMOLOGY. Problems dealing with the handling and marketing of fruits, including picking, grading, packing, transportation, storage, distribution and sale; study of buildings and equipment for packing and storing fruit; roadside and local marketing. Hort. 110, Orchard Practice should precede this course. Prerequisite, Hort. 1. or 101. Four credits. (Given 1936-37.)

Coe

153, 154. SEMINAR. Reports on research work and presentation of original papers. Two lecture periods. Two credits each quarter. Fall and Winter, time arranged.

Coe, Wilson

155. SPECIAL PROBLEMS. Studies of advanced problems in Pomology, Landscape Gardening, or Vegetable Crops for qualified senior or graduate students. Problem or subject to be selected by student. Assigned readings and research work in library, laboratory, greenhouse or field, presented as term papers. Registration by permission only. Two to five hours credit.

Staff

201, 202, 203, 204-a, 204-b. RESEARCH. Original research on horticultural problems for graduate students qualified to do investigational work in Horticulture, to be presented as graduate thesis for major or minor credit. Graduate thesis work may be used in partial fulfillment of requirements for the Master of Science degree, with major or minor in Horticulture. Re-registration until problem is completed. Registration by permission only. Course 201, Fall quarter; 202, Winter quarter; 203, Spring quarter; 204-a and 204-b, Summer Session and Intersession, respectively. Three to ten credits.

Staff

205. ADVANCED VEGETABLE CROPS. A consideration of the economic, ecological and physiological factors underlying vegetable production, based on a study of experimental results. Original papers will be used in lieu of a text. Prerequisites, Hort. 4, 105, Agron. 6, Botany 120. Chemistry 12 and Bacteriology 111 are also desirable. Open only to graduate students and qualified seniors. Winter quarter. Five credits. Winter, Daily 8.

Wilson

210. FUNDAMENTALS OF FRUIT PRODUCTION. Fundamental principles and practices as developed by research in horticultural science. Geography, climatic factors, propagation, water relations,
nutrition, soil management, pruning and training, fruit setting. Practical applications of fundamentals are considered. Prerequisites, Botany 21, 22, Chemistry 10, 11, 12, Agronomy 6 (soils). Five credits. Winter, Daily 10.

253, 254. Graduate Seminar. Reports on recent research work and current topics, presentation of original papers on selected topics. Open to qualified graduate students. Fall and Winter. Two credits.

MACHINE WORK

All courses taught by A. Newey, Associate Professor.

The courses offered in the Machine Work Department give good basic training for the student who is entering a career in any line of mechanical work. The operations and principles taught will help in advancement in many lines of mechanical endeavor. Students preparing for engineering, electrical work, auto mechanics, aviation, ignition, tractor work, farm machinery; and those interested in model building and experimenting, can well afford to study machine work.

All courses in Machine Work are open to vocational students.

MA 51, 52, 53. Machine Shop Practice. Lathe, planer, shaper, and drill-press operations, the use of hand tools, laying out, making automobile and machine parts, and other operations that are essential in machine shop work. These courses include assignments of reading on machine work subjects, and the application of mathematics to machine work. Each course repeats Fall, Winter and Spring quarters. Four or five credits.

MA 54, 55. M. S. P. Short Course. The contents of MA 54, 55 is the same as MA 51. Each course repeats Fall, Winter and Spring quarters. Two or three credits. 54, Fall or Winter, M. W. F. 9-12 or 2-5, or T. Th. 9-12; Spring, M. W. F. 9-12 or 2-5. 55 Fall, M. W. F. 2-5, or T. Th. 9-12; Winter or Spring, M. W. F. 9-12; or T. Th. 2-5.

MA 56, 57. M. S. P. Short Course. The content of MA 56, 57 is the same as that for MA 53. Each course repeats Fall, Winter and Spring quarters. Two or three credits. 56 Fall, M. W. F. 2-5; or T. Th. 9-12; Winter, M. W. F. 2-5, or T. Th. 2-5; Spring, M. W. F. 9-12 or T. Th. 2-5. 57 Fall, M. W. F. 2-5, or T. Th. 9-12; Winter, M. W. F. 9-12, or T. Th. 2-5; Spring, M. W. F. 2-5, or T. Th. 2-5.
MA 58, 59. M. S. P. Short Course. The content of MA 58, 59 is the same as MA 53. Each course repeats Fall, Winter and Spring quarters. Two or three credits. 58 any quarter, M. W. F. 2-5; 59 any quarter, M. W. F. 9-12.

MA 151, 152, 153. General Machine Work. Advanced lathe, planer and milling machine work, grinding milling cutters, making tools, and special shop equipment. Prerequisite, MA 51, 52, 53 (Prerequisite courses must total 15 credits). Each course repeats Fall, Winter and Spring quarters. Four or five credits. Time arranged.

MA 154, 155, 156. Tool Making. These courses include practice in making arbors, gauges, taps, reamers, milling cutters, etc., and in designing and building special tools and equipment. Prerequisite, MA 152. Each course repeats Fall, Winter and Spring quarters. Four or five credits. Time arranged.

MA 157. Smith-Hughes Teachers' Machine Course. This course is planned to give a student, who is training to become a shop-work teacher, a general training in the operations and methods of doing machine work. Its purpose is to broaden his understanding of mechanic arts and make him more proficient in tool processes and in the care and repair of school shop equipment. Only students of senior standing may register. From two to nine credits. Any quarter. Time and credit arranged.

(Notice: For unfinished courses credit will be given according to work done, provided the student re-registers. Not less than two credits will be given.)

MATHEMATICS

Leon B. Linford, Professor; S. R. Egbert, V. H. Tingey, H. H. Cutler, Assistant Professors; L. H. Linford, Eugene Gardner, Instructors.

Mathematics 15 will count in the New Exact Science Group. May be replaced by Mathematics 34 or 35.

Two types of majors are offered in Mathematics. Those intending to do graduate work in Mathematics must take the Regular Major. Those preparing to teach in high schools may elect either the Regular or the Teaching Major.

Regular Major: Mathematics 34, 35, 46, 97, 98, 99, and Physics 20, 21, 22 during the first two years. In addition, Mathematics
75, 120, 121, 122, 150, 151, 152, and at least nine credits of Senior College Physics approved by the Mathematics Department. If preparing for Graduate work, Chemistry 3, 4, 5 and German, French, or both are recommended.

Teaching Major: Mathematics 34, 35, 46, 75, 97, 98, 99, 120, 121, 122, Physics 20, 21, 22, Chemistry 3, 4, 5, or 10, 11, 12, and nine credits of approved Senior College work in either Physics or Chemistry. In addition the candidate must satisfy the requirements for high school certification. (See page 53.)

15. Algebra. A course in college algebra designed to emphasize the more immediately applicable phases of algebra. For students not intending to take calculus. Students not intending to take Mathematics 16 are advised to register for this course in the Spring quarter. Five credits. Fall, Daily 8, 9, 11, or 2; Winter, Daily 9; Spring, Daily 8, 9, 11.

16. General Mathematics. A continuation of Mathematics 15. Includes the essentials of trigonometry and analytical geometry, and an introduction to the ideas of the calculus. Mathematics 15 and 16 constitute the recommended preparation for Mathematics 75 as required in the school of Forestry and in certain departments in the schools of Agriculture and Commerce. Five credits. Winter, Daily 9, 11, 2; Spring, Daily 9.

34, 35. College Algebra. Required for all advanced work in Mathematics, and of majors in Physics, Chemistry, Bacteriology, and Engineering. Should be taken during the Freshman year. Mathematics 34, or Mathematics 15 with a grade of "B" or better must precede Mathematics 35. Credit will not be allowed for both Mathematics 15 and 34. Five credits each quarter. Fall and Winter, Daily 8 or 10; Winter and Spring, Daily 8.

46. Trigonometry. Prerequisite or parallel, Mathematics 35. Five credits. Spring, Daily 8 or 10.

50. Descriptive Astronomy. An introductory course. Prerequisites, entrance Mathematics and Physics 1. (Not given 1935-36.)
60. **Mathematical Theory of Investment and Life Insurance.** Prerequisite, Mathematics 15 or 34. (Not given 1935-36.)

75. **Elementary Statistical Methods.** An introduction to the mathematical theory of statistics, together with its applications. Prerequisite, Mathematics 15 or 34. It is recommended that Mathematics 16 or 46 precede this course. Not open to Freshmen. Winter, Daily 9; Spring (Reversed for Forestry Students) Daily 8 or 11.

97. **Analytical Geometry.** Fall.

98. (118) **Differential Calculus.** Winter.

99. (119) **Integral Calculus.** Spring.

Prerequisites, Mathematics 34, 35, 46. Courses must be taken in the above order to form a course throughout the year. Senior college credit may be granted for Mathematics 98 and 99 if taken during the Junior or Senior year by registering for Mathematics 118 and 119, and consultation with the instructor. Five credits each quarter. Daily 11.

Leon Linford

120. **Advanced Analytical Geometry.** Fall.

121. **Advanced Calculus.** Winter.

122. **Ordinary Differential Equations.** Spring.

Prerequisites, Mathematics 97, 98, 99. Courses cannot be taken in any but the above order without the consent of the instructor. Three credits each quarter. T. Th. F. 1.

L. H. Linford

150, 151. **Special Functions of a Real Variable.** Fall and Winter.

152. **Partial Differential Equations.** Spring.

Prerequisites, Mathematics 120, 121, 122 and Physics 20, 21, 22. This course will be concerned with definite integrals, convergence of series, gamma-functions, Bessel's functions, Legendre's polynomials, etc., and their applications in the solution of partial differential equations of Physics. Three credits each quarter. T. Th. F. 1.

Leon Linford

160, 161, 162. **Seminar in Mathematics.** Special work for students specializing in Mathematics. Time and credit arranged.

Staff
MILITARY SCIENCE AND TACTICS


The Utah State Agricultural College, having accepted the provisions of the Act of Congress approved July 2, 1862, is classified as a Land Grant College and is therefore obliged to offer a course in military science and tactics as a part of the College curricula.

Recognizing that preparation for the national defense is one of the important duties of citizenship, and that qualities of patriotism, loyalty, discipline, leadership, and respect for constituted authority inculcated by proper military training are valuable in the formation of character, it has been the consistent policy of the College to cooperate with the Federal Government in making the Department of Military Science and Tactics as effective as practicable.

At the request of the College authorities a senior unit of the Reserve Officers' Training Corps was authorized at this Institution by the President of the United States under the provisions of Section 33 of the Army Reorganization Act of June 4, 1920. Accordingly, the Board of Trustees has agreed to maintain a course in Military Science and Tactics as a required subject for all able-bodied male students during their first two years at the College.

The primary object of establishing units of the Reserve Officers' Training Corps is to qualify students for appointment in the Officers' Reserve Corps of the United States Army. This training will also be as valuable to the student in his industrial or professional career as it would be should the nation call upon him to act as a leader in its defensive forces.

Enrollment in the Reserve Officers' Training Corps is not in any sense "conscription," nor does it convey liability to service in any component or branch of the United States Army. As its name implies, the R. O. T. C. is an instrument of training and instruction only.

MILITARY SCIENCE REGULATIONS

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 military training (6 credit hours) are required of all
able-bodied male students. By regulation of the College the course is required during the first and second years at the Institution.

In order to remain in 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.

It shall be the duty of every student of whom military training is required, to see that he is properly registered for the course and to report for instruction. Students who are required to take military training but fail to register or to report for classes will, with the approval of the President, be excluded from all classes in the College. The responsibility of complying with the regulations regarding military science rests entirely with the student.

No male student will be excused from the requirements in military science except for the following reasons:

(a) Students who are physically disqualified may be excused from Military Science by the College Medical Examiner. Participation in athletics cancels all excuses from Military Science based on physical disability.

(b) Any student entering as a Junior or Senior may be excused from military science.

(c) In exceptional cases, students over twenty-five years of age at the time of original entrance into the College may be excused from military science.

(d) Married students may be excused from the requirements in military science.

(e) Students who are not citizens of the United States and who do not intend to become citizens will not be permitted to take military training.

(f) A student who is working his way through college by means of employment which conflicts with Military Science may have said requirements deferred during any quarter in which he is so employed. Students taking advantage of this provision must present a letter from their employer substantiating their claim and setting forth the hours of employment.

(g) Students who attend college during the Winter quarter only may have the requirements in Military Science deferred during that quarter.

(h) Students who are active in the Army, Navy, or Marine Corps of the United States, or who are commissioned officers of the
National Guard or Naval Militia, or reserve officers of the Military or naval forces of the United States, or members of the Naval Reserves will not be permitted to enroll in the Reserve Officers' Training Corps.

Vocational students are automatically excused from the requirements in Military Science.

A student claiming exemption from military science for any of the reasons noted above will present a petition for such excuse to the appointed Committee on or before the beginning of the quarter in which he desires to be excused. All such petitions will be prepared on the prescribed form which may be obtained in the office of the Professor of Military Science and Tactics, and will be accompanied by letters, or other documentary evidence substantiating the claim. Petitions for deferment on grounds of employment must be presented immediately after such employment has been secured.

Pending the action of his petition, the student will register for the course prescribed for his class and will enter upon the work of such course.

Any student who may be excused from attendance in military science for any valid reason must make up the deficiency in other departments of study.

Every student registered for military science is required to make a uniform deposit of $5.00. A laboratory fee of $1.00 will be deducted from this deposit. The balance, less the cost of any property lost or damaged, will be refunded upon the completion of the year or upon withdrawal from the course.

**RESERVE OFFICERS' TRAINING CORPS**

The four years' course in the Reserve Officers' Training Corps is divided into the basic course and the advanced course.

The basic course consists of the first two years in Military Science and corresponds to the freshman and sophomore years. When entered upon by any student it shall, as regards such student, be a prerequisite for graduation unless he is relieved from this obligation by proper authority.

The advanced course consists of the third and fourth years of Military Science, and corresponds to the junior and senior years. Entrance upon the advanced course is elective, but once entered upon such course becomes a prerequisite for graduation, in accordance with the terms of the establishment of the Reserve Officers' Training Corps.
UNIFORMS AND EQUIPMENT

A serviceable uniform of standard army pattern is furnished by the War Department to each student taking military training. Shoes are not furnished. Each student should provide himself with a pair of black shoes before entering the College, as they will be required immediately upon his admission.

The uniform and equipment issued for the use of student remains the property of the United States. At the end of each year, or at such other times as students may terminate their military training, all clothing and other supplies will be returned in a serviceable condition, not later than one week following the termination of such training. Articles which have been lost, damaged, or destroyed will be charged against the student concerned.

BASIC COURSE

Students in the basic course are required to pursue their courses diligently until satisfactorily completed, and to meet such requirements for the care of equipment as may be prescribed. In case of failure in any quarter of the freshman or sophomore years, the student will be required to repeat the work during the next quarter in residence.

Students who complete the two years' basic course are qualified as non-commissioned officers in the organized reserve, to which position they are appointed if they so desire.

ADVANCED COURSE

The advanced course is elective.

The general prerequisites for admission to the advanced courses are:

a. Completion of two years' training in the basic course in any senior unit of the Reserve Officers' Training Corps.

b. Selection for further military training by the President of the College and the Professor of Military Science and Tactics.

c. The execution of an agreement in writing, whereby the student in consideration of the commutation of subsistence furnished to him, agrees:

(1) To continue in the Reserve Officers' Training Corps during the remainder of his course in this College.
(2) To devote a minimum of five hours per week during this period to the military training prescribed.

(3) To pursue such courses of camp training during this period that may be prescribed by the Secretary of War.

d. The student must be registered in one of the Schools of the College as an undergraduate while pursuing the advanced course.

e. The applicant must have at least two years of academic work to complete for graduation at the time he enters the advanced course.

Each student enrolled in the advanced course will be paid commutation of subsistence at the rate of thirty cents per day from the beginning of the first year of the advanced course to the end of the second year of the advanced course, except while attending camp, when the student will be subsisted in kind.

The course of camp training is for six weeks during the summer vacation, normally following the student’s completion of the first year of the advanced course. The United States furnishes uniforms, transportation to and from the camp at the rate of five cents per mile, and subsistence for students attending the training camp. Students are also paid at the rate of seventy cents per day during their attendance at camp.

R. O. T. C. BAND

A military band is an element of the Reserve Officers’ Training Corps, under the direction of the Band Instructor, and is governed by the rules of the Department of Military Science and Tactics. Uniforms and instruments are furnished by the War Department.

Members of the band will be selected from among those students who are registered in Military Science and who have demonstrated their ability for such selection. Tryouts for the band will be conducted under the supervision of the Band Instructor and will be held preferably during the first two weeks of each quarter. Members of the band receiving credit in Military Science will be limited to not more than sixty (60) students.

Students who are selected for the band will be required to take such theoretical work in Military Science as may be prescribed by the Professor of Military Science and Tactics, and sufficient practical drill to insure their making a creditable appearance in ranks.

Instruction taken by members of the band is credited as instruction in Military Science, but will not be accepted toward qualification for admission to the advanced course.
CREDITS

Students who satisfactorily complete the basic course receive one credit hour per quarter, which may be included in the 180 credit hours required for graduation.

Students who satisfactorily complete the advanced course receive three credit hours per quarter, which counts toward the 180 credit hours required for graduation. In addition, students enrolled in the advanced course will receive three credit hours for satisfactory completion of the six weeks course at the training camp, held during the summer, between the junior and senior years.

Students majoring in the Schools of Arts and Sciences and Engineering may submit Advanced Military Science as a minor for graduation.

Members of the band who successfully complete the work in the various quarters receive credits as follows: First and Second years, one credit per quarter in Military Science.

COURSES OF INSTRUCTION

Classes in Military Science will not be held at times other than as scheduled, but any student desiring extra instruction may make the necessary arrangements with the professor of Military Science and Tactics.

BASIC COURSES

1. MILITARY SCIENCE. First Year. Fall quarter. Three hours per week. One credit.

Instruction during this period will include infantry and artillery drill; ceremonies; military courtesy and discipline; military policy; rifle marksmanship. Fall, T. Th. 1, Lab. T. 9, 11; W. 8; Th. 8, 10; F. 3.

Goodrich and Breitung

2. MILITARY SCIENCE. First Year. Winter quarter. Three hours per week. One credit.

Instruction during this period will include infantry and artillery drill; Coast Artillery instruction (second class subjects). Winter, M. T. Th. 1-3; F. 12-2; T. 9, 11; W. 8; T. Th. 8, 10; F. 9.

Goodrich and Breitung

3. MILITARY SCIENCE. First Year. Spring quarter. Three hours per week. One credit.

Instruction during this period will include infantry and artillery drill; ceremonies, inspection, military hygiene and first aid;
Coast Artillery instruction, second class subjects). Spring, Lab. T. Th. 1; T. 9, 11; W. 8; Th. 8, 10.  

Brown and Goodrich

4. Military Science. Second Year. Fall quarter. Three hours per week. One credit.

Instruction during this period will include drill and command (infantry and artillery); Ceremonies, coast artillery instruction (first class subjects). Fall, Lab. T. Th. 1; T. 9, 11; Th. 8, 10; F. 10.

Brown


Instruction during this period will include drill and command (infantry and artillery); Coast Artillery instruction (first class subjects). Winter, Lab. M. T. Th. 1-3 or F. 12-2; T. 9, 11; Th. 8, 10; F. 10.

Brown


Instruction during this period will include drill and command (infantry and artillery); ceremonies; inspections; Coast Artillery instruction (first class subjects). Spring, Lab. T. Th. 1; T. 9, 11, 2; Th. 8, 10; F. 9.

Breitung

R. O. T. C. Band Courses

1B, 2B, 3B. R. O. T. C. Band. First Year. One credit per quarter.

Goodrich

4B, 5B, 6B. R. O. T. C. Band. Second Year. One credit per quarter.

Goodrich

Advanced Courses

101. Military Science. First Year. Fall quarter. Five hours per week. Three credits.

Instruction during this period will include military map reading and sketching; drill and command; drill regulations and Coast Artillery instruction (expert subjects). Fall, M. W. F. 10, Lab. T. Th. 1.

Goodrich
102. **Military Science.** First Year. Winter quarter. Five hours per week. Three credits.

Instruction during this period will include drill and command; gunnery; Coast Artillery instruction (expert subjects). Winter, M. W. F. 10; Lab. M. T. Th. 1-3, F. 12-2.

Goodrich

103. **Military Science.** First Year. Spring quarter. Five hours per week. Three credits.

Instruction during this period will include drill and command; gunnery; conduct of fire; analysis of drill and service practice. Spring, M. W. F. 10, Lab. T. Th. 1.

Breitung

104. **Military Science.** Second Year. Fall quarter. Five hours per week. Three credits.

Instruction during this period will include drill and command; artillery material; military law; administration and supply. Fall, M. W. F. 11, Lab. T. Th. 1.

Breitung

105. **Military Science.** Second Year. Winter quarter. Five hours per week. Three credits.

Instruction during this period will include drill and command; motor transportation; military history; artillery tactics. Winter, M. W. F. 11, Lab. M. T. Th. 1-3, F. 12-2.

Breitung

106. **Military Science.** Second Year. Spring quarter. Five hours per week. Three credits.

Instruction during this period will include drill and command; field engineering; orientation. Spring, M. W. F. 11, Lab. T. Th. 1.

Goodrich

**MODERN LANGUAGES AND LATIN**

George A. Meyer, Professor; Geo. C. Jensen, Associate Professor; Thelma Fogelberg, Assistant Professor; Glen B. Miner, Instructor.

**FRENCH**

1, 2, 3. **First Year French.** Beginner's French with grammar and conversation. About 800 pages of modern prose are read. Five credits each quarter. Daily 9 or 11.

Meyer
1a. **First Year French.** Beginners’ Reading Course for graduate students. Three times a week. May be taken with or without credit. Fall, M. W. F. 11.

* Meyer *


* Meyer *

104, 105, 106. **French Conversation and Composition.** Weekly debates in French on such subjects as militarism, education, country towns, and college pleasures. Writing up of each debate in French. Prerequisite, two years of college French or three years of high school. Fall, Winter, and Spring quarters. One credit each quarter. (Not given in 1935-36.)

107, 108, 109. **French Composition.** Translation of English into French. Prerequisite, two years of college French or equivalent. Fall, Winter, and Spring quarters. (Not given 1935-36.)

110, 111, 112. **Research Work in French Periodicals and Books.** In any one of the following subjects:

1. Landscape gardening.
2. Percheron horses.
4. French scientific reports.
5. Home economics.

The work will consist of outside reading and weekly reports to the instructor. Prerequisites, two years of college French, or three years of high school. Fall, Winter and Spring quarters. Hours and credits to be arranged with instructor.

* Meyer *

119, 120, 121. **French in the Eighteenth Century.** Voltaire, Rousseau, Marivaux, and Beaumarchais. Prerequisite, two years of college French. Fall, Winter and Spring quarters. Two credits each quarter. (Not given in 1935-36.)
113, 114, 115. French Drama from Corneille to Rostand. Fall quarter, Corneille and Racine; Winter quarter, Molière; Spring quarter, Victor Hugo and nineteenth century Thesis play. Two credits each quarter. (Not given 1935-36.)

122, 123, 124. Nineteenth Century French Drama. Two credits each quarter. T. Th. 1.

Meyer

GERMAN

1, 2, 3. First Year German. Grammar, reading and conversation. Five credits each quarter. Daily 8, 10.

Jensen

101, 102, 103. Second Year German. Review of grammar; conversation, composition, history and literature. Three credits each quarter. M. W. F. 11.

Jensen

104. Scientific German. Reading of Scientific texts. Specialy recommended for students who are planning to do advanced work in the sciences, or who are working for advanced degrees. Prerequisite, two years of college German. Three credits. Spring, M. W. F. 9.

Jensen


Jensen


Jensen


Jensen

SPANISH


LATIN

1, 2, 3. Grammar and Reading. And study of English vocabulary. Three credits each quarter. Fall, T. Th. 11, F. 1; Winter, T. Th. 11, M. 1; Spring, T. Th. 11, F. 1.

19. Scientific Vocabulary. Intensive study of English word formation, derivation, synonyms, and figurative language in order to acquire a large English vocabulary, and to be able to understand scientific terms. Fall or Spring quarter. Two credits. See English 19.

101, 102, 103. Reading of Caesar and Virgil. Fall, Winter and Spring quarter. Two credits each quarter.

MUSIC

Walter Welti, N. Woodruff Christiansen, Associate Professors.

Music 1, 80, or 81 will count in the New Arts Appreciation Group.

Vocal Music Majors. Required study: 4, 5, 6, 7, 12, 13, 30, 31, 105, 106, 117, 134, 135, three years of chorus, sufficient vocal development to present a creditable solo recital prescribed by major professor, ability to play second grade piano music at sight, five hours of German or French, a general course in history and in oral expression. Consult major professor early.

Instrumental Music Majors: To complete a major in instrumental music, with recommendation to teach band and orchestra, the following courses are required: 12-13, 111-112-113, 80-81-21-22-23, (21-22-23 must be taken before practice teaching), three or more quarters of symphony orchestra, six or more quarters of band as prescribed by the major professor, three quarters or equivalent of piano, sufficient private instruction or equivalent on a band or orchestral instrument for a creditable solo performance, and one quarter each private instruction, or equivalent, on a string instrument, a brass instrument, and reed instrument.

For music major without recommendation to teach band and orchestra, consult the major professor.


Welti
4, 5, 6. **Eye and Ear Training.** The fundamentals of
music theory; the meanings and application of notes, key sig-
natures, rhythmic and melodic outlines; simple melody writing. A
continuous course throughout the year. Two credits each quarter.
T. Th. 9.

12, 13. **Harmony.** Prerequisite, Music 4 or its equivalent,
and familiarity with the piano keyboard. Chord structure and pro-
gressions, to and including modulations. Three credits each quarter.
Winter and Spring, M. W. F. 9 or 10.

15, 16, 17. **Orchestra Combinations.** Students may enter
this course by permission of the teacher only. Instrumental trios,
quartets, etc., for ensemble training. One half credit each quarter.
Time arranged.

18, 19, 20. **Symphony Orchestra.** Provides training and
practical experience in a wide range of orchestral work. Students
are required to play at all public appearances of the orchestra. One
and a half credits each quarter. (See 118, 119, 120.) M. 12, W.
F. 12-2.

21, 22, 23. **Band and Orchestra Methods.** A study of the
various band and orchestra instruments, and the essential points in
the teaching of them. Designed for students who may teach elemen-
tary bands and orchestras or who intend to follow music as a pro-
fession. This course must precede practice teaching in instrumental
music. Two credits each quarter. T. Th. 11.

24, 25, 26. **Men's Glee.** A normal singing voice is required.
Consult director at once to make sure of your qualifications and the
part you sing. One credit each quarter. M. W. F. 12.

27, 28, 29. **Ladies' Glee.** Same conditions as for men's glee,
applied to women's voices. One credit each quarter. T. Th. F. 12.

30, 31. **Public School Music.** Prerequisite, Music 4, 5, 6
or equivalent. Method of teaching music in the grades, treating the
lower grades in the winter quarter and grades 4, 5, and 6 in the Spring quarter. Given only in alternate years. Two credits each quarter. Winter and Spring, T. Th. 11.

Welti

32, 33. Band B. For students needing additional work as a preparation for Band A; also to include students whose instrumental sections in Band A are already filled. This band is in no sense a beginners band. One credit each quarter. Fall and Winter, T. Th. 12-2.

Christiansen

R. O. T. C. Band. Band men who are required to take Military Science should register for Military Science and then ask to be assigned to the R. O. T. C. Band.

35, 36, 37. Vocal Groups. Offering an opportunity for good voices to organize into trios, quartets, and other small units, and to perform upon numerous occasions. One credit each quarter. Time arranged.

Welti


Welti

41, 42, 43. Band A. This organization is the College Concert Band. It includes the R. O. T. C. band and all other students who qualify. Special emphasis will be placed upon the proper instrumentation; membership will be determined by examination. Concerts will be given and music furnished for athletic events. Members are required to play at all public appearances of the band. One credit each quarter. (See 141, 142, 143.) T. Th. 12-2.

Christiansen

44, 45, 46. Brass and Reed Groups. Brass quartets, sextets, and saxophone quartets. Members will be selected from applicants. One half credit each quarter. Time arranged.

Christiansen

80. Opera Appreciation. An intensive study will be made of the world's best operas. Particular attention will be given to the development of the orchestra as an essential part of the opera. By means of recordings, the choicest musical selections will be learned. Two credits. Fall, T. Th. 2.
81. SYMPHONY APPRECIATION. Complete symphonies will be given by the phonograph method. A careful study will be made of their form and content. Two credits. Winter, T. Th. 2.

105, 106. MUSIC HISTORY. The appreciation of music from its historical and biographical bases, the development of small and large forms from folk music through the opera and the symphony. Not open to Freshmen. Given only in alternate years. Two credits. (Not given in 1935-36.)


117. OPERA PRODUCTION. A thorough study of the details involved in the production of opera. Students admitted to this course will be assigned definite responsibilities in the actual preparation and presentation of the College opera. Consult instructor before registering, the earlier the better. Two credits. Winter. T. Th. 11.

118, 119, 120. SYMPHONY ORCHESTRA. Senior College credit will be given students of advanced standing. Prerequisite, two years in Orchestra and courses 12, 13. Time and credit as for Music 18, 19, 20.

124, 125, 126. ADVANCED CHORUS. For Juniors and Seniors who have had choral experience. Consult director early. One credit each quarter. Men, M. W. F. 12. Ladies, T. Th. F. 12.

134. COUNTERPOINT. Prerequisite, Harmony 13. Contrapuntal composition in the first four species, in two and three parts. Three credits. Fall, M. W. F. 10.

135. COUNTERPOINT. All five species, in two, three and four part composition. Three credits. Spring, M. W. F. 10.
141, 142, 143. Band A. Rehearsals to be held jointly with 41, 42, 43. Senior College Credit will be given students of advanced standing. Prerequisite, two years of band and courses 12, 13. One and a half credits each quarter. T. Th. 12-2, W. 12-1.

Christiansen

Note: An opera by the combined classes of the Music Department will be presented during the year.

PRIVATE INSTRUCTION COURSES

The following courses are given through private study only and a special fee is charged. Consult the instructor, and arrange time.

Note: Students taking one lesson a week in any private music study, and getting the required amount of practice and preparation, shall register for one and one-half credits per quarter. Students taking two lessons and getting the required amount of practice and preparation, shall register for three credits per quarter. Lesson appointments and fees shall be arranged with the teacher.

Note: Public Recital. A series of recitals will be given at the College during the year. Students registered in the Private Instruction courses are eligible to participate upon recommendation of their teachers. No additional credit is offered for this work.

50, 51, 52. Piano. For students having less than two full years of piano instruction.

53, 54, 55. Vocal. Conditions same as for piano.

Welti

56, 57, 58. Wind Instruments. All the wind instruments of the band and orchestra. For students having less than two full years of previous training.

Christiansen

60, 61, 62. Violin. For students having less than two full years of previous training.

Christiansen

150, 151, 152. Piano. For students recommended by an associated teacher, and satisfying the departmental standards for the equivalent of two full years of previous study.

153, 154, 155. Vocal. For advanced vocal students.

Welti

156, 157, 158. Wind Instruments. For students satisfying the departmental standards for the equivalent of two full years of previous study.

Christiansen

160, 161, 162. Violin. For students recommended by an approved teacher and satisfying the departmental standards for the equivalent of two full years of previous study.

Christiansen
PHYSICAL EDUCATION

JOSEPH R. JENSON, KATHERINE C. CARLISLE, W. B. PRESTON, W. H. BELL, Professors; E. L. ROMNEY, Director of Athletics and Head Coach of Major Sports; JOHN CROFT, Assistant Director and Assistant Coach of Major Sports; MAXINE HEISS, Instructor; GEORGE NELSON, Trainer and Wrestling Coach; RUDY VAN KAMPEN, Freshman Coach.

Physical Education I will count in the New Arts Appreciation Group.


Courses required for women who desire to major in Physical Education: Physical Education 40, 41, 42, 44, 48, 49, 50 or 55, 68, 69, 70, 71, 81, 82, 83, 91, 92, 93, 106, 111, 141, 142, 143, 168, 169, 180a, 180b, 183, 184, 185, 191; Physiology 4, 107, 108, 109; Art 32; Music 1; Chemistry or Physics 5 credits.

BASIC ACTIVITY COURSES

In the physical education activities of this department an opportunity is given each student to perfect skills in some form of physical activity which will help establish a permanent interest in healthful recreation of the active, rather than passive, type.

A physical examination is given all students at the beginning of each year in order properly to advise them as to the type of activity best suited to their individual needs.

Women students are required to take some physical education activity course for six quarters. This work may be elected by each student. Men students not taking military drill are also required to take six quarters of some physical education activity course.

Upon recommendation from the college physician the Attendance and Scholarship Committee may permit students to defer taking physical education, or in case of permanent disability grant permanent exemption from the physical education requirement. Deferment or exemption must be obtained during or previous to the quarter in question. If a student fails to register, or having registered fails to complete a course in physical education and does not obtain an exemption or deferment before the end of the quarter a deficiency will be recorded for that quarter and such deficiency must be made up before graduation.
THE COLLEGE HEALTH SERVICE

The Health Service is maintained primarily for the care of students who may become ill during their stay on the campus. This service is also looked upon as an educational department to teach preventive medicine and hygiene. Through consultations, examinations 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 and playground management, of the need for directors of physical education in high schools, and for high school coaches, etc., this department offers an opportunity to major or minor in physical education, and also to meet the state requirements for certification of teachers of physical education, and coaches in high schools.

INTRAMURAL SPORTS

Intramural sports are conducted as a part of the program of the Department of Physical Education. The department for women, in cooperation with the Women’s Athletic Association has charge of all women’s athletics and offers a wide program of intramural sports.

The department for men carries on an extensive organized intramural sports program which is separate and apart from intercollegiate athletics.

The function of the intramural program is to give every student moral, social, physical and educational values derived from competitive athletics. Competition is organized between organizations, clubs, individuals, classes and institutional departments. The program of athletics provides, for both individual and team endeavor, “athletics for all,” which is the purpose of the establishment of intramural sports.

ACTIVITY CLASSES FOR MEN AND WOMEN


Jenson and Heiss

63, 64, 65. Recreational Games. One credit. Fall, T. Th. 10; Winter, M. W. 12; Spring, T. Th. 9.

Heiss
67. **Tennis.** One credit. Spring, M. W. F. 8, 9, 10, 12, or 1; or T. Th. 8, 9, or 12.

   *Staff*

68, 69. **Elementary Folk Dancing.** One credit. Fall and Winter, M. W. F. 11.

   *Carlisle*

70, 71. **Elementary Tap Dancing.** One credit. 70. Fall or Winter, T. Th. 3-4:30. 71. Spring, T. Th. 3-4:30.

   *Carlisle*

72. **Social Dancing.** One credit. Any quarter, T. Th. 11.

   *Carlisle and Heiss*

73. **Golf.** One credit. Spring, M. W. F. 11.

   *Croft*

168, 169. **Advanced Folk Dancing.** One credit. Fall, M. W. F. 9; Spring, M. W. F. 11.

   *Carlisle*

170, 171. **Advanced Tap Dancing.** One credit. Winter, T. Th. F. 12; Spring, M. W. F. 10.

   *Carlisle*

172. **Leadership in Social Dancing.** One credit. Spring, T. Th. 11.

   *Carlisle*

**ACTIVITY CLASSES FOR MEN**

4, 5. **Elementary Boxing.** Required of Majors. One credit. Fall and Winter, M. W. F. 11 or 2.

   *VanKampen*

6. **Horse Shoes.** One credit. Spring, M. W. F. 9 or 11, or T. Th. F. 11.

   *Jenson*

7, 8. **Elementary Wrestling.** Required of majors. Two credits each quarter. Fall and Winter, Daily 2, or M. 12, T. W. Th. F. 1.

   *Nelson*

9, 10. **Fencing.** One credit. Fall and Winter, M. W. F. 2.

   *Jenson*
11. **Football.** One credit. Fall, Daily 4.  
   *Romney*

12. **Track.** One credit. Spring, time arranged.  
   *Croft*

13, 14, 15. **Handball.** One credit. 13 Fall, M. W. F. 10 or 12, or T. Th. 10, 11, or 2; 14. Winter, M. W. F. 12 or T. Th. F. 10; 15. Spring, M. W. F. 11 or 12.  
   *Jenson*

   *Jenson*

19, 20, 21. **Elementary Tumbling.** Required of majors. One credit. Fall and Winter, T. Th. 10; Spring, T. Th. F. 10.  
   *Jenson and VanKampen*

22, 23, 24. **Basketball.** One credit each quarter. M. W. F. 9 or 10.  
   *VanKampen*

25, 26, 27. **Restricted Gymnastics.** One credit. Time arranged.  
   *Jenson*

30, 31, 32. **Elementary Heavy Apparatus.** One credit each quarter. M. W. F. 4.  
   *Bell*

33, 34, 35. **Advanced Tumbling.** One credit each quarter. T. Th. 9.  
   *Jenson*

**ACTIVITY CLASSES FOR WOMEN**

40. **Soccer and Volley Ball.** One credit. Fall, M. W. 12, T. Th. 11, M. F. 1.  
   *Heiss*

41. **Basketball.** One credit. M. W. 9, or M. F. 1, or T. Th. 9, 11, or 1.  
   *Heiss*

42. **Basketball and Speedball.** One credit. Spring, M. W. 12; T. Th. 1.  
   *Heiss*
43. **Advanced Gymnastics.** One credit. Fall, T. Th. 9.

44. **Tumbling and Stunts.** One credit. Winter, T. Th. 9; Spring, M. W. F. 8.

45, 46, 47. **Restricted Activities.** This course is given for those students physically unable to take the required work in physical education. Students may register only after consultation with the head of the department. One credit. Time arranged.

48, 49, 50. **Elementary Creative Dancing.** A study of fundamental movement techniques, elements of rhythmic and musical patterns, materials of design and composition, original composition of dance forms, history of the dance. One credit each quarter. Fall, M. 2-4, F. 2; Winter, M. 2-4, F. 3; Spring, M. 12, and 2-4, F. 2.

51, 52, 53. **Swimming.** This course covers elementary and intermediate work in swimming. One credit each quarter. M. W. F. 12 or 2; T. Th. F. 12.

54. **Advanced Swimming.** This course covers advanced swimming, diving, and life saving. One credit. Fall or Winter, T. Th. F. 1.

55. **Red Cross Life Saving.** A study of all material necessary in order to pass the Senior Red Cross Life Saving Test. One credit. Spring, T. Th. F. 2.

**THEORY COURSES**

1. **Orientation in Physical Education.** A survey of the whole field of physical education, showing its relationship to art and enriched living. Two credits. Any quarter, T. Th. 10.

81. **Rhythms and Dramatic Games.** For women. A study of music for young children and its use in creative movement.
Methods of presenting and developing rhythms will be studied. Two credits. Fall, M. W. F. 10.

_Carlisle_

**82. MATERIALS AND METHODS IN PHYSICAL EDUCATION FOR ELEMENTARY SCHOOLS.** For men and women. A study of the activity interests of children and appropriate materials for different age levels, selection of materials, methods of presentation. Four credits. Winter, Daily 10.

_Carlisle and Heiss_

**83. PLAY GROUND AND 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 hours will take up games and folk dances. Four credits. Winter, Daily 10.

_Jenson and Carlisle_

**85. COMPETITIVE ACTIVITIES.** A course designed to teach students to play basketball, archery, volleyball, tennis, baseball, soccer, football, also the organization of intramural athletics, leagues, etc. Two credits. Fall, T. Th. 1.

_VanKampen_

**87. PERSONAL HYGIENE.** Lectures covering personal and general hygiene, including care of skin, hair, teeth, nails; care of special senses; eye, ear, nose and throat; study of rest, exercise, and recreation. Two credits. Winter, T. Th. 11.

_VanKampen_

**91, 92, 93. METHODS AND PRACTICE IN COMPETITIVE ACTIVITIES.** For women. Includes practice in methods of coaching sports and athletics for girls. Baseball, basketball, archery, volleyball, tennis, track and field events, soccer, speedball, and swimming arranged seasonally. Two credits. T. Th. 2.

_Heiss_

**106. APPLIED ANATOMY AND PHYSIOLOGY OF EXERCISE.** Prerequisite: Physiology 4. Five credits. Fall, Daily 10.

_Carter_

**111. NUTRITION.** For athletes and Physical Education Majors. For description, refer to Department of Foods and Dietetics. Three credits. Spring, M. W. F. 9.

_Clayton_
141, 142, 143. **Advanced Creative Dancing.** A further development of skills in the use of tools of movement, rhythm and music, improvisation and dance composition; principles and methods of teaching the modern dance; present trends in the dance in education. Two credits each quarter. Fall and Winter, T. 12, F. 2, W. 2-4; Spring, M. 12, F. 2, W. 2-4.

*Carlisle*

180a. **Corrective Physical Education.** A study of abnormal curvatures of the spine, flat feet, and other common defects. Open to majors, minors, and normal students only. Three credits. Winter, M. W. F. 9.

*Carlisle*

180b. **Practice in Corrective Gymnastics.** Practical application of 180a. Time and credit arranged. Consult head of department before registering. Spring.

*Carlisle*

181. **Corrective Physical Education for Men.** Open to juniors and seniors. This course is devoted to the application of gymnastics for the correction of such common defects as flat feet, spinal curvatures, poor posture. Prerequisite: Physical Education 106. Three credits. Spring, M. W. F. 2.

*Jenson*

*183. Principles of Physical Education.** A study of the principles upon which Physical Education is based; the place of Physical Education in our modern educational scheme; a brief consideration of the organization and administration of a department of physical education. Five credits. Fall, Daily 9.

*Jenson*

*184. Administration of Physical Education in Schools.** A study of the administrative procedures in the conduct of physical education in the high school; curriculum construction and program planning. Three credits. Spring, T. Th. F. 1.

*Carlisle*


*Jenson*
186. **Advanced Gymnastics.** A study of methods of teaching gymnastics, such as parallel bars, side horse, rings, and advanced floor work in calisthenics. Two credits. Spring, Daily 4. *Bell*

187. **Advanced Swimming.** For men. A continuation of course 16. The student will be required to pass certain standard tests. Two credits. Winter, Daily 3. *Jenson*

188. **Coaching Football.** Fundamentals of football, theory and practice, details of each position on the team, training, and managing; complete technique of developing offensive and defensive tactics. A comparison of the various systems in American Intercollegiate football. Three credits. Fall, M. T. W. 12. *Romney and Croft*

189. **Coaching Basketball.** The coaching and training of basketball teams beginning with fundamentals, passing, dribbling and pivoting with emphasis on the psychology of the game; various methods of defense and offense. Three credits. Winter, M. T. W. 12. *Romney*

190. **Coaching of Track and Field.** How to train for various track and field events; their form and technique; conduct of athletic meets; construction use, assembling of all equipment used by the participants on the field; development of certain types of individuals for certain events. Three credits. Spring, M. T. W. 12. *Romney and Croft*

191. **Physical Diagnosis and Measurements.** For men and women. The course aims to train the prospective physical director to detect the common physical defects. Instruction is given in methods of taking measurements, and in strength tests. Prerequisite: Physical Education 106. Three credits. Spring, M. W. F. 11. *Preston*

*192. Tests and Measurements in Physical Education.** Practical studies of tests now in use, and the technique of test construction. Three credits. Winter T. Th. 9, F. 1. *Jenson*

*Graduate credit may be granted for these courses by registering for the corresponding number in the two hundreds.*
PHYSICS


Physics 1 or 2 will count in the New Exact Science Group. May be replaced by Physics 20, 21 or 22.

Students majoring in Physics should take during the first two years, Mathematics 34, 35, 46, 97, 98, 99 and Physics 20, 21, 22. In addition for graduation, Chemistry 3, 4; Mathematics 120, 121, 122, and at least thirty hours of Senior College work in Physics. Premedical students must take Physics 20, 21, 22. Calculus and Physics 20, 21, 22 are prerequisites for all senior college courses.

1, 2. General Physics. A lecture demonstration course designed for students not majoring in the mathematical sciences or Engineering. Physics 2 can be taken without Physics 1. 1. (Mechanics and heat). Five credits. Fall, Daily 11 or 2; Winter, Daily 11; Spring, Daily 10. 2. (Electricity and magnetism, sound, and light.) Five credits. Winter, Daily 10; Spring, Daily 11.

E. Gardner and L. H. Linford

10. Descriptive Astronomy. Prerequisite: Physics 1. (Not given 1935-36.)

16. Meteorology, or Physics of the Atmosphere. (Not given 1935-36.)

20, 21, 22. Mechanics and Molecular Physics, Electricity and Magnetism, Heat, Light and Sound. Prerequisite: High School Physics. Five credits each quarter. M. W. F. 9; Labs, T. Th. 8-11 or 2-5; or M. W. 2-5.

Leon Linford

104, 105, 106. Physical Chemistry. (See Chemistry 104, 105, 106.) Including atomic, kinetic, and electron theories; gaseous, liquid and solid states; solutions, and thermodynamics. Prerequisites: the above and Chemistry 5. For laboratory to accompany this course see Chemistry 109, 110, 111. Three credits each quarter. T. Th. 9, F. 12.

Maeser

108. Advanced Laboratory Work. Recommended for students majoring in Physics. One credit. Any quarter, time arranged.

Staff
110. Electricity and Magnetism. Theory course. Three credits. Fall, T. Th. 9, F. 1.  
   E. Gardner

112. Elementary Electrical Engineering. (See C. E. 197.) Three credits. Winter.  
   Leon Linford and E. Gardner

113. Theory of Alternating Current Circuits. Recommended for students in Radio. Prerequisite: Physics 110. (Not given 1935-36.)

118. Thermodynamics, Steam and Gas Engineering. (See C. E. 196.) Three credits, M. W. F. 10.  
   W. Gardner

119, 120, 121. Modern Physics. Four credits each quarter. Fall and Spring, M. T. W. Th. 10; Winter, M. W. 10, T. Th. 9.  
   Leon Linford

   W. Gardner

166, 167, 168. Geometrical and Physical Optics. (Not given 1935-36.)

   L. H. Linford

   W. Gardner

   Staff

209, 210, 211. Theoretical Mechanics. Two credits each quarter. Time arranged.  
   W. Gardner

   W. Gardner
PHYSICS 199

215, 216, 217. **Mathematical Theory of Electricity and Magnetism.** Two credits each quarter. Time arranged.

*Leon Linford*

218, 219, 220. **Atomic Structure, Thermodynamics, and Physical Chemistry.** Two credits each quarter. Time arranged.

*Leon Linford*

250, 251, 252. **Research Work.** Time and credit arranged.

*Staff*

**PHYSIOLOGY, PUBLIC HEALTH AND HYGIENE**

E. G. Carter, W. B. Preston, Professors; C. E. Dancy, Assistant Professor.

Physiology 4 will count in the New Biological Science Group.

4. **Anatomy and Physiology.** A study of the structure and functions of the human body. This course is prerequisite for all upper division courses in Physiology and Health. Five credits. Fall or Winter, Daily 9, 11, 2; Spring, Daily 8, 11, 2.

*Carter, Dancy*

5. **Physiology Laboratory.** A course of laboratory exercises and demonstrations selected to illustrate the fundamental principles of physiology and hygiene. Should accompany Anatomy and Physiology 4. One credit. Any quarter, T. or W. 2-5.

*Carter*

*14. Health Education.** An informational course in health education and hygiene, stressing the principles and practices of health promotion and disease prevention. Open to all students of the college. Three credits. Fall, M. W. F. 8; Winter or Spring, M. W. F. 9.

*Carter*

*15. Methods and Materials in Health Education.** This course is open to all who are interested in the profession of teaching. The principles and practices of health teaching in the various grades are considered. The interrelation of health teaching to the teaching of other subjects in the school curriculum is emphasized. Dental, physical and other health tests are duly considered. Should accompany Health Education 14. Two credits Fall, T. Th. 8; Winter or Spring, T. Th. 9.

*Carter*
*25. **Home Hygiene and Care of the Sick.** A course in home nursing and first aid to the injured. The first hour is devoted to discussion, the laboratory to demonstrations and practice. Reading of reference material and writing of special reports required. Laboratory apron needed. See instructor. Class limited to 18. Three credits. Any quarter, T. 10, Lab. Th. 10-1.

_Dancy_

50. **First Aid.** The standard American National Red Cross course in first aid with emphasis upon the practical use of the knowledge as applied to everyday life in various occupations. Detailed demonstrations and practice. Red Cross certificates are given. (Not given 1935-36.)

_Preston_


_Carter_

107. **Human Physiology.** This course is planned for students desiring further study of the human mechanism than is offered in the elementary course. Special attention is given to the nervous system, sense organs and digestion. Four lectures and one demonstration period per week. Prerequisite: Physiology 4. Five credits. Winter, Daily 10.

_Carter_

108. **Public Health and Hygiene.** (May be used for High School Certification.) This course deals with the physical and mental health of the individual and his relationship to other members of the community. Some of the subjects considered are: Nature and prevention of disease, food in its relationship to the well being of the individual, heating, ventilation, and occupational diseases, the organization and content of the school health program with emphasis on the secondary school. Prerequisite: Physiology 4. Five credits. Fall, Daily 8; Winter, Daily, 8, 11; Spring, Daily 10.

_Carter and Preston_

109. **Community Health Problems.** A study of the organization and functions of municipal, county, state and federal health agencies. A community health survey is required of each student. Prerequisite: Public Health 108. Three credits. Spring, M. W. F. 8.

_Carter_
110. **Physiology.** A lecture and discussion course dealing with present status and recent advances in the physiology of glands of internal secretion. Prerequisite: Physiology 4. Two credits. Spring, T. Th. 8.

*Carter*

115, 116, 117. **Journal Club.** A study of current physiological literature including hygiene, with oral and written reports. Prerequisite: Physiology, 107 or 108. One credit each quarter. Time arranged.

*Carter*

*125. Mothercraft.* This course includes a study of the anatomy and physiology of the reproductive system, preparation for motherhood, and the physical care of mother and child from the prenatal period to the end of the first year of the child’s life. Prerequisite: Physiology 4. Three credits. Fall, M. W. F. 11; Spring, M. W. F. 10.

*Dancy*

180. **Physiology Laboratory.** Prerequisite: Physiology 5. Winter. Time and credit arranged.

*Carter*

191. **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 in strength tests. Prerequisite: Physiology 106. Three credits. Spring, M. W. F. 11.

*Preston*

*Does not satisfy Biological Science group requirement.*

**Political Science**

F. D. Daines, Asa Bullen, *W. L. Wanlass, Professors; E. B. Murray, Instructor.

Political Science 51 will count in the New Social Science Group.

Students majoring in this department should include the following senior college courses either in the major or special group: Political Science 103, 116, 117, 118, 124, 125, 201, 202, 203; Psychology 101; Sociology 140; nine hours in Senior College History; and Economics 125, 131, 155.

11. **Commercial Law.** A general survey of the nature, source, form, expression and classification of law. The place of law

*On leave.*
in business and commercial life. The course will be completed in one quarter and is intended as one of general information to students of the college outside the School of Commerce, as well as an introductory course to students intending to take any or all of the other Commercial Law courses. Open to all students of sophomore standing or above. Three credits. Fall, M. W. F. 8.

12, 13. Commercial Law. A comprehensive study of the law of contracts and agency. Open to all students of sophomore standing or above. Three credits each quarter. Winter and Spring, M. W. F. 8.

50. American Government. The American Federal System as it is organized and functioning under modern industrial, social and political conditions. Three credits. (Not given 1935-36.)

51. General Political Science. A study is made of the life of man in society in order to discover the conditions that call for governments and constitutions and laws. The study is made concrete by noting how these conditions are met by the principles and practices of our own American government. Five credits. Fall, Daily 10.

102, 103. International Relations. Psychological, economic, racial and other obstacles to international cooperation, as exemplified in recent events. The Treaty of Versailles; the League of Nations; the present day world politics. Prerequisite: one year of Social Science. Three credits each quarter. Winter and Spring, M. W. F. 10.


105, 106. Commercial Law. A comprehensive study of the law of bailments, sales of personal property, partnerships, corporations and bankruptcy. Prerequisites, Political Science 11, 12, 13, 104. Three credits each quarter. Winter and Spring, M. 12, T. Th. 8.
107, 108. **Commercial Law.** A comprehensive study of the law of real property. The nature and tenure thereof, estates, deeds, conveyancing, abstracts of title, mortgages and other liens, wills and decedent's estates. Prerequisites, Political Science 11, 12, 13, 104. (Not given 1935-36.)

*Bullen*

113. **Municipal Government.** The government and problems of cities, with special reference to American experience. Organization, personnel, and practices which have developed in the performance of the various business functions of the city government. Prerequisite, one year of Social Science. Three credits. (Not given 1935-36.)

*Daines*

116. **Theory of State.** The nature of the State, its organization and activities, and its relation to individuals and to other states. Prerequisite, one year Social Science. Three credits. (Not given 1935-36.)

*Daines*

117. **American Political Ideas.** Fundamental theories underlying American Political institutions and governmental policies. Prerequisite, one year of Social Science. Three credits. (Not given 1935-36.)

118. **Political Parties.** Their function in government; their organization and methods. Prerequisite, one year of Social Science. Three credits. (Not given 1935-36.)

*Daines*

120. **Relation of Government to Industry.** An interpretation is sought of the present trends in regard to governmental regulation and control of important industries in the United States, the labor policies of the government and governmental aids to industry, with a discussion of the political philosophy implied in these trends and policies. Three Credits. Spring, M. W. F. 9.

*Daines*

124, 125. **Public Opinion.** The aim of this course is to investigate the psychological and other factors involved in the determination of opinion on public questions. The reliability of sources of information and the subjective influences that must be taken into
consideration are examined. Prerequisite, one year of Social Science. Three credits each quarter. Winter and Spring, T. Th. 9, W. 12.


128. **American Legislation.** Organization and procedure of legislative bodies. Influences at work in, and character of output of, national and state legislatures. Three Credits. Fall, M. W. F. 11.


130. **Administrative Functions** Various problems, such as protection of persons and property, conservation and development, public works, public welfare. The type of training demanded for public service, and the nature of civil service examinations. Three credits. Spring, T. Th. 11, M. 1.

201, 202, 203. **Current Political Problems (Political Science Seminar)**—A course designed for junior, senior, and graduate students majoring in political science and related subjects. Required of those graduating in Political Science. Two credits each quarter. T. Th. 11.

**POULTRY HUSBANDRY**

*Byron Alder, Professor; Carl Frischknecht, Assistant Professor*

1. **General Poultry.** A study of breeds, judging, incubation, brooding, feeding, marketing. Designed to meet the needs of the students wishing a general knowledge of the poultry industry and the problems of production, and a foundation upon which other courses are built. Three credits. Winter, M. W. F. 11 or Spring, M. W. F. 9.
2. General Poultry, Laboratory. Covers the same work as Poultry 1, with practical laboratory problems. One credit. Winter or Spring, M. 2-5.

Frischknecht and Alder

3. General Poultry. The course is planned to meet the needs of Home Economics students. Not given unless six students apply. Two credits. Spring, T. Th. 10.

Alder

8. Turkey Production. A study of the breeds, breeding, brooding, feeding, and marketing of turkeys. Special problems involved in small farm flock or large commercial flock management are emphasized. Two credits. Winter, T. Th. 9.

Alder


Alder and Frischknecht

Poultry Diseases. (See Veterinary Science 70.)

*104. Incubation and Brooding. This course is designed to familiarize the student with the special problems involved in incubation or hatchery operation and the brooding, feeding, and rearing of chicks. The advantages and disadvantages of battery, hot water, electric, coal burning, and gas brooders are emphasised. Two credits. Spring, T. Th. 9.

Alder

105. Poultry Management. Problems of location of poultry farm, farm planning, renewing the flock, feeding, disease control, marketing, and other problems affecting labor income are studied in detail. Prerequisite: Poultry 1. Three credits. (Not given 1985-86.)

Alder


Alder

Alder

125. Special Problems. Special assignment to work out certain information on special problems. Prerequisites: Poultry 1, 104 and 105. Winter or Spring. Time and credit arranged.

Alder and Frischknecht


Alder and Frischknecht

127. Advanced Poultry Practice. Special practice at the poultry yards. Prerequisites: Poultry 1, 104, and 105. Winter or Spring. Time and credit arranged.

Alder and Frischknecht

*Open to students taking short course.

PSYCHOLOGY

Henry Peterson, Ernest A. Jacobsen, Professors.

Psychology 3 will count in the New Social Science Group.

3. Elementary Psychology. This course is prepared for freshmen of all schools. It is designed to help lower division students to find the best habits of study and to learn their own mental processes. Normal adult psychology with its applications to life will be stressed. Five credits. Any quarter, daily 9, 10, 2.

Peterson and


Peterson

102. Advanced Educational Psychology. Open to students who have had Psychology 101 or its equivalent. Prepares for the teaching profession and for leadership in other lines. Three credits. Fall, T. Th. 10, F. 1; Winter, T. Th. 10, W. 1; Spring, M. W. F. 10.

Jacobsen and
103. Psychology of Adolescence. Open to students who have had Psychology 101 or its equivalent. A study of the development and behavior of adolescents. Prepares for junior and senior high school teaching and for social leadership of young people. Three credits. Spring, T. Th. 10, F. 1.

Peterson

104. Psychology of Family Life. Human mating, marriage and its anthropological and psychological basis; harmony in marriage through proper ideals. Adapted to the needs of all young people. Prerequisite, a course in General Psychology; sophomores may enter by permission of instructor. Three credits. Winter, M. W. F. 11.

Peterson


Peterson

RADIO, AVIATION AND AUTOMOTIVE ELECTRICITY

All courses taught by Sidney R. Stock, Associate Professor.

MA 11. Elements of Electricity and Magnetism. This course will cover all of the fundamental principles of Electricity and will be taken up as follows: Ohm’s Law, Magnets and Magnetism, Electric Power and its various applications, induction, capacity, dry cells and storage batteries, A. C. and D. C. motors and generators and electrical measuring instruments. Three credits. Fall, T. Th. 8-10.

MA 12. Ignition, Starting and Lighting. For Winter quarter students only. The course is designed for short-term students who wish to learn enough about the electrical equipment on their cars to enable them to care for and locate electrical troubles and make minor repairs. It will include a study of all of the electrical equipment on the car, its operation, and systematic methods of locating the common troubles and repair of same. Three credits. Winter, T. Th. 8-10.

MA 14. Low and High Tension Magnetos. A complete study of the operation of all types of magnetos. Each student will
have the opportunity of going through at least thirty different magnetos. Methods of servicing, testing, and repairing are thoroughly covered with ample practical experience on all types. Three credits. Spring, T. Th. 8-10.

MA 15. IGNITION, STARTING AND LIGHTING FOR CAR OWNERS. The same material is covered as in course No. 12. Students meet for lecture only and demonstrations. This course is especially designed for students who can spend only a short time in the shops but who wish to learn enough about the electrical system on an automobile to enable them to locate and make minor repairs out on the road where expert help is not available. Two credits. Winter, T. Th. 8.

MA 111. STARTING, LIGHTING AND IGNITION SYSTEMS. A complete study of the modern starting, lighting and ignition systems. The operation of modern ignition systems, generators, starting motors and all automatic and electrical appliances used on the modern automobile. Ample practice is given in dismantling and assembling, testing, wiring and reading of wiring diagrams on all makes of automotive electrical equipment. About three weeks’ time will be spent in storage battery repair, lead-welding, testing, and methods of charging storage batteries. Four credits. Fall, M. W. F. 8-10.

MA 112. GENERATOR REPAIR AND ARMATURE WINDING. Four credits. Winter. Time arranged.

MA 113. AUTOMOTIVE ELECTRICAL EQUIPMENT AND SHOP MANAGEMENT. This course should prepare a student to handle an automotive electrical service station and repair shop. Considerable practice in the wiring, trouble shooting and repair of all kinds of electrical equipment. Shop kinks and the development of skill, accuracy and speed to prepare the student better to compete with those already in the commercial field, will be given. Business methods and commercial management, also costs and proper installation of shop equipment. Prerequisite: Starting, Lighting and Ignition 112. Four credits. Spring, T. Th. 10-12.

MA 123. PRACTICAL ELECTRICITY. Required of all students who prepare to teach in Junior High Schools. This course will include a consideration of the fundamental principles of electricity and their application in the construction of such projects as bell circuits, house wiring, electro-magnets, heating elements, motor generators, transformers. Four credits. Spring, M. W. F. 8-10.
The aims and purposes of the following courses in radio are to train the students in the principles of radio reception and broadcasting equipment. Ample practice in the construction, servicing and repair of all kinds of radio receivers is included in the training. Students who complete the courses in a satisfactory manner should be well qualified as radio service men and should be able to pass government tests for radio operators easily. Training in transmitting and receiving of international Morse code is also included in the courses. Fifteen minutes of each laboratory period will be devoted to code training during the first year.

All students are required to pay a laboratory fee of $2.00. The college will furnish necessary parts and materials to build all experimental models. Each student must, however, have or will be required to purchase necessary tools for his individual use. Prerequisite: MA 11 or its equivalent for all radio courses.

**MA 23. Principles and Operation of Radio Receiving Sets.** Fundamental operating principles of radio receiving sets, kinds and types of antennae and their installation, the installation and connecting of battery sets, function and operation of vacuum tubes, "A," "B," and "C" batteries, condensers, coils, transformers, etc., introducing radio frequency, detection and audio frequency, building and operation of one, two, three, and four tube sets. Four credits. Fall, M. W. F. 2-5; Winter, time arranged.

**MA 24. Radio Receiving Sets.** A continuation of course MA 23, leading into more advanced work in radio frequency, detection, and methods of audio frequency amplification. The building of a neutrodyne receiver with methods of balancing and neutralizing will be given. Operation of magnetic and dynamic speakers with methods of testing and locating troubles and repair of the various types of sound-producing units. Four credits. Winter M. W. F. 2-5.

**MA 25. Operation of Alternating Current Receivers.** A complete study of A. C. operated receivers, operation and construction A. C. power supply systems with methods of rectification and filtering systems. Characteristics and operation of A. C. vacuum tubes, and tube-testing. Converting of battery sets into A. C. operated receivers, also the construction of complete A. C. receivers may be done. Four credits. Spring, M. W. F. 2-5.
MA 127. Repair and Servicing of A.C. Receivers. An advanced course in methods of servicing, locating troubles and repair of all kinds of A.C. receivers. Instruction in the use of modern testing and analyzing instruments will be given, with ample practical experience in service and repair work. Practice in international code reception is included. Four credits. Fall, M. W. F. 10-12.

MA 128. Short Wave Receivers and Transmitters. A careful study of short wave receivers. Also short wave converters and modern combination long and short wave converters will be given. Students will also construct their own short wave receivers and learn to operate them properly. The building of master oscillators of various types such as Hartley, tuned plate, tune grid, and Colpits circuits with methods of tuning, neutralizing and adjusting to proper wave length for amateur transmitting operations. Four credits. Winter, T. Th. 2-5.

MA 129. Operation of Short Wave Transmitters and Public Address Systems. Careful training in the operation of short wave transmitters and station procedure will be given. Methods of construction and operation of radio phone transmitters, speech amplifiers, and methods of modulation. Construction, operation, and installation of public address systems is also included in this course. Four credits. Spring, T. Th. 2-5.

After finishing these courses students should have no trouble in passing government examinations and obtaining an amateur operator's license and station license.

AVIATION GROUND SCHOOL

A standard Aviation Ground School has been established at the College. Considerable equipment has been secured from the government flying field for laboratory and training purposes.

Students who plan on entering the air service either as pilots or as airplane mechanics will do well to take the courses listed below. Students will save much time, and receive much more detailed and complete instruction than a commercial school of aeronautics.

MA 26. Aerodynamics. The purpose of the course is to teach the principles and theory of flight of heavier than air machines. A
detailed study of the types of modern planes, and their construction, will be covered. Methods of assembling, rigging, inspecting and preparing a plane for flight will be done in the laboratory. Methods of repair of landing gears, wings and fuselage will also be studied in the laboratory. Four credits. Fall, T. Th. 10, Lab. T. Th. 2-4.

S. R. Stock

MA 27. **AVIATION ENGINES.** A detailed study of all kinds and types of aviation motors will be taken up as to their installation, operation, design and efficiency. The laboratory work will consist of complete methods of overhauling, repairing, inspecting and testing of the different types of airplane motors. Four credits. Winter, M. W. F. 10-12.

S. R. Stock

MA 28. **AVIGATION AND AEROLOGY.** The course will include the study, use and application of various airplane instruments used in the modern plane to safely direct the pilot on his course. Methods of laying out and flying a course by air pilotage, dead reckoning, astronomical avigation and radio avigation will be taken up. Some work in aerology weather maps and a study of weather conditions will also be covered. Four credits. Spring. M. W. F. 10-12.

S. R. Stock

**RANGE MANAGEMENT**

All courses taught by R. J. BECRAFT, Professor

Upon completion of the prescribed course, students are granted the degree of bachelor of science in Forestry. (See general writeup, page 58.)

162. **RANGE MANAGEMENT.** Grazing regions; production and utilization of range forage; management of range livestock. Prerequisite, Botany 21, 22, 23. Four lectures, one lab. Field trips. Five credits. Fall, M. W. Th. F. 10, Lab. F. 2-5.


166. **RANGE MANAGEMENT PLANS.** Detail of reconnaissance, assemblage of data; development of specific management plans. Prerequisite, Range 162. One lecture, one lab. Two credits. Fall, T. 10, Lab. T. 2-5.

177. **Range Planting.** Methods for range revegetation and erosion control. Prerequisite, Range 176. Three credits. (Not given 1935-36.)

178. **Poisonous Plants.** Identification; economic problems. Prerequisite, Botany 30. Two credits. (Offered alternate years—not given 1935-36.)

181. **Range Economics.** Development of the range industry; land utilization; value of range forage. Prerequisite, Range 162. Three credits. (Offered alternate years—not given 1935-36.)


(See page 58 for basic courses)

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Credits

Required:
Language (in addition to Eng. 10, 11)............................ 9
Econ. or Agr. Econ. (in addition to Econ. 51).......................... 5

Recommended:
SECRETARIAL SCIENCE

P. E. Peterson, Professor; Thelma Fogelberg, Assistant Professor; L. Mark Neuberger, Instructor.

Two-Year Course

A considerable demand has been found for a short intensive course in secretarial work. Students wishing to complete a two-year course in this field should register according to the following program.

FIRST YEAR. Bus. Ad. 75 and 76, or Bus. Ad. 78; Bus. Ad. 86, 87, 88 or Bus. Ad. 89, 90, 91; Bus. Ad. 30; Accounting 1 and 2; Mathematics 15; Freshman Composition; General Social Science; Psychology 3, Bus. Ad. 93 and 94.

SECOND YEAR. Bus. Ad. 80, 81, 82; Bus. Ad. 89, 90, 91; Economics 51 and 52; Political Science 11, 12, 13; Sophomore Composition; Bus. Ad. 25; Bus. Ad. 54 or Bus. Ad. 55; Sociology 4, or Sociology 61; Biological Science, Exact Science; Bus. 98 and 99.

Requirements for a Major in Secretarial Science

Students wishing to major in the field of Secretarial Science should register according to the following program:

FIRST YEAR. Bus. 75 and 76, or Bus. Ad. 78; Bus. Ad. 86, 87, 88, or Bus. Ad. 89, 90, 91; Bus. Ad. 93 and 94; Freshman Composition; Bus. Ad. 30; Mathematics 15; Accounting 1 and 2; General Social Science; Textiles 5; Art 3; Psychology 3; Electives.

SECOND YEAR. Bus. Ad. 80, 81, 82; Bus. Ad. 89, 90, 91; Sophomore Composition; Bus. Ad. 25; Bus. Ad. 54, or Bus. Ad. 55; Economics 51 and 52; Political Science 11, 12, 13; Art. 32; Sociology 4; Sociology 61; Bus. Ad. 98 and 99; Exact Science; Biological Science; Electives.

THIRD YEAR. Bus. Ad. 83, 84, 85; Exact Science; Biological Science; Sociology 70; Bus. Ad. 175; Accounting 101; Speech 5; Principles of Psychology; Electives.
Fifth Year. Bus. Ad. 176; Bus. Ad. 178; Bus. Ad. 152 and 153, or 161 and 162; Bus. Ad. 136; English 105; Electives.

If a teaching certificate is desired, the student must have the following courses: METHODS OF TEACHING SHORTHAND AND METHODS OF TEACHING TYPEWRITING in addition to the regular requirements demanded by the Department of Education.

80. Business English. This course aims to give the student practice in the writing of different kinds of business letters, including Sales, Credit, Collection, Complaint Letters and Letters of Application. Prerequisites, Freshman Composition. Three credits. Fall or Winter, M. W. F. 9.

Neuberger

75. Elementary Stenography. This course is designed for students who have had no previous training in shorthand, and includes a thorough drill in the fundamentals of the Gregg system of shorthand. Five credits. Fall, Daily 9.

Fogelberg


Fogelberg

78. Review Course in Elementary Stenography. This course is designed to give an intensive review in the fundamentals and principles of Gregg Shorthand. This work is for students who have had one or more years of high school Shorthand, and is for the purpose of preparing them to enter the second year College course. Five credits. Spring, Daily 9.

Fogelberg

80, 81, 82. Advanced Stenography. This course is designed for students who have had one year of shorthand at this Institution or elsewhere. It includes: An intense review of the theory of Gregg Shorthand with the development of new vocabulary; the study of letter forms and arrangements; transcripts. Special attention will be directed toward the attainment of speed in taking dictation together with the making of perfect transcript.
Students must have had two years of typewriting or must be registered in a course of advanced typewriting simultaneously with this course. Three credits each quarter. M. W. F. 10.

83, 84, 85. Advanced Speed Course in Gregg Shorthand. This course is open to students who have had the first two years of shorthand. Attention will be paid to reporting short-cuts and speed phrases. This work is designed to give the student intensive drill in order to prepare him for reporting work. Two credits each quarter. T. Th. 10.

Fogelberg

86. Typewriting (First quarter). For students who have not had any typewriting. This course is designed to develop correct technique in:
   Position—Syllable, Word and Sentence Drills.
   Stroke—Rhythm, Number, and Shifting Drills.
   Mechanical Features—Acceleration and Concentration Drills.
   Mastery of Keyboard—Introduction of “Time” Writing.
   Finger Exercises—Analysis of Errors.
   Average Speed, 20 words a minute.
   Students must arrange for three hours practice a week in addition to the regular class work. One credit each quarter. Fall, M. W. 11 or 3; T. Th. 8; Winter, M. W. 11 or 3; Spring, M. W. 11.

Neuberger

87. Typewriting (Second quarter). This course continues with the advanced development of those features of the beginning course and in addition includes:
   Care of the Machine—Centering.
   Setting-up Copy—Frequency, Phrase and Word Combination Drills.
   Sentence and Paragraph Practice.
   Average speed, 25 words a minute.
   Students must arrange for three hours practice a week in addition to the regular class hour. One credit each quarter. Fall, T. Th. 9; Winter, M. W 10, T. Th. 8 or 3; Spring, T. Th. 11.

Neuberger
88. **Typewriting (Third quarter).** This course continues with the advanced development of the features developed in Typewriting 1 and 11, and in addition includes:

- Letter Writing stressing Placement, Essentials, Styles, Tabulating.
- Average speed, 30 words a minute.

Students must arrange for three hours practice a week in addition to regular class hour. One credit each quarter. Winter, T. Th. 10; Spring, M. W. 10, T. Th. 8 or 2.

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89. **Advanced Typewriting (Fourth quarter).** This course is designed to give special attention to the development of accuracy, and includes:

- Advanced Letter Writing.
- Telegrams.
- Continuance of all Drills and Exercises.
- Introduction of Invoicing.
- Speed and Accuracy Tests.
- Average speed, 40 words a minute.

Students must arrange for three hours practice a week in addition to the regular class hour. One credit. Fall, T. Th. 11 or 2.

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90. **Advanced Legal Typewriting (Fifth quarter).** This course is designed to give special attention to the development of accuracy and includes:

- Continuance of Concentration, Acceleration, Rhythm and Corrective Drills.
- Advanced Legal Forms.
- Advanced Tabulation.
- Speed and Accuracy Tests.
- Average speed, 45 words a minute.

Students must arrange for three hours practice a week in addition to the regular class hour. One credit. Winter, T. Th. 9 or 11.
91. Advanced Typewriting (Sixth quarter). This course is designed to give special attention to the development of accuracy, and includes:

- Continuation of all Drills.
- Review of Machine and Short Cuts in Typewriting.
- Billing and Tabulation.
- Speed and Accuracy Tests.
- Average speed, 50 words a minute.

Students must arrange for three hours practice a week in addition to the regular class hour. One credit. Spring T. Th. 9.

Neuberger

93. Elementary Calculator Operation. Instruction and practice in addition, subtraction, multiplication and fixed decimal point work by the use of Burroughs Calculating Machines. A fee of $1.00 will be charged. One credit. Fall, M. W. or Th. 2-5; Winter or Spring, M. or W. 2-5.

Neuberger

94. Advanced Calculator Operation. Application of Burroughs Calculating Machines to various business computations such as division, percentages, chain discounts and inventories. A fee of $1.00 will be charged. One credit. Winter or Spring, Th. 2-5.

Neuberger

98. Burroughs Posting Machine—Commercial. Instruction and practice in the application of Burroughs Posting Machines to bookkeeping procedure in commercial institutions. One credit. A fee of $1.00 will be charged. Fall, M. T. or W. 2-5; Winter, M. or W. 2-5; Spring, M. T. or W. 2-5.

Neuberger

99. Burroughs Posting Machine—Bank. Instruction and practice in the application of Burroughs Posting Machines to bookkeeping procedures in banks and financial institutions. A fee of $1.00 will be charged. One credit. Fall, Th. 2-5; Winter, Th. 2-5; Spring, Th. 2-5.

Neuberger

175. Office Management and Practice. This course is designed to familiarize students with all phases of business practice which the office assistant is called upon to perform. Aside from
the general office routine, attention will be given to office management itself, office lay-out and equipment with the view of preparing the student for some of the duties of the office manager. Prerequisites, two years typewriting and Stenography, Elementary Psychology, Introductory Accounting, and General Economics. Three credits. Spring, M. W. F. 9.

**Neuberger**

176. **Report Writing.** The ability to write clearly and concisely is of such importance to business men that it has been thought desirable to offer special instruction in Report Writing. Instruction will be given in the organization and writing of the various types of reports: Fact-finding; Issue of Problem-determining; Problem-solution; and Performance. (Not given 1935-36.)

**Fogelberg**

178. **Secretarial Science.** This course is designed to give the student intensive drill for the attainment of a high rate of speed in shorthand and the acquisition of the technical vocabulary of all general business establishments as for example, the textile industry, the shoe, and the furniture business. Attention will also be given to the necessary moral, mental, and physical characteristics necessary to the successful office worker; the business organization, personal application, and letters of application. Prerequisites, two years Shorthand and Typewriting, Elementary Psychology, General Economics, Introductory Accounting, Business English, and Business and Office Practice. Three credits. Fall, M. W. F. 8.

**Fogelberg**

179. **The Teaching of Typewriting.** A study of recent developments and practices in the teaching of Typewriting. A course for those preparing to teach Typewriting and for those engaged in teaching who wish to render their teaching more effective. (Not given 1935-36.)

**Neuberger**

180. **The Teaching of Stenography.** An analysis of objectives, laws of learning, organization of materials, tests, standards of achievement, and methods of teaching. A course for those preparing to teach stenography and for those engaged in teaching who wish to render their teaching more effective. (Not given 1935-36.)

**Fogelberg**
Sociology

SOCIOLOGY

JOSEPH A. GEDDES, F. D. DAINES, Professors; CAROLINE M. HENDRICKS, Associate Professor.

Sociology 70 will count in the New Social Science Group.

Sociology 70 is prerequisite for all upper division courses in Sociology.

Students majoring in this department may emphasize any of the following five fields: (1) General Sociology; (2) Rural Welfare; (3) Social Work; (4) Family Welfare, and (5) Social Research.

Nuclei courses about which the choice of major and special group courses should revolve are suggested as follows:

Rural Welfare—Sociology 101, 140, 185, 190, 191, 192.


Family Welfare—Sociology 170, 140, 150, 171, 172, 173, 176, 190, 191, 192.

General Sociology—By consultation with department.

Research—Mathematics 75, Economics 131, Sociology 140, 190, 191, 192. Graduate work in this field, open to seniors, includes Sociology 201, 202, 204.

The special group may be filled from the following list of subjects through consultation with the department: Zoology 111, 112, 131; Psychology 101; Public Health 108, 190; Economics 131, 145, 205; Political Science 124, 125; Child Development 125 (for women).

4. Social Relations. Given in conjunction with Political Science 4 and Economics 4 as an orientation course for freshmen. It emphasizes developmental materials as contrasted with a scientific treatise. Social conflicts and maladjustments are treated in such a way as to clarify adjustments and accommodations. Three credits. Spring, T. Th. 11, W. 12.

Hendricks

10. Rural Sociology. In this course a study is made of the problems of rural life as a basis for constructive action in develop-
ing and maintaining an efficient and wholesome civilization in the country. Three credits. Fall, M. W. F. 9; Spring, M. W. F. 8.

61. WOMEN AND CULTURE. Open to women students only. A study is made of woman's contribution to culture. Traditional forms of individual refinement are observed, with the purpose of becoming familiar with inherently harmonious, balanced-types of personality. The richly varied, yet unified, life is emphasized. Two credits. Fall or Winter, T. Th. 9.

Hendricks

70. PRINCIPLES OF SOCIOLOGY. The foundations of sociology are studied in order that a plan of social progress may be formulated. The problems of social origins, social structures, public opinion, social activities, social organization, and social evolution are carefully considered. Prerequisite for all upper division classes. Five credits. Fall or Spring, Daily 10; Winter, Daily 9.

Hendricks

100. APPLIED EDUCATIONAL SOCIOLOGY. The social viewpoint is used in this course as a means of appraising curriculum and materials. The socialization of attendance, discipline and methods receives attention. An attempt is made to relate the teaching population and the student population to the social order. Three credits. Spring. (Not given 1935-36.)

Geddes

111. HEREDITY AND EUGENICS. See Zoology and Entomology 111 for description of course. Does not count in Social Science Group.

Henderson

124, 125. PUBLIC OPINION. See Political Science 124, 125, for description of course.

Daines

126. SOCIAL ASPECTS OF INDUSTRIAL RELATIONS. An attempt is made in this course to become acquainted with the social results of the productive system as it is operating in the United States at the present time. Approaches to the problem of adjustment through: (1) Government, (2) Labor, (3) Liberal Employers, are made. Three credits. Spring. (Not given 1935-36.)

Geddes
140. **Social Psychology.** The influence of the "groups" in the formation of the "norms" of life and in exerting pressure on the personality is stressed. Five credits. Fall, Daily 8.

*Geddes*

150. **Environment Factors in Child Life.** Home conditions are dealt with briefly in this course in natural and adopted homes. The principal emphasis is on community influences and pressures which assist in the development of the personality. Field trips will supplement lectures as a means of coming into contact with societies, organized agencies and institutions. Three credits. Spring, M. W. F. 9.

*Geddes*

161. **Modern Social Problems.** A selection of a series of social problems is made. These problems are studied with the two-fold object of ascertaining the present situation and of arriving at common-sense solutions. Three credits. Winter, M. W. F. 9.

*Hendricks*

170. **Juvenile Delinquency.** A study of juvenile offenders. The causes of delinquency are considered with the purpose of arriving at intelligent remedies. Various methods of home, social, and institutional treatment are studied; parental cooperation, personal supervision allied with probation and parole, institutional treatment, etc. Winter quarter. Three credits. (Not given 1935-36.)

*Hendricks*

171. **Social Problems of the Family.** In this course the relations of the family with outside groups, agencies, and institutions are stressed. Attention is also paid to the inter-relation between the different members of the family. Home life is treated as a changing, developing, basic organization which should be in constant reciprocal relation with outside agencies. Three credits. Fall, M. W. F. 9; Spring, M. W. F. 11.

*Hendricks*

172. **Poverty and Dependency.** A study is made of the extent of poverty, its causes, remedies now in use and others which give promise. Social methods of caring for dependents are examined. Emphasis is placed on programs which look to prevention
and to minimization as well as to adequate care. Three credits. Winter, M. W. F. 11.

**Hendricks**

173. **Social Case Work I.** This course deals with means of assisting people in distress. Emphasis is placed on laying a satisfactory basis for helpfulness through adequacy of investigation, study and diagnosis. Three credits. Any quarter, time arranged.

**Geddes**

174. **Public Welfare Administration.** In this course the organization of the commissions, boards or departments which deal with the dependent and delinquent groups is studied. Provision for the aged, dependent mothers, unemployed, mentally handicapped and criminal groups are given attention. Three credits. Alternates with Soc. 185. (Not given 1935-36.)

**Geddes**

176. **Social Case Work II.** A continuation of Social Case Work I. Treatment is the central theme in this course. The interview is studied, the personal relationship is stressed, environmental influences are examined and case records are appraised. Prerequisite, Social Case Work I. Three credits. Any quarter, time arranged.

**Geddes**

185. **Community Organization and Leadership.** A course dealing with the efforts of communities to organize the various fields which have to do with the chief interests of life. The coordination of agencies, the opportunities for leadership, the effects of disorganization are studied. Three credits. Spring, T. Th. 8, F. 12.

**Geddes**

190, 191, 192. **Seminar in Sociology.** One credit each quarter. Fall, W. 4; Winter, time arranged; Spring, W. 7 a. m.

**Staff**

201. **Research in Sociology.** For advanced students only. A project is organized and field work is carried on under supervision. Original studies are made. Prerequisites, Soc. 70, Math. 75. Four credits. Time arranged.

**Geddes**

202. **The Study of Society.** An advanced course in Sociological theory. Sociology is studied as a classified body of facts
and as a method of investigation. Prerequisite, Soc. 70. Five credits. Fall. (Not given 1935-36.)

Geddes

203. Social Service Field Work. Through a cooperative arrangement with the Family Welfare Department of the L. D. S. Relief Society and the Family Service Society of Salt Lake City, six weeks of field work in family case work is provided. This work is done under the joint direction of the head of the department and the supervisors of the agencies. Three hundred hours of supervised field work is contemplated. Open to graduate students and seniors by permission. Eight credits. (Not given 1935-36.)

Geddes

204. Methods in Social Research. A study of present methods of carrying on social research. Exploration, the interview, the survey, the diary, the letter, the life history, interpretation of data are stressed. Prerequisites, Sociology 70, Math. 75. Two credits. Spring, T. Th. 9.

Geddes

TEXTILES AND CLOTHING

Johanna Moen, Professor; Sadie O. Morris, Assistant Professor; Alta O. Crockett, Instructor.

Students who elect Textiles and Clothing as their major are required to complete the following courses: Textiles and Clothing 10 and 11, 20, 105, 115, 125, 160 and 175. Closely related courses such as Art 1, 2, 3, 17, and 32, and Economics 145 are recommended for Textiles and Clothing majors. Students who wish to prepare for positions in the commercial field should, in addition to courses in Textiles and Clothing and Art, elect courses in Economics and Merchandising.

1. Clothing Construction. A service course for students from other schools of the college. Emphasis on the relation of personality to dress through the study of art principles applied to clothing construction, pattern study, selection and construction of cotton, wool and silk dresses. Lectures and laboratory work. Three credits. Fall, W. F. 10-1 or M. W. 2-5; Spring, T. Th. 10-1 or 3-6.

Crockett and Morris

5. Clothing Appreciation. This course aims to develop appreciation of appropriateness, good color, and design in dress.
Clothing Economics and Clothing Hygiene will also be discussed. Selection and care are emphasized. Two credits. Fall, T. Th. 9.

Crockett

10, 11. Clothing Selection and Construction. A study of the fundamental principles of pattern making, design, selection and construction of wool, silk, and cotton dresses. Outside work required. Prerequisites or parallel, Art 1, 2. Lectures and laboratory work. Three credits each quarter. 10. Fall, W. F. 10-1, or M. W. or T. Th. 2-5; Winter, W. F. 10-1, or M. W. 2-5. 11. Winter or Spring, W. F. 10-1, or M. F. 10-1, or M. W. 2-5.

Moen and Crockett

15. Clothing Appreciation and Selection. (For Men). This course is organized to meet the needs of men from all schools of the College. A study of the importance of dress in the business world; development of fabric and fashion in men's clothing; a brief study of wool, silk, cotton and rayon fibers with emphasis on hygienic and economic factors. Two credits. Spring, T. Th. 9.

Crockett

20. Household Textiles. A study of standard textiles from the standpoint of growth, structure, preparation, design and relative value of materials for clothing and house furnishings. The aim of this course is to form a basis for intelligent purchase and use of materials. Prerequisite or parallel, Economics 50. Five credits. Fall, Daily 9.

Moen

30. Millinery. Special study of individual problems in selection of hats; blocking felt and straw hats; designing in paper. Application of principles of making hats; flower making. Prerequisites or parallel courses, Art 1, 2, 3; Textiles 10, 11 or their equivalents. Two credits. Spring. (Not given 1935-36.)

Crockett

55. Children's Clothing. A study of styles, materials and decoration suitable for different ages of children. Construction emphasizing comfort, beauty, convenience, and self-help for the rapidly growing child. Prerequisites: Clothing 10 and 11. Two credits. Winter, T. Th. 3-5; Spring, T. Th. 1-3.

Moen

Moen

115. **Costume Design.** Art structure in its application to dress. Studies of personality and types of people; harmonies in spacing, rhythm, balance, color theory. Designing for various occasions. Outside work required. Prerequisites: Art 1, 2 and 3. Three credits. Fall or Winter, T. Th. 10-1.

Crockett

125. **Applied Costume Design.** Practical training in the application of the principles of costume design, color harmony, texture, for different individuals and purposes. Practice in constructive design is given by modeling in cloth on the dress form. Outside work required. No laboratory fee. Three credits. Winter or Spring, T. Th. 2-5.

Crockett

140. **Applied Decoration.** A study of principles of design in relation to decoration of fabrics. Various means will be used in developing simple decorations for all types of garments and household furnishings. Outside work required. Prerequisites: Textiles and Clothing 10, and 11 and Art 1, 2 and 3. No laboratory fee. Three credits. Spring, M. W. F. 10-12.

Moen

160, 161, 162. **Advanced Problems in Clothing.** Special application of principles of design and construction to tailored garments, afternoon and evening dresses. Demonstrations and laboratory work. Prerequisites, Textiles and Clothing 10, 11, 20, 105, 115, 125. Two credits each quarter. 160. Fall, T. Th. 10-12 or 2-4. 161. Winter, T. Th. 10-12 or 1-3. 163. Spring, T. Th. 10-12.

Moen

175. **Textiles, Advanced Problems.** Consumer problems in the purchase of clothing and household furnishings. The progress of Textile Standardization, Mechanical and Chemical tests. Prerequisites: Household Textiles and Chemistry to satisfy the instructor. Three credits. Winter, M. W. 9, Lab. F. 9-11.

Morris
190. Special Problems. Arranged for advanced students in Textiles and Clothing. Working out of problems of special interest; readings and reports. Any quarter. Time and credit arranged.

Moen and Morris

For closely related courses see: Sociology 61—Women and Culture; Sociology 171—Social Problems of the Family; Economics 145—Economics of Consumption. Personal Finance and Budgeting; Accounting 107—Household Accounts; Art 122—Home Planning Construction and Design; Art 123—Interior Decoration; Art 126—History and Appreciation of Architecture; Sociology 140—Social Psychology.

VETERINARY SCIENCE
D. E. Madsen, H. J. Frederick, Professors.

Courses in Veterinary Science are designed not for training specialists in this field but as essential links for complete instruction in Animal Husbandry, Dairy Husbandry and Poultry Husbandry studies. Animal hygiene and practical control of disease are stressed. Premed courses, for those wishing to later obtain Veterinary degrees elsewhere, may be conveniently taken at this school. Such students should see Dr. Madsen for required premedic courses.

*10. Veterinary Elements. An introductory course to anatomy and physiology and the common ailments of domestic animals; the most prevalent diseases, their distribution, causes, symptoms, course, diagnosis, and treatment. Three credits. Fall, M. W. F. 8; Winter or Spring, M. W. F. 10.

Frederick

*40, 41, 42. Comparative Veterinary 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's body. Fall, Winter, and Spring quarters. Any or all quarters may be taken. Three credits each quarter. M. W. F. 9.

Frederick

*52. Clinic. Students are given practical experience in common operations on farm animals; castration, treatment of
wounds, premise disinfection, testing procedures and autopsy of livestock and poultry are considered. One credit. Spring, M. 2-5.

*60. Horse Shoeing and Soundness. The anatomy and physiology of the horse's foot; variations in the flight of the foot; styles of going; shoeing of normal and irregular feet; winter shoeing; correction of defects in gait and methods of shoeing hoofs defective in form or diseased. Recognition of unsoundness in the limbs and bodies of horses. Three credits. Winter, T. Th. 9, F. 1.

Frederick


Frederick

*107. Hygiene and Infectious Diseases. A discussion of water and food supply, disinfection, care and management of animals and feeding sick animals. The common infectious diseases prevalent here. Methods which should be adopted in their control and eradication. Tests applied for diagnosis; vaccination, and serum therapy of animals. It is recommended that this course be preceded by Veterinary Science 10, 40, 41, and 42. Three credits. Winter, M. 1. T. Th. 8.

Frederick

*Open to students taking short course.

WILD LIFE MANAGEMENT

All courses taught by D. I. Rasmussen, Assistant Professor.

Upon completion of the basic courses and the major work as outlined in wild life management, students are granted the degree of bachelor of science in forestry. See general write-up, page 59.


153. Wild Life Management I. Life histories, distribution, numerical variations, enemies and plans for management of
native big game animals. Prerequisite, Zool. 140. Five credits. Winter, Daily 9, and field trips.

154. WILD LIFE MANAGEMENT II. Life histories, distribution, environmental needs, enemies and plans for management of native and introduced game birds. Prerequisites, W. L. Mgt. 153. Five credits. Spring, Daily 8, and field trips.


157, 158, 159. WILD LIFE SEMINAR. Discussion of current developments in wild life management. One credit each quarter. Fall, time arranged; Winter and Spring, T. 1.

170. WILD LIFE THESIS. Individual accomplishment of original problem in wild life management. Two to six credits. Total of six credits allowed. Any quarter, time arranged.

SUGGESTED COURSE IN WILD LIFE MANAGEMENT

**JUNIOR**

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**SENIOR**

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**REQUIRED:** Nine credits of language in addition to English 10 and 11. It is recommended that this include English 108, 109. Additional recommended electives: Forestry 10, 132, 154. Botany 124, Civil Engineering 143. Veterinary Science 10.
WOODWORK

All courses taught by D. A. Swenson, Assistant Professor.

The elementary courses in woodwork give training in the use of woodworking tools and lay a foundation for advanced woodwork. They also enable the student to do the innumerable jobs in repairing which come up on every farm and in every home. Time spent in this kind of training will prove valuable to any one, no matter what the eventual choice of profession or occupation may be.

The aim in advanced woodwork is to prepare the student for specialized work in house building, mill work, pattern making, cabinet work or whatever his selection may be in the line of woodwork.

All courses except as otherwise specified are repeated each quarter and they are all open to vocational students.

MA 61, 62, 63. ELEMENTARY WOODWORK. The different methods of joining, splicing and gluing; also practice in saw filing, tool grinding and the proper handling and use of woodworking tools. 61. Two credits. Any quarter, T. Th. 2-5. 62. Three credits. Any quarter, M. W. F. 2-5. 63. Two credits. Any quarter, T. Th. 9-12.

MA 64, 65, 66. MILL WORK. Use of the planer, shaper, joiner and the various sawing machines and sharpening of cutters and saws, as well as proper adjustment for different kinds of work is taught in these courses. 64. Three credits. Any quarter, M. W. F. 2-5. 65. Two credits. Any quarter, T. Th. 9-12. 66. Three credits. Any quarter, M. W. F. 9-12.

MA 67, 68. ELEMENTARY WOOD TURNING. Practice in care and use of the turning lathe, sharpening and control of turning tools by the making of progressive projects in elementary turning. 67. Two credits. Any quarter, T. Th. 2-5. 68. Three credits. Any quarter, M. W. F. 9-12.

MA 69. GENERAL WOODWORK. Projects in bench work, turning, or mill work as the student may elect. One to five credits. Any quarter. Time and credit arranged.

MA 70. FARM WOODWORK. This course is planned to meet the needs of students specializing in agriculture. Information as to
the kind and quality of tools to buy for farm woodwork and practice in sharpening same and in saw filing is given. A study is made of suitable farm buildings and methods used in building. How to make and repair farm appliances and the economy of keeping buildings painted and machinery well housed is also emphasized. Two credits. Any quarter, T. Th. 2-5.

MA 71. Wood Carving. Simple problems in straight and curved lines, conventional design and ornamentation. Two credits. Fall and Winter, M. W. F. 8-10.

Courses 61 to 68 or their equivalent are prerequisite to the advanced courses in woodwork.


MA 164, 164b. Fundamentals of Pattern Making. Making of simple patterns to illustrate suitable materials for the work, also the care and precision necessary in making of usable patterns. Prerequisite, MA 67. Two credits each quarter. Fall and Winter, T. Th. 8-11.

MA 165. Advanced Pattern Making. Making of practical patterns for use in the foundry. Teaching the principles of shrinkage, core print and core box work, master patterns, double shrinkage, etc. Prerequisite, MA 164. Two credits. Spring, T. Th. 8-11.

MA 166. Building Construction. The successive steps in the construction of houses and farm buildings are taken up by lecture and in practice. The course is designed to give practice in actual building operations from the laying of the foundation to that of roof covering with full size dimensions and materials. Three credits. Fall or Winter, M. W. F. 2-5.


MA 168. Smith-Hughes Teachers Course. A course designed to meet the needs of teachers in Smith-Hughes work. Projects in leather and rope work. One credit. Spring, M. W. F. 12-1.
MA 168b. **Advanced General Woodwork.** A course provided for those who cannot fit into the regular schedule. Work may be selected from any of the advanced courses listed. One to five credits. Any quarter. Time and credit arranged.


MA 170, 170b. **Advanced Wood Turning.** Wood turning in original design, face turning including finishing, staining and polishing. 170. Three credits. Any quarter, M. W. F. 9-12. 170b. Two credits. Any quarter, T. Th. 9-12.

MA 171 **Advanced Wood Carving.** Use of carving in the construction of high class furniture and in pattern work. Two credits. Spring T. Th. 9-12.

**Zoology and Entomology**


Zoology 1 will count in the New Biological Science Group. May be replaced by Zoology 3 and 4.

Students specializing in Zoology and Entomology must select either Zoology or Entomology as a major.

For a major in Zoology students must take the following courses: 3, 4, 13, 112, 116, 117, 118, 119, 124, 125, 126, 131, and 135. For Majors in Entomology students must take the following courses: 3, 4, 13, 14, 101, 102, 103, 106, or 107, 111, 116, 124, 125, 126, and 135.

1. **Principles of Zoology.** This is a course in fundamental biological principles with illustrations and examples from animal life. It is not so much a study of animal life, or Zoology itself, as of biological generalizations having important significance in human thought and human institutions. The course is intended primarily for those who are not interested in technical Zoology and wish only a general survey of biological principles, as these are helpful in other knowledge. Five credits. Lectures: Fall, Daily 8 or 11; Winter or Spring, Daily 9 or 11. Laboratory: Any quarter, T. 1-3 or 3-5, or Th. 1-3 or 3-5 or F. 2-4.
3. **Invertebrate Zoology.** A type study of the phyla of the animal kingdom except the Chordates. General classification and the relationship of groups of animals to each other. Emphasis is placed upon structural characteristics, development and functions. This course is well adapted for premedical students. Five credits. Fall, M. W. F. 10, Lab., M. W. F. 8-10, or M. W. 2-5.

*Stanford*

4. **Vertebrate Zoology.** The same general plan as given in course 3 is followed in the study of the vertebrates. Some attention is given to the local fauna. Five credits. Winter, M. W. F. 10, Lab., M. W. F. 8-10, or M. W. 2-5.

*Stanford*

13. **General Entomology.** The structure, classification, interrelationships and life histories of insects are studied. Some field trips are taken. This is a fundamental course and is required of all department majors. Five credits. Fall, M. W. F. 11, Lab. T. Th. 2-5.

*Stanford*

14. **Agricultural Entomology.** The recognition, life histories and control of the major insect pests of agricultural crops are studied. Particular attention is given to the injurious and the beneficial insects of Western North America and of Utah. Four credits. Winter, M. W. F. 9, Lab., T. 2-5.

*Sorenson and Knowlton*

101. **Insect Morphology.** A comparative study of insect anatomy with emphasis placed on the structures used in taxonomy. Prerequisite, Entomology 13. Required for courses 102, 103 and 104. Four credits. Spring, T. Th. 9, Lab. W. F. 2-5.

*Stanford*

102. **Systematic Entomology.** Course 101 is prerequisite. Each student must collect, mount and label a representative collection of insects. The collection must contain at least 300 specimens, at least 100 species and at least 15 orders. The whole collection must be arranged in phylogenetic sequence. Classification will include only a correct placing of all specimens in order. Graduate credit may be allowed. Any quarter. Three laboratory periods. Three credits. Time arranged.

*Henderson*
103. Systematic Entomology. Continuation of course 102. The collection arranged for course 102 must be enlarged to 500 specimens, 150 species and 18 orders. Classification will include a correct placing of all specimens in families. Graduate credit allowed. Any quarter. Three laboratory periods. Three credits. Time arranged.

Henderson

104. Systematic Entomology. Continuation of course 103. Permission to take this course depends on the student's collection for courses 102 and 103. If his collection justifies further study, he may select one or two orders of insects and classify them to species. Graduate credit allowed. Any quarter. Three laboratory periods. Three credits. Time arranged.

Henderson

105. Forest Entomology. A study of the principal insects attacking forests and forest products. Considerable attention is given to the principles of biological control. A brief study is made of forest vertebrates with emphasis on insect-eating birds. Four credits. Spring, M. W. F. 8, Lab., Th. 2-5.

Stanford

106. Entomological Literature. Each student reports on the literature of some insect. The historical development of entomology, current entomological literature and bibliographies are discussed. Prerequisites, Entomology 13, 14 and 102. Graduate credit may be allowed for this course. One lecture and one lab. Two credits. Spring. Time arranged.

Stanford

107. Entomological Technique. A study of methods of collecting, preserving and rearing insects, designed to fit students for specialized work in entomology. Graduate credit may be allowed for this course. Prerequisite, Entomology 13. One lecture and one lab. Two credits. Spring. Time arranged.

Stanford

111. Heredity and Eugenics. A non-technical study of the more evident behavior of the germ cells in reproduction experimental hybridization and the simpler principles underlying the inheritance of traits. Consideration is given to the eugenic value of human races, inferior and superior families, sexual selection and marriage, birthrate, immigration and other principles having eu-
112. Principles of Genetics. A technical study of the cytological and experimental bases underlying heredity and variation. This course is a fundamental requirement for all students of plant breeding, animal breeding or human heredity. It considers qualitative and quantitative traits, factor independence, interaction, linkage relations, gene and somatic mutations, sex determination and modification and related subjects. Students taking this course must have had course 111 or some good general course in Biology. Graduate credit allowed. Five credits. Fall, Daily 9; Spring, Daily 10.

Henderson

116. Parasitology. The classification, morphology and life histories of parasites of man and the domesticated animals. The Arthropods as external parasites and carriers of pathogenic organisms receive major attention. The disease producing worms and protozoa are also studied. Courses 3 and 13 should precede this course. Five credits. Spring, M. W. F. 9, Lab., M. W. 2-5.

Stanford

117. Histological Technique. In this course the student prepares various animal tissues for mounting on slides. This process involves fixing, dehydrating, infiltrating, embedding, sectioning, staining, and mounting. The slices prepared must be suitable for later study. Required of pre-medical students. Three credits. Fall, T. 1, Lab., T. 2-5 and one lab. arranged.

Stanford

118. Cytology and Embryology. This is a course in fundamental principles dealing with cells and cell division, germ cells and their formation, maturation, fertilization, cleavage and the primary germ layers. Required of pre-medical students. Prerequisite, 117. Three credits. Winter, T. 1; Lab., T. 2-5 and one lab. arranged.

Stanford

119. Vertebrate Embryology. A continuation of course 118 in which the developmental stages of Amphioxus, the frog and the chick are studied. Prerequisite, 118. Three credits. Spring, T. 1; Lab. T. 2-5 and one lab. arranged.

Stanford
121. Ornithology. A course in bird study planned to acquaint the students with our native birds and with the class Aves (birds) in general. Identification, relationships, structure, habits, and distribution will be studied in classroom, laboratory and field. Four credits. Spring, M. W. F. 11; Lab. Th. 2-5.

Stanford

122. Mammalogy. This course is designed to introduce the students to the large and very important class, Mammalia (animal) with particular reference to Utah and North American species. Identification, distribution, structure, habits, and economic importance will be stressed. Four credits. Winter, M. W. F. 11; Lab., Th. 2-5.

Stanford

124, 125, 126. Seminar. The students and the faculty of the department meet for one hour each week and hear reports from the members of the seminar on topics of mutual interest. Students specializing in Zoology must attend and participate in the activities of this seminar for at least three quarters. One credit each quarter. Time arranged.

Staff

131. Organic Evolution. A critical study of the facts of evolution as obtained from a careful study of comparative anatomy, embryology, geographical distribution, blood tests and other fields upon which the doctrine of evolution is based. Factors causing evolution will be considered and discussions will be undertaken on other bodies of related thought. Prerequisite, some thorough course in biology. Graduate credit allowed. Three credits. Winter or Spring, T. Th. 10, F. 1.

Henderson

135. Museum. This is a course in the preparation, display and care of animal specimens for the museum or for visual education. Each major in Zoology and Entomology must spend the equivalent of an hour a day in this work for three quarters, preferably in his senior year. Expense involved in the preparation of specimens will be met by the department, in which case the material will be left in the museum as a contribution of the student. Students will be expected to describe displays intelligently to visitors and assume charge of the museum on arranged periods. Graduate credit allowed. One credit each quarter. Any quarter. Time arranged.

Staff
140. Animal Ecology. Distribution and behavior of animals as affected by environment. Physical factors, food relationships, animal numbers, distribution of species and biotic communities. Three credits. Fall, T. Th. 8; Lab., F. 2-5. 

Rasmussen


Rasmussen

201. Zoological 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 branch of Zoology. Open to undergraduates only by special arrangement with the department. Thesis required. Time and credit arranged. 

Staff

210. Entomological 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 problem and the time spent. Thesis required. Open to undergraduate students only by special permission. Prerequisites, Entomology 13, 14 and 102. Time and credit arranged. 

Staff
Forty-Second Annual Commencement
LIST OF GRADUATES 1934-35

Graduates With the Degree of
MASTER OF SCIENCE
SCHOOL OF AGRICULTURE

ROBERT KING GERBER
B.S., U.S.A.C., 1932
Thesis: "A Study of Conditions Necessary for After-Ripening and Germination of Seeds of Prunus avium, Linn."

GEORGE F. JACKSON, JR.
B.S., U.S.A.C., 1934
Thesis: "Some Factors Involved in the Manufacture of Brick Cheese."

S. MOHD IBRAHIM SHAH
A.B., The University of The Punjab, 1931
Thesis: "Inheritance of Resistance to Three Physiologic Forms of Bunt in a Ridit X Utah Kanred Cross."

GEORGE ELWOOD SPENCER
B.S., U.S.A.C., 1933
Thesis: "A History of Wool Manufacturing as it is Related to Wool Marketing in Utah."

IVAN O. THUESON
B.S., U.S.A.C., 1934
Thesis: "The Effect of Breed, Age, and Sex on the Rate of Growth of Wool Fiber."

ORVAL E. WINKLER
B.S., U.S.A.C., 1932
Thesis: "Studies on the Comparative Value of the Hot Treatment (Krantz Patent) and Common Methods of Handling Barnyard Manure."

SCHOOL OF ARTS AND SCIENCES

ARIEL A. ANDERSEN
B.S., U.S.A.C., 1932
Thesis: "The Copper Content of Grain and its Relationship to the Soil."

THEODORE R. COLLIER
B.S., U.S.A.C., 1933

THEONE C. CORDON
B.S., U.S.A.C., 1932
Thesis: "The Effect of Sulfur and Some Sulfur Bearing Compounds on the Metabolism of Azotobacter Chroococcum."

ELDON JOHN GARDNER
B.S., U.S.A.C., 1934
Thesis: "A Cytological Study of Spermatogenesis in Anasa tristio." (DeGeer)

RUBY MITTON
B.S., U.S.A.C., 1931
Thesis: "The Tendency Toward Consanguinity in a Small Isolated Community."

THEODORE OSSIP THATCHER
B.S., U.S.A.C., 1933
SCHOOL OF COMMERCE
CARMEN D. FREDRICKSON
B.S., U.S.A.C., 1932

ROBERT L. WRIGLEY, JR.
B.S., U.S.A.C., 1934

SCHOOL OF EDUCATION
W. HOWARD KUNZ
B.S., U.S.A.C., 1933

ARTHUR L. MARBLE
B.S., U.S.A.C., 1931

UNDERGRADUATE DIVISION
Graduates with the Degree of Bachelor of Science

SCHOOL OF AGRICULTURE AND FORESTRY

AGRICULTURE
Andersen, Elias Milton
Andersen, Irving E.
Anderson, Brice O.
Anderson, Duane Parley
Baird, Glenn T.
Bennion, Mark L.
Bryant, H. Wayne
Cannon, Orson Silver
Cardon, Doyle Roundy
Carpenter, George Alvin
Chadwick, Rulon W.
Ching, Walter Hung Wo
Clegg, Howard James
Edmunds, Davora
Facer, J. Elmer
Glenn, George Allen
Grandy, Wallace Henry
Herbert, Harry L.
Hopkins, Clair R.
Hunsaker, Lloyd Rulon
Ivory, Howard M.
Jones, Oren James
Keller, Lynn
Kotter, John H.
Marshall, Walter Lamar
Miner, Ellis Devere
Nielsen, Lowell Wendell
Nyman, Kenneth
Olsen, Foyer
Olsen, Ray F.
Olson, Farrell G.
Perkins, Lewis D.
Rasmussen, Victor Phillip
Richards, Bert Lorin, Jr.
Somers, Geo. Fredrick
Stewart, Clyde E.
Swenson, Leon Hugh
Taylor, Harold Dee
Thompson, Evan C.
Wallace, Mervin H.
Watson, Ross D.
Webber, Albert J.
Winkler, Aurel P.
Woodward, Lowell

FORESTRY
Bean, Russell Roland
Crane, Basil K.
Crowl, John M.
Gundersen, Arden B.
Hanson, Walter O.
Larson, Floyd
Larson, L. Walne
McConkie, Andrew Ray
Olson, G. LeGrand
Redd, John DeMar
Stock, Merlin R.

SCHOOL OF HOME ECONOMICS
Baugh, Pearl
Berg, Anna Laura
Berg, Mary Naomi
Burton, Ruth
Darley, Elizabeth S.
Gunn, Edith Ann
Hall, Elva
Harris, Ruby J.
Jessen, Dorothy
Knowlton, Dorothy
Kunz, Ardelle Simpson
Larsen, Cora
Larson, Ethelyn
Merrill, Clara Theola
Oldham, Edna
Olsen, Margaret
Perry, Gaye
Roskelley, Ruth
Spongberg, Ruth S.
SCHOOL OF ARTS AND SCIENCES

Alder, Horace Byron
Allen, Merlin Walters
Alvord, Lloyd I.
Anthon, Edward W.
Arentson, Robert Willard
Bedier, Frances Louise
Berrett, Halvor Gibson
Bishop, LeRoy
Blaisdell, LePreal
Budge, Omar S.
Carlson, Horace Charles
Christensen, Maurine
Crockett, Donald Eugene
Crockett, Kenneth A.
Dalbey, Faye
Darlington, Clifford H.
Dean, Warren H.
Ellison, Courtleigh Wm.
Ensing, Marion
Fraughton, Virgie
Freeman, Alf L.
Galbraith, Ted W.
Gardner, Eugene Hill
Gay, Florence
Gunnell, Farrell H.
Gutke, Ralph Lewis
Hale, John M.
Hansen, Eldon Jerrold
Hansen, Gerald M.
Harris, L. Dale
Hart, Marcus F.
Hart, Philip J.
Hawkes, Leo Rogers
Hill, Kathleen S.
Hodgson, Mary Bingham
Hull, Robert McClellan
Humphreys, Glen Stewart
Hunsaker, Rex
Imlay, Fern
Jensen, Dilworth D.
Johnson, Milton L.
Johnson, Leon
Lee, Elliot Burns
Lloyd, Sherman P.
Low, Virginia Diana
Manwaring, Orson Elwood
McClellan, Cyril Elwin
Merrill, Robert Lowe
Morgan, Anne
Murphy, John Edward
Nelson, Dorothy
Nelson, Ray J.
Nichols, Agnes Edith
Nicholson, Paul
Nielson, M. Louis
Nilsson, Ivy
Orwin, Dean Voss
Pearl, Mildred B.
Petersen, Arvid J.
Peterson, Victor Edwin
Pugmire, Alice
Randall, Ray F.
Rees, Vincent LeRoy
Rich, Wendell O'Neal
Rork, Alice M.
Smith, Clinton P.
Smith, Clyde Fuhriman
Sonne, Faye B.
Spencer, LeGrand Dee
Spencer, Mondell
Spillman, Camilla
Stewart, Ernest I., Jr.
Timmis, Joseph
Vickers, Verdena
West, Burnell G.
Westfall, Robert Judson
Williams, Leo T.
Wilson, Woodrow Pitkin
Woodward, Harry K.

SCHOOL OF EDUCATION

Aadnessen, Oertel
Astle, Orrin Wilford
Barker, Lynn S.
Barrus, Thayer Clark
Bell, George M.
Bergeson, Asia Humphreys
Carver, Vesse Robert
Christiansen, Verland L.
Eames, Roberla
Fredrickson, Phyllis Pat
Frye, Clifford L.
Fuller, Donald Hugh
Gimlin, Marlan
Handley, Thatcher
Hansen, L. Dean
Harmon, Mont
Hart, Adelbert W.
Jorgensen, Nephi
McCracken, Bernice
Merrill, Glaucus Godfrey
Nelson, Wm. Herman
Olson, Clarice
Peirce, Yvonne
Peterson, Juana H.
Schaub, Howard A.
Scott, Mary Emma
Talbot, Wilburn C.
Ward, Elmer H.
Watts, Conley
Weston, Phebe
Wixom, Joseph I.

SCHOOL OF COMMERCE

Allen, Golden L.
Anderson, Wendell Bryan
Bailey, Kenneth B.
Baker, Harold R.
Bergeson, I. Sheldon
Bullen, Thurlow H.
Burgess, Stanley D.
Calder, Grant H.
Cardon, Ruth
Clark, Wesley C.
Cook, Wayne Henry
Crockett, Cardon T.
Dunkley, Parley L.
Esplin, Oleen
Frandsen, Lloyd Victor
Greaves, Paul C.
Hansen, Harold J.
Hill, Jesse K.
Hill, Reuben L., Jr.
Jensen, Lee Gregersen
Johnson, C. Reed
Johnson, Lloyd N.
Kennedy, Herman H.
Kloepfer, Lynn William
Lee, J. Karl
Lillywhite, Ray L.
Maughan, Libbie Baxter
McFarland, Seth Blair
Munk, Mildred ViLaye
Pantone, Joseph Mario, Jr.
Parr, Paul Wallace
Plant, Ross H.
Plowman, Leah Marie
Plowman, Melba LuRae
Postma, Sylvanus J.
Pratt, Claud H.
Price, Asael W.
Reeder, William W.
Romney, Miles Conrad
Ryan, J. Stewart
Ryan, Miller M.
Schott, Fred W.
Schow, Rodney
Smith, Clyde L.
Thomas, Henry Ward
Tingey, Grace Venice
Watts, Arvella
Wimmer, Rex Forrest
Wright, Morris H.
Wynn, G. Edgar
SCHOOL OF ENGINEERING

CIVIL ENGINEERING

Birch, George W.  
Cahoon, J. Wayne  
Doman, James C.  
Engstrom, Uno V.  
Harvey, Ray B.  
Jacobsen, Theodore C.  
Jensen, Earl Samuel  
Mandry, James Elmer  
Morgan, Elmo Rich  
Nielson, H. Eugene  
Olsen, Carl Frank  
Perry, Ellis M.  
Richards, Ivan Ford  
Steele, John H.  
Woodward, Hyrum J.  
Young, David M.

MECHANIC ARTS

Bunten, Glenn  
Hansen, Lorenzo F.  
Longhurst, Irel Lewis  
Heggie, John L.  
Packer, J. Lyman  
Preator, Frederick  
Preston, Wm. Bowker IV  
Quinn, Elwyn F.  
Skinner, Halver Morgan  
Smith, Daniel Max  
Spillman, Francis Lyman  
Zollinger, Dallas

OFFICERS’ RESERVE CORPS OF THE ARMY OF THE UNITED STATES

SECOND LIEUTENANT, OFFICERS’ RESERVE CORPS, COAST ARTILLERY

Budge, Omar S.  
Crockett, Donald E.  
Gutke, Ralph L.  
Hansen, Gerald  
Petterson, Alton H.  
Petterson, Victor E.  
Plant, Ross H.  
Postma, Vean  
Preston, William B.  
Romney, Miles C.  
Stewart, Ernest L., Jr.  
Talbot, Wilburn C.  
Ward, Elmer H.  
Webber, Albert J.  
Wilson, Woodrow P.

CANDIDATES FOR THE NORMAL DIPLOMA

Benson, Virgo Patricia  
Garbett, Donna Olive  
Greenwood, Afton  
Griffeth, Louva Perkins  
Heaton, Israel C.  
Petterson, Louise  
Poole, Margaret  
Rich, Oreta K.  
Rigby, Vera

Honors 1934-35

PHI KAPPA PHI

Agriculture  
George Fredrick Somers  
Doyle Roundy Cardon  
Elias Milton Andersen  
Lowell Woodward  
George Alvin Carpenter  
Walter O. Hanson  
Biology and Arts  
Eugene Hill Gardner  
Eugene Hill Gardner  
Leo Rogers Hawkes  
Philip Hart  
Maurine Christensen  
Robert Judson Westfall  
Kenneth A. Crockett  
Ray J. Nelson  
Dorothy Nelson  
Commerce  
Lynn William Kloepfer  
Reuben L. Hill, Jr.  
Henry Ward Thomas  
Lloyd N. Johnson  
Miles Conrad Romney  
Home Economics  
Ruth Roskelley  
Margaret Olsen  
Engineering  
J. Wayne Cahoon  
Frederick Preator  
James E. Mandry  
Elmo R. Morgan  
Education  
Yvonne Peirce  
Verland L. Christiansen  
Golden L. Allen

VALEDICTORIAN

Eugene Hill Gardner

SCHOLARSHIPS AND SPECIAL AWARDS

The following students were awarded the Johansen Scholarships for 1935-36:

Helen Richards  
Norda Finlinson  
Lorene Barker  
Kenneth Spencer  
Vernon C. Jamison  
Edith Welch  
Roy Peterson  
(1st alternate)  
Lasca Osborne  
(2nd alternate)
The following students were awarded the 1927 Class Research Scholarships for 1935-36:

Phyllis Richards
Sherman G. Eyre
Ellen Kemp (alternate)

The Rolla M. Rich Memorial Scholarship was awarded to Ralph Stahle for 1935-36.

The Phi Upsilon Omicron Scholarship was awarded to Norma Mackay for 1935-36.

The Chi Omega Fraternity Scholarship was awarded to Dorothy Johnson.

The College Awards. Two certificates given for distinguished College Citizenship were awarded to Lloyd N. Johnson and Ruth Roskelley.

The Reserve Officers' Training Corps Medal. Given to the member of the R. O. T. C. who best represents the ideal of the Corps, awarded to Dee J. Wangsgaard.

The U. S. A. C. Science Medal. Given to the author of the best paper on some selected scientific subject, won by Cyril E. McClellan.

The Sons of American Revolution Medal. Given to the male student who gives the best prepared patriotic speech, won by LeGrande Ward.

The Daughters of American Revolution Medal. Given to the woman student who gives the best prepared patriotic speech, won by Hermoine Tracy.

The Daughters of American Revolution Military Department Medal. Given to the non-letterman, who is a member of the R. O. T. C., who has shown the most interest in the Military Department, was awarded to Alton Peterson.

The American Legion Military Medal. Given to the Letterman exhibiting the most wholesome attitude toward military training during the football season, awarded to Ralph L. Gutke.

The American Legion Scholarship Medal. Given to the Letterman maintaining the highest scholastic standing during the football season, won by Thatcher Handley.

The Home Economics Award. Given to an outstanding senior in the School of Home Economics, was awarded to Ethelyn Larson.

The Alpha Kappa Psi Medallion. Given to the male commercial student of junior standing who possesses the highest scholastic average, won by Kenneth Spencer.
The Myers Dramatic Award. Given to the senior student who is considered the most outstanding in Speech and Dramatics, awarded to Robert M. Hull.

The Leadership Challenge Cup. Given to the senior student in Agriculture who has exhibited the greatest measure of constructive organization and leadership in the School of Agriculture throughout his college course, awarded to J. Elmer Facer.

The Alpha Zeta Fraternity Cup. Given to the sophomore student in Agriculture who maintained the highest scholastic average in his freshman year, won by Jessop B. Low.

The John K. Madsen Trophy. Given to the student who ranks the highest in judging sheep, won by Darrell Stokes.

The John M. Ritchie Trophy. Given to the student who ranks the highest in judging horses, won by Eldon Callister.

The Ogden Union Stock Yards Trophy. Given to the student who ranks the highest in judging beef cattle, won by Robert Frichtell.

The Salt Lake Union Stock Yards Trophy. Given to the student who ranks the highest in judging swine, won by Louis Adams.

The American Packing Company Trophy. Given to the student who ranks the highest in judging commercial meat carcasses, won by Henry Zobell.

The American-Hawaiian Steamship Trophy. Given to the student who ranks the highest in judging wool, won by H. J. Clegg.

### SUMMARY OF ATTENDANCE—1934-35

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<td>Juniors</td>
<td>93</td>
<td>1</td>
<td>47</td>
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(Men 1627, Women 794)

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Less Names Repeated—(79 Men, 49 Women)........................... 128

Net Total Resident Enrollment.................................................. 2858

Correspondence Dept.—(195 Men, 116 Women)........ 311

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Names Repeated:

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Resident and Non-Resident Groups—

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Grand Total Enrollment .............................................. 3135

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