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# Utah State Agricultural College

## *BULLETIN*



## Catalogue Issue 1934-1935

Volume 34

Number 3

**PLEASE BRING THIS BULLETIN WITH YOU  
WHEN YOU COME TO REGISTER**

**COLLEGE BULLETINS.** Published by the Utah State Agricultural College, at Logan, Utah. Issued Bi-Monthly, Vol. 34, No. 3, May, 1934. Entered as second class matter September 10, 1918, at the post office at Logan, Utah, under the Act of August 24, 1912. Acceptance for mailing at special rate of postage provided in Section 1103, Act of October 3, 1917, Authorized August 22, 1918.



# Utah State Agricultural College Bulletin



CATALOGUE ISSUE  
1934-1935



FORTY-FIFTH YEAR  
With List of Students for 1933-1934



Published by the College  
May, 1934  
LOGAN, UTAH

1934

JANUARY							APRIL							JULY							OCTOBER						
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# College Calendar for the Year 1934-35

## FALL QUARTER

September 24, Monday	Registration of Freshmen.
September 25, Tuesday	Registration of Soph's., Jun's., Sen's.
September 26, Wednesday	Instruction begins.
September 27, Thursday	President's Assembly.
October 8, Monday	Honor Societies Assembly.
October 15, Monday	Prospective graduates submit application for candidacy.
October 17, Wed. (1 o'clock)	Women's Assembly.
October 22, Monday	Last day for changing registration.
October 26, Friday	Fathers' and Mothers' Day Assembly.
November 10, Saturday	Alumni Homecoming.
November 27, Tuesday	Thanksgiving Assembly.
November 29, 30, Thurs., Fri.	Thanksgiving recess.
December 3, Monday	Instruction resumes.
December 7, Friday	Fall quarter closes.

## WINTER QUARTER

December 10, Monday	Registration for all students.
December 11, Tuesday	Instruction begins.
December 18, Tuesday	Candidates submit applications for graduation.
December 21, Fri. (afternoon)	Christmas recess begins.
January 7, Monday	Instruction resumes.
January 21, Monday	Last day for changing registration.
January 23, Wed. (1 o'clock)	Women's Assembly.
February 12, Tuesday	Washington-Lincoln Assembly.
February 22, Friday	Washington's Birthday (holiday)
March 8, Friday	Founders' Day Assembly.
March 15, Friday	Winter quarter closes.

## SPRING QUARTER

March 18, Monday	Registration for all students.
March 19, Tuesday	Instruction begins.
April 3, Wednesday	Easter Assembly.
April 10, Wed. (1 o'clock)	Women's Assembly.
April 15, Monday	Last day for changing registration.
May 15, Wed. (11 o'clock)	Awards and Honors Assembly, Scholars' Banquet.

May 22, Wednesday	Senior Assembly.
May 30, Thursday	Memorial Day (holiday)
May 31, Friday	Sunset Festival.
June 1, Saturday	Commencement, Alumni Reunion.
June 2, Sunday	Baccalaureate Sermon.

### SUMMER SESSION

June 10, Monday	Summer Session registration.
June 11, Tuesday	Instruction begins.
July 19, Friday	Summer Session closes.

### BOARD OF TRUSTEES

A. W. IVINS	Salt Lake City
C. G. ADNEY	Corinne
MRS. MINNIE W. MILLER	Salt Lake City
OLOF NELSON	Logan
FREDERICK P. CHAMP	Logan
JOSEPH B. WHITE	Paradise
FRANK B. STEPHENS	Salt Lake City
MRS. R. E. DORIUS	Salt Lake City
J. M. MACFARLANE	Cedar City
Fred M. Nye	Ogden
CLARENCE E. WRIGHT	Salt Lake City
P. H. MULCAHY	Ogden
MILTON H. WELLING, Secretary of State (ex-officio)	Salt Lake City

### OFFICERS OF BOARD

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

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- Committee on Agriculture*—C. G. Adney, Mrs. Minnie W. Miller, J. M. Macfarlane, J. B. White.
- Committee on Mechanic Arts*—J. B. White, P. H. Mulcahy, Olof Nelson, Fred M. Nye.
- Committee on Engineering*—P. H. Mulcahy, C. E. Wright, Olof Nelson.

- Committee on Home Economics*—Mrs. R. E. Dorius, Frederick P. Champ, J. M. Macfarlane.
- Committee on Commerce*—Fred M. Nye, C. E. Wright, Mrs. R. E. Dorius.
- Committee on Arts and Sciences*—J. M. Macfarlane, Mrs. R. E. Dorius, P. H. Mulcahy.
- Committee on Education*—Fred M. Nye, J. M. Macfarlane, Frank B. Stephens.
- Committee on Experiment Station*—C. E. Wright, Mrs. R. E. Dorius, J. M. Macfarlane.
- Committee on Extension Division*—Frank B. Stephens, Mrs. Minnie W. Miller, C. G. Adney, Mrs. R. E. Dorius.
- Committee on Faculty and Course of Study*—Frederick P. Champ, Olof Nelson, J. B. White.
- Committee on Live Stock*—C. G. Adney, J. B. White, Mrs. Minnie W. Miller, P. H. Mulcahy.
- Committee on Buildings and Grounds*—Olof Nelson, Frederick P. Champ, J. B. White.
- Committee on Heat, Power and Light*—C. E. Wright, Olof Nelson, Milton H. Welling.
- Committee on Branch Agricultural College*—J. M. Macfarlane, Mrs. Minnie W. Miller, C. G. Adney, Milton H. Welling.
- Committee on Legislation and Finance*—Mrs. Minnie W. Miller, Frederick P. Champ, Fred M. Nye, Frank B. Stephens.

## OFFICERS OF ADMINISTRATION

(Arranged in the order of seniority of appointment)

ELMER GEORGE PETERSON, B. S., A. M., Ph. D.

*President.*

WILLIAM PETERSON, B. S.

*Director, Extension Division.*

FRANKLIN LORENZO WEST, B. S., Ph. D.

*Dean of the Faculty.*

RAY BENEDICT WEST, B. S., C. E., C. E.

*Dean, School of Engineering and Mechanic Arts.*

JAMES HENRY LINFORD, B. S., D. Did

*Director of Summer Session.*

NEELS ALVIN PEDERSEN, A. M., Ph. D.

*Dean, School of Arts and Sciences.*

WILLIAM LAWRENCE WANLASS, A. M., Ph. D.

*Dean, School of Commerce.*



- \*PHILIP VINCENT CARDON, B. S., M. S.  
*Director, Experiment Station.*
- EDWARD JACKSON MAYNARD, B. S., M. S.  
*Dean, Schools of Agriculture and Forestry.*
- ERNEST A. JACOBSEN, A. M., Ed. D.  
*Dean, School of Education.*
- CHRISTINE BOCKHOLT CLAYTON, B. S., M. S.  
*Dean, School of Home Economics.*
- CAROLINE M. HENDRICKS, B. S., M. S.  
*Women's Adviser.*
- 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.  
*In Charge, Information Service.*
- HATTIE SMITH  
*Assistant Librarian.*

## OFFICERS OF INSTRUCTION

(Arranged alphabetically. The numerals in parentheses following the title indicate the year in which the present rank was conferred.)

- BYRON ALDER, B. S.  
*Professor of Poultry Husbandry (27).*
- FRANK RUSSELL ARNOLD, A. B., A. M.  
*Professor of Modern Languages (06).*
- REED W. BAILEY, B. S., M. S.  
*Professor of Geology (34).*
- ELSA BROWN BATE, B. S., M. S.  
*Assistant Professor of Child Development (31).*
- RAYMOND J. BECRAFT, B. S., M. S.  
*Associate Professor of Range Management (28).*
- GEORGE T. BLANCH, M. S.  
*Associate Professor of Agricultural Economics (34).*
- GRANT BOWEN, B. S.  
*Consulting Landscape Architect (34).*
- AARON F. BRACKEN, B. S., M. A.  
*Assistant Professor of Agronomy (24).*
- JOHN DUNCAN BRITE, A. B., M. A.  
*Assistant Professor of History (34).*
- JOSEPH D. BROWN, MAJOR, C. A. C.  
*Professor of Military Science and Tactics (34).*

---

\*On leave.



- ASA BULLEN, B. S., LL. B.  
*Lecturer in Commercial Law* (17).
- GEORGE BALLIF CAINE, B. S., M. A.  
*Professor of Dairy Husbandry* (20).
- KATHERINE COOPER CARLISLE, B. S., M. A.  
*Associate Professor of Physical Education for Women* (28).
- EZRA G. CARTER, M. S., D. P. H.  
*Professor of Public Health and Physiology* (27).
- N. WOODRUFF CHRISTIANSEN, B. S.  
*Assistant Professor of Instrumental Music* (30).
- CHRISTINE BOCKHOLT CLAYTON, B. S., M. S.  
*Professor of Foods and Dietetics* (28).
- GEORGE DEWEY CLYDE, B. S., M. S.  
*Professor of Engineering* (33).
- \*FRANCIS M. COE, B. S., M. S.  
*Assistant Professor of Horticulture* (27).
- FRANKLIN DAVID DAINES, A. B., A. M., Ph. D.  
*Professor of Political Science* (17).
- CHARLOTTE E. DANCY, R. N. Johns Hopkins Hospital.  
*Assistant Professor of Physiology and Nursing* (21).
- PAUL M. DUNN, M. S.  
*Extension Forester, and Associate Professor of Forestry* (33).
- SAMUEL ROY EGBERT, B. S.  
*Assistant Professor of Forging* (21).
- ALMA ESPLIN, B. S.  
*Assistant Professor of Wool Management in the Department of Animal Husbandry* (25).
- ROBERT J. EVANS, Ph. D.  
*Professor of Agronomy* (31).
- CALVIN FLETCHER, B. Pd.  
*Professor of Art* (13).
- THELMA FOGELBERG, B. S., A. M.  
*Assistant Professor of Stenography and Business Practice* (33).
- C. L. FORSLING, B. S.  
*Director Intermountain Forest and Range Experiment Station. Non-Resident Professor of Forestry* (34).
- HYRUM JOHN FREDERICK, D. V. M.  
*Professor of Veterinary Science* (06).
- \*WALTER U. FUHRIMAN, B. S., M. S.  
*Associate Professor of Agricultural Economics* (33).
- WILLARD GARDNER, M. S., Ph. D.  
*Professor of Physics* (24).
- VERNAL DELROY GARDNER, B. S., M. B. A.  
*Associate Professor of Business Administration* (32).

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\*On leave.

- JOSEPH ARCH GEDDES, A. M., Ph. D.  
*Professor of Sociology* (28).
- WALTER R. GOODRICH, Captain, C. A. C.  
*Assistant Professor of Military Science and Tactics* (31).
- JOSEPH EAMES GREAVES, M. S., Ph. D.  
*Professor of Bacteriology and Bio-Chemistry* (13).
- WILLIAM WILLIAMS HENDERSON, A. M., Ph. D.  
*Professor of Zoology and Entomology* (26).
- CAROLINE M. HENDRICKS, B. S., M. S.  
*Assistant Professor of Sociology* (30).
- REUBEN LORENZO HILL, B. S., Ph. D.  
*Professor of Chemistry* (19).
- CHARLES TERRY HIRST, B. A., M. S.  
*Associate Professor of Chemistry* (24).
- LEGRANDE R. HUMPHERYS, B. S.  
*State Supervisor of Vocational Agriculture* (26).
- ORSON WINSO ISRAELSEN, M. S., Ph. D.  
*Professor of Irrigation and Drainage* (19).
- ERNEST A. JACOBSEN, A. B., A. M., Ed. D.  
*Professor of Education* (33).
- JOSEPH R. JENSON, A. B., M. A.  
*Associate Professor of Physical Education* (25).
- GEORGE C. JENSEN, A. M.  
*Associate Professor of Modern Languages* (33).
- FRANCES KELLY, B. S., M. S.  
*Assistant Professor of Foods and Superintendent of Practice Cottage* (33).
- HAROLD R. KEPNER, A. B., B. S., C. E., M. S.  
*Associate Professor of Engineering* (30).
- MARSHALL D. KETCHUM, B. S., M. S.  
*Assistant Professor of Economics* (32).
- \*CHARLOTTE KYLE, B. A., M. A.  
*Assistant Professor of English* (16).
- LEON B. LINFORD, B. S., Ph. D.  
*Associate Professor of Mathematics* (32).
- DAVID E. MADSEN, D. V. M.  
*Professor of Veterinary Science* (33).
- SHERWIN MAESER, A. B., Ph. D.  
*Professor of Chemistry* (32).
- BASSETT MAGUIRE, B. S.  
*Assistant Professor of Botany* (32).
- EDWARD JACKSON MAYNARD, B. S., M. S.  
*Professor of Animal Husbandry* (31).
- CHARLES E. MCCLELLAN, A. B., M. A.  
*Assistant Professor of History* (30).
- MILTON R. MERRILL, B. S., M. A.  
*Associate Professor of Education* (33).

JOHANNA MOEN, B. S.

*Professor of Textiles and Clothing (20).*

ARTHUR J. MORRIS, B. S., M. S.

*Associate Professor of Dairy Manufacturing (34).*

CHESTER J. MYERS, A. B., A. M.

*Assistant Professor of Speech (29).*

AARON NEWHEY, B. S.

*Associate Professor of Machine Work (17).*

NEILS ALVIN PEDERSEN, A. M., Ph. D.

*Professor of English and Speech (13).*

WILLIAM PETERSON, B. S.

*Professor of Geology (06).*

PARLEY ERASTUS PETERSON, A. B., C. P. A.

*Professor of Accounting (13).*

HENRY PETERSON, A. B., A. M.

*Professor of Psychology (21).*

DON WARREN PITTMAN, B. S., M. S.

*Professor of Soils in the Department of Agronomy (24).*

JOHN H. PITZER, LIEUTENANT, C. A. C.

*Assistant Professor of Military Science and Tactics (30).*

ALFRED H. POWELL

*Associate Professor of Farm and Auto Mechanics (20).*

WILLIAM BOWKER PRESTON, M. D.

*Professor of Physiology (29), Health Supervisor of Students (20).*

D. IRVIN RASMUSSEN, B. S., M. S., Ph. D.

*Assistant Professor of Wild Life Management (34).*

HARRY R. REYNOLDS, Graduate of Chicago Art Institute.

*Assistant Professor of Art (30).*

BERT LORIN RICHARDS, M. S., Ph. D.

*Professor of Botany and Plant Pathology (24).*

JOEL EDWARD RICKS, A. B., A. M., Ph. D.

*Professor of History (22).*

E. LOWELL ROMNEY, A. B.

*Director of Athletics (19).*

HARRY H. SMITH, B. S., M. S.

*Associate Professor of Animal Husbandry (33).*

ALMA NICHOLAS SORENSEN, A. B., A. M.

*Associate Professor of English (28).*

J. SEDLEY STANFORD, B. S., Ph. D.

*Assistant Professor of Zoology and Entomology (30).*

KENNETH R. STEVENS, B. S., Ph. D.

*Assistant Professor of Bacteriology (33).*

SIDNEY STOCK, B. S.

*Associate Professor of Radio and Automotive Electricity (34).*

DAN ARTHUR SWENSON, B. S.

*Assistant Professor of Woodwork (26).*

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*Professor of Forestry* (29).
- DELMAR C. TINGEY, B. S., M. A.  
*Assistant Professor of Agronomy* (27).
- VANCE H. TINGEY, B. S., M. S.  
*Assistant Professor of Mathematics* (33).
- \*W. PRESTON THOMAS, M. S.  
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- CRUZ VENSTROM, B. S.  
*Assistant Professor of Agricultural Economics* (34).
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*Assistant Professor of English Extension* (26).
- WALLACE J. VICKERS, A. M., Ph. D.  
*Associate Professor of English* (26).
- F. B. WANN, A. B., Ph. D.  
*Associate Professor of Plant Physiology* (26).
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*Professor of Economics* (20).
- WALTER WELTI, B. A.  
*Assistant Professor of Vocal Music* (26).
- FRANKLIN LORENZO WEST, B. S., Ph. D.  
*Professor of Physics* (08).
- RAY BENEDICT WEST, B. S., C. E., C. E.  
*Professor of Engineering* (13).
- ALMA L. WILSON, B. S., M. S., Ph. D.  
*Associate Professor of Horticulture and Gardening* (33).

## INSTRUCTORS

- GEORGE S. BATES, B. S., M. A.  
*Instructor in Education* (29).
- RUTH MOENCH BELL, B. S.  
*Instructor in English* (34).
- JOHN CROFT, B. S.  
*Assistant Coach.*
- ALTA ORSER CROCKETT, B. S.  
*Instructor in Textiles and Clothing* (30).
- H. H. CUTLER, B. S.  
*Instructor in Economics* (33).
- \*WALLACE A. GOATES, B. A.  
*Instructor in Speech* (31).
- WILFORD L. HANSEN, B. S.  
*Instructor in Forestry and Range* (34).

---

\*On leave.

ALVIN HESS, B. S., M. S.

*Instructor in Education (20).*

L. MARK NEUBERGER, B. S., M. S.

*Instructor in Business and Office Practice (32).*

HATTIE SMITH

*Assistant Librarian.*

ARVIL STARK, Ph. D.

*Instructor in Horticulture (34).*

## ASSISTANTS

ALLIE BURGOYNE, B. S.

*Assistant Registrar.*

VERA CARLSON

*Secretary to the President.*

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.*

MARY SORENSON

*Assistant Librarian.*

CHARLES BATT

*Superintendent of Water and Heating.*

RASMUS OLUF LARSON

*Superintendent of Buildings and Grounds.*

O. W. COOLEY

*Manager of Cafeteria.*

## STANDING COMMITTEES

1934-35

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

*Advanced Standing*—Mr. Bell.

*Attendance and Scholarship*—Professors W. W. Henderson, Dancy, Becraft, Hill, V. H. Tingey, Major J. D. Brown, Mr. Bell, Mr. Croft.

*Athletic Council*—Professors A. N. Sorensen, George B. Caine, E. L. Romney, Mr. R. E. Berntson.

- Awards and Honors*—Professors Wanlass, Linford, Moen, R. B. West.  
*Boy Scout Activity*—Professors Fletcher, Richards.  
*Campus Improvement*—Professors Clyde, Fletcher, Bowen, Mr. R. O. Larson.  
*Certification of Teachers*—Professors Jacobsen, McClellan, Mr. Bell.  
*College Assemblies*—Professors N. A. Pedersen, W. W. Henderson, Mrs. Hendricks.  
*Credits from Sectarian Institutions*—Professor Kepner, Mr. Bell.  
*Curriculum*—Professors Maeser, Alder.  
*Entrance*—Professors Hirst, Egbert, Mr. Bell.  
*Exhibits*—Professors R. B. West, Alder, Moen, A. J. Hansen, Merrill.  
*Graduate Work*—Professors F. L. West, William Peterson, Greaves, Evans, P. E. Peterson, Mr. Bell.  
*Graduation*—Professor Maeser, Mr. Cutler, Mr. Bell.  
*High School Relations Committee*—Mr. C. Lester Pocock, Professors Bailey, V. D. Gardner, L. R. Humpherys, Mr. D. P. Murray.  
*Incomplete Grades*—Professor Ricks.  
*Library*—Professors R. B. West, Merrill, Arnold, Miss Smith.  
*Loan Fund*—Mr. Berntson, Professors Maynard, Dancy.  
*Personnel Committee*—Professors Henderson, Jacobsen, Mr. Bell.  
*Radio Programs*—Messrs. Pocock, Burgoyne, Porter.  
*Rhodes Scholarship*—Professors Arnold, Sorensen, Maeser.  
*Recommendation for Employment*—Professors R. B. West, Maynard.  
*Sectioning Committee*—Professors Ketchum, Carter, Kyle.  
*Schedule and Catalogue*—Professors Kepner, Leon Linford, Sorensen, Mr. Bell.  
*Social Affairs*—Professors J. R. Jenson, V. D. Gardner, Maynard, Dancy, Mrs. Hendricks, Miss Carlson, President of Student Body, President of A. W. S.  
*Student Body Organization*—Professors A. N. Sorensen, Jacobsen, V. D. Gardner.  
*Student Employment*—Mr. Pocock.

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\*On leave.

## NORMAL TRAINING SCHOOL STAFF

1934-35

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*

LENORE LEWIS, B. S.

*In Charge of Sixth Grade*

\*THELMA GARFF

*In Charge of Fifth Grade*

ELLEN S. HUMPHREYS

*In Charge of Fifth Grade*

WANDA ROBERTSON

*In Charge of Fourth Grade*

LORENE K. FOX, B. A.

*In Charge of Third Grade*

ADDIE SWAPP, B. S.

*In Charge of Second Grade*

HELEN ROBERTS

*In Charge of First Grade*

EMMA ECCLES JONES, M. A.

*In Charge of Kindergarten*

## EXPERIMENT STATION STAFF

1934-35

\*PHILIP VINCENT CARDON, M. S.

*Director*

JOSEPH EAMES GREAVES, Ph. D.

*Chemist and Bacteriologist*

GEORGE BALLIF CAINE, A. M.

*Dairy Husbandman*

REUBEN LORENZO HILL, Ph. D.

*Human Nutritionist*

ORSON WINSO ISRAELSEN, Ph. D.

*Irrigation and Drainage Engineer*

BYRON ALDER, B. S.

*Poultry Husbandman*

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\*On leave.



DAVID STOUT JENNINGS, Ph. D.

*In Charge, Soils Investigations*

WILLARD GARDNER, Ph. D.

*Physicist*

BERT LORIN RICHARDS, Ph. D.

*Botanist and Plant Pathologist*

WILLIAM WILLIAMS HENDERSON, Ph. D.

*Entomologist*

\*W. PRESTON THOMAS, M. S.

*Agricultural Economist*

ROBERT JAMES EVANS, Ph. D.

*Agronomist*

EDWARD JACKSON MAYNARD, M. S.

*Animal Husbandman*

DAVID EDWARD MADSEN, D. V. M.

*Animal Pathologist*

H. LORAN BLOOD, Ph. D.

*Plant Pathologist*

GEORGE DEWEY CLYDE, M. S.

*Irrigation and Drainage Engineer*

CHARLES TERRY HIRST, M. S.

*Associate Chemist*

DON WARREN PITTMAN, M. S.

*Associate Agronomist*

FRANK B. WANN, Ph. D.

*Associate Plant Physiologist*

JOSEPH ARCH GEDDES, Ph. D.

*Associate Rural Sociologist*

RAYMOND J. BECRAFT, M. S.

*Associate in Range Management*

A. C. ESPLIN, B. S.

*Associate Animal Husbandman*

CHARLES J. SORENSON, M. S.

*Associate Entomologist*

GEORGE FRANKLIN KNOWLTON, Ph. D.

*Associate Entomologist*

A. L. WILSON, Ph. D.

*Associate Horticulturist*

GEORGE T. BLANCH, M. S.

*Associate Agricultural Economist*

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\*On leave.



\*FRANCIS M. COE, M. S.

*Assistant Horticulturist*

AARON F. BRACKEN, M. S.

*Assistant Agronomist and Supt., Nephi Dry-Farm Substation*

DELMAR CLIVE TINGEY, M. S.

*Assistant Agronomist*

ALMEDA PERRY BROWN, M. A.

*Assistant Research Home Economist*

HARRY H. SMITH, M. S.

*Assistant Animal Husbandman*

GEORGE Q. BATEMAN, B. S.

*Assistant Dairy Husbandman and Supt., Dairy Experimental Farm*

JOHN W. CARLSON, M. S.

*Assistant Agronomist and Supt., Uintah Basin Substation*

KENNETH R. STEVENS, Ph. D.

*Assistant Bacteriologist*

ARVIL L. STARK, Ph. D.

*Assistant Horticulturist*

CRUZ VENSTROM, B. S.

*Assistant Agricultural Economist.*

BLANCHE CONDIT PITTMAN, A. B.

*Librarian and In Charge, Editorial and Publications Division*

DAVID A. BURGOYNE, B. S.

*Secretary to the Director*

RUSSELL E. BERNTSON

*Secretary-Treasurer*

EDITH HAYBALL, B. S.

*Research Assistant*

MAIDA MUIR, B. S.

*Stenographer*

## In Cooperation With U. S. Department of Agriculture

H. LORAN BLOOD, Ph. D.

*Plant Pathologist, Division of Horticultural Crops and Diseases  
Bureau of Plant Industry*

C. L. FORSLING, B. S.

*Director Intermountain Forest and Range Experiment Station*

GEORGE Q. BATEMAN, B. S.

*Agent, Bureau of Dairying*

ROLLO W. WOODWARD, M. S.

*Junior Agronomist, Cereal Investigations Bureau of Plant Industry*

\*On leave.

## EXTENSION SERVICE STAFF

WILLIAM PETERSON, B. S.

*Director*

WILLIAM WHITE OWENS, B. S., M. A.

*Assistant Director for Agriculture*

RENA BAKER MAYCOCK

*Assistant Director for Home Economics*

JAMES CHRISTIAN HOGENSON, M. S. A.

*Extension Agronomist*

BYRON ALDER, B. S.

*Extension Poultryman*

ELLEN AGREN, B. S., M. S.

*Extension Specialist in Clothing*

DAVID P. MURRAY, B. S.

*State Boys' and Girls' Club Specialist*

ALMA C. ESPLIN, B. S.

*Extension Animal Husbandman, Sheep and Wool*

EFFIE SMITH BARROWS, B. S.

*Extension Economist, Home Management*

ELNA MILLER, B. S., M. S.

*Extension Nutritionist*

E. J. MAYNARD, B. S., M. S.

*Extension Animal Husbandman*

GEORGE B. CAINE, B. S., A. M.

*Extension Dairyman*

\*W. P. THOMAS, B. S., M. S.

*Extension Economist*

MYRTLE DAVIDSON, B. S.

*Assistant State Boys' and Girls' Club Specialist*

C. O. STOTT, B. S., M. S.

*Extension Economist, Farm Management*

CARL FRISCHKNECHT, B. S., M. S.

*Assistant Extension Poultryman*

PAUL M. DUNN, B. S., M. S.

*Extension Forester*

\*WILFORD D. PORTER, B. S.

*Secretary to Director, and Extension Editor*

LEW MAR PRICE, B. S.

*Assistant Professor, County Extension Agent, Beaver County*

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\*On leave.

ROBERT H. STEWART, B. S.

*Assistant Professor, County Extension Agent, Box Elder County*

B. JOHN STEWART, B. S.

*Assistant County Extension Agent, Box Elder County*

IZOLA D. JENSEN, B. S.

*Assistant Professor, District Agent, Cache and Box Elder Counties*

ROBERT L. WRIGLEY, B. S.

*Assistant Professor, County Extension Agent, Cache County*

REUBEN HANSEN, B. S.

*Assistant County Extension Agent, Cache County*

DELORE NICHOLS, B. S.

*Assistant Professor, County Extension Agent, Davis County*

MERRILL E. COOK, B. S.

*Assistant Professor, County Extension Agent, Emery County*

LAMONT E. TUELLER, B. S.

*Assistant Professor, County Extension Agent, Iron County*

A. E. SMITH, B. S.

*Assistant Professor, County Extension Agent, Juab County*

GEORGE WHORNHAM, B. S., M. S.

*Assistant Professor, County Extension Agent, Millard County*

C. R. RICHARDS, B. S.

*Assistant Professor, County Extension Agent, Morgan County*

C. A. HYMAS, B. S.

*Assistant Professor, County Extension Agent, Piute County*

E. L. GUYMON, B. S., M. S.

*Assistant Professor, County Extension Agent, Rich County*

JAMES H. EAGAR, B. S.

*Assistant Professor, County Extension Agent, San Juan County*

V. L. MARTINEAU, B. S.

*Assistant Professor, County Extension Agent, Salt Lake County*

JOSEPH F. PARRISH, B. S.

*Assistant County Extension Agent, Salt Lake County*

IVY L. HALL, B. S.

*Assistant Professor, Home Demonstration Agent, Salt Lake County*

S. R. BOSWELL, B. S.

*Assistant Professor, County Extension Agent, Sevier County*

DAVID SHARP, JR., B. S.

*Assistant Professor, County Extension Agent, Summit County*

THELMA HUBER, B. S., M. S.

*Assistant Professor, District Home Demonstration Agent, Morgan and Summit Counties*

A. G. KILBURN, B. S.

*Assistant Professor, County Extension Agent, Tooele County*

LYMAN H. RICH, B. S., M. S.

*Assistant Professor, County Extension Agent, Utah County*

ANSON B. CALL, JR., B. S., M. S.

*Assistant County Extension Agent, Utah County*

ALICE E. PEDERSEN, B. S.

*Assistant Professor, Home Demonstration Extension Agent, Utah County*

RUSSELL R. KEETCH, B. S.

*Assistant Professor, County Extension Agent, Wasatch County*

WALTER F. SMITH, B. S.

*Assistant Professor, County Extension Agent, Washington County*

A. L. CHRISTIANSEN, B. S.

*Assistant Professor, County Extension Agent, Weber, County*

FRANCIS M. PETERSEN, B. S.

*Assistant County Extension Agent, Weber County*

HAZEL BINGHAM, B. S.

*Assistant Professor, Home Demonstration Extension Agent, Weber County*

IDA R. MITCHELL

*Clerk*

MARY E. HANSEN

*Stenographer*

# Utah State Agricultural College

## LOCATION

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.

## POLICY

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 respective 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 institution 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 appropriation 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 buildings. 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 Science, 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 to 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-laws and regulations. Vested in it is the power to establish professorships, to employ the instructing force and other officers of the College, and to formulate the general policy of the Institution.

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

THE DEANS' AND DIRECTORS' COUNCIL consists of the President, the Deans of the various schools—Agriculture and Forestry, Education, Home Economics, Engineering, Commerce, and Arts and Science, and 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 now under construction will fit admirably the needs of the School of Home Economics as well as to furnish office and recreational rooms for students and faculty. The cost of the building will be approximately \$350,000.

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.

WIDTSON 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 fur-

nishings, and contains a children's library, a ladies' rest room, 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 36,000 books, and a large number of pamphlets. The books are classified by the Dewey decimal system and there is a complete dictionary and catalogue. The shelf list forms a classified catalogue for official use.

The Library is also a depository for United States documents and for the Carnegie Institute. The files of the United States Department of Agriculture and publications of the Experiment Stations are nearly complete; the bulletins are bound and made easy of access by the printed card catalogues. There are one hundred and forty periodicals on the subscription lists, besides about one hundred which are received as exchanges for publications of the college and of the Experiment Station. Practically all the newspapers of the State are on file in the Reading Room. The Reading Room is beautiful and comfortable, and is provided with modern facilities for study.

### 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

	Three Quarters	Winter and Spring	Fall Only	Winter Only	Spring Only
Registration Fee .....	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
Tuition Fee .....	27.00	18.00	9.00	9.00	9.00
Library Fee .....	3.00	3.00	3.00	3.00	3.00
Gymnasium Fee .....	3.00	2.00	1.00	1.00	1.00
Class Fee .....	1.00	1.00	1.00	1.00	1.00
Withdrawal Deposit .....	1.00	1.00	1.00	1.00	1.00
Student Body Fee .....	15.00	10.00	10.00	9.00	6.00
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	\$60.00	\$45.00	\$35.00	\$34.00	\$31.00

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, \$35.00; Winter, \$14.00; Spring, \$11.00, making a total of \$60.00.

### Non-Resident Students

	Three Quarters	Winter and Spring	Fall Only	Winter Only	Spring Only
Registration Fee .....	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00
Tuition Fee .....	27.00	18.00	9.00	9.00	9.00
Library Fee .....	3.00	3.00	3.00	3.00	3.00
Gymnasium Fee .....	3.00	2.00	1.00	1.00	1.00
Class Fee .....	1.00	1.00	1.00	1.00	1.00
Withdrawal Deposit .....	1.00	1.00	1.00	1.00	1.00
Student Body Fee .....	15.00	10.00	10.00	9.00	6.00
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$85.00	\$70.00	\$60.00	\$59.00	\$56.00

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, \$60.00; Winter, \$14.00; Spring, \$11.00, making a total of \$85.00.

All students taking courses in laboratory and shop work are charged a laboratory fee of 50c per credit hour and a \$3.00 deposit.

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.

## OTHER FEES—

Burroughs Posting Machine.....	\$1.00
Typewriting Fee .....	1.00
Burroughs Adding Machine .....	1.00
Locker Rental .....	1.00
Excess registration, per hour .....	1.00
Changing Course Fee, each change.....	.50
Child Care and Training, Child Dev. 135.....	2.00
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
Cap and gown rental (B. S. Degree).....	2.00
Cap and gown rental (M. S. Degree).....	2.50
Late registration fee, per day.....	1.00
(Maximum \$5.00)	
Excess registration fee, per hour.....	1.00
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 for, 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 courses and Household Administration 150, must provide herself with the following: Two hair nets, one or two white petticoats, two washable white uniforms, two white work aprons. Each student in Home Nursing courses must provide herself with the following: One or two white petticoats, two washable white uniforms. The uniforms required for the Home Nursing course, and the aprons and uniforms required for the Foods course and Household Administration 150 must be of the standard designs provided by the Textile and Clothing Department. Materials should be procured after consultation with the instructors in charge.

All graduates from the School of Home Economics who desire to qualify as teachers in home economics under the Smith-Hughes Act must spend the required period of residence in the Home Economics Cottage, as indicated in Household Administration 150. The expenses are \$6.00 per week for board and room.

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:

	Low	Average	Liberal
Tuition, books, fees, etc.....	\$ 70.00	\$ 70.00	\$ 80.00
Room and board.....	180.00	180.00	200.00
Incidentals or miscellaneous.....	75.00	100.00	150.00
Total .....	\$325.00	\$350.00	\$430.00

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 student citizen, as an indication of his future attitude as a voter or public servant, combining a progressive spirit with a love of country and a concern for the safety and development of American institutions of liberty and justice 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, sciences, 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 Frank R. Arnold, 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.

**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 U. A. C. WOMEN'S CLUB offers each year a prize of \$10.00 for the best literary essay.

THE PHI UPSILON OMICRON SCHOLARSHIP of \$50.00 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 year's 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 for 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 Scribblers' Club publish 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 four 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 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. These 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 to 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. The questions will be prepared, and the papers graded, by the departments concerned. The examinations will be conducted by the Entrance Committee.

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 laboratory 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 24, on which date entrance examinations will be given those requesting them. Freshmen will register on Monday, September 24, and other students will register on Tuesday, September 25.

The registration of all students for the Winter quarter will be on Monday, December 10; for the Spring quarter, on Monday, March 18; and for the Summer session, on Monday, June 10.

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 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.

Students are urged to begin registration early in the day of registration, and carry the work to completion with as little delay as possible. Considerable time can be saved if the students will confer with their Deans or Advisers and outline the course of study before the day of registration.

**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

Sophomore rank; 90 hours and Senior College standing (see page 48) 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 39).
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.

## LANGUAGE ARTS GROUP—10 HOURS

(English 10 is required of all students)

Freshman Composition .....	Eng. 10 .....	5 hours
Fundamentals of Speech .....	Speech 1 .....	5 hours
Courses in General Literature of Junior College Grade .....		
		5 hours
(To be chosen from English 31, 50, 51, 53, 54, 55, 60, 70, 80, 81).		

## EXACT AND PHYSICAL SCIENCES GROUP—10 HOURS

(Not more than 5 hours in any department)

Introductory Chemistry .....	Chem. 1 .....	5 hours
(Chem. 10 or 3)		
General Physics .....	Phys. 1 or 2 .....	5 hours
(Phys. 20, 21 or 22)		
Principles of Geology .....	Geol. 1 .....	5 hours
Algebra .....	Math. 15 .....	5 hours
(Math. 34 and 35)		

## SOCIAL SCIENCE GROUP—10 HOURS

(Not more than 5 hours in any department except Economics)

General Social Science .....	Econ. 1 .....	5 hours
General Economics .....	Econ. 51 .....	5 hours
Principles of Sociology .....	Soc. 70 .....	5 hours
*Principles of Agricultural Economics .....	Ag. Econ. 53 .....	5 hours
General Political Science .....	Pol. Sci. .....	5 hours
Elementary Psychology .....	Psyc. 3 .....	5 hours
World Civilization .....	Hist. 4 .....	5 hours
Modern European History .....	Hist. 3 .....	5 hours
Modern U. S. History .....	Hist. 15 .....	5 hours

## BIOLOGICAL SCIENCE GROUP—10 HOURS

(Not more than 5 hours in any department)

Principles of Zoology .....	Zoo. 1 .....	5 hours
(Zoo. 3 and 4)		
Elementary Botany .....	Bot. 1 .....	5 hours
(Bot. 21 and 22)		
Anatomy and Physiology .....	Physio. 4 .....	5 hours
General Bacteriology .....	Bact. 1 .....	5 hours
Principles of Nutrition .....	Foods 5 .....	5 hours

\*For students in the School of Agriculture only.

# ARTS APPRECIATION GROUP—5 HOURS

(Not more than 3 hours in any department)

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

In cases where the major of the student requires the completion of a more detailed course in any department not listed above, such courses, listed in parentheses above, may be substituted for the general subject in the same department. 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 65).

**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 below).

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

The student by registration at the Institution, obligates himself to conform to such requirements as are or may be prescribed by the College Council under the regulations of the Reserve Officers' Training Corps. These requirements, at present, are as follows: Two years of 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.

Upon petition, the following classes of students may defer, or be excused from, the requirements in military science:

(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.

## 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 or before, 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.

**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 Economic Resources of Utah; Accounting 101, 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 better fit themselves 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 39).
2. Completion of 96 quarter hours of work, which includes the required work in Physical Education or Military Science (page 45).
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; 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 39) and must present 135 quarter hours of college work, exclusive of the requirements in Military Science and Physical Education (page 45). Candidates for the Normal Diploma in the years 1935 and 1936 must meet the old group requirements (page 48) and include English 105. All courses used to fill the groups must be approved by the Dean of the School of Education. 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 43), 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 and 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 39):

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 had 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 courses 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 in Engineering, Mechanic Arts, Pre-medical work, Forestry, and Smith-Hughes Teacher Training courses.

7. 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 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.

8. 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".

9. 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.

10. 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.

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

12. 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 (Prerequisite; Psychology 101) or equivalent, and Education 111, 115, 121 or their equivalents. The candidate's Biological Science group must include Physiology 108 or 109 (prerequisite: Physiology 4) and the Social Science group shall include 10 hours in Ethics or Sociology, or 5 hours in one of 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.

Candidates for the Bachelor's degree with the High School Teacher's Recommendation will be allowed to use the 27 hours of professional education credits as desirable related work mentioned in the requirements for the Major Subject.

## 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) credits of which at least twenty (20) must be of graduate grade, in addition to the 180 college credits and 15 high school units, or their equivalent, required for the Bachelor's degree.



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 accepted by the group which approved his candidacy. This group of five 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 with 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.

*For the requirements for admission, certification, and graduation see pages 39 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. 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

	F.	W.	S.
Math. 15* _____	5		
Botany 21, 22 _____	3	3	
Zoology 1 _____		5	
Physics 1 _____			5
English 10 _____			5
Soc. 10 _____	3		

\*Students desiring a complete foundation in Mathematics for agriculture will take Math. 15, 16 and 75.

## SOPHOMORE

	F.	W.	S.
Chem. 10, 11, 12**	5	5	5
Economics 51 _____	5		
Ag. Econ. 53 _____		5 or 5	
English 11 _____			4
Agonomy 6 _____		4	

\*\*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.

## 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 the requirements for admission, and the Certificate of Completion see pages 39 to 48.*

## 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 resources of wild lands.

Native crop lands in Utah comprise over 90 per cent of the total state area. The comparative newness of the fields of forestry, range and wild life and the unquestioned need for 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 great benefit for present and future generations of citizens.

The course of study constitutes four years training for each of the three majors including completion of the courses as prescribed and attendance at summer camp, the first session of which is planned for the summer of 1935.

It is the aim of the curricula of this school to train men for private or government 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 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.

### SUMMER CAMP

Following the sophomore year, all students majoring in forestry, range management or wild life management are required to spend eight weeks in camp on the school forest. The entire time will be devoted to field work in forest measurements, silviculture, range and wild life studies. Twelve hours credit for summer camp will be allowed. The first summer camp is planned for 1935.

## BASIC COURSES

The basic course for the first two years is practically the same for all majors. Opportunity is afforded for specialization in forestry, range or wild life management the last two years. The basic courses are as follows:

## Outline of Basic Courses — School of Forestry

FRESHMAN				SOPHOMORE			
COURSES	F.	W.	S.	COURSES	F.	W.	S.
Eng. 10 .....		5		Eng. 11 .....			4
Botany 21, 22, 23...	3	3	3	Econ. 51 .....	5		
Math. 15, 16, 75 ...	5	5	5	Bot. 30 .....			4
Phys. 1 .....	5			Geol. 100 .....	5		
A. H. 104 .....			3	Agron. 6 .....		4	
Forestry 12, 13, 18...	3	3	4	Chem. 10, 11, 12...	5	5	5
Bus. Adm. 86, 87, 88	1	1	1	AE 1, CE 83, AE 2...	4	2	4
Electives .....			1	Forestry 25 .....	2		
	—	—	—	Electives .....	1	1	
TOTALS .....	17	17	17		—	—	—
				TOTALS .....	17	17	17

FRESHMAN WILD LIFE MANAGEMENT—Same as scheduled except: omit General Physics, Phys. 1 and Dendrology 11, For. 13; move Freshman Composition, Eng. 10 to spring quarter; and add Invertebrate Zoology, Zoo. 3 fall quarter and Vertebrate Zoology, Zoo. 4 winter quarter.

SOPHOMORE RANGE AND WILD LIFE MANAGEMENT—Same as scheduled except: omit Logging and Milling, For. 25.

## School of Arts and Sciences

N. A. PEDERSEN, *Dean*

Since its foundation 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, 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 39 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 ex-



perience. 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. 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 39 to 54.*

NOTE: All students in the School of Commerce are urged to take Textiles and Clothing 15 and Principles of Nutrition 5.

## 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 39 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 39.

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.

# PIREScribed COURES 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	F.	W.	S.
Eng. 110		5	
Math. 34, 35	5	5	
Chem. 10, 11	5	5	
Math. 46			5
C. E. 61	3	2	
C. E. 63			3
C. E. 1, 2	3		3
Geol. 10			5
TOTALS	16	17	16

## SOPHOMORE

COURSES	F.	W.	S.
Math. 97, 98, 99	5	5	5
Phyx. 20, 21, 22	5	5	5
C. E. 81, 82	4		4
Eng. 11	4		
C. E. 83		2	
Econ. 51		5	
A. E. 12			4
TOTALS	18	17	18

## JUNIOR

COURSES	F.	W.	S.
C. E. 120	5		
C. E. 141		5	
C. E. 143			5
C. E. 103	5		
C. E. 101, 102		5	5
C. E. 190			3
C. E. 106		5	
Bus. Adm. 108		3	
C. E. 196	3		
C. E. 149	5		
C. E. 110			5
TOTALS	18	18	18

## SENIOR—Irrigation Major

COURSES	F.	W.	S.
C. E. 146, 147	5	5	
C. E. 148			5
C. E. 197		3	
C. E. 107	5		
C. E. 192		5	
C. E. 113	4		
C. E. 194			5
C. E. 181			5
C. E. 121		3	
C. E. 145			3
C. E. 125	3		
C. E. 198		1	
TOTALS	17	17	18

## PRESCRIBED COURSES IN CIVIL ENGINEERING

## SENIOR—Highway Major

COURSES	F.	W.	S.
C. E. 146, 147.....	5	5	
C. E. 148.....			5
C. E. 197.....		3	
C. E. 107.....	5		
C. E. 192.....		5	
C. E. 113.....	4		
C. E. 194.....			5
C. E. 181.....			5
C. E. 121.....		3	
C. E. 191.....		3	
C. E. 125.....	3		
C. E. 198.....			1
TOTALS .....	17	19	16

## SENIOR—Structural Major

COURSES	F.	W.	S.
C. E. 146, 147.....	5	5	
C. E. 148.....			5
C. E. 197.....		3	
C. E. 107.....	5		
C. E. 192.....		5	
C. E. 113.....	4		
C. E. 194.....			5
C. E. 181.....			5
C. E. 121.....		3	
C. E. 108.....		3	
C. E. 201.....	4		
C. E. 198.....			1
TOTALS .....	18	19	16

PRESCRIBED COURSES IN AGRICULTURAL  
ENGINEERING

Freshman year common to all Engineering Courses.

## SOPHOMORE YEAR

COURSES	F.	W.	S.
Math. 97, 98, 99.....	5	5	5
Phyx. 20, 21, 22.....	5	5	5
A. E. 1, 2.....	4		4
Ag. Econ. 51, 53.....		5	5
Eng. 11.....	4		
Agron. 101.....		4	
TOTALS .....	18	19	19

## JUNIOR YEAR

COURSES	F.	W.	S.
C. E. 141.....		5	
C. E. 101, 102, 103.....	5	5	5
Ag. Econ. 102, 120.....	3	3	
C. E. 190.....			3
C. E. 106.....		5	
A. E. 15.....			3
C. E. 194.....			5
Electives .....	8		
TOTALS .....	16	18	16

## SENIOR YEAR

COURSES	F.	W.	S.
C. E. 121.....		3	
C. E. 146, 147.....	5	5	
C. E. 149.....	5		
C. E. 181.....			5
Agron. 106.....	4		

COURSES	F.	W.	S.
A. E. 6.....		3	
A. E. 13.....	3		
Speech 1.....			5
Electives .....		5	7
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.

In keeping with the newer trends in Home Economics education, the course work has been reorganized into three major fields as follows: Child Development and Parental Education, Foods and Nutrition, and Textiles and Clothing. Students may major in any one of these fields.

A carefully planned sequence of subjects extending over four years and leading to a Bachelor of Science degree with state High School and Smith-Hughes certification has been planned for all students who contemplate teaching either in high school or in extension service. This sequence is known as the "Smith-Hughes Course." This course also gives the most satisfactory preparation for home-making.

Students who desire to specialize in only one phase of Home Economics may do so provided they take a minimum of fifteen hours of work in other fields of Home Economics before graduation.

The training given in this school furnishes a basis for specialization in many fields including high school teaching, extension service, commercial demonstration and salesmanship, journalism, radio broadcasting, nursery school teaching, hospital dietitianships, and scientific research.

*For the requirements for admission, certification, and graduation see pages 39 to 54. Fifteen hours of Home Economics subjects other than the major are required. These may be included in the special group.*

The School of Home Economics offers courses which are open to all of the students of the College regardless of the School in which they are registered. These are:

- |                           |   |
|---------------------------|---|
| Textiles 1 .....          | Clothing Construction.  |
| Child Development 2 ..... | Home Hygiene.   |
| Foods 5 .....             | Principles of Nutrition. (May be used<br>to fill new Biological Science Group). |
| Foods 8 .....             | Meal Preparation for Men.   |
| Foods 9 .....             | Meal Preparation and Serving.   |
| Household Ad. 10 .....    | Survey in Home Economics.   |

Textiles 15 ..... Clothing Appreciation and Selection. (For Men).

Household Ad. 25 ..... Care of the Sick.

Child Dev. 125 ..... Mothercraft.

Household Ad. 149 ..... Household Management.

Household Ad. 150 ..... Residence in Home Economics Cottage.

### SUGGESTED REGISTRATION, WHICH WILL SATISFY THE REQUIREMENTS FOR SMITH-HUGHES CERTIFICATE IN HOME ECONOMICS

#### FRESHMAN

COURSES	F.	W.	S.
Art, 1, 2.....	3	3	
Bot. 1 or Zool. 1.....	5		
*English 10, 82.....	5		5
Household Ad. 10.....	1		
Physiology 4.....		5	
*Econ. 1 or Soc. 70.....		5	
Physics 1.....			5
*Bacteriology 1.....			5
Electives.....	2	3	
Phys. Edu. ....	1	1	1
TOTALS.....	17	17	16

#### SOPHOMORE

COURSES	F.	W.	S.
Chem. 10, 11, 12.....	5	5	5
English 13.....	3		
*History 4.....	5		
Econ. 51.....		5	
*Speech 1.....			5
Electives.....	3	6	6
Phys. Ed. ....	1	1	1
TOTALS.....	17	17	17

#### JUNIOR

COURSES	F.	W.	S.
Psychology 101, 102.....	3	3	
Edu. 111, 119.....	3		3
Household Ad. 149.....	4		
*English 11.....	4		
*Physiology 108.....		3	
Foods 106.....		3	
*Textiles 50.....		3	
Textiles 115, 125.....		3	3
Art 123.....			5
Electives.....	3	2	6
TOTALS.....	17	17	17

#### SENIOR

COURSES	F.	W.	S.
Foods 140.....	4		
Textiles 160.....	2		
*Child Dev. 125, 135.....	6		
Edu. 121, 120.....	3	3	
*Soc. 171.....		3	
Seminar or Special Problems.....			2
**Edu. 122.....		8	
**Household Ad. 150.....			5
**Electives.....	2	3	10
TOTALS.....	17	17	17

\*These subjects may be taken during other quarters. Unstarred courses should be taken in the order suggested to satisfy prerequisites.

\*\*Education 122 and Household Ad. 150 may be interchanged in time with a corresponding change in electives.



### Summary of Requirements for Graduation with Smith-Hughes Certificate

Hours needed to fill the required groups.....	54 hours
Art 1, 2 .....	6 hours
Household Administration including: Survey, 1 hour; Care of the Sick, 2 hours; Household Management, 4 hours, Cottage, 5 hours; and Interior Decoration (Art 123), 5 hours .....	17 hours
Foods 20, 21, 106, 140.....	17 hours
Child Development 35, 60, 125, 135. Sociology 171.....	15 hours
Education 111, 119, 120, 121, 122. Psychology 101, 102, and seminar .....	27 hours
Public Health 108.....	3 hours
Textiles 10, 11, 50, 55, 115, 125, 160.....	17 hours
Physical Education .....	6 hours

### TWO-YEAR SHORT COURSE

A two-year terminal course in Home Economics is offered to accomodate 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-year's work.

The following courses are approved for the major:

Clothing 1, 5 and 50. Foods 9 and 35. Child Development 2 and 60. Household Ad. 10, 149 and 150.

The 15 hours for the minor may be chosen from the following subjects: Drama, Music, Art, Interior Decoration, Landscape Gardening, Social Problems of the Family, Psychology of Infancy and Psychology of the Family, Children's Literature, Child Development 135, Food Economics.

Suggested Registration for the Two-Year Terminal Course  
in Home Making

FIRST YEAR				SECOND YEAR			
COURSES	F.	W.	S.	COURSES	F.	W.	S.
Art, 1, 3	3		3	History	5		
Textiles 1, 5	5			English 13	3		
Bot. 1		5		Music 1, 80 or 81	3		
Physics 1			5	Household Ad. 149, 150	4		5
Food 9			3	Textiles 50		3	
Household Ad. 10	1			Child Dev. 35, 60		3	3
Child Dev. 2		3		Art 123		5	
English 10, 86	5	2		Soc. 171			3
Speech 1		5		Phys. Ed.	1	1	1
Horticulture 3			3	Elective	1	5	5
Phys. Ed.	1	1	1		—	—	—
	—	—	—	TOTALS	17	17	17
TOTALS	15	16	15				

## 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.

# Agricultural Experiment Station

P. V. CARDON, *Director*

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 higher standard of living on the farm.
3. To develop rural leaders, through short courses and individual work.
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 spiritual 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:

Irrigation, Civic Improvements, Flood Control, 4-H Clubs, Fertilizers, Foods and Nutrition, Crops Management, Clothing, Landscaping, Child Care and Training, Forestry, Home Management, Weed Control, Home Furnishings, Rodent Control, Home Reading, Livestock Management, Home Accounts, Poultry Raising, House Plans, Building and Remodeling, Trench Silo Construction, Home Beautification, Farm and Home Accounting, Health, Cooperative Marketing, Organization and Leadership Training in Homemaking, Live-At-Home Methods, Family Savings and Investments.

## 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:

1. Collegiate studies. A wide variety of subjects are offered in the following departments: Agricultural Economics and Marketing, Agronomy, Animal Husbandry including Poultry and Dairying, Art, Business Administration and Accounting, Economics and Sociology, Education, English, Entomology, Geology, History, Horticulture, Irrigation and Drainage, Mathematics, Modern Languages, Psychology, Mechanic Arts, Public Health, and Bacteriology.

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.

4. Reading courses for the housewife; short, practical, non-credit courses in sanitation, home management, home decoration, home care of the sick, etc.

5. Reading courses for the farmer; short, practical, non-credit courses in agronomy, animal husbandry, and horticulture.

6. Reading courses for the business man; short, practical non-credit courses in analysis of retail merchandising, retail store accounting, bookkeeping for the cooperative grain elevators and creameries.

A special catalogue of Correspondence-study courses will be mailed on request.



# Departments of Instruction

(Arranged alphabetically)

- |  |  |
|--|--|
| Agricultural Economics and Marketing     | Foods and Nutrition and Household Administration |
| Agricultural Engineering                 | Forestry   |
| a. Rural Architecture                    | Forging and General Blacksmithing                |
| b. Farm Machinery and Farm Motors        | Geology  |
| Agronomy and Soils                       | History  |
| Animal Husbandry                         | Horticulture                                     |
| Art                                      | Machine Work                                     |
| Auto Mechanics                           | Mathematics                                      |
| Bacteriology and Biochemistry            | Military Science and Tactics                     |
| Botany and Plant Pathology               | Modern Languages and Latin                       |
| Business Administration                  | Music  |
| a. Accounting                            | Physical Education                               |
| b. Business Administration               | a. For Men                                       |
| c. Merchandising                         | b. For Women                                     |
| d. Secretarial Science                   | Physics  |
| Chemistry                                | Physiology Public Health and Hygiene             |
| Child Development and Parental Education | Political Science                                |
| Civil Engineering                        | Poultry Husbandry                                |
| a. Applied Mechanics and Design          | Psychology                                       |
| b. Highways                              | Radio Aviation and Automotive Electricity        |
| c. Irrigation and Drainage               | Range Management                                 |
| d. Mechanical Drawing                    | Sociology  |
| e. Surveying                             | Textiles and Clothing                            |
| Dairy Husbandry and Manufacturing        | Veterinary Science                               |
| Economics                                | Wild Life Management                             |
| Education                                | Woodwork   |
| English and Speech                       | 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. FUHRMAN,\* GEORGE T. BLANCH,  
*Associate Professors.*

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. Winter and Spring quarters. Five credits.

62. PRINCIPLES OF MARKETING. The principles of marketing, relation of production to marketing, consumer demand, economic factors affecting sales, marketing agencies and sale policies, function of middlemen, channels of distribution, organized exchanges, and affect of government activities on distribution. Prerequisite, Economics 51. Spring quarter. Three credits.

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. Spring quarter. Three credits.

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, diver-

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\*On leave.

sity, and the relationship between the various enterprises. Prerequisite, Economics 51. Fall quarter. Three credits.

104. ECONOMIC DEVELOPMENT OF AGRICULTURE. A historical analysis of agriculture through the various stages of its economic development with special reference to the United States. Fall quarter. (Not given 1934-35.)

105. AGRICULTURAL 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. Fall quarter. Three credits.

106. LAND ECONOMICS. Principles underlying the utilization, valuation, tenure, and conservation of our land resources available for crops, pastures, and forests. Prerequisite, Economics 51. Fall quarter. Three credits.

*Blanch*

112. 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. Winter quarter. Five credits.

*Blanch*

113. COOPERATIVE MARKETING. Same as 112 except that no laboratory is given. Winter quarter. Three credits.

*Blanch*

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. Spring quarter. Three credits. (Not given 1934-35.)

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. Spring quarter. (Not given 1934-35.)

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. Winter quarter. Three to five credits.

*Thomas and Blanch*

121. **PRICE ANALYSIS.** A more detailed course in price analysis than is given in 120. Emphasis will be given to the factors influencing price changes, physical volume of production, together with the affects of such changes upon the agricultural situation. Prerequisites, Economics 51 and Agricultural Economics 53 or Economics 52. Spring quarter. Three to five credits. (Not given 1934-35).

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. Winter quarter. Three credits.

*Blanch*

210. **RESEARCH IN AGRICULTURAL ECONOMICS.** Time and credit to be arranged.

*Blanch*

214. **RESEARCH IN AGRICULTURAL ECONOMICS.** Thesis.

*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. Fall, Winter and Spring quarters. One credit each quarter.

## 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 70 and 62 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 sophomore 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 or 34, Mathematics 75, Accounting 108, Economics 51, Agricultural Economics 53, Agricultural Economics 70, Agricultural Economics 62, and Rural Sociology 10.

### JUNIOR YEAR

COURSE	F.	W.	S.
Ag. Econ. 102.....	3		
Ag. Econ. 105.....	3		
Ag. Econ. 114 or 116			3
Ag. Econ. 120.....		3-5	
Econ. 155.....		5	
Psychology 101.....	3		
Agronomy 117.....		3	
Accounting 101.....	5		
Economics 135.....			3
Bus. Ad. 157.....		3	
English or Language			4
Electives*.....	1-3	1-3	5-7

### SENIOR YEAR

COURSE	F.	W.	S.
Ag. Econ. 106 or 104	3		
Ag. Econ. 191.....		3	
Ag. Econ. 113.....		3	
Ag. Econ. 121.....		3	
Econ. 131.....		5	
Econ. 140.....			3
Civil Eng. 149.....	5		
Econ. 165.....	5		
Seminar Ag.			
Econ. 211-212-213	1	1	1
Research Ag.			
Econ. 210.....			2-5
Ag. Econ. 114 or 116			3
Electives*.....	1-3	0-2	3-8

\*The courses to be selected will depend upon the special interest and need of the student and his minor subject. He should consult his major and minor professors in the selection of these courses.

## AGRICULTURAL ENGINEERING

RAY B. WEST, O. W. ISRAELSEN, GEORGE D. CLYDE, *Professors*;  
A. H. POWELL, L. R. HUMPHREYS, H. R. KEPNER, *Associate Profes-*  
*sors*; S. R. EGBERT, V. H. TINGEY, *Assistant Professors*.

AE 1, 2. AGRICULTURAL SURVEYING. For students of Forestry and Agriculture. Practice in the handling of surveying instruments, leveling, and traversing. The surveying of forest roads. Public Land surveys and the retracing of section lines. Fall and Spring quarters. Four credits each quarter.

*Tingey*

AE 3. AGRICULTURAL DRAWING. The use and care of instruments and orthographic projection. Farm structures. Two credits.

*Kepner*

AE 4. AGRICULTURAL MAPPING. Maps and topographical drawing of farm problems. Two credits.

*Kepner*

AE 6. FARM STRUCTURES. The arrangement, design and construction of barns, stables, poultry houses, silos and other farm structures. Winter quarter. Three credits. Time to be arranged.

*Humphreys*

AE 7. POULTRY HOUSE DESIGN. The plans and layout of the various types of structures used in Poultry Husbandry, complete layout of poultry ranch. Winter or Spring quarter. Three credits. Time to be arranged.

*Humphreys*

AE 8. BARN AND STABLE DESIGN. Various types of barns and stables, layouts and construction. Winter or Spring quarter. Three credits. Time to be 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. Spring quarter. Three credits. Hours to be arranged. Time to be arranged.

*West*

AE 11. HOUSE CONSTRUCTION. Various methods of constructions, the frame, two brick, three brick, stucco, cement block and stuc-

coed hollowed tile; cost and economy of each; interior finishing. Winter quarter. Five credits. Time to be 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. Spring quarter. Four credits.

*Israelsen*

AE 201. RESEARCH IN IRRIGATION AND DRAINAGE. Specially prepared undergraduate, 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 to be arranged.

*Israelsen or Clyde*

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. Fall quarter. Three credits.

*Powell*

AE 14. FARM SHOP REPAIR WORK. (See Wood Work Unit C.) This course is especially arranged for agricultural students. The application of foregoing 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 chisel; sharpening and tempering harrow teeth, picks, etc. Fall and Spring quarters. Two credits.

*Egbert*

AE 15. FARM MACHINERY. A complete assembling, adjusting, care and repair of the various types of farm implements and farm machinery. Spring quarter. Three credits.

*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. Fall quarter. Repeating Spring quarter. Three credits.

*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. Fall quarter. Four credits. Time to be arranged.

*Powell*

## AGRONOMY AND SOILS

R. J. EVANS, *Professor of Agronomy*; D. W. PITTMAN, *Professor of Soils*; A. F. BRACKEN, D. C. TINGEY, *Assistant Professors*.

1. GENERAL FARM CROPS. Essentials in the production of principal field crops; designed as a general introduction to the field of farm crops. Any quarter. Three lectures. Three credits.

*Evans and Tingey*

5. IDENTIFICATION AND JUDGING OF FARM CROPS. General classification, identification, displaying, judging and testing of farm crops and seeds. Fall quarter. 1 lecture. One lab. Two credits. (Pre-requisite to 104.)

*Evans and Tingey*

6. SOILS. Review of the entire field of soils study; designed as a foundation course for all students of agriculture. Four lectures. Fall and Winter quarters. Four credits.

*Pittman*

\*101. CEREAL CROPS. The history, cultivation, production, and marketing of cereal crops; a basis for judging and grading plant products. Two lectures. One lab. Winter quarter. Three credits.

*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. Two lectures. One lab. Fall quarter. Three credits.

*Tingey*

\*103. FORAGE AND MISCELLANEOUS CROPS. Alfalfa, clovers, grasses and other forage; methods of handling hay; meadow and pas-

ture management, and soiling crops are discussed. Two lectures. One lab. Spring quarter. Three credits.

*Tingey or Evans*

104. WEEDS, SEEDS AND GRADING. Grading—Grading of field crops, seed certification, identification and control of weeds. Fall quarter. One lecture. Two labs. Three credits. (Must be preceded by Agronomy 5.)

*Tingey*

106. SOILS. Review of the entire field of soils study; designed as a foundation course for all students of agriculture. Limited to senior division students coming from other colleges, or U. S. A. C. students who have changed schools. Four lectures. Fall or Winter quarter. Four credits.

*Pittman*

\*108. MANAGEMENT OF ARID SOIL. The composition, nature, and management of soils of arid regions; special attention to water relations, alkali, rotations, and other problems in the management of arid soils. Prerequisites, Agronomy 6 and either Geology or Bacteriology 1, preferably both. Fall quarter. Two lectures. One lab. Three credits.

*Pittman*

109. PLANT BREEDING. The principles and practices of plant breeding, varieties of field crops, technique and improvement by selection and hybridization, attention to the methods of plant breeding as practiced in America and Europe. Must be accompanied by Agronomy 115. Prerequisites—Genetics and Botany. Winter quarter. Three lectures. Three credits.

*Evans and 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. Spring quarter. Two lectures, one lab. Three credits.

*Pittman*

111, 112, 113. SEMINAR. Current agronomic literature; agricultural problems; assigned topics. Required of all seniors in Agronomy; open also to juniors. Fall, Winter and Spring quarters. One credit each quarter.

*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. Winter quarter. Three credits.

*Bracken*

115. BIOMETRY. Application of biometric principles to plant breeding and other biological data. Should be preceded by Math 75. Two labs. Two credits. Winter quarter.

*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. Winter quarter. Three credits.

*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. Winter quarter. Three lectures. Three credits.

*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. Winter quarter. Three credits.

*Bracken*

\*121. ADVANCED CROP IDENTIFICATION AND JUDGING. This course is intended to prepare students to enter intercollege judging contests. Winter quarter. Two labs. Three credits.

*Evans and Tingey*

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. Winter quarter. Two or more credits.

*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. Fall quarter. Four credits.

*Pittman*

209. ADVANCED PLANT BREEDING. The science and practice of plant breeding. Original papers and lectures. Three lectures, one or more labs. Winter quarter. Three to six credits.

*Evans*

212. GRADUATE SEMINAR. Current scientific papers and topics in Agronomy. Fall, Winter or Spring quarter. One to three credits.

*Evans*

214. HISTORY OF AGRICULTURE. Development of scientific agriculture with emphasis on recent period. Original papers and lecture material. Winter quarter. Two to five credits.

*Bracken*

215. RESEARCH METHODS IN PLANT PRODUCTION. Analysis of research methods; reviews of the scientific literature. Open to approved senior college students. Spring quarter. Three credits.

*Evans and Tingey*

217. GEOGRAPHY OF AGRICULTURE. Relation of geography to development of agriculture. Winter quarter. Two to five credits.

*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.

*Evans, Pittman, Tingey*

230. RESEARCH AND THESIS. Organizing and prosecuting a thesis, or a research problem without thesis. Any quarter. Two or more credits each quarter.

*Evans, Bracken, Tingey, Pittman*

\*Courses open to short course students.

## SUGGESTED COURSE FOR STUDENTS MAJORING IN AGRONOMY

FRESHMAN YEAR			JUNIOR YEAR		
	F.	W. S.		F.	W. S.
Agronomy 1 .....	3	or 3	Agr. 102 .....	3	
A. H. 1 .....	3	or 3	Agr. 104 .....	3	
Bot. 1 .....	3		Agr. 110 .....	3	or 3
Eng. 10 .....	5	or 5	Soc. 10 .....	3	
Math. 15 .....	5		Agr. 101 .....		3
Agr. 5 .....	2		Agr. 108 .....		3
D. H. 1 .....		3	Agr. 116 .....		3
Bot. 2 .....		3	Geol. 105 .....		4
Math. 16 .....		5	Agr. 103 .....		3
Ph. 1 .....		5	Zool. 112 .....		5
Bot. 3 .....		3	Math. 75 .....		5
Math. 75 .....		5			
Zool. 1 .....		5			

SOPHOMORE YEAR			SENIOR YEAR		
	F.	W.S.		F.	W. S.
Agronomy 6 .....	4	or 4	Agr. 111 .....	1	
Chem. 10 .....	5		Agr. 109 .....		4
Bact. 1-2 .....	3-5	or 3-5 or 3-5	Agr. 115 .....		2
Eng. 11 .....	4	or 4 or 4	Agr. 117 .....		3
Zool. 13 .....	4		Agr. 112 .....		1
Econ. 51 .....	5	or 5 or 5	Agr. 113 .....		1
Ag. Eco. 53 .....		3 or 3			
Chem. 11 .....		5			
P. H. 1 .....		3			
V. S. 10 .....		3			
Chem 12 .....		5			
A. E. 2 .....		4			

### ANIMAL HUSBANDRY

E. J. MAYNARD, GEORGE B. CAINE, *Professors*; HARRY H. SMITH, *Associate Professor*; A. C. ESPLIN, *Assistant Professor*.

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. Fall and Winter quarters. Three credits.

*Smith and Caine*

\*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. Spring quarter. Two credits.

*Smith*

\*10. FEEDS AND FEEDING. The principles of feeding and how animals digest and utilize feed. The balancing of rations and the feeding of horses, cattle, sheep, and hogs for economical production. Winter quarter. Five credits.

*Maynard and Smith*

\*100. BREED TYPES OF LIVESTOCK. The origin, history, characteristics, and selection of the economic breeds of horses, cattle, sheep, and swine. Spring quarter. Five credits.

*Smith and Caine*

104. MARKET AND BREED TYPES OF LIVESTOCK (FOR FORESTRY AND RANGE STUDENTS). The practical selection and judging of commercial and breed types of horses, cattle and sheep. Spring quarter. Three credits.

*Smith*

\*105. MARKET CLASSES AND GRADES OF 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. Spring quarter. Three credits.

*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. Fall quarter. Three credits.

*Smith*

\*115. HORSE HUSBANDRY. A study of market types and the breeding, feeding, handling and selling of draft and light horses. Spring quarter. Two credits.

*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. Winter quarter. Two credits.

*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. Winter quarter. Three credits.

*Esplin*

\*130. WOOL STUDY. A history of sheep and wool production. A study of zoological position of sheep, and the physical and chemical structure of the wool fiber. The grading of wool, shrinkage, and a study of market reports. A study of the relation of quality in raw wool to quality in manufactured woolen products. Winter quarter. Three credits.

*Esplin*

\*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. Spring quarter. One to three credits by arrangement.

*Caine, Smith, Dryden*

\*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. Winter quarter. Three credits.

*Smith*

150. ANIMAL NUTRITION. The anatomy and physiology of the digestive tract, digestion, metabolism, and energy balances. The essential vitamins, deficiency diseases, and the value of minerals in an adequate ration. Prerequisites, An. HUS. 10, Chemistry 10, 11 and 12 and Veterinary Physiology. Winter quarter. Five credits.

*Maynard*

155. ANIMAL BREEDING. The principles and practices of livestock improvement. A study of heredity, variation, selection, breed analysis, and herd synthesis, inbreeding, outcrossing, and cross breeding. Prerequisite, Zoology 112 (Genetics). Spring quarter. Four credits.

*Smith*

\*160. ADVANCED 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. Fall quarter. Four credits.

*Smith*

\*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 in the dressing per cent, and quality of the product in the carcass. Winter quarter. Three credits.

*Smith*

175. SELECTION OF MEATS FOR THE HOUSEHOLD. A study of the principles and practice in the selection of quality meats for the table. This course is open for women students. Winter quarter. Two credits. (Given in 1936).

*Smith*

\*180-181-182. ANIMAL HUSBANDRY SEMINAR. Reports and discussion of current literature and research in Animal Husbandry, by

students and faculty members. Fall, Winter, and Spring quarters. One credit each quarter.

*Smith*

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 by arrangement.

*Animal Husbandry 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 quarter. Time and credit by arrangement.

*Smith*

204. WOOL PROBLEMS. Research work in wool. Winter quarter.

*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. Spring quarter. Three credits.

*Maynard, Esplin, Smith*

207. ANIMAL EXPERIMENTATION. The organization of livestock experiments. Time and credit by arrangement.

*Animal Husbandry Staff*

210. GRADUATE THESIS. The outlining, prosecuting and summarizing of Animal Husbandry research data for a thesis. Two to five credits each quarter.

215. GRADUATE SEMINAR. Weekly check-up and report on graduate work.

*Maynard, Esplin, Smith*

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\*These courses are 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

COURSES	F.	W.	S.
An. Hus. 110, 120	3	2	
An. Hus. 160, 170	4	3	
An. Hus. 125, 100		3	5
Speech 1	3		
Dairy 109	3		
Math. 75			5
Agronomy 110			2
Electives	4	9	5
	—	—	—
TOTAL	17	17	17

## SENIOR YEAR

COURSES	F.	W.	S.
An. Hus. 180, 181, 182	1 or 1	1 or 1	1
Dairy 109		3	
An. Hus. 105			3
Ag. Econ. 105, 113	3	5	
Zoology 2			5
Bacteriology 111			5
English 108	3		
Electives	10	8	3
	—	—	—
TOTAL	17	17	17

## ART

CALVIN FLETCHER, *Professor*; H. R. REYNOLDS, *Assistant Professor*.

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 normals 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. Fall quarter. Three credits.

*Fletcher and Reynolds*

2. DESIGN AND COLOR. Principles of design as applied in color, form, and pattern in the common things about us. Winter quarter. Three credits. Prerequisite, Art 1.

*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 and increase enjoyment through the sense of sight. Any quarter. Three credits.

*Fletcher and Reynolds*

31. COMMERCIAL ART AND POSTERS. Design in advertising, display, lettering, etc. Any quarter. Three credits.

*Reynolds*

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. Spring quarter. Three credits.

*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 quarter.

*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 quarter.

*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. Fall quarter. Three credits.

*Reynolds*

53. HANDWORK FOR ELEMENTARY GRADES. Designed to equip normals to teach in various forms of creative handwork in the elementary grades. Winter quarter. Three credits.

*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. Fall quarter. Three credits.

*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. Spring quarter. Five credits.

*Fletcher*

124. PERSPECTIVE. The principles of cylindrical, parallel, oblique and modernistic perspective as used in the arts will be covered. Fall quarter. Three credits.

*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. Fall quarter. (Not given 1934-35).

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. Winter quarter. Three credits

*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. Spring quarter. Three credits.

*Reynolds*

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. Winter quarter. Three credits.

*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*

11. POTTERY. Elementary, including building, throwing, turning, glazing, firing, etc.

*Reynolds*

12. CHINA PAINTING. Elementary painting processes. Prerequisite Art 1, 2 or equivalent.

*Fletcher*

13. COPPER WORK. Exercises in sawing, raising, repousse 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 JESSO. 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. Winter quarter. Two or more credits.

*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 modeling, 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, incrust-ed work, enamelling, 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, enameling, 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. Fall quarter. Three credits.

**MA 2. PRINCIPLES OF AUTOMOBILE CONSTRUCTION AND OPERATION.** A continuation of Auto Mechanics 1. It also deals with the dismounting and the assembling of the automobile. Winter quarter. Three credits.

**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. Winter quarter. Three credits.

**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 cars, 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.** Any quarter. Three credits.

**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 correct general principles of operation. Fall, Winter or Spring quarter. Two credits.

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. Winter quarter. Three credits.

MA 22. A continuation of course 21. Time and credit to be arranged.

MA 101. AUTOMOBILE REPAIR. Prerequisite, Auto Mechanics 4. Winter quarter. Three credits.

MA 102. AUTOMOBILE REPAIR. A continuation of MA 101. Includes shop methods and equipment. Prerequisite, MA 101. Spring quarter. Three credits.

MA 103. GASOLINE ENGINE, CARBURETION AND CARBURETOR. Internal combustion, engine fuels, and a thorough treatise on the principles of carburetion, the construction of carburetors and their relation 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. Prerequisites MA 4. Fall or Spring quarter. Three credits.

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

## 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 22, Math. 46, Chemistry 122, Bacteriology 1, 2, 100 or 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 and

industries. Where possible this course should be accompanied by Bacteriology 2. Any quarter. Five credits.

*Greaves and Stevens*

2. GENERAL BACTERIOLOGY LABORATORY. It is desirable that this course accompany Bact. 1. Any quarter. Two credits.

*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. Fall quarter. Three or five credits. (Not given in 1934-35).

*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 quarters.

*Stevens*

103. SOIL BACTERIOLOGY. Methods used in bacteriological investigations. Should accompany Bacteriology 101, 102. Prerequisites, Bacteriology 1, 2, and Chem. 103. Fall and Winter quarters. Time and credit to be arranged.

*Stevens*

104. DAIRY BACTERIOLOGY. The bacteria of milk, butter and cheese, and their relation to disease. Prerequisite, Bacteriology 1 and 2. Fall quarter. Three or five credits.

*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. Spring quarter. Three or five credits.

*Stevens*

107. DETERMINATIVE BACTERIOLOGY. Opportunity is given for individual work in isolating, identifying and classifying bacteria. Prerequisites, Bacteriology 1 and 2. Time and credit arranged. Fall, Winter or Spring quarter.

*Stevens*

109, 110. **ADVANCED BACTERIOLOGY.** A course dealing with special phases of Bacteriology. Prerequisites, Bacteriology 1, 2 and Chem. 12 or 122. Fall and Winter quarters. Two credits each quarter.  
*Greaves*

111. **BIOCHEMISTRY.** The transformation going on in the plant and animal. Prerequisites, Chemistry 12 or 122. Spring quarter. Five credits.  
*Greaves*

112. **BIOCHEMISTRY.** A laboratory course which may accompany Bacteriology 111. Time to be arranged. Two credits.  
*Stevens*

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. Fall, Winter and Spring quarters. Two credits each quarter.  
*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. Time and credit to be 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. Time and credit to be arranged.  
*Greaves and Stevens*

217, 218, 219. **SEMINAR.** May be taken by properly prepared undergraduates by registering for 117, 118, 119. Fall, Winter and Spring quarters. Time and credit to be arranged.  
*Greaves*

## BOTANY AND PLANT PATHOLOGY

B. L. RICHARDS, *Professor*; F. B. WANN, *Associate Professor*; BASSETT MAGUIRE, *Assistant Professor*; H. L. BLOOD, *Plant Pathologist and Agent in Cooperation with the U. S. Department of Agriculture*.

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, and 240 or equivalent required for students majoring in Botany.

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

Botany 1. ELEMENTARY BOTANY. An introduction to the more important biological principles as exemplified by plants. The nature of protoplasm, the structure of plants, the physiological activities of plants, the relation of plants to the environment, the evolution of plants, and the relation of plants 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. Four lectures, one laboratory. Any quarter. Five credits.

*Staff*

21, 22, 23. GENERAL BOTANY. A general course in plant biology dealing with the structure, nutrition, growth, reproduction, and relationship of plants. Continuous through three quarters. Consideration will be given successfully 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. Two lectures and one lab. Fall, Winter, and Spring quarters. Three credits each quarter.

*Maguire*

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. Three lectures, two labs. Spring quarter. Five credits (Not given 1934-35).

*Maguire*

30. TAXONOMY OF VASCULAR PLANTS. A fundamental course dealing with the kinds, relationship, and classification of the vascular plants chiefly of this region. Prerequisite, Botany 21, 22, 23, or equivalent. Spring quarter. Two lectures, two labs. Four credits.

*Maguire*

102. ADVANCED TAXONOMY. A continuation of course 30. Any quarter or summer. By special arrangement. Time and credit to be arranged.

*Maguire*

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. Time and credit to be arranged. Winter quarter.

*Wann*

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. Three lectures, two labs. Spring quarter. Five credits.

*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. Winter quarter. Three credits. (Not given 1934-35).

*Wann*

124. PLANT CHEMISTRY. Chemical reactions and transformations underlying the vital processes in plants. Alternate with 122. Three lectures. Winter quarter. Three credits.

*Wann*

126. PLANT ECOLOGY. Distribution and structure of plants as affected by environment. Prerequisite, Botany 21, 22, 23, 30, and 120. Two lectures and two labs. Fall quarter. Four credits.

*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. One lecture, two labs. Fall quarter. Three credits.

*Richards*

\*131. TRUCK CROP DISEASES. Diseases of vegetable crops with special emphasis on the factors underlying their cause, development, and control. Prerequisite, Botany 130. Winter quarter. One lecture, two labs. Three to five credits.

*Richards*



\*133. FIELD CROP DISEASES. Diseases of cereal and forage crops. Prerequisite, Botany 130. One lecture, two labs. Winter quarter. Three to five credits. To alternate with Botany 131. (Not given 1934-35).

*Richards*

\*135. ORCHARD CROP DISEASES. Diseases of orchard and small fruits. Prerequisite, Botany 130. One lecture, two labs. Winter quarter. Three to five credits. To alternate with Botany 140. (Not given 1934-35).

*Richards*

140. FOREST CROP DISEASES. Study of nature, cause, and control of diseases, and decay of forest trees and woods. Prerequisite, Botany 150. One lecture, two labs. Winter quarter. Three credits. To alternate with Botany 135.

*Richards*

150. MYCOLOGY. Morphological and taxonomic relations of fungi with emphasis on economic forms. Prerequisite, Botany 21, 22, 23. Fall quarter. One lecture, two labs. Three credits.

*Richards*

160, 161, 162. LABORATORY METHODS. Open to qualified senior or graduate students majoring in Botany. Fall, Winter and Spring quarters. Two credits each quarter.

*Staff*

170. LIMNOLOGY. Physical factors and flora and fauna of fresh water. Special attention to factors influencing fish numbers, fish foods and methods of study. Two lectures, two laboratories. Field trips. Spring quarter. Four credits.

*Maguire*

221. PATHOLOGICAL TECHNIQUE. Special cultural methods as applied to Plant Pathology, Physiology, and related subjects. Students may register for courses 221, and 222 only by special permission. One lecture, three labs. Winter quarter. Three or five credits. (Not given 1934-35).

*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. Winter quarter. Three credits.

*Richards*

234, 235, 236. SPECIAL PROBLEMS. Open to qualified students majoring in taxonomy, plant physiology, or plant pathology. Any quarter. Two to four credits.

Staff

240, 241, 242. SEMINAR. Fall, Winter, and Spring quarters. Two credits each quarter. Time to be arranged.

250. RESEARCH. Open to all qualified senior college students in Taxonomy, Physiology, and Pathology. Any quarter.

Staff

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\*Short course students may take Plant Pathology, Botany 130 and 131, 133, 135 by special permission.

## General Course in Agriculture with Minimum Requirements for Major in Botany

### FRESHMAN AND SOPHOMORE

The following Junior College courses are required in addition to those required by the School of Agriculture: Botany 23, Spring quarter, Freshman year; Mycology (Botany 150), Spring quarter, Sophomore year; Taxonomy (Botany 30) and Bacteriology, Spring quarter, Sophomore year.

JUNIOR YEAR: Botany 120, 130, 131; Zoology 112; Agronomy 109; Agricultural Engineering 12; Mathematics 75 or Minor (5 hours); Social Science (3 hours).

SENIOR YEAR: Botany 116, 133 and Seminar; Language (10 hours).

## BUSINESS ADMINISTRATION

[Including Accounting, Merchandising, and Secretarial Science]

P. E. PETERSON, W. L. WANLASS, *Professors*; V. D. GARDNER, *Associate Professor*; M. D. KETCHUM, THELMA FOGELBERG, *Assistant Professors*; L. MARK NEUBERGER, *Instructor*.

Accounting 101, 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]*

FIELDS OF CONCENTRATION	RECOMMENDED COURSES
ACCOUNTING:	Accounting 101, 102, 103, 104, 111, 120, 121, 122; Economics 131, 206; Political Science 104, 105, 106, 107, 108; Business Administration 130, 135, 136.
FINANCE:	Business Administration 130, 135, 136, 141, 146, 149; Economics 131, 165, 167, 168, 206; Political Science 104, 105, 106, 107, 108; Accounting 101, 102, 103, 111.
MANAGEMENT:	Business Administration 130, 133, 135, 136, 137, 149, 152, 153; Accounting 101, 102, 103, 111; Economics 131, 145, 206.
MERCHANDISING:	Business Administration 135, 152, 153, 157, 158, 161, 162, 130, 149; Accounting 101, 102, 103, 111; Economics 131, 145, 206; Political Science 104, 105, 106, 107, 108.

## 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. Fall or Winter, and Spring quarters. Five credits each quarter.

Gardner

101. 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. Fall quarter. Five credits.

*Peterson*

102, 103. PROBLEMS IN ACCOUNTING PRINCIPLES. This course logically follows course 101 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. Winter and Spring quarters. Three credits each quarter.

*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. Fall quarter. Five credits. (Not given 1934-35).

*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. Winter quarter. Three credits.

*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 quarter. Five credits.

*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. Three credits. Fall quarter.

*Peterson*

121. AUDITING PRACTICE. A laboratory course in which a complete set of working papers will be prepared including a finished audit report. Winter quarter. Three laboratories. Three credits.

*Peterson*

122. PROBLEMS IN AUDITING. A case course. Prerequisites, Auditing 120, 121. (Not given 1934-35).

*Peterson*

124. SEMINAR. A reading and research ource 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. Spring quarter. Two credits.

*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 quarter. Two credits.

*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. Fall quarter. Five credits.

*Peterson*

26. APPLICATION OF ENGINEERING TO BUSINESS. Engineering applications of heating, lighting, ventilation, power, transportation as they effect the business executives in solving his problems of economy. Two recitations per week. Fall quarter. Two credits.

*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. One lecture, one laboratory. Winter quarter. Two credits.

*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. Winter quarter. Five credits.

*Gardner*

31. (Art 31). COMMERCIAL ART AND POSTERS. Design in advertising display, lettering, etc. Three credits. Fall, Winter or Spring quarters.

*Reynolds*

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. Spring quarter. Three credits.

*Reynolds*

40. MATHEMATICAL THEORY OF INVESTMENT AND LIFE INSURANCE. (Math. 60).

*Tingey*

45. ELEMENTARY STATISTICAL METHODS. (Math. 75).

*Tingey*

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. Fall quarter. Three credits. (Not given 1934-35).

*Ketchum*

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. Fall quarter. Five credits.

*Keitchum*

10, 110. (Art 10, 110). SHOW CARD AND SIGN WRITING. Credit arranged. Fall, Winter, or Spring quarters.

*Fletcher*

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. (Not given 1934-35).

*Peterson*

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. (Not given 1934-35).

*Gardner*

135. BUDGETS. A study in the development and application of a system of budgetary control in American industry. Spring quarter. Five credits.

*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. Winter quarter. Two credits. (Not given 1934-35).

*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. Winter quarter. Two credits.

*Gardner*

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. Spring quarter. Three credits.

*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 ap-



praisal of our present risk-bearing organization. Fall quarter. Five credits.

*Ketchum*

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. Spring quarter. Five credits.

*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; sales organization and control; advertising and sales promotion; stock-turn; price policies. (Not given 1934-35).

*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. Winter quarter.

*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. Spring quarter. Three credits.

*Ketchum*

161, 162. RETAIL STORE MANAGEMENT PROBLEMS. The aim of this course is to present, by means of carefully selected and co-ordinated cases, the management problems of retail stores. The problems studied include accounting statistics, organization, merchandise, selling, stocks, buying, personnel, finance, price policies, and general administrative policies. The case method. Winter and Spring quarters. Five credits each quarter.

*Peterson*

## SECRETARIAL SCIENCE

A considerable demand has been found for a short intensive course in secretarial work. Students wishing to complete such a course should register according to the following program.

FIRST YEAR. Business Ad. 1, 2, 75, 76, 86, 97, 88, 98; English 10; Psychology 3; Mathematics 15; Sociology 70.

SECOND YEAR. Business Administration 30, 78, 79, 80, 89, 90, 91, 93, 94, 99; Economics 51, 52; Sociology 4.

SUGGESTED ELECTIVES. Exact and Biological Science courses.

30. BUSINESS ENGLISH. This course aims to give the student practice in the writing of different kinds of business letters and reports. Winter quarter. Three credits.

*Neuberger*

75. ELEMENTARY STENOGRAPHY. Thorough drill in the fundamentals of the Gregg system of shorthand. Five credits.

Section 1. Fall quarter. For students who have had some shorthand, but not enough to qualify for advanced work.

Section 2. Winter quarter. For students who have not had any shorthand.

76. ELEMENTARY STENOGRAPHY. A continuation of Stenography 75. Thorough review of the principles with exercises in vocabulary building. Some attention will be given to the attainment of speed. Spring quarter. Five credits.

*Fogelberg*

78, 79, 80. ADVANCED STENOGRAPHY. This course is a finishing course for stenographic students, and will include: An intense review of the theory of Gregg shorthand with the development of new vocabulary; the study of letter forms and arrangement; transcripts. Special attention will be directed toward the attainment of speed in taking dictation together with the making of a perfect transcript. Prerequisites, one year stenography and typewriting.

Student must be registered in a course of advanced typewriting simultaneously with this course. Fall, Winter and Spring quarters. Three credits each quarter.

*Fogelberg*

81. **SPEEDWRITING.** This course is an abbreviated system of longhand—A Natural Shorthand. Speedwriting is a shorthand written with the a, b, c's. This course is recommended to students for the taking of ordinary office dictation, and also to facilitate note-taking.

Average rate of dictation at end of quarter, 60 words a minute. Fall quarter. Five credits. (Not given 1934-35).

86. **TYPEWRITING I.** 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. Fall, Winter and Spring quarters. One credit each quarter.

*Neuberger*

87. **TYPEWRITING II.** 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.

Introduction to Letter Writing.

Average speed, 25 words a minute.

Students must arrange for three hours practice a week in addition to the regular class hour. Any quarter. One credit each quarter.

*Neuberger*

88. **TYPEWRITING III.** This course continues with the advanced development of the features developed in Typewriting I and II, 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. Spring quarter. One credit.

*Neuberger*

89. TYPEWRITING IV. 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 to 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. Fall quarter. One credit.

*Neuberger*

90. TYPEWRITING V. 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. Winter quarter. One credit.

*Neuberger*

91. TYPEWRITING VI. 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. Spring quarter. One credit.

*Neuberger*

93. ELEMENTARY CALCULATOR OPERATION. Instruction and practice in addition, subtraction, multiplication and fixed decimal point work by the use of Burroughs Calculating Machines. Any quarter. One credit. A fee of \$1.00 will be charged.

*Neuberger*

94. ADVANCED CALCULATOR OPERATION. Application of Burroughs Calculating Machines to various business computations such as

division, percentages, chain discounts and inventories. Winter or Spring quarter. One credit. A fee of \$1.00 will be charged.

*Neuberger*

98. BURROUGHS POSTING MACHINE—COMMERCIAL. Instruction and practice in the application of Burroughs Posting Machines to bookkeeping procedures in commercial institutions. Fall, Winter and Spring quarters. One credit. A fee of \$1.00 will be charged.

*Neuberger*

99. BURROUGHS POSTING MACHINE—BANK. Instruction and practice in the application of Burroughs Posting Machines to bookkeeping procedures in banks and financial institutions. Fall, Winter, and Spring quarters. One credit. A fee of \$1.00 will be charged.

*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 type-writing and Stenography, Elementary Psychology, Introductory Accounting, and General Economics. Fall quarter. Three credits.

*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 or Problem-determining; Problem-solution; and Performance. Fall or Winter quarter. Two credits.

*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. Spring quarter. Three credits.

*Fogelberg*

## Suggested Course of Study for Majors in Secretarial Science in the School of Commerce

### FIRST YEAR

### SECOND YEAR

COURSES	F.	W.	S.
Eng. 10 .....	5		
Psychology 3 .....	3		
B. A. 1, 2 .....		5	5
Pol. Sc. 11 .....	3		
B. A. 75, 76 .....		5	5
B. A. 86, 87, 88 .....	1	1	1
Soc. 4 .....		3	
B. A. 98 .....			1
Math. 15 .....	5		
Soc. 70 .....			3
P. E. or M. S. ....	1	1	1
TOTALS .....	18	15	16

COURSES	F.	W.	S.
Eng. 11 .....	4		
B. A. 30 .....	3		
B. A. 89, 90, 91 .....	1	1	1
B. A. 99 .....	1		
Econ. 51 .....	5	5	
Biol. Sci. ....		5	5
B. A. 78, 79, 80 .....	3	3	3
Exact Sci. ....			5
P. E. or M. S. ....	1	1	1
TOTALS .....	18	15	15

### THIRD YEAR

### FOURTH YEAR

COURSES	F.	W.	S.
B. A. 101-2-3 .....	5	3	3
B. A. 136 .....			3
Soc. 70 .....		3	
B. A. 54 .....	3		
B. A. 51 .....			3
Eng. ....	3	3	3
Psy. 101 .....		3	
B. A. 175 .....			3
Electives .....		3	2
B. A. 146 .....	5		
TOTALS .....	16	15	17

COURSES	F.	W.	S.
Econ. 140 .....	3		
His. 125 .....	3		
B. A. 176 .....	2		
B. A. 178 .....	3		
B. A. 136 .....		2	
B. A. 149 .....		5	
Econ. 155 .....			3
Elective .....	5	10	13
TOTALS .....	16	17	16

## 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.



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. Credit will not be given for both Chemistry 1 and 10, or both Chemistry 1 and 3. Fall or Spring quarter. Five credits.

*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. Credit will not be given for both Chemistry 1 and 3. Three lectures and two labs. Fall, Winter and Spring quarters. Five credits each quarter.

*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. Credits will not be given for both Chemistry 1 and 10. Three lectures and two labs. Fall, Winter, and Spring quarters. One section of Chemistry 10 and 11 will be repeated Winter and Spring quarters. Five credits each quarter.

*Hill and Hirst*

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

*Hirst*

102, 103. **QUANTITATIVE ANALYSIS.** A course in the fundamental principles of gravimetric and volumetric analysis. Prerequisite, Chemistry 5 or 15. Winter and Spring quarters. Three credits each quarter.

*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 lectures. Fall, Winter, and Spring quarters. Three credits each quarter.

*Maeser*

109, 110, 111. PHYSICAL CHEMISTRY LABORATORY. To accompany Chemistry 104, 105, and 106. One laboratory period each week. One credit each quarter.

*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 lectures Spring quarter. Four credits.

*Hill*

108. DAIRY CHEMISTRY LABORATORY. To accompany Chemistry 107. Three labs. Spring quarter. Three credits.

*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. Credit and hours to be arranged.

*Maeser*

120. SPECIAL COURSES IN QUANTITATIVE ANALYSIS. Advanced courses in the analysis of Water, Food, Soil, Urine, and Gas. Time and credit to be arranged. Prerequisite, Chemistry 103. Winter and Spring quarters.

*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. Fall, Winter, and Spring quarters. Five credits each quarter.

*Hill*

160. CHEMISTRY SEMINAR. Required of all seniors majoring in Chemistry. Spring quarter. Two credits.

*Maeser*

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

*Staff*

## CHILD DEVELOPMENT AND PARENTAL EDUCATION

ELSA BATE, CHARLOTTE DANCY, *Assistant Professors*; VERNA SPENCER CARLISLE, *Assistant*. (PROFESSORS CLAYTON, MOEN, FLETCHER, PEDERSEN, HENDERSON, HENRY PETERSON, WELTI, GEDDES, and HENDRICKS cooperate in giving courses in this department.)

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.

\*2. HOME HYGIENE. This course is designed for students who wish a general knowledge of home hygiene including the care of the mother and child. Winter quarter only. Three credits.

*Dancy*

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. Fall quarter. Three credits.

*Pedersen*

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. Winter quarter. Two credits.

*Fletcher*

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\*Smith-Hughes students take 125.

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. Winter or Spring quarter. Three credits.

*Clayton*

36. **MEAL PREPARATION FOR PRESCHOOL CHILDREN.** A laboratory course in menu planning and in the preparation and serving of foods for pre-school children. See Foods 36. Spring quarter. Two credits.

*Clayton*

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. Fall quarter. One hour credit. Hours to be arranged.

*Wolti*

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. Winter quarter. Two credits.

*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. One hour of recitation and two laboratory periods. Fall, Winter and Spring quarters. Three credits.

*Bate*

103. **PSYCHOLOGY OF ADOLESCENCE.** Open to students who have had Psychology 101 or equivalent. A study of the behavior of adolescents. Spring quarter. Three credits.

*Peterson*

110. **PSYCHOLOGY OF INFANCY AND EARLY CHILDHOOD.** Prerequisite, Psychology 3 or equivalent. A study of the behavior of infants and small children. Spring quarter. Three credits.

*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. Consideration 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. Fall and Winter quarters. Three lectures. Three credits.

*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. Spring quarter. Five lectures. Five credits.

*Henderson*

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. Fall or Spring quarter. Three credits.

*Dancy*

135. CHILD CARE AND TRAINING. A study of the care and development of young children with special reference to home education. Observation in the nursery school required. Psychology and Child Management 60 or its equivalent, prerequisite. Required of girls wishing to qualify for a Smith-Hughes certificate. Should be helpful to elementary school teachers. Fall, Winter and Spring quarters. Three credits.

*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. Hours to be arranged. Fall, Winter or Spring quarter. One to three credits.

*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. Spring quarter. Three credits.

*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. Winter quarter. Three credits.

*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. Fall or Spring quarter. Three credits.

*Hendricks*

190. SEMINAR IN CHILD DEVELOPMENT. Winter quarter. Two credits.

*Bate*

## Civil Engineering

RAY B. WEST, O. W. ISRAELSEN, GEORGE D. CLYDE, *Professors*;  
AARON NEWHEY, 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.

*Newey and West*

CE 101, 102. ENGINEERING MECHANICS. Statics and kinetics, resultant forces, equilibrium of force systems, friction; moments and moments of inertia; force, mass, and acceleration; work and energy; impulse and momentum. Winter and Spring quarters. Five credits each quarter.

*Kepner*

CE 103. APPLIED MECHANICS AND STRENGTH OF MATERIALS. The simple machine, reactions, moments, and shears; the design of beams and columns. Fall quarter. Five credits. (See also Physics 152.)

*Clyde*

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

*Clyde*

CE 107. MASONRY CONSTRUCTION AND FOUNDATIONS. Design and construction of stone and concrete masonry structures including bridges, retaining walls, culverts, bins, and chimneys. Foundations. A reinforced concrete arch bridge is designed. Fall quarter. Five credits.

*Kepner*

CE 108. BUILDING CONSTRUCTION. Design and construction of concrete, steel and mill buildings, fireproofing, building codes, cost of various types of buildings. Winter quarter. Three credits.

*Kepner*

CE 109. ELEMENTARY STRUCTURAL THEORY. Reactions and stresses, graphic statics, roof and bridge trusses, long span bridges, lateral and portal bracing. Stresses in members of a roof truss and railroad bridge are computed. Spring quarter. Five credits.

*Kepner*

CE 110. ADVANCED STRUCTURAL THEORY. Slope and deflection by various methods, rigid frames, wind stresses in tall buildings, indeterminate stresses. Prerequisite, CE 109. Fall quarter. Four credits.

*Kepner*

CE 113. STRUCTURAL DESIGN. Design of steel and timber structures. Details of a roof truss and railroad bridge are designed. Fall quarter. Four credits.

*Kepner*

CE 202. GRADUATE STRUCTURAL THEORY. Indeterminate structures, secondary stresses, suspension bridges, space frameworks, three and two hinged and hingeless arches. Prerequisites, CE 109, 110. Four credits.

*Kepner*

CE 203. GRADUATE STRUCTURAL DESIGN. Investigation, design, and cost comparisons of timber, steel and masonry structures. Four credits.

*Kepner*

## HIGHWAYS

CE 120. HIGHWAY CONSTRUCTION AND DESIGN. Location, grade, drainage, resistance to traction, road materials, construction methods and cost, road and pavement design. Fall quarter. Five credits. Four Rec., 1 lab.

*West*

CE 121. HIGHWAY ADMINISTRATION. State, County and City highway departments, highway and local improvement laws, traffic regulations, taxation, and methods of financing country roads and city pavements. Winter quarter. Three credits.

*West*

CE 125. TRANSPORTATION. Development of highway transportation, comparison of methods of transport of passengers and commodities by highway, railway, and waterway. Organized and operated



Rural Motor express lines, freight lines, and bus lines, etc. Fall quarter. Three credits.

*West*

## IRRIGATION AND DRAINAGE

CE 141. HYDRAULICS. Laws of liquids in motion and at rest; flow in natural and artificial channels and elementary principles of water power development. Winter quarter. Five credits.

*Clyde*

CE 143. WATER SUPPLY AND HYDROLOGY. The occurrence, utilization and control of water. Precipitation, evaporation, transpiration, and runoff. Precipitation runoff relations, mass diagrams, duration curves, and flood flows. Ground water storage developments for power, irrigation, and municipal use. Consumption of water, intakes, and aqueducts, design of distribution systems, and materials, pipes, and fittings. Spring quarter. Five credits.

*Clyde*

CE 145. DESIGNS OF DRAINAGE SYSTEMS. Preliminary survey, location of drains, flows in open channels, and construction of drainage systems, with special reference to drainage of irrigated lands. Prerequisites, CE 141. Spring quarter. Three credits.

*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. Fall and Winter quarters. Five credits each quarter.

*Israelsen*

CE 148. HYDROELECTRIC DESIGN. Principles of design of hydraulic machinery used in the generation of power. Dams, penstocks, surge tanks, pipe lines, and plant layouts. Spring quarter. Five credits.

*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. Fall quarter. Five credits.

*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. Students may register at the beginning of any quarter. Credits and hours to be arranged.

*Israelsen or Clyde*

## MECHANICAL 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 61. ENGINEERING DRAWING. Use of instruments, lettering, applied geometry, orthographic projection and pictorial representation. Fall quarter. Three credits.

CE 62. ENGINEERING DRAWING. Technical sketching, dimensioning, working drawings. Winter quarter. Two credits.

CE 63. DESCRIPTIVE GEOMETRY. Point, line, plane problems, developments, intersection, surfaces, mining problems. Spring quarter. Three credits.

CE 69. ADVANCED ENGINEERING DRAWING. Drawing of complete sets of plans for simple machines and parts, tracing, blueprinting, Standard symbols. Three credits.

CE 71. MAP READING AND TOPOGRAPHICAL DRAWING. Topographical lettering, symbols, enlargement and reduction of maps, models. Three credits.

CE 72. INDUSTRIAL DRAWING AND LETTERING. The use and care of instruments and the elements of orthographic projection. The graphical presentation of business data, plant layout, routing, flow sheets, etc. Inspection trips will be made to typical industries. Winter quarter. Three credits.

CE 75. ARCHITECTURAL DRAWING. Freehand sketching, perspective, shades and shadows, building details, plans and details of typical dwelling house. Three credits.

## SURVEYING

CE 81. PLANE SURVEYING. Use of tape, transit, level, compass, etc., in field problems and traverses. Differential and profile leveling, plotting, mapping, and care of instruments used by engineers. Fall quarter. Four credits.

*Tingey*

CE 82. PLANE SURVEYING. Topographical surveying, hydrographic surveying and some rural and city surveying. Prerequisite, Trigonometry. Spring quarter. Four credits.

*Tingey*

CE 83. MAPPING AND OFFICE PRACTICE. Practice in the mapping of the various kinds of surveys that may be encountered by the engineer. Winter quarter. Two credits.

*Tingey*

CE 181. RAILROAD AND HIGHWAY CURVES AND EARTHWORK. Instructions and practice in rail road and highway curves, transition curves, and earthwork computation. Prerequisites, CE 81, 82. Spring quarter. Five credits.

*West*

## General

CE 190. CONTRACTS AND SPECIFICATIONS. The form and essential consideration in drawing up engineering contracts and specifications. Fall quarter. Three credits.

*West*

CE 191. RAILROADS. Economics of railroad location, and railroad construction. Winter quarter. Three credits.

*West*

CE 192. ENGINEERING ECONOMICS. Winter quarter. Five credits.

*West*

CE 194. SEWERAGE AND SEWAGE DISPOSAL. Flow in sewers. Design and construction of sewerage works. Design and construction of sewage treatment works. Spring quarter. Five credits.

*Kepner*

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. Spring quarter. Three Credits. See also Physics 118.

*F. L. West*

CE 197. ELECTRIC MACHINERY. Principles of continuous and alternating current generators and motors; transmission and distribution; air compressors. Winter quarter. Three credits. See also Physics 112.

*F. L. West*

CE 198, 199. UNDERGRADUATE THESIS. Senior year, one credit each quarter. Fall and Winter quarters. Hours to be 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. Fall or Winter quarter. Three credits.

*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 bases for successful

dairy farming and the important economic factors in the production of milk. Various systems of housing and herd management. Winter quarter. Three credits.

*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. Fall quarter. Four credits.

*Caine*

\*109. DAIRY PRODUCTION. A brief review of dairy farming and the dairy breeds. Ways of starting a dairy herd, system of herd records, selection and management of herd sires, calf feeding and management, developing dairy heifers. Winter quarter. Three credits.

*Caine*

\*110. DAIRY PRODUCTION. A study of pure bred cattle breeding. Care and management of dairy sires. Special emphasis on feeding for milk production. A brief study of metabolism and the characteristics of feeds and feeding standards. A thorough study of housing dairy cattle. Prerequisite, Dairy Production 109. Spring quarter. Five credits.

*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. Spring quarter. Two credits.

*Caine*

115. SEMINAR. Discussion and reports of current literature. Time and credit to be 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 to be arranged.

*Staff*

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

*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.

4. DAIRY MECHANICS. A study of the selection, construction and operation of dairy equipment, steam boilers and refrigeration systems. Spring quarter. Four credits.

*Morris*

5. JUDGING DAIRY PRODUCTS. Methods and practice in judging dairy products for market quality and show. Spring quarter. Two credits.

*Morris*

6. MARKET MILK. Modern sanitary methods of producing, processing and marketing milk and cream for city supply. Fall quarter. Three credits.

*Morris*

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

\*101. MANUFACTURE OF ICE CREAM AND ICES. Purchase of raw materials. Chemical and physical structure of an ice cream mix and its relation to the finished product. Standardizing, processing and freezing of standard commercial ice creams, sherbets and ices. Spring quarter. Five credits.

*Morris*

\*102. MANUFACTURE OF BUTTER. Receiving and grading of milk and cream. Neutralization and pasteurization of cream. Manufacture, packing and grading of butter under commercial conditions. Quality and composition control will be emphasized. Winter quarter. Five credits.

*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. Fall quarter. Five credits.

*Morris*

104. MANUFACTURE OF CONDENSED AND DRIED MILK. Purchasing and grading milk. Modern methods of manufacture. Winter quarter. Five credits. (Not given in 1934-35).

*Morris*

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. Fall, Winter and Spring quarters. Two credits each quarter. One lecture, one lab. Time to be arranged.

*Morris*

\*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. Three lectures, two lab. Winter quarter. Five credits.

*Morris*

\*Open to students in the short course.



## ECONOMICS

W. L. WANLASS, F. D. DAINES, JOS. A. GEDDES, WILLIAM PETERSON, *Professors*; V. D. GARDNER, \*W. U. FUHRMAN, *Associate Professors*; M. D. KETCHUM, *Assistant Professor*; H. H. CUTLER, *Assistant*.

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 110, 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. Any quarter. Five credits.

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. Fall and Winter quarters. Three credits.

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. Spring quarter. Three credits.

*Ketchum*

10. THE NATURAL ECONOMIC RESOURCES OF UTAH. Includes a study of land and water relationships, waterpower, timber, and metal and mineral deposits, as they have influenced the industry of the era. Special study will be given to the geographic distribution and economic importance of deposits containing gold, silver, iron, copper, zinc, manganese, clay, gypsum, coal, sulphur, cement, lime, gilsonite, elaterite, oil shale, oil salt, alunite, phosphate, sulphate, etc. The various manufacturing processes involved in the turning Utah's natural resources into finished products will be studied. Attention will be given to the size, character, and location of the deposits as they affect manufacturing processes, as well as the markets for the products and the competi-

\*On leave.

tion with other supplies. Spring quarter. Five credits.

See Geology 5.

*William Peterson*

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. (Not given in 1934-35).

*Ketchum*

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. Winter quarter. Three credits.

*Ketchum*

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. Any quarter. Five credits. (Not open to Freshmen.)

*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. Any quarter. Five credits. (Not open to Freshmen.)

*Staff*

110. COMMERCE AND COMMERCIAL POLICIES. Attention given to the fundamentals of trade and commerce, to the methods of increasing, limiting and directing American trade, and an analysis of

sound commercial policies. Prerequisites, Economics 51, 52. Spring quarter. Three credits.

*Wanlass*

125. LABOR PROBLEMS. A study of the labor situation from the social point of view. Special attention is given to labor problems and to methods of securing industrial peace. Prerequisites, Economics 51, 52. Three credits. (Not given 1934-35).

*Geddes*

131. BUSINESS STATISTICS. Application of statistical methods to problems of business with attention to graphs, analysis of true series, interpretation of index numbers and the statistics of particular industries and business in general. Prerequisites, Math. 75, Economics 51 and 52. Winter quarter. Five credits. This course may be used for a major in Bus. Adm.

*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. Spring quarter. Three credits.

*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. (Not given 1934-35).

*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. Spring quarter. Two credits.

*Wanlass*

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. Winter quarter. Five credits.

*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. Fall quarter. Five credits.

*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. Winter quarter. Five credits.

*Wanlass*

168. ADVANCED CREDIT AND BANKING. A study of the factors affecting the international flow of funds and the relationships of banking institutions thereto. Foreign exchange. Governmental policies affecting inflation and deflation of money. International debts. Five credits. (Not given 1934-35).

*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. (Not given 1934-35).

*Ketchum*

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. (Not given 1934-35).

*Ketchum*

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 facili-

ties by the public service companies of the United States. Prerequisites, Economics 51, 52. Fall quarter. Three credits.

*Ketchum*

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. Fall, Winter and Spring quarters. One credit each quarter. Two years credit allowed.

*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. (Not given 1934-35).

*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. Spring quarter. Two credits.

*Wanlass*

## EDUCATION

E. A. JACOBSEN, *Professor*; C. E. McCLELLAN, L. R. HUMPHREYS, *Associate Professors*; EDITH BOWEN, ELSA BROWN BATE, *Assistant Professors*; GEORGE W. BATES, ALVIN HESS, *Instructors*.

Ed. 30. PRINCIPLES OF SCOUTMASTERSHIP. A study of fundamental principles of Education with application to scouting. Emphasis will be placed on character education. Open to men and women. Winter quarter. Two credits.

*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. Spring quarter. Two credits.

*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. Any quarter. Three credits.

*McClellan*

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. Any quarter. Three credits.

*Bowen*

105. PRINCIPLES OF TEACHING IN ELEMENTARY SCHOOL. The spontaneous purposeful activity of the child as the basic principle determining teaching procedure. Subject matter reviewed in the light of the foregoing thesis. Significance to teachers of the fact of individual differences. Consideration of school room equipment, organization and play activity. Any quarter. Three credits.

*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. Fall, Winter or Spring quarter. Ten credits. The quarter during which the student is to do practice teaching must be arranged for at the time of registration in the Fall quarter.

*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. Spring quarter. Two credits.

*Jacobsen*

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 edu-



cation 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. Winter quarter. Two credits.

*Jacobsen*

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. Any quarter. Three credits.

*Jacobsen*

114. METHODS IN SECONDARY EDUCATION. A course dealing with the application of the principles of education in the teaching process. Such problems as motivation, presentation of subject matter, and discipline, as they occur in actual teaching will be considered. Required in connection with 115. Any quarter. Three credits.

*McClellan*

115. PRACTICE TEACHING IN HIGH SCHOOL. For those preparing for Junior High School or Senior High School certification by the State. The apprenticeship plan is followed, which requires a period of observation and the performance of minor duties at first with gradual increase as the trainee proves himself equal to the work. Prerequisites, Psychology 102, and Education 111. Four to eight credits. Fall, Winter or Spring quarter. Arrangements must be made not later than the time of registration in the Fall if training is desired at any time during the year.

*McClellan, Bates and Hess*

119. METHODS IN TEACHING HOME ECONOMICS. The principles of teaching applied to the selection and development of Home Economics subject matter and to conduct of laboratory and classroom. Prerequisites, Food 20 and 21, or Textiles 10 and 11, and Psychology 102. Winter or Spring quarter. Three credits.

*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. Any quarter. Three credits.

*Jacobsen and Humpherys*



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. Winter or Spring quarter. Four to eight credits.

*Bate*

124. METHODS OF TEACHING SHOP WORK. The analysis and classification of trade knowledge. Establishing an effective instructional order. Methods of instruction. Lesson planning. A consideration of the various teaching devices and the Utah course of study. Problems in instructional management. Winter quarter. Five credits.

*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. Winter or Spring quarter. Four to eight credits.

*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 class room, laboratory and field; visual and extension methods of teaching. Prerequisite, Education 111 or its equivalent. Winter quarter. Five credits.

*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. Winter or Spring quarter. Four to eight credits.

*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 school system. Winter quarter. Three credits.

*Humpherys*

131. EDUCATIONAL TESTS AND MEASUREMENTS. A course dealing with the history, principles and practices of the testing movement. Analysis of types of tests, their construction and use, with some practice in giving, scoring and interpretation. Winter quarter. Three credits.

*Jacobsen*

135. STATISTICS FOR TEACHERS. Practice in the computation and interpretation of simpler statistical measures. Use of labor saving devices in computations. Spring quarter. Three credits.

*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. Spring quarter. Two credits.

*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. Fall quarter. Two credits.

*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. Winter quarter. Two credits.

*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. Fall, Winter or Spring.

*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. Fall and Winter quarters. Two credits each quarter.

*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.

*Staff*

## ENGLISH AND SPEECH

N. ALVIN PEDERSEN, FRANK R. ARNOLD, *Professors*; WALLACE J. VICKERS, ALMA N. SORENSEN, *Associate Professors*; \*CHARLOTTE KYLE, CHESTER J. MYERS, J. DUNCAN BRITE, *Assistant Professors*; \*WALLACE A. GOATES, RUTH MOENCH BELL, MR. ...., *Instructors*; A. J. HANSEN, *Assistant*.

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 are required of majors in English. They must also maintain a "B" grade in their major subject.

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

10. \*\*FRESHMAN COMPOSITION. Fundamentals in sentence and paragraph structure; practice in outlining; attention to correct usage; expository and argumentative writing. Any quarter. Five credits.

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 of subject matter; diction; narrative and descriptive writing. Any quarter. Four credits.

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\*Absent on leave.

\*\*English 10 and 11 are required of all students for graduation from the college.

13. CHILDREN'S LITERATURE. Introduction to the prose and poetry of childhood and adolescence. A \$1.50 library fee is required. The course should be helpful to teachers and parents. Fall quarter. Three credits.

*Pedersen*

16, 17, 18. SCANDINAVIAN LITERATURE IN TRANSLATION. Selected reading from recent and traditional writers—short stories, novels, and poetry. Fall, Winter, and Spring quarters. One credit.

*Hansen*

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.

*Arnold*

31. WORLD LITERATURE. A survey course including a study of epic and romance, tragedy, comedy, the tale, satire, etc., as these forms of literature have appeared in Greek, Roman, Hebrew, Italian, French, German, English, and American literature. The course offers an opportunity for contact with the great literature of the world. Five credits. (Not given 1934-35).

*Vickers*

50. READINGS IN ENGLISH PROSE. Masterpieces of Short Prose Fiction and Biography. Fall quarter. Three credits.

*Sorensen*

51. READINGS IN POETRY. The purpose of this course is to aid the student in seeing what is enjoyable in poetry. Winter quarter. Three credits.

*Vickers*

53, 54, 55. NINETEENTH CENTURY NOVEL. Class discussion and reports. French, Russian, Italian, German, English, and American novels. Three credits each quarter. (Not given 1934-35).

*Kyle*

56. METRICAL STUDY OF POETRY. The aim of this course is to help the student to read poetry with proper appreciation of rhythm and sound. Two credits. (Not given 1934-35).

*Vickers*

60. THE ESSAY. The English Essay of the nineteenth century from Lamb to Stevenson. Recent English and American Essays by

Arnold Bennett, H. G. Wells, G. K. Chesterton, Agnes Repplier, and Samuel Crothers. Three credits. (Not given 1934-35).

*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. Three credits. (Not given in 1934-35).

*Kyle*

80, 81. AMERICAN LITERATURE. From Colonial times to the present. Three credits each quarter. (Not given in 1934-35).

*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. Spring quarter. Five credits.

*Sorensen*

86. EMERSON. His principal essays and speeches. Fall quarter. Two credits.

*Sorensen*

87. CARLYLE. A study of selected masterpieces. Two credits. (Not given in 1934-35).

*Sorensen*

88. BROWNING. Principally a study of Browning's monologues. Fall quarter. Two credits. (Not given in 1934-35).

*Sorensen*

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

105. COLLEGE GRAMMAR. Fall or spring quarter. Five credits.

*Vickers*

108, 109. ADVANCED WRITING. Review of rhetorical details. Practice in various forms of discourse. Considerable freedom of choice as to type of writing. To register for Winter quarter exclusive of Fall quarter, consult instructor. Fall and Winter quarters. Three credits each quarter.

*Pedersen*

111. THE EIGHTEENTH CENTURY NOVEL. Sources of the English novel and its development in the eighteenth century, with attention to its influence on the continent. Fall quarter. Five credits.

*Sorensen*

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. Winter quarter. Five credits.

*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. Fall quarter. Five credits.

*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. (Not given in 1934-35).

*Vickers*

134. ENGLISH POETRY 1500-1660. A study of the development of the non-dramatic poetry of the period. Five credits. (Not given in 1934-35).

*Vickers*

140, 141. SHAKESPEARE. Detailed study in class of six plays: Macbeth, Henry the Fourth, King Lear, Hamlet, Othello, Twelfth Night. Collateral readings: various other Shakespearean plays as well as a biography. To register for Spring quarter exclusive of Winter quarter, consult instructor. Winter and Spring quarters. Four credits each quarter.

*Pedersen*

143. MILTON. Selected prose and poetry, with the emphasis upon Paradise Lost. Spring quarter. Five credits.

*Vickers*

145. WORDSWORTH AND THE ROMANTIC MOVEMENT. Fall quarter. Two credits. (Not given in 1934-35).

*Kyle*

146. SHELLEY AND KEATS. A study of their relation to the Romantic movement. Two credits. (Not given in 1934-35).

*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. Spring quarter. Five credits.

*Sorensen*

153. CHAUCER. Extensive reading course. Attention is paid to pronunciation. Five credits. (Not given in 1934-35).

*Pedersen*

163. THE MODERN DRAMA. A study is made of the plays of Ibsen, O'Neill, Galsworthy, Andreyev, Benavente, Brioux, Gorki, Maeterlinck, Rostand, Stringberg, Wedekind and others. Spring quarter. Three credits.

*Pedersen*

166, 167. 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 credits each quarter. (Not given in 1934-35).

*Sorensen*

175. BIOGRAPHY. An appreciative study of great personalities in the light of their times. Boswell, Cellini, Strachey, Ludvig and others will be studied. Five credits. (Not given in 1934-35).

*Sorensen*

184. EPIC POETRY. The Iliad, Odyssey, Aeneid, and parts of Dante's Divine Comedy in translation. Four credits. (Not given in 1934-35).

*Vickers*

185. CONTEMPORARY POETRY. Studies in the poetry of representative English and American authors since 1880. Five credits. (Not given in 1934-35).

*Sorensen*

186. ELIZABETHAN DRAMA. A study of the predecessors of Elizabethan dramatists, with emphasis on the contemporaries and the followers of Shakespeare. Winter quarter. Five credits.

*Sorensen*

187. ENGLISH DRAMA 1660-1820. Representative dramas of the period, with attention to such types as Heroic and Romantic Trag-



edy, Sentimental Drama, Melodrama, and Satiric and Romantic Comedy of Manners. Five credits. (Not given in 1934-35).

Sorensen

188. ARNOLD. Studies in the prose of Mathew Arnold, with emphasis on Arnold's contribution to Nineteenth Century thought. Two credits. (Not given in 1934-35).

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 first 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 to being admitted to do major work, and have successfully completed that examination. The examination will require a satisfactory knowledge and ability to use the subject matter covered in the lower division speech courses, and it will provide a judgment of the student's adaptability to carry the work. The examination 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, and 58 or 158.

It is recommended that all Speech minors complete all the above courses.

Speech majors must select one of the following groups and complete all of the courses of that group:

Drama: Speech 50 a, b, c or 150 a, b, c and 152 a, b, 156.

Platform Reading: Speech 6 or 12 and 10, 104, 110, 111, 112, and 152a or 114.

Public Address: Speech 9, 11, 103, 107, 111, 121. English 108 or 109. All students expecting to teach Speech must complete Speech 113. Additional Speech courses recommended: Speech 8, 123, 154.

The following allied subjects are recommended as electives in the fields indicated:

**DRAMA.**—Art Appreciation, Color, Perspective, History of Architecture, Professional Design, Costume Design, Opera Appreciation, Symphony Appreciation, World Literature, Introduction to Greek Drama, Modern Drama, Shakespeare, Elizabethan Drama, English Drama, Since 1660, World Civilizations, French, German, General Physics, Tennis, Fencing, Folk Dancing, Swimming, Natural Dancing, Industrial Drawing and Lettering, Electricity and Magnetism, Elementary Woodwork, Clothing Construction, History of Costume, History of Art.

**PLATFORM READING.**—Any English (literature) courses, Modern Languages, English and American History, Principles of Sociology, History of Art, Music History and Appreciation, Natural Dancing, Folk Dancing, Swimming, Fencing, Personal Hygiene, Principles of Psychology, Theory and Practice of Play, Principles of Nutrition, Clothing Appreciation and Selection.

**PUBLIC ADDRESS.**—World Literature, Readings in Poetry, Essay, College Grammar, Advanced Writing, Biography, Latin, Tennis, Fencing, Swimming, Principles of Psychology, Report Writing, General Economics, Principles of Sociology, Political Science.

## COURSES

1. **FUNDAMENTALS OF SPEECH.** 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). Any quarter. Five credits.

Myers

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. Fall quarter. Four credits.

3. **EXTEMPORANEOUS SPEAKING.** Practical application and discussion of the basic principles of effective extemporaneous speaking,

including a brief consideration of delivery and composition factors. A general course designed to fit the needs of beginning untrained students desiring basic work in public address and personal daily communication. Fall and Spring quarters. Three credits.

*Pedersen*

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. Winter quarter. Four credits.

*Myers*

5. **SPEECH DELIVERY.** A course designed to give the speaker the greatest command of the forces necessary for effective delivery. Considers at length the practical delivery elements of voice, body, and mind. Aims at complete mastery of the body and mind coordination. Practical demonstration and participation is carried throughout the entire study. Individual difficulties will be considered. Fall quarter. Five credits.

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, 5. Four credits. (Not given 1934-35).

*Myers*

7. **SPEECH TECHNIQUE.** A course aiming at culture and correctness of speech. Special attention is given to voice science, phonetics, breathing and pronunciation. Of special value to anyone doing any kind of speaking or reading. Winter quarter. Five credits.

8. **PRIVATE INSTRUCTION.** Individual attention given in private to the 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. Any quarter. Hours by arrangement. Two to four credits.

*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. Winter quarter. Four credits.

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, 7. Spring quarter. Four credits.

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 1934-35).

*Goates*

12. **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; adaption of material; and actual practice in story telling. The work is designed to meet the needs of student, teacher, librarian, and parent. Pre-requisite, Speech 4. Four credits. (Not given 1934-35).

*Myers*

50 a, b, c. **DRAMA PRODUCTION.** (See Speech 150 a, b, c.)

58. **ACTING.** (See Speech 158.)

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 to more fully 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 at work; today's theatre—plays, works, and people. Course open to any student. Fall or Spring quarter. Three credits.

103. **PERSUASION.** A 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. Spring quarter. Three credits.

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. Winter quarter. Three credits.  
*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 made 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 in 1934-35).  
*Goates*

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 12. Winter quarter. Three credits.  
*Myers*

111. PSYCHOLOGY OF SPEECH. A study of speech as a psychological problem. Considerations 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. Spring quarter. Five credits.  
*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 12 and 10. Special fee. Fall and Spring quarters. Hours by arrangement. Two to eight credits.  
*Myers*

113. PEDAGOGY OF SPEECH. A study of the methods and problems peculiar to the teaching of Speech. A study of the organization of courses and lesson plans is included. Students may register only with the permission of the instructor. Winter quarter. Two credits.  
*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. Prerequisite, Speech 158. Spring quarter. Five credits.

*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 1934-35).

*Vickers*

123. ADVANCED DEBATING. Credit to those who are elected to the College Debate Team. Hours and credit arranged.

*Vickers*

150 a, 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 is emphasized. Evening or afternoon crew work is required. The course runs through three consecutive quarters. Students are expected to complete the entire course. Three days each week and crews arranged. Four credits Fall quarter, and five credits Winter and Spring quarters.

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. Students are expected to complete the entire course. Four credits each quarter. (Not given in 1934-35).

*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, and dramatic-musical productions; emotional contact; characterizations; interpretation of roles; advanced body expression; responsiveness; period technique. Open only to students who have completed Speech 152 with distinction. Five credits. (Not given 1934-35).

*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. (Not given in 1934-35).

*Goates*

158. 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. Fall quarter. Five credits.

*Myers*

## FOODS AND NUTRITION AND HOUSEHOLD ADMINISTRATION

CHRISTINE B. CLAYTON, *Professor*; FRANCIS KELLY, CHARLOTTE DANCY, *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 20, 21, 30, 35, 106, 140, 141 and 192. Those preparing for Hospital dietitian-internships should include Biochemistry and a course in Accounting.

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. Fall or Winter quarter. Five hours credit.

*Clayton and Kelly*

8. MEAL PREPARATION FOR MEN. This class is designed for men students who wish to obtain practical training in cookery and meal preparation. Two hours credit. Fall or Spring quarter.

*Clayton*



9. MEAL PREPARATION AND SERVING. Designed for women students from any department who wish to obtain practical training in approved cookery practices and meal preparation. Fall or Spring quarter. Three hours credit.

*Kelly*

20, 21. FOOD STUDY AND MEAL PREPARATION. A study of the food classes and the scientific principles underlying their preparation. Meal planning and serving is included in this course. Limited to Smith-Hughes' and Foods' majors. One section of Foods 20 given in both Fall and Winter quarters. Foods 21 to be given in both Winter and Spring quarters. Five credits each quarter. Three lectures and two laboratory periods.

*Kelly*

30. FOOD ECONOMICS. This course aims to train the student to become an intelligent consumer of food products. A study of brands, grades, and qualities of products is made through class work, projects, and field trips. Prerequisite, General Economics. Three lectures and one laboratory period. Spring quarter. Four credits.

*Kelly*

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. Winter or Spring quarter. Three credits.

*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. Spring quarter. Two credits.

*Clayton*

105. FOOD PRESERVATION. A laboratory course in modern methods of preserving foods by canning, preserving, pickling and storage. Prerequisites, Food Study, Food Economics, and Bacteriology 1. Fall quarter. Three credits. (Not given 1934-35).

*Clayton*

106. FOOD ENGINEERING. This course includes laboratory practice in the most efficient methods of preparing and serving meals at a minimum cost of money, time, and energy. Designed as a preparation

for residence at the Cottage. Prerequisites, Food Study. Winter quarter. Three credits.

*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 Food Study, or its equivalent. Fall quarter. Four credits.

*Clayton*

141. ADVANCED NUTRITION. This course includes the study of dietotherapy with application to the nutritional diseases of man. Prerequisite, Dietetics. Winter quarter. Four credits.

*Clayton*

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. Fall, Winter, or Spring quarter. Hours and credit to be arranged.

*Clayton and Kelly*

192. READING IN NUTRITION. Introduction to research in nutrition through assigned readings of current literature. Spring quarter. Two consecutive hours once per week. Two credits.

*Clayton*

210. RESEARCH. Intensive investigation of problems concerned with nutrition or food composition. Time and credit to be arranged.

*Clayton*

## HOUSEHOLD ADMINISTRATION

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. Fall quarter. One credit.

*Clayton*

25. 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. Fall, Winter, or Spring quarter. Two credits. Class limited to 18.

*Dancy*

149. HOUSEHOLD MANAGEMENT. An application of the principles of scientific management to the home. Fall quarter. Four credits.

*Kelly*

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, HE-149. Fall, Winter, or Spring quarter. Five credits. To be arranged.

*Kelly*

## FORESTRY

T. G. TAYLOR, *Professor*; R. J. BECRAFT, P. M. DUNN, *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 59).

12. DENDROLOGY I. Important American conifers—characters, distribution, economic importance. Two lectures, one lab., field trips. Fall quarter. Three credits.

*Becraft*

13. DENDROLOGY II. Hardwoods. Three lectures, one lab., field trips. Spring quarter. Four credits.

*Becraft*

18. FIRE PROTECTION. Effect, prevention, presuppression and suppression of forest fires. Three lectures. Winter quarter. Three credits.

*Taylor*

25. LOGGING. Methods of handling timber from tree to mill for different forest regions of U. S. Two lectures. Fall quarter. Two credits.

*Dunn*

106. FOREST MEASUREMENTS I. Measuring logs, trees, and stands. Log rules and volume tables. Three lectures, one lab. Fall quarter. Four credits.

*Dunn*

107. FOREST MEASUREMENTS II. Growth rate, yield, and their application to timber survey and management. Prerequisite, For. 106. Two lectures, one lab. Winter quarter. Three credits.

*Dunn*

114. SILVICULTURE I. Climatic, physiographic and biotic factors. Natural regeneration of timber stands. Prerequisites, For. 12, 13. Five lectures. Fall quarter. Five credits.

*Taylor*

115. SILVICULTURE II. Silviculture practices in the various forest regions of the U. S. Prerequisite, For. 114. Three lectures. Winter quarter. Three credits.

*Taylor*

\*116. FOREST PLANTING. Seed collection and storage, nursery practice and field planting. Two lectures, one lab. Spring quarter. Three credits.

*Dunn*

121. FOREST MANAGEMENT. The place of forest management in forestry practice, forest organization and regulation. Prerequisite, For. 115. Four lectures. Fall quarter. Four credits.

*Taylor*

122. FOREST FINANCE. Land values, forest values, fire loss, insurance, taxation. Prerequisite, For. 115. Five lectures. Winter quarter. Five credits.

*Dunn*

126. WOOD TECHNOLOGY AND PRODUCTS. Structure, properties, identification of woods. Manufactured products. Prerequisites, For. 12, 13, and Botany 21, 22, 23. Three lectures, two labs. Winter quarter. Five credits.

*Dunn*

132. FOREST ADMINISTRATION. Organization and work of the U. S. Forest Service. Three lectures. Winter quarter. Three credits.

*Taylor*

133. FOREST ECONOMICS AND POLICY. The economic problem in forestry. Development of Federal and State forest policies. Three lectures. Winter quarter. Three credits. (Not given 1934-35).

*Taylor*

143, 144. FORESTRY SEMINAR. Current forestry problems and practice. Fall and Winter quarters. Three lectures. Two credits each quarter.

*Taylor, Dunn*

145. FORESTRY THESIS. Individual accomplishment of an original problem. Any quarter. Two to six credits. A total of six credits allowed.

*Dunn, Taylor*

154. FOREST RECREATION. History and theory of forest recreation, classification of forest lands for various recreational uses, types of development. Three lectures. Spring quarter. Three credits.

*Hansen*

155. RECREATION IMPROVEMENTS. Design and construction of various structures used in forest recreation developments. Three lectures, one lab. Spring quarter. Four credits.

*Hansen*

156. DESIGNS FOR RECREATIONAL AREAS. Plane table mapping and designing plans for various forms of forest recreational development. Includes practical field work. One lecture, three labs. Spring quarter. Four credits.

*Hansen*

(See page 59 for basic courses).

JUNIOR				SENIOR			
COURSES	F.	W.	S.	COURSES	F.	W.	S.
Zoo. 105 .....			4	For. 121, 122 .....	4	5	
Bot. 150, 140 .....	3	3		For. 133 .....		3	
Bot. 120 .....			5	W. L. Mgt. 150 .....			5
For. 106, 107 .....	4	3		Range 166 .....	2		
For. 114, 115, 116 .....	5	3	3	For. 143, 144 .....	2	2	
For. 126 .....		5		For. 145 .....	3	3	
For. 132 .....		3		Elective .....	6	4	12
Range 162 .....	5				—	—	—
Elective .....			5	TOTALS .....	17	17	17
	—	—	—				
TOTALS .....	17	17	17				

## Required:

Language (in addition to English 10 and 11) .....	9 credits
Social Science (in addition to Econ. 51) .....	5 credits

## Recommended:

Advanced Writing, Eng. 108, 109 .....	6 credits
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**FORGING AND GENERAL BLACKSMITHING**

All courses taught by S. R. EGBERT, *Assistant Professor*.

An average of one-third of the time in 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; MA 32, two credits; MA 33, five credits.

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. Fall quarter—MA 34, three credits and two credits. Winter quarter—MA 35, three credits and two credits. Spring quarter—MA 36, three credits and two credits.

MA 37. **SELECT WORK FROM FORGE PRACTICE 31, 32, 33.** For automobile and tractor students who cannot spend each day in the shops. MA 37, two credits.

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. Fall quarter—MA 40, two credits. Winter quarter—MA 41, two credits. Spring quarter—MA 42, two credits.

MA 43. **FENDER AND BODY REPAIR.** Straightening and welding of broken fenders. Servicing and painting of automobile fenders and bodies. Fall quarter—MA 43, two credits. Spring quarter—MA 43, two credits.

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.

MA 132, 134. SMITH-HUGHES UNIT. Metal Work. Cold metal, hot metal, soldering, sheet metal and plumbing. Fall quarter—MA 132, three credits; MA 134, three credits. Spring quarter—MA 132, three credits; MA 134, three credits.

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. Spring quarter—MA 133, two credits.

For additional courses see Ag. Eng. 14.

## GEOLOGY

WILLIAM PETERSON, REED W. BAILEY, *Professors.*

Geology 2 will count in the New Exact Science group.

1. GEOLOGY AND GEOGRAPHY OF UTAH. This course is planned especially to give the student a knowledge of the state, its mountains and valleys, rivers and lakes, and how they came to be. The geological processes, such as running water, wind and moving ice, that have operated in this intermountain region, and modified the land forms, will be studied. There will be a brief study made of the geological history of the state, of the sequences of events that have led up to its present form, and the ancient life that lived here. This work will also include a study of the National parks and monuments in the state. Special reports and field trips will be required. Winter quarter. Five credits.

*Bailey*

2. PRINCIPLES OF GEOLOGY. This course is planned to give the student an introduction to the field of Geology; a generalized conception of the science of the earth. Fall or Winter quarter. Five credits.

*Bailey*



5. THE NATURAL ECONOMIC RESOURCES OF UTAH AND THEIR UTILIZATION. Includes a study of land and water relationships, water power, timber, and metal and mineral deposits, as they have influenced the industry of the area. Special study will be given to the geographic distribution and economic importance of deposits containing gold, silver, iron, copper, zinc, manganese, clay, gypsum, coal, sulphur, cement, lime, gilsonite, elaterite, oil shale, oil, salt, alunite, phosphate, sulphate, etc. This course does not count in Exact Science Group. Spring quarter. Five credits.

*Peterson*

10. ENGINEERING GEOLOGY. General principles of geology and their application to engineering problems. A study will be made of the materials of the earth, such as rock, gravel, sand, and clay; of structural features of the earth's crust; of maps representing these materials and structures, with their application to the construction of roads, dams, and canals, and the development of water supply, drainage, etc. The course will consist of four lectures and one laboratory period. Spring quarter. Five credits.

*Bailey*

12. COMMON MINERALS AND ROCKS. The origin and formation of the different kinds of rocks, both sedimentary and igneous, and of about seventy-five minerals with methods for their determination. Prerequisite, Geology 1. Three lectures, two labs. Fall quarter. Five credits. (Not given 1934-35).

*Bailey*

15. COLLEGE GEOGRAPHY. General principles of geography. Study of the physical environment in which man lives and relationship of this to his development. Winter quarter. Five credits. (Not given 1934-35).

*Bailey*

100. AGRICULTURAL AND FOREST GEOLOGY. Planned especially for the student in agriculture and forestry. Includes physiography—a study of land forms and the processes which have formed them, such as running water, wind, weathering, and moving ice (glaciers); the formation of soils and the rocks from which they have come. A study of mountains and their history will be made. Fall quarter. Five credits.

*Bailey*

105. PHYSICAL GEOLOGY. A study of the materials making up the earth's crust, their arrangement and origin. Also, a study of the dynamic agents, such as wind, running water, moving ice, volcanic

activities, etc., which operate upon the earth and modify its outer portion. Prerequisites, Geology 2 and Chemistry. Winter quarter. Five credits.

*Bailey*

106. HISTORICAL GEOLOGY. A study of the sequence of events which have happened to the earth in the past as revealed by the rocks and fossils. A review of the building of the continent with its mountain ranges, and the succession of life which has inhabited the earth. Field trips required. Prerequisites, Geology 2 or 105, and Zoology. Spring quarter. Five credits.

*Bailey*

108. ECONOMIC GEOLOGY. A study will be made of both non-metallic (coal, oil, etc.) and metallic (gold, silver, lead, etc.) earth products as to their origin, geographic distribution and uses. Prerequisite, Geology 2. Fall quarter. Five credits.

*Bailey*

110. MINERALOGY. (Not given 1934-35).

111. GEOLOGY OF GROUND WATER. A study of structure to determine the cause of springs, artesian wells, etc. Structural characteristics that will yield water, either through tunneling or boring. Prerequisites, Geology 105, and Physics 1, 2. Spring quarter. Five credits.

*Peterson*

113. PALEONTOLOGY. Life succession as found in fossil record. Special emphasis will be placed on the origin and the development of the mammals of today. Spring quarter. Five credits.

*Bailey*

114. FIELD METHODS. Necessary in mapping the detailed geology of an assigned area. Fall and Spring quarters. Time and credits to be arranged.

*Peterson and Bailey*

120. STRUCTURAL AND METAMORPHIC GEOLOGY. (Not given 1934-35).

## HISTORY

JOEL E. RICKS, *Professor*; MILTON R. MERRILL, JOHN DUNCAN BRITE, *Assistant Professors*.

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, 120, 121, 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. Fall, Winter and Spring quarters. Five credits each quarter.

*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. Winter or Spring quarter. Five credits.

*Ricks*

13, 14, 15. UNITED STATES HISTORY. Survey of United States History from the earliest times to the present. Fall, Winter and Spring quarters. Five credits each quarter.

*Ricks*

31, 32, 33. ENGLISH HISTORY. Survey of the history of England and the British Empire from the earliest times to the present. Fall, Winter and Spring quarters. Three credits each quarter.

*Merrill, Brite*

111. EUROPEAN HISTORY. The Middle Ages. Fall quarter. Three credits.

*Ricks*

125. EUROPEAN HISTORY. The French Revolution and Napoleon. Fall quarter. Three credits.

*Ricks*

127. EUROPEAN HISTORY. Nineteenth Century Europe. The political and economic development of the major European states since the French Revolution, with emphasis upon social legislation and the background of the World War. Winter quarter. Four credits.

*Brite*

128. EUROPEAN HISTORY. Twentieth Century Europe. Spring quarter. Three credits.

*Merrill*

134. UNITED STATES HISTORY. History of the West. The old West; the frontiers; the rise of the new West. Special emphasis upon the Trans-Mississippi West. Spring quarter. Five credits.

*Ricks*

171. UNITED STATES HISTORY. Constitutional History of the United States. Winter quarter. Three credits.

*Ricks*

197. SEMINAR IN UNITED STATES HISTORY. Required of all Seniors majoring in History. Winter quarter. One credit.

*Ricks*

## HORTICULTURE

A. L. WILSON, *Associate Professor*; FRANCIS M. COE\*, *Assistant Professor*; A. L. STARK, *Instructor*.

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 offer 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.

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\*On leave.

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, 153, 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. Two lectures, one lab. Sec. 1, Fall quarter. Sec. 2, Spring quarter. Three credits.

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. Two lectures, one lab. Spring quarter. Three credits.

*Stark*

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). Two lectures, one lab. Winter quarter. Three credits.

*Wilson*

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 1934-35).

*Stark*

6. **GREENHOUSE PRACTICE.** Reports and practice work on the propagation and culture of greenhouse ornamental plants and floral crops. One lectures, one lab. Winter quarter. Two credits. (Alternates with Hort. 8; given 1934-35).

*Stark*

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 1934-35).

*Stark*

8-9. **VEGETABLE FORCING.** Principles of greenhouse construction, heating and management, with special emphasis on vegetable forcing. Prerequisite, Hort. 4. One lecture, one lab. Winter and Spring quarters. Two credits each quarter. (Not given 1934-35). Will not be given for less than six students.

*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. Three lectures, 1 lab. Fall quarter. Four credits. (Not given 1934-35).

*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. Two lectures, one lab. Fall quarter. Three credits.

*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). Three lectures, 1 lab. Winter quarter. Four credits. (Not given 1934-35).

*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. Spring quarter. Three credits. (Not given 1934-35).

*Wilson*

109. HORTICULTURAL PRODUCTS. Study of manufacturing processes used in the utilization of fruits and vegetables. Canning, dehydration, beverages, vinegar making, fruit confection and by-products. Laboratory work in preparation of products, and trips to canneries and by-products plants. Two lectures, one lab. Fall quarter. Three credits. (Not given 1934-35).

*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. Fall and Spring quarters. One credit each quarter.

*Stark*

120. ADVANCED LANDSCAPE DESIGN. Continuation of Course 3. Students work on assigned projects under supervision of instructor. Prerequisites, Hort 3, Art 4 or Mechanical Drawing (C. E. 61). Winter quarter. Two credits. (Not given 1934-35).

*Coe*

125. PLANT MATERIALS. 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 1934-35).

*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. Winter quarter. Two credits. (Not given 1934-35).

*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. Winter quarter. Three credits. (Not given 1934-35).

*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. Fall quarter. Five credits. (Given 1934-35).

*Stark*

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. Winter quarter. Four credits. (Given 1934-35).

*Stark*

153, 154. SEMINAR. Reports on research work and presentation of original papers. Two lecture periods. Fall and Winter quarters. Two credits each quarter. (Not given 1934-35).

*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, green-

house 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. (Given 1934-35 and alternate years.)

*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). Winter quarter. Five credits. (Not given in 1934-35.)

*Coe*

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 quarters. Two credits.

*Coe, Wilson*

## MACHINE WORK

All courses taught by A. NEWHEY, *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.

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.

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.

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.

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.

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. Time and credit to be arranged with the instructor.

(NOTE: 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, *Associate Professor*; S. R. EGBERT, V. H. TINGEY, *Assistant Professors*.

Mathematics 15 will count in the New Exact Science Group. May be replaced by Mathematics 34 and 35.

There are two types of majors offered in Mathematics. The Regular Major is to be taken by all who expect to do more advanced work in Mathematics, and may be chosen by candidates expecting to teach in the secondary schools. The Teaching Major may be elected by those preparing to teach, but can be taken only if the candidate fulfills all requirements for high school certification at the same time.

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).

Students will be recommended for teaching or teacher training with Mathematics as a minor, only upon completion of Mathematics 34, 35, 46, 97, 98, 99.

15. ALGEBRA. A course in college algebra designed to emphasize those phases which are most important for students not taking ad-

vanced Mathematics. The solution of problems, logarithms, progressions and probability and its applications will be stressed. Students not taking Mathematics 16 are advised to register for this course during the winter or spring quarters. Any quarter. Five credits.

*Linford, Tingey, Egbert*

16. GENERAL MATHEMATICS. A continuation of Mathematics 15. Includes the essentials of trigonometry and analytical geometry, and an introduction to the ideas of calculus. Mathematics 15, 16, 75 constitute a coordinated course throughout the year for those who will not take more advanced Mathematics. Required of Freshmen in Forestry and recommended for students in certain departments in the schools of Agriculture and Commerce. Winter quarter. Five credits.

*Linford, Tingey*

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 above must precede Mathematics 35. Credit will not be allowed for both Mathematics 15 and 34. Fall and Winter, or Winter and Spring quarters. Five credits each quarter.

*Tingey, Egbert*

46. TRIGONOMETRY. Prerequisite or parallel, Mathematics 35. Spring quarter. Five credits.

*Linford, Tingey*

50. DESCRIPTIVE ASTRONOMY. An introductory course. Prerequisites, entrance Mathematics and Physics 1. (Not given 1934-35).

60. MATHEMATICAL THEORY OF INVESTMENT AND LIFE INSURANCE. Prerequisite, Mathematics 15 or 34. Winter quarter. Three credits.

*Tingey*

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 35 precede this course. Spring quarter. Five credits.

*Tingey*

97. ANALYTICAL GEOMETRY. Fall.

98. DIFFERENTIAL CALCULUS. Winter

## 99. 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. See instructor if such credit is desired. Five credits each quarter.

*Tingey*

## 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 consent of the instructor. Three credits each quarter.

*Linford*

## 150, 151. 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 with their applications in solving the partial differential equations of Physics. Courses can be taken only in the above order. Three credits each quarter.

*Linford*

160, 161, 162. SEMINAR IN MATHEMATICS. Special work for students specializing in Mathematics. Fall, Winter and Spring quarters. Time and credit to be arranged.

*Staff*



## MILITARY SCIENCE AND TACTICS

JOSEPH D. BROWN, Major, C. A. C., *Professor*; WALTER R. GOODRICH, Captain, C. A. C., JOHN H. PITZER, First Lieutenant, C. A. C., *Assistant Professors*; EUGENE J. CALLAHAN, First Sergeant, D. E. M. L., *Instructor*.

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.

To this end, military training has been made a required subject for all male students qualified and eligible therefor. Two years' training in the basic course is required of such students in all Schools of the College unless excused by proper authority.

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.



## REQUIREMENT IN MILITARY SCIENCE

Two years of military training 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.

No male student will be excused from the requirements in military science except for the reasons as listed on page 46 of this catalogue.

Any student claiming exemption for any valid reason will be required to present a petition on the prescribed form which may be obtained at the office of the Professor of Military Science and Tactics.

## 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 high tan shoes, not lace boots, before entering the College, as they will be required immediately upon his admission.

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.

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.

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 thirty-six (36) 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.

*Goodrich and Pitzer*

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).

*Goodrich and Pitzer*

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).

*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).

*Brown*

5. MILITARY SCIENCE. Second Year. Winter quarter. Three hours per week. One credit.

Instruction during this period will include drill and command (infantry and artillery); Coast Artillery instruction (first class subjects).

*Brown*

6. MILITARY SCIENCE. Second Year. Spring quarter. Three hours per week. One credit.

Instruction during this period will include drill and command (infantry and artillery); ceremonies; inspections; Coast Artillery instruction (first class subjects).

*Pitzer*

### 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).

*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).

*Pitzer*

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.

*Pitzer*

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.

*Pitzer*

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.

*Goodrich*

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.

*Goodrich*

## MODERN LANGUAGES AND LATIN

F. R. ARNOLD, *Professor*; GEO. C. JENSEN, *Associate Professor*; THELMA FOGELBERG, *Assistant Professor*.

### FRENCH

1, 2, 3. FIRST YEAR FRENCH. Beginner's French with grammar and conversation. About 800 pages of modern prose are read. Fall, Winter, and Spring quarters. Five credits each quarter.

*Arnold and Fogelberg*

1a. FIRST YEAR FRENCH. Beginners' Reading Course for graduate students. Three times a week each quarter. May be taken with or without credit.

*Arnold*

101, 102, 103. SECOND YEAR FRENCH. Dictation and original composition. History of France by Lavissee. Study of French literature of the nineteenth century with reading of about 600 pages from Victor Hugo, Daudet, Loti, and Balzac. Fall, Winter, and Spring quarters. Three credits each quarter.

*Arnold*

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 1934-35).

*Arnold*

107, 108, 109. FRENCH COMPOSITION. Translation of English into French. Prerequisite, two years of college French or equivalent. Fall, Winter, and Spring quarters.

*Arnold*

110, 111, 112. RESEARCH WORK IN FRENCH PERIODICALS AND BOOKS. In any one of the following subjects:

- (a) Landscape gardening.
- (b) Percheron horses.
- (c) French finance.
- (d) French scientific reports.
- (e) Home economics.
- (f) European finance.

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.

*Arnold*

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 1934-35).

*Arnold*

113, 114, 115. FRENCH DRAMA FROM CORNEILLE TO ROSTAND. Fall quarter, Corneille and Racine; Winter quarter, Moliere; Spring quarter, Victor Hugo and nineteenth century Thesis play. Two credits each quarter.

*Arnold*

## GERMAN

1, 2, 3. FIRST YEAR GERMAN. Grammar, reading and conversation. Fall, Winter and Spring quarters. Five credits each quarter. Two sections. Daily.

*Jensen*

101, 102, 103. SECOND YEAR GERMAN. Review of grammar; conversation, composition, history and literature. Fall, Winter and Spring quarters. Three credits each quarter.

*Jensen*



104. SCIENTIFIC GERMAN. Reading of Scientific texts. Specially 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. Fall quarter. Two credits.

*Jensen*

105, 106. RESEARCH WORK IN GERMAN PERIODICALS AND SCIENTIFIC BOOKS. In the following subjects:

- (a) Chemistry.
- (b) Medicine.
- (c) Biology.
- (d) Botany.
- (e) Agronomy.
- (f) Sociology.
- (g) Physics.

Prerequisite, German 104. The work will consist of outside reading and weekly reports to the instructor. Winter and Spring quarters. Hours and credits to be arranged with instructor.

*Jensen*

121. LESSING AND SCHILLER. Biographies and Plays. Especially recommended for literary students and returned missionaries. Prerequisite, two years of college German. Fall quarter. Three credits.

*Jensen*

131. GOETHE'S PROSE. Winter quarter. Three credits.

*Jensen*

133. GERMAN DRAMA OF THE NINETEENTH CENTURY. Rapid reading and discussion of representative plays from Kleist to Hauptmann. Spring quarter. Three credits.

*Jensen*

## SPANISH

1. FIRST YEAR SPANISH. Grammar, conversation and reading. Winter quarter. Four credits.

2. CONTINUATION OF SPANISH 1. Spring quarter. Three credits.

## LATIN

1, 2, 3. GRAMMAR AND READING. And study of English vocabulary. Fall, Winter, and Spring quarters. Three credits each quarter.

*Arnold*

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.

*Arnold*

101, 102, 103. READING OF CAESAR AND VIRGIL. Fall, Winter and Spring quarter. Two credits each quarter.

*Arnold*

## MUSIC

WALTER WELTI, N. WOODRUFF CHRISTIANSEN, *Assistant Professors*. ASSOCIATED TEACHERS: WILLIAM SPICKER, *Violin*; A. L. FARRELL, *Vocal*; MRS. G. W. THATCHER, *Piano*; SAMUEL E. CLARK, *Piano and Organ*; MRS. WALTER WELTI, *Piano*; MRS. FRANCES WINTON CHAMP, *Piano*; MRS. N. WOODRUFF CHRISTIANSEN, *Piano*; LUDEAN ROGERS FOSTER, *Piano*; HELEN BULLEN, *Piano*.

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 a reed instrument.

For music major without recommendation to teach band and orchestra, consult the major professor.

1. MUSICAL TYPES. A general course in the types and forms of music, with some reference to nationality and historical development. Fall quarter. Three credits.

*Welti*

4, 5, 6. EYE AND EAR TRAINING. A course in the fundamentals of music. No one may register for music without having had Music 4. Music 5 and 6 are given in conjunction with 12 and 13 as a means of practical application. Two credits each quarter.

*Welti*

12, 13. ELEMENTARY HARMONY. Prerequisite, familiarity with the piano keyboard and Music 4. A study of chord progressions up to and including modulations. Winter and Spring quarters. Three credits each quarter.

*Welti and Christiansen*

15, 16, 17. ORCHESTRA COMBINATIONS. Students may enter this course by permission of the teacher only. Instrumental trios, quartets, etc., for ensemble training. Fall, Winter and Spring quarters. One half credit each quarter.

*Christiansen*

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. Fall, Winter, and Spring quarters. One and a half credits each quarter. (See 118, 119, 120).

*Christiansen*

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 elementary bands and orchestras or who intend to follow music as a profession. This course must precede practice teaching in instrumental music. Fall, Winter and Spring quarters. Two credits each quarter.

*Christiansen*

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. Fall, Winter and Spring. One credit each quarter.

*Welti*

27, 28, 29. LADIES' GLEE. Same conditions as for men's glee, applied to women's voices. Fall, Winter and Spring quarters. One credit each quarter.

*Wolti*

30, 31. PUBLIC SCHOOL MUSIC. Prerequisite, Music 4, 5, 6. 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. (Not given in 1934-35).

*Wolti*

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. Fall and Winter quarters. One credit each quarter.

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.

*Wolti*

38. MUSIC FOR YOUNG CHILDREN. A study of material for listening lessons, tiny songs, music games, and simple body rhythms for children of Nursery School age. Fall quarter. One credit.

*Wolti*

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. Fall, Winter, and Spring quarters. One credit each quarter. (See 141, 142, 143).

*Christiansen*

44, 45, 46. BRASS AND REED GROUPS. Brass quartets, sextets, and saxophone quartets. Members will be selected from applicants. Fall, Winter, and Spring quarters. One half credit each quarter.

*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. Fall quarter. Two credits.

*Christiansen*

81. SYMPHONY APPRECIATION. Complete symphonies will be given by the phonograph method. A careful study will be made of their form and content. Winter quarter. Two credits.

*Christiansen*

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. Given only in alternate years. Winter and Spring quarters. Two credits each quarter. Not open to freshmen.

111, 112, 113. ADVANCED HARMONY. Prerequisites, 12, 13.

*Wolti*

Modulation, embellishing chords, inharmonic embellishments and figurations, analysis. Fall, Winter, and Spring quarters. Three credits each quarter.

*Christiansen*

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. Winter quarter. Two credits.

*Wolti*

118, 119, 120. SYMPHONY ORCHESTRA. Senior College credit will be given students of advanced standing. Prerequisite, two years in Orchestra and courses 12, 13.

*Christiansen*

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. Fall, Winter and Spring quarters. One and a half credits each quarter.

*Christiansen*

124, 125, 126. ADVANCED CHORUS. Men and women students who have had at least three quarters in the glee clubs, and music 4,

5 and 6 or their equivalent, may register for advanced chorus. Consult director early. Fall, winter and spring quarters. One credit each quarter.

*Welti*

134. COUNTERPOINT. Prerequisite, Harmony 13. Contrapuntal composition in the first four species, in two and three parts. Fall quarter. Three credits.

*Welti*

135. COUNTERPOINT. All five species, in two, three and four part composition. Spring quarter. Three credits.

*Welti*

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.

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.

*Associated Teachers*

53, 54, 55. VOCAL. Conditions same as for piano.

*Welti and Associated Teachers*

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 and Associated Teachers*

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.

*Associated Teachers*

153, 154, 155. VOCAL. For advanced vocal students.

*Welti and Associated Teachers*

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 and Associated Teachers*

163, 164, 165. PIPE ORGAN. For students recommended for the course and satisfying the departmental standards for the equivalent of two full years of previous piano study.

*Clark*

## PHYSICAL EDUCATION

JOSEPH R. JENSON, KATHERINE C. CARLISLE, *Associate Professors*; E. L. ROMNEY, *Director of Athletics*; W. B. PRESTON, *Professor*; GEORGE NELSON, *Instructor*; JOHN CROFT, *Assistant Coach*; RUDY VAN KAMPEN, ELMO BRADY, *Assistants*.

Physical Education 1 will count in the New Arts Appreciative Group.

Required courses for majors in Physical Education for men. Physical Education 1, 10, 19, 20, 21, 67, 82, 83, 85, 106, 111, 181, 183, 184, 185, 186, 187, 188, 189, 190, 191; Chemistry or Physics 5 hours; Physiology 4, 107, 108, 109; Sociology 70, 101.

Courses required for majors in Physical Education for Women: 1, 40, 41, 42, 44, 45, 48, 49, 50, 68, 70, 71, 82, 83, 87, 91, 92, 93, 106, 111, 141, 142, 143, 180a, 180b, 183, 184, 185, 191; Physiology 4, 107, 108, 109; 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 quarter. 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 a deferrment 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 Department of Physical Education. The department for women has charge of all women's athletics and offers for the students a wide program of activities. The department for men carries on an extensive organized intramural sports program which is separate and apart from inter-collegiate 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

60. HIKING. Spring quarter. Hours to be arranged. One credit.

*Carlisle*

61, 62. ARCHERY. Fall and Spring quarters. One credit.

*Carlisle and Jenson*

63, 64, 65. RECREATIVE GAMES. Fall, Winter and Spring quarters. One credit.

*Carlisle*

66. WINTER SPORTS. Winter quarter. One credit.

*Croft*

67. TENNIS. Spring quarter. One credit.

*Jenson*

68, 69. ELEMENTARY FOLK DANCING. Fall and Winter quarters. One credit.

*Carlisle*

70, 71. ELEMENTARY TAP DANCING. Fall and Spring quarters. One credit.

*Carlisle*

72. SOCIAL DANCING. Any quarter. One credit.

*Carlisle*

73. GOLF. Spring quarter. One credit.

*Croft*

170, 171. ADVANCED TAP DANCING. Winter and Spring quarters. One credit.

*Carlisle*

### ACTIVITY CLASSES FOR MEN

4, 5. ELEMENTARY BOXING. Fall and Winter quarters. Required of majors. One credit.

*Jenson*

6. HORSE SHOES. Spring quarter. One credit.

*Jenson*

7, 8. ELEMENTARY WRESTLING. Fall and Winter quarters. Required of majors. Two credits.

*Nelson*

9, 10. FENCING. Fall and Winter quarters. One credit.

*Jenson*

11. FOOTBALL. Fall quarter. One credit.

*Romney*

12. TRACK. Spring quarter. One credit.

*Romney*

13, 14, 15. HANDBALL. Fall, Winter and Spring quarters. One credit.

*Jenson*

16, 17, 18. ELEMENTARY SWIMMING. Fall, Winter and Spring quarters. One credit.

*Jenson*

19, 20, 21. ELEMENTARY TUMBLING. Fall, Winter and Spring quarters. Required of majors. One credit.

*Jenson*

22, 23, 24. BASKETBALL. Fall, Winter and Spring quarters. One credit.

*Jenson*

25, 26, 27. RESTRICTED PHYSICAL EDUCATION. Fall, Winter and Spring quarters.

*Jenson*

### ACTIVITY CLASSES FOR WOMEN

- 40. SOCCER AND VOLLEY BALL. Fall quarter. One credit.
- 41. BASKETBALL. Winter quarter. One credit.
- 42. BASEBALL AND SPEEDBALL. Spring quarter. One credit.
- 43. ADVANCED GYMNASTICS. Fall quarter. One credit.
- 44. TUMBLING AND STUNTS. Winter quarter. One credit.

45, 46, 47. INDIVIDUAL ACTIVITIES. This course is given for those students physically unable to take the required work in physical education. It is arranged to meet individual needs as shown by physical examination and study of personal tendencies. Fall, Winter and Spring quarters. One credit.

*Carlisle*

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. Fall, Winter and Spring quarters. One credit.

*Carlisle*

51, 52, 53. SWIMMING. This course covers elementary and intermediate work in swimming. Fall, Winter and Spring quarters. One credit each quarter.

*Carlisle*

54. ADVANCED SWIMMING. This course covers advanced swimming, diving, and life saving. Fall or Winter quarter. One credit.

55. RED CROSS LIFE SAVING. A study of all material necessary in order to pass the Senior Red Cross Life Saving Test. Spring quarter. One credit.

### THEORY COURSES

1. ORIENTATION IN PHYSICAL EDUCATION. A survey of the whole field of physical education, showing its relationship to art and enriched living. Any quarter. Two credits.

*Carlisle and Jenson*

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. Fall quarter. Two credits.

*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 material, methods of presentation. Winter quarter. Three credits.

*Carlisle*

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 hour will take up games and folk dances. Spring quarter. Three credits.

*Jenson*

85. COMPETITIVE ACTIVITIES. A course designed to teach students to play basketball, archery, volley ball, tennis, baseball, soccer, football, also the organization of intramural athletics, leagues, etc. Fall quarter. Two credits.

*Jenson*

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. Winter quarter. Two credits.

*Jenson*

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, volley ball, tennis, track and field events, soccer, speedball, and swimming arranged seasonally. Fall, Winter, and Spring quarters. Two credits.

106. APPLIED ANATOMY AND PHYSIOLOGY OF EXERCISE. Pre-requisite, Physiology 4. Fall quarter. Five credits.

*Carter*

111. NUTRITION. For athletes and Physical Education Majors. For description, refer to Department of Foods and Dietetics. Spring quarter.

*Clayton*

141, 142, 143. ADVANCED CREATIVE DANCING. A further development of skills in the use of tools of movement, rhythm and music, improvization and dance composition; principles and methods of teaching the modern dance; present trends in the dance in education. Fall, Winter and Spring quarters. Two credits.

*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. Winter quarter. Three credits.

*Carlisle*

180b. PRACTICE IN CORRECTIVE GYMNASTICS. Practical application of 180a. Time and credit to be arranged. Consult head of department before registering.

*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. Spring quarter. Three credits.

*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. Fall quarter. Five credits.

*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. Spring quarter. Three credits.

*Carlisle*

185. HISTORY OF PHYSICAL EDUCATION. Winter quarter. Three credits.

*Jenson*

186. ADVANCED GYMNASTICS. A study of methods of teaching gymnastics, such as parallel bars, side horse, rings, and advanced floor work in calisthenics. Spring quarter. Two credits.

*Bell*

187. **ADVANCED SWIMMING.** For men. A continuation of course 16. The student will be required to pass certain standard tests. Winter quarter. Two credits.

*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. Monday, Wednesday and Friday, 9 o'clock. Fall quarter. Three credits.

*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. Monday, Wednesday and Friday, 9 o'clock. Winter quarter. Three credits.

*Romney and Croft*

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. Monday, Wednesday and Friday, 9 o'clock. Spring quarter only. Three credits.

*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. Spring quarter. Three credits.

*Preston*

## PHYSICS

FRANK L. WEST, WILLARD GARDNER, *Professors*; LEON B. LINFORD, *Associate Professor*; EUGENE GARDNER, *Assistant*.

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 quarter hours of Upper Division work in Physics. Premedical students are required to take Physics 20-21-22. Calculus is a prerequisite for all Upper Division courses. All courses are conducted on the first floor of Widtsoe Hall.



1, 2. GENERAL PHYSICS. A lecture demonstration course, designed for students not majoring in Physics or Engineering and requiring a minimum of mathematics. (1) includes mechanics and heat; (2) includes electricity, magnetism, sound and light. Any quarter. Five credits. Physics 2 may be taken without Physics 1.

*West, Linford*

10. GENERAL ASTRONOMY. Prerequisite, General Physics. (Not given 1934-35).

16. METEOROLOGY, OR PHYSICS OF THE ATMOSPHERE. The methods of weather observation, predictions, frost warnings and the relation of climate to man, to forestry and to agriculture. Prerequisite, Elementary Physics. Two credits. (Not given 1934-35).

*West*

20, 21, 22. MECHANICS, MOLECULAR PHYSICS, ELECTRICITY AND MAGNETISM, HEAT, LIGHT AND SOUND. Prerequisite, High School Physics. Three lectures and two labs. Fall, Winter and Spring quarters. Five credits each quarter.

*Maeser*

104, 105, 106. PHYSICAL CHEMISTRY. Including atomic, kinetic and electron theories, gaseous, liquid and solid states; solutions, thermo-dynamics. General physics, chemistry, calculus and physics 107 should precede or accompany this course. Fall, Winter and Spring quarters. Three credits each quarter. (See Chemistry 104, 105, 106.)

*West*

108. ADVANCED LABORATORY WORK. One to five credits each quarter. Recommended to students majoring in physics. Fall, Winter and Spring quarters. Time to be arranged.

*West*

110. ELECTRICITY AND MAGNETISM. Prerequisite, Physics 20, 21, 22 and Calculus. Fall quarter. Three credits.

*West*

112. ELEMENTARY ELECTRICAL ENGINEERING. Winter quarter. Three credits. (See C. E. 197.)

*Linford*

113. THEORY OF ALTERNATING CURRENT CIRCUITS. Used in Radio. Prerequisite, Physics 110. Spring quarter. Three credits.

118. THERMODYNAMICS, STEAM AND GAS ENGINEERING. Spring quarter. Three credits. (See C. E. 196.)

*Gardner*

119, 120, 121. MODERN PHYSICS. Fall, Winter and Spring quarters. Four credits each quarter. Prerequisites, Physics 20, 21, 22 and Calculus.

*West*

153, 154, 155. ANALYTICAL MECHANICS. Fall, Winter and Spring quarters. Three credits each quarter.

*Gardner*

166, 167. GEOMETRICAL AND PHYSICAL OPTICS. Fall and Winter quarters. Three credits each quarter.

*Linford*

190, 191, 192. THEORETICAL PHYSICS. An introduction to mathematical physics. Prerequisites, Physics 20, 21, 22, and Calculus. Fall, Winter and Spring quarters. Three credits each quarter.

*Gardner*

209, 210, 211. THEORETICAL MECHANICS. Fall, Winter and Spring quarters. Two credits each quarter.

*Gardner*

212, 213, 214. HYDRODYNAMICS AND RELATIVITY. Fall, Winter and Spring quarters. Two credits each quarter.

*Gardner*

215, 216, 217. MATHEMATICAL THEORY OF ELECTRICITY AND MAGNETISM. Two credits each quarter.

*West*

218, 219, 220. ATOMIC STRUCTURE, THERMODYNAMICS, AND PHYSICAL CHEMISTRY. Two credits each quarter.

*West*

250, 251, 252. RESEARCH WORK. Time and credit to be 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. Any quarter. Five credits.

*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. Any quarter. One credit.

*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. Any quarter. Three credits.

*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. Any quarter. Two credits.

*Carter*

106. APPLIED ANATOMY AND PHYSIOLOGY OF EXERCISE. Prerequisite, Anatomy and Physiology 4. Fall quarter. Five credits.

*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. Winter quarter. Five credits.

*Carter*

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\*Does not satisfy Biological Science group requirement.

108, 109. 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 diseases, 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. Winter and Spring quarters. Three credits each quarter.

*Carter, Preston*

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. Spring quarter. Two credits.

*Carter*

115, 116, 117. JOURNAL CLUB. A study of current physiological literature including hygiene, with oral and written reports. Prerequisite, Physiology 107 or 108. Any quarter. One credit. Time to be arranged.

*Carter*

120. PHYSIOLOGY LABORATORY Prerequisite or parallel, Physiology 107. Spring quarter. Credit and hours to be 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. Spring quarter. Three credits.

*Preston*

## POLITICAL SCIENCE

F. D. DAINES, ASA BULLEN, W. L. WANLASS, *Professors.*

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 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. Fall quarter. Three credits.

*Daines*

12, 13. COMMERCIAL LAW. A comprehensive study of the law of contracts and agency. Open to all students of sophomore standing or above. Winter and Spring quarters. Three credits each quarter.

*Daines*

50. AMERICAN GOVERNMENT. The American Federal System as it is organized and functioning under modern industrial, social and political conditions. Winter quarter. Three credits. (Not given 1934-35.)

*Bullen*

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. Spring quarter. Five credits.

*Bullen*

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. Winter quarter. Three credits.

*Daines*

104. COMMERCIAL LAW. A comprehensive study of the law of negotiable instruments. Prerequisites, Political Science 11, 12, 13. Fall quarter. Three credits.

*Bullen*

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. Winter and Spring quarters. Three credits each quarter. (Not given 1934-35).

*Bullen*

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. Winter and Spring quarters. Three credits each quarter.

*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 1934-35).

*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. Spring quarter. Three credits.

*Daines*

117. AMERICAN POLITICAL IDEAS. Fundamental theories underlying American Political institutions and governmental policies. Prerequisite, one year of Social Science. Winter quarter. Three credits.

118. POLITICAL PARTIES. Their function in government; their organization and methods. Prerequisite, one year of Social Science. Fall quarter. Three credits.

*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 in-

dustry, with a discussion of the political philosophy implied in these trends and policies. Three credits. (Not given 1934-35).

*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 considered. Prerequisite, one year of Social Science. Winter and Spring quarters. Three credits each quarter.

*Daines*

127. CONSTITUTIONAL LAW. The Constitution of the United States, especially as determined by judicial interpretation. Spring quarter. Three credits.

*Daines*

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. Fall, Winter and Spring quarters. Two credits each quarter.

*Daines*

## POULTRY HUSBANDRY

BYRON ALDER, *Professor*; CARL FRISCHKNECHT, *Assistant*.

1. GENERAL POULTRY. A study of breeds, judging, breeding, incubation, brooding, housing, 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 lectures. Winter or Spring quarter. Three credits.

*Alder*

2. GENERAL POULTRY, LABORATORY. Covers the same work as Poultry 1, with practical laboratory problems. Winter or Spring quarter. One credit.

*Alder and Frischknecht*

3. GENERAL POULTRY. The course is planned to meet the needs of Home Economics students. Not given unless six students apply. Spring quarter. Two credits.

*Alder*



8. TURKEY PRODUCTION. A study of the breeds, breeding, feeding, and marketing of turkeys. Special problems involved in small farm flock or large commercial flock management are emphasized. Winter quarter. Two credits.

*Alder*

10. POULTRY PRACTICE. Elementary practice at the poultry yards. Time and credit to be arranged. Prerequisite, Poultry 1.

*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. Spring quarter. Two credits.

*Alder*

\*105. POULTRY MANAGEMENT. The housing, care, feeding, and management of different breeds under western conditions. Prerequisite, Poultry 1. Winter quarter. Three credits. (1934-35).

*Alder*

\*106. BREEDS AND BREEDING. The origin and development of the breeds and varieties of poultry; practice in judging; a review of the literature on breeding for utility and exhibition. Prerequisite, Poultry 1. Winter quarter. Three credits. (1935-36).

*Alder*

\*107. POULTRY FEEDS AND FEEDING. A study of nutrition problems; the feeds and methods of feeding. Prerequisite, Poultry 1. Winter quarter. Three credits.

*Alder*

125. SPECIAL PROBLEMS. Special assignment to work out certain information on special problems. Prerequisites, Poultry 1, 104 and 105. Time and credit to be arranged.

*Alder and Frischknecht*

126. SEMINAR. Current poultry literature studies; assigned problems and special topics. Winter quarter. One credit.

*Alder and Frischknecht*

127. ADVANCED POULTRY PRACTICE. Special practice at the poultry yards. Prerequisite, Poultry 1, 104, and 105. Time and credit to be arranged.

*Alder and Frischknecht*

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\*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. A general course introducing the student to the science of psychology and its application to problems of general living. Any quarter. Five credits.

*Peterson*

8. ELEMENTARY EDUCATIONAL PSYCHOLOGY. Open to Freshmen and Sophomores who have had Psychology 3 or equivalent. This course prepares for teaching in elementary schools. Fall or Spring quarter. Three credits. (Not given 1934-35.)

*Peterson*

101. PRINCIPLES OF PSYCHOLOGY. Open to Juniors and Seniors. Deals with the science of human behavior and prepares for the specific lines of applied psychology. Fall or Winter quarter. Three credits.

*Peterson*

102. ADVANCED EDUCATIONAL PSYCHOLOGY. Open to students who have had Psychology 101 or equivalent. Prepares for teaching in Junior or Senior high school, and for leadership in other lines. Fall or Winter quarter. Three credits.

*Peterson and Jacobsen*

103. PSYCHOLOGY OF ADOLESCENCE. Open to students who have had Psychology 101 or equivalent. A study of the behavior of adolescents. Spring quarter. Three credits.

104. PSYCHOLOGY OF FAMILY LIFE. Human mating; marriage and its meaning; harmony in marriage and its psychological basis; the behavior of infants and children in the various stages of growth; hereditary and environmental factors of personality and character development. This is a general course adapted to the needs of all young people. Prerequisite, a course in general psychology. Sophomores

may enter by permission of instructor. Winter quarter. Three credits. (Not given in 1934-35.)

*Peterson*

105. EXPERIMENTS IN EDUCATIONAL PSYCHOLOGY. Prerequisite, Psychology 101 or equivalent. An elementary experimental study of habit formation, sensation, perception, memory, etc. Winter quarter. Two credits. (Not given in 1934-35.)

*Peterson*

106. EXPERIMENTS IN EDUCATIONAL PSYCHOLOGY. Continuation of Psychology 105. Spring quarter. Two credits. (Not given in 1934-35.)

*Peterson*

110. PSYCHOLOGY OF INFANCY AND EARLY CHILDHOOD. Prerequisite, Psychology 3 or equivalent. A study of the behavior of infants and small children. Spring quarter. Three credits.

*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. Fall quarter. Three credits.

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. Winter quarter. Three credits.

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. Spring quarter. Three credits.

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. Winter quarter. Two credits.

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. Fall quarter. Four credits.

MA 112. GENERATOR REPAIR AND ARMATURE WINDING. Fall quarter. Four credits.

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. Spring quarter. Four credits.

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. Spring quarter. Four credits.

## RADIO

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. Fall or Winter quarter. Four credits.

**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. Winter quarter. Four credits.

**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. Spring quarter. Four credits.

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. Fall quarter. Four credits.

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 Collpits circuits with methods of tuning, neutralizaing and adjusting to proper wave length for amateur transmitting operation. Winter quarter. Four credits.

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.

After finishing these courses students should have no trouble in passing government examinations and obtaining an amateur operator's license and station license. Spring quarter. Four credits.

## 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 at 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 pre-



paring a plane for flight will be done in the laboratory. Methods of repair of landing gears, wings and fusilage will also be done in the laboratory. Fall quarter. Four credits.

*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. Winter quarter. Four credits.

*S. R. Stock*

MA28. 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. Spring quarter. Four credits.

*S. R. Stock*

## RANGE MANAGEMENT

R. J. BECRAFT, *Associate Professor.*

Upon completion of the prescribed course, students are granted the degree of bachelor of science in Forestry. (See general write-up, page 58).

\*162. RANGE MANAGEMENT. Grazing regions, production and utilization of range forage, management of livestock. Prerequisite, Botany 1, 2, 3. Four lectures, one lab. Field trips. Fall quarter. Five credits.

*Becraft*

164. ADVANCED RANGE. Technical problems in field methods and research. Prerequisite, Range 162. Four lectures. Winter quarter. Four credits. (Offered alternate years—not in 1934-35).

*Becraft*

166. RANGE MANAGEMENT PLANS. Detail of reconnaissance, assemblage of data, development of specific management plan. Prerequisite, Range 162. One lecture, one lab. Fall quarter. Two credits.

*Becraft*

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\*Open to students taking short course.



176. RANGE FORAGE PLANTS. Native forage plants—distribution, associations, economic value. Prerequisites, Botany 30, Range 162. Three lectures, two labs. Winter quarter. Five credits. (Offered alternate years—not in 1934-35).

*Becraft*

181. RANGE ECONOMICS. Development of the range industry, land utilization, value of range forage. Prerequisite, Range 162. Three lectures. Winter quarter. Three credits. Offered alternate years—next in 1934-35.

*Becraft*

193, 194. RANGE SEMINAR. Current range problems. Fall and Winter quarters. Three lectures. Two credits each quarter.

*Becraft*

195. RANGE THESIS. Individual accomplishment of an original problem. Any quarter. Two to six credits. A total of six credits allowed.

*Becraft*

(See page 59 for basic courses.)

JUNIOR				SENIOR			
COURSES	F.	W.	S.	COURSES	F.	W.	S.
Bot. 120 .....			5	Bot. 126 .....	4		
A. H. 10 .....		5		A. H. 125 .....		3	
For. 106 .....	4			W. L. Mgt. 150 .....			5
For. 114, 115, 116 ..	5	3	3	Range 166, 164 .....	2	4	
For. 132 .....		3		Range 181 .....		3	
Range 162, 176 .....	5	5		Range 193, 194 .....	2	2	
Agron. 103 .....			3	Range 195 .....	3	3	
Electives .....	3	1	9	Elective .....	6	2	12
TOTALS .....	17	17	17	TOTALS .....	17	17	17

Required: Language (in addition to English 10, 11) ..... 9 credits

Social Science (in addition to Econ. 51) ..... 5 credits

Recommended: Advanced Writing, Eng. 108, 109 ..... 6 credits

## SOCIOLOGY

JOSEPH A. GEDDES, W. W. HENDERSON, F. D. DAINES, *Professors*; CAROLINE M. HENDRICKS, *Assistant 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.

Social Work—Sociology 100, 140, 161, 170, 171, 172, 173, 174, 190, 191, 192, 203.

Family Welfare—Sociology 170, 140, 150, 171, 172, 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); Geology 105, 106.

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. Spring quarter. Three credits.

*Hendricks*

10. RURAL SOCIOLOGY. In this course a study is made of the problems of rural life as a basis for constructive action in developing and maintaining an efficient and wholesome civilization in the country. Fall quarter. Three credits.

*Geddes*

40. 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. Fall quarter. Three credits.

*Hendricks*

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. Spring quarter. Two credits.

*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. Fall, Winter or Spring quarter. Five credits.

*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. Spring quarter. Three credits.

*Geddes*

113. HEREDITY AND EUGENICS. See Zoology and Entomology 113 for description of course.

*Henderson*

124, 125. PUBLIC OPINION. See Political Science 124, 125, for description of course.

*Daines*

126. LABOR PROBLEMS. See Economics 125 for description of course.

*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. Fall quarter. Five credits.

*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. Spring quarter. Three credits.

*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. Winter quarter. Three credits.

*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. Fall or Spring quarter. Three credits.

*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. (Not given in 1934-35).

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. Time to be arranged.

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.

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. Time to be arranged.

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. Spring quarter. Three credits.

*Geddes*

190, 191, 192. SEMINAR IN SOCIOLOGY. Fall, Winter and Spring quarters. One credit each quarter.

*Department*

## GRADUATE COURSES

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. Credit and hours to be 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. Winter quarter. Five credits.

*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.

*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. Fall quarter. Two credits.

*Geddes*

## TEXTILES AND CLOTHING

JOHANNA MOEN, *Professor*; ALTA ORSER 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, 30, 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 underclothing and dresses. Lectures and laboratory work. Fall or Spring quarter. Three credits.

*Moen and Crockett*

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 is emphasized. Fall quarter. Two credits.

*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, 3. Lectures and laboratory work. Fall and Winter quarters or Winter and Spring quarters. Three credits each quarter.

*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. Spring quarter. Two credits.

*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. Fall quarter. Five credits.

*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. Spring quarter. Two credits.

*Crockett*

50. **TEXTILE SELECTION.** Judgment in selection and purchasing of textiles in relation to design, quality and cost as affected by economic and social factors. Elective to students other than Textile majors. Winter quarter. Three credits.

*Crockett*

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. Winter quarter. Two credits.

*Moen*

105. **HISTORY OF COSTUME.** A survey of ancient Egyptian, Grecian, Roman, early and modern French costumes. It aims to give practical information for the use of students and teachers of Clothing and Costume Design and Physical Education majors. Fall quarter. Three credits.

*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, 3. Winter quarter. Three credits.

*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. Spring quarter. Three credits.

*Crockett*



140. **APPLIED DECORATION.** A study of principles of design in relation to decoration of dress and household furnishings. Various means will be used in developing simple decorations for all types of garments and household furnishings. Outside work required. Prerequisites, Art 1, 2, 3, and Textiles 10, 11. Spring quarter. Three credits. (Not given in 1934-35).

*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. Fall, Winter and Spring quarters. Two credits each quarter.

*Moen*

175. **BUYING TEXTILES AND CLOTHING.** Consumer problems in the purchase of clothing and household furnishings. The progress of Textile Standardization. Mechanical and chemical tests. Prerequisites, Household Textiles. Spring quarter. Three credits.

*Moen*

190. **SPECIAL PROBLEMS.** Arranged for advanced students in Textiles and Clothing. Working out of problems of special interest; readings and reports. Fall quarter. Time and credit to be arranged.

*Moen*

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 is stressed. Premedic courses, for those wishing to later obtain Veterinary degrees elsewhere, may be conveniently taken at this school.

\*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. Any quarter. Three credits.

*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. Three credits each quarter. Any or all quarters may be taken.

*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. Spring quarter. One credit.

*Madsen*

\*60. HORSE SHOEING AND SOUNDNESS. The anatomy and physiology of the horses' 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. Winter quarter. Three credits.

*Frederick*

\*70. POULTRY DISEASES. The common diseases affecting poultry in this region. Symptoms, diagnosis, prevention and treatment. Lectures and practical demonstrations. Winter quarter. Three credits.

*Frederick*

\*107. HYGIENE AND INFECTIOUS DISEASES. A discussion of water and food supply, disinfection, care and management of animals and feeding of sick animals. The common infectious diseases prevalent here. Methods which should be adopted in their control and eradication. Tests applied for diagnosis; vaccination, and serum therapy of animals. It is recommended that this course be preceded by Veterinary Science 10, 40, 41, and 42. Winter or Spring quarter. Three credits.

*Frederick*

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\*Open to students taking short course.

## WILD LIFE MANAGEMENT

All courses taught by D. IRVIN 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 58.

150. GENERAL WILD LIFE MANAGEMENT. A study of the general problems of wild life management. Theory, methods, distribution and life histories of important fish and game species. No credit allowed wild life majors. Four lectures, one lab. Field trips. Spring quarter. Five credits.

153. WILD LIFE MANAGEMENT I. Life histories, distribution, numerical variations, enemies and plans for management of native big game animals. Prerequisite, Zool. 140. Four lectures, one lab. Winter quarter. Five credits.

154. WILD LIFE MANAGEMENT II. Life histories, distribution, environmental needs, enemies and plans for management of native and introduced game birds. Prerequisites, Zool. 140 and W. L. Mgt. 153. Four lectures, one lab. Spring quarter. Five credits.

157, 158. WILD LIFE SEMINAR. Discussion of current developments in wild life management. Winter and Spring quarters. One lecture. One credit each quarter.

159. WILD LIFE THESIS. Individual accomplishment of original problem in wild life management. Time by special arrangement. Any quarter. Two to six credits. Total of six credits allowed.

(See page 59 for basic courses)

JUNIOR				SENIOR			
COURSES	F.	W.	S.	COURSES	F.	W.	S.
Zoo. 140 .....	4			For 114 .....	5		
Zoo. 13 .....	5			W. L. Mgt. 153, 154 .....	5	5	
Zoo. 155 .....		5		Range 166 .....	2		
Zoo. 116 .....			5	W. L. Mgt. 157, 158 .....	1	1	
Bot. 120 .....			5	W. L. Mgt. 159 .....	3	3	
Bot. 170 .....			4	Electives .....	7	8	11
Range 162, 176 .....	5	5			—	—	—
For. 132 .....		3		TOTALS .....	17	17	17
Electives .....	3	4	3				
TOTALS .....	17	17	17				

Required: Language (in addition to English 10 and 11) ..... 9 credits

Recommended: Advanced writing—Eng. 108, 109 ..... 6 credits

## 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. Two and three credits.

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. Two and three credits.

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. Two and three credits.

MA 69. **GENERAL WOODWORK.** Projects in bench work, turning or mill work as the student may elect. One to five credits. Time and credit to be 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.

MA 71. **WOOD CARVING.** Simple problems in straight and curved lines, conventional design and ornamentation. Fall or Winter quarter. Two credits.

Courses 61 to 68 or their equivalent are prerequisite to the advanced courses in woodwork.

MA 161, 162, 163. **ADVANCED WOODWORK.** Use of woodworking machines in hardwood construction, including the preparation of wood for finishing. Two and three credits.

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.

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. Spring quarter. Two credits.

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. Fall or Winter quarter. Three credits.

MA 167. **BUILDING CONSTRUCTION.** Continuation of MA 166, including principles of architecture and design. Winter or Spring quarter. Three credits.

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. Spring quarter. One credit.

MA 168B. **ADVANCED GENERAL WOODWORK.** A course provided for those who can not fit into the regular schedule. Work may be selected from any of the advanced courses listed. One to five credits. Time and credit to be arranged.

MA 169, 169B. **WOOD FINISHING.** The use of different kinds of stains, paint, primers and fillers, rubbing, polishing and french polishing. Two credits.

MA 170, 170B. **ADVANCED WOOD TURNING.** Wood turning in original design, face turning including finishing, staining and polishing. Two credits.

MA 171. **ADVANCED WOOD CARVING.** Use of carving in the construction of high class furniture and in pattern work. Spring quarter. Two credits.

## ZOOLOGY AND ENTOMOLOGY

W. W. HENDERSON, *Professor*; J. SEDLEY STANFORD, *Assistant Professor*.

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, 111, 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 lectures and one laboratory period. Any quarter. Five credits.

*Henderson*

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. Three lectures and two labs. Fall quarter. Five credits.

*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. Three lectures and two labs. Winter quarter. Five credits.

*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. Three lectures and two labs. Fall quarter. Five credits.

*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. Entomology 13 should precede this course. Three lectures and one lab. Winter quarter. Four credits.

*Stanford*

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. Two lectures and two labs. Spring quarter. Four credits.

*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 50 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. Fall quarter. Three laboratory periods. Three credits. Graduate credit may be allowed.

*Henderson*

103. SYSTEMATIC ENTOMOLOGY. Continuation of course 102. The collection arranged for course 102 must be enlarged to 500 specimens, 100 species and 18 orders. Classification will include a correct placing of all specimens in families. Winter quarter. Three laboratory periods. Three credits. Graduate credit allowed.

*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. Spring quarter. Three laboratory periods. Three credits. Graduate credit allowed.

*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. Courses 4 and 13 should precede this course. Three lectures and one lab. Spring quarter. Four credits.

*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. Spring quarter. Two credits. Time to be 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. Spring quarter. Two credits. Time to be arranged.

*Stanford*

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. Consideration 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. Fall or Winter quarter. Three lectures. Three credits.

*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. Spring quarter. Five lectures. Five credits.

*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. Three lectures and two labs. Spring quarter. Five credits.

*Stanford*

117. HISTOLOGICAL TECHNIQUE. A practical course in fixing, imbedding, sectioning, staining, mounting and magnifying of tissues.

One lecture and two laboratory periods a week. Fall quarter. Three credits.

*Stanford*

118. HISTOLOGY AND ORGANOLOGY. A study of the microscopic structure of vertebrate organs and the functions of tissue aggregations. Prerequisite, Zoology 117. One lecture and two laboratory periods a week. Winter quarter. Three credits.

*Stanford*

119. VERTEBRATE EMBRYOLOGY. A study of the developmental stages more common to animals in general and a particular consideration of vertebrate development based on the frog and the chick. Prerequisite, Zoology 118. One lecture and two laboratory periods a week. Spring quarter. Three credits.

*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 to be 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 lectures. Spring quarter. Three credits.

*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. Fall, Winter and Spring quarters. One credit each quarter.

*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 lectures, one laboratory. Fall quarter. Four credits.

*Rasmussen*

155. ICHTHYOLOGY. Ecology, classification and life histories of native and introduced fishes. Practical problems of fish culture. Three lectures. Two laboratories. Field trips. Winter quarter. Five credits.

*Rasmussen*

## GRADUATE COURSES

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 under-graduates only by special arrangement with the department. Thesis required. Hours to be arranged.

*Henderson*

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.

*Stanford*

# Forty-first Annual Commencement

List of Graduates 1933-34

## GRADUATE DIVISION

Doctor of Laws (Honorary)

IVINS, ANTHONY WOODWARD

Graduates with the Degree of

MASTER OF SCIENCE

School of Agriculture

MELVIN BURKE

B.S., U.S.A.C., 1928

Thesis: "Plant Distribution Studies in the Wellsville Range, Utah."

LEONARD HEBER POLLARD

B.S., U.S.A.C., 1932

Thesis: "The Value of Plant Protectors in the Production of Certain Vegetables."

L. RAY ROBINSON

B.S., B.Y.U., 1925

Thesis: "Anasa Wilt of Cucurbits."

## School of Arts and Science

IOLA HICKMAN

B.S., U.S.A.C., 1932

Thesis: "The Nutritive Value of Oats with Special Reference to the Calcium and Phosphorus Metabolism of Rats."

ELWIN H. PETERSON

B.S., U.S.A.C., 1932

Thesis: "The Curd Character of Milk and its Relationship to Some of the Chemical Constituents of Milk and Udder Bacteria."

WENDELL REEDER

B.S., U.S.A.C., 1932

Thesis: "The Nitrogen Distribution of Azotobacter Chroococcum."

WYLIE L. THOMAS

B.S., U.S.A.C., 1932

Thesis: "A study of the Oviposition and Nymphal Development of Paratrioza Cockerelli (Sulc) upon Various Host Plants."

## School of Commerce

E. C. BERGESON

B.S., U.S.A.C., 1932

Thesis: "Social Mobility in the Millard County Drainage Area."

HAROLD HARRIS CUTLER

B.S., U.S.A.C., 1933

Thesis: "A Study of Banking in Relation to the Securities Market."

VERN V. DUKE

B.S., U.S.A.C., 1933

Thesis: "The Economic Consequences of the Securities Act of 1933."

RASMUS K. NELSON

B.S., U.S.A.C., 1933

Thesis: "Recidivism In Juvenile Court District No. 3, Fiscal Year 1931-32."

LAURENCE MARK NEUBERGER

B.S., U.S.A.C., 1932

Thesis: "Recent Trends in Railroad Consolidation in the United States."

## School of Education

ALFRED B. HART

B.S., U.S.A.C., 1933

Thesis: "The Evolution of the Curriculum of the Utah State Agricultural College."

JEANNE D. MERRILL

B.S., U.S.A.C., 1930

Thesis: "An Experimental Study of Eighth-Grade Pupils to Compare the Results of Three Methods of Teaching French Upon the Ability to Translate French into English."

W. WENDELL PERKINS

B.S., B.Y.U., 1923

Thesis: "An Evaluation of Teaching Practice in the Minimum Essentials of English Through Grades Six to Twelve in Schools of Cache County, Utah, 1931-32."

LOWELL EARL STANLEY

B.S., U.S.A.C., 1933

Thesis: "An Evaluation of the Functions and Types of Student Body Government in Utah High Schools, in Terms of Approved Principles and Practices."

EARL P. WIXOM

B.S., U.S.A.C., 1933

Thesis: "A Formulation of Principles to Serve as a Basis in the Construction of Objective Tests for Measuring Creative Art Ability."

## UNDERGRADUATE DIVISION

Graduates with the Degree of Bachelor of Science

### School of Agriculture and Forestry

#### AGRICULTURE

Allen, Luris P.  
Andrus, Owen E.  
Bahen, Paul Shaw  
Dunkley, Willis R.  
Gibson, Elmer Hadley  
Glenn, Marshall W.  
Hatch, William Ray  
Howard, Fred P.  
Jackson, George, Jr.

Larson, LaDell M.  
Madsen, Milton Andrew  
McCulloch, Clyde George  
Morris, Edward H.  
Muir, Joseph  
Nielsen, Robert D.  
Nyman, Rodney S.  
Palmer, W. Horace  
Parker, Max R.

Pearson, Dwain J.  
Pyper, Glen G.  
Reading, Harold E.  
Roskelley, Lowell John  
Scholes, J. Fred  
Skinner, Marion Stratton  
Stewart, Byron John  
Thornock, Fay E.  
Thueson, Ivan O.

#### FORESTRY

Anderson, Robert Clark  
Carlson, Leland H.

Sill, Milton C.

Van Buren, Gordon

### School of Home Economics

Badger, Margery  
Beutler, Eva  
Bingham, Afton  
Cardon, Margaret Roundy  
Carter, Pearl J.  
Christensen, Carol Cooley  
Crawford, Beth  
Fife, Glenchora

Hale, Olive  
Hansen, Evelyn  
Jackson, Esther A.  
Jacobsen, Ashlaug  
Larsen, Annie  
Lenkersdorfer, Beryl A.  
Page, Edna  
Pearson, Harriet

Peterson, Ruth  
Petty, Norma  
Snow, Bessie  
Stock, Montana Gudmundson  
Wangsgard, Vivian  
Willey, Armenia  
Woodland, Hazel

### School of Arts and Science

Allen, Uleta  
Beal, Max  
Berrett, Maurice A.  
Budge, Athleen Farr  
Cheney, Clayton B.  
Christenson, Loraine  
Christenson, Ralph P.  
Cooper, Henry R.  
Costley, Richard Joseph  
Dixon, Gordon A.  
Douglas, Allan G.  
Evans, Robert John  
Farr, Leah  
Fletcher, Joel E.  
Fry, H. Burke  
Gardner, Eldon John  
Hammond, Ruth  
Hatch, Elton G.  
Hickman, Thorval L.

Hogenson, Beatrice Lucy  
Hull, John Edward  
Jeffs, Armond R.  
Jenkins, Lulu Rae  
Johnson, Helen Louise  
Johnson, Rolland  
Keller, Leslie Floyd  
Keller, Park Dudley  
Keller, Paul Dudley  
Kinyon Margaret Eugenia  
Larson, J. Stanford  
Lee, Orville Smith  
Leonard, Ross  
Marble, Orlin G.  
Maughan, Lois Evelyn  
Morgan, Floyd T.  
Morris, Clyde H.  
Morrison, Luey  
Nielsen, John Parkinson

Parrish, Ezra Grant  
Penrod, Marion H.  
Peterson, William Don  
Pond, Howard Martin  
Pugh, Clarence Duffin  
Raymond, G. Frank  
Reeder, Jesse Woodland  
Robinson, Clayton H.  
Scheby, Vera  
Shaw, David Glen  
Snedden, Henry D.  
Stewart, Miriam  
Swenson, Anna May  
Theurer, Barbara  
Tolman, Jay W.  
Ward, Sylvia  
Ward, William George  
Watkins, Margaret  
Zuppann, Ruth Cecille

### School of Education

Barrus, Fern L.  
Borup, Fern Charlton  
Bower, Aileen  
Brady, Elmo Cunningham  
Burnham, Weldon Stanley  
Drysedale, Elwood Horrocks  
Evans, Bertie Mae  
Harris, Audrey  
Hawkes, Kendrick Charles

Hendricks, Beth E.  
Jenkins, John Laird  
Jensen, Darwin P.  
Jensen, Ethel Zella  
Johnson, Joe L.  
Keller, Duane Dudley  
Osborne, Wallace Walter  
Palmer, Elva  
Petersen, Marene

Randall, Kermit Earl  
Reed, Jane Grant  
Reeder, Elaine  
Rich, Lothaire Rogers  
Silvester, John Arthur  
Van Kampen, Rudolph L.  
Wacker, Eva Regina  
Williams, Pearl Helen  
Wood, Vertis Conroy

### School of Commerce

Anderson, Alian  
Anderson, George Marlowe  
Andersen, Loyal I.  
Anderson, Merrill Budge  
Baxter, James Lowell  
Bowen, Dale S.  
Bowers, Douglass P.  
Brown, James B.  
Cannon, Howell Lee  
Christiansen, John Reid  
Clawson, Alice Joyce  
Deschamps, Ray  
Doty, Ina  
Fillmore, Parker Pratt  
Grange, A. Hollis  
Hansen, Alice Mildred

Hanson, Olive  
Hervilla, Ole A.  
Hogenson, Lydia Baker  
Howell, Leray S.  
Humpherys, Russell L.  
Hunter, Muriel Hogan  
Jensen, Don A.  
Jenson, Eleanor  
Jones, J. Virgil  
Kenner, Glenn R.  
Lauritzen, Ephraim R.  
Law, Howard E.  
Lowe, Thomas Rex  
Maughan, Theodore R.  
Monson, Amy  
Monson, J. Harold

Monson, Vernon Iverson  
Morgan, Beulah  
Olsen, Ross L.  
Palmer, Merlin Clyde  
Parsons, Harold J.  
Petersen, Thornton Wendel  
Reid, Eldon Stringham  
Robinson, Earle W.  
Sonne, Joseph Dean  
Sonne, Richard B.  
Taylor, C. William  
Theurer, Clark  
Theurer, Reed F.  
Tyson, Ross Stock  
Wrigley, Robert L., Jr.

### School of Engineering

#### CIVIL ENGINEERING

Archibald, Marion W.  
Bardizbanian Kourken H.  
Baugh, William Howard  
Bishop, Avery Alvin  
Crane, Clayton O.

Felsted, Harold N.  
Hawkes, Gordon  
Holton, Hyrum P.  
Khoubesserian, Hovhannes N.  
Peterson, Dean Freeman, Jr.

Pratt, Alma  
Rahman, Hafiz Abdur  
Rich, C. Carlyle  
Stock, Eldon Mark

#### MECHANIC ARTS

Harris, Spencer A.  
Jones, Charles H.

Jones, George O.  
Lewis, Elmer J.

Reid, Lucian Clare

## OFFICERS RESERVE CORPS OF THE ARMY OF THE UNITED STATES

### Second Lieutenant, Officers' Reserve Corps Coast Artillery

Bahen, Paul Shaw  
Brady, Elmo Cunningham  
Dixon, Gordon Albert  
Douglas, Allan Glover  
Glenn, Marshall Weston  
Hull, John Edward

Humpherys, Russell LeGrande  
Jensen, Earl Samuel  
Law, Howard Earl  
Morgan, Elmo Rich  
Raymond, George Frank  
Roskelley, Lowell John

Ryan, Miller  
Shields, Ellis Reed  
Stewart, Byron John  
Theurer, Clark  
Tolman, Jay Woodrow  
Woods, Lowell Groberg

## Honors 1933-34

### Phi Kappa Phi

#### Agriculture

Milton Madsen  
Elmer Gibson  
Dwain Pearson

#### Commerce

Allan Anderson  
C. William Taylor  
Eldon S. Reid  
Ross S. Tyson  
Amy Monson

#### Arts and Science

Athleen F. Budge  
Allan Douglas  
Clyde Morris  
Marian Penrod  
Miriam Stewart  
Robert J. Evans, Jr.

#### Home Economics

Vivian Wangsgard  
Ruth Peterson  
Carol Christensen  
*Engineering*  
Dean F. Petersen  
Kourken Bardizbanian  
*Education*  
Kermit Randall  
Weldon Burnham

### Valedictorian

Vivian Wangsgard



## SCHOLARSHIPS AND SPECIAL AWARDS

The following students were awarded the Johansen Scholarships for 1934-35:

Margaret Olsen	Phillip Hart	Kenneth Crockett
Leo Hawkes	Agnes Nichols	(1st Alternate)
Lynn W. Kloepper	Doyle Cardon	Ethelyn Larson
		(2nd Alternate)

### Scholarship "A's"

Norman Anderson	Leo Rogers Hawkes	Mae Rasmussen
Marion W. Archibald	Vernon C. Jamison	Wallace Sorenson
Max Beal	Dorothy Johnson	C. William Taylor
Lucy Elizabeth Cardon	Ellen Kemp	Mervin H. Wallace
Wanda Gerend	Lynn W. Kloepper	Vivian Wangsgard
Alfred B. Hart	James E. Mandry	Lowell Woodward
Marguerite Fonnesbeck	Roy Petersen	

The following students were awarded the 1927 Class Research Scholarships for 1934-35:

Lloyd N. Johnson	Ruth Roskelley	G. Fred Somers (alt.)
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The Rolla M. Rich Memorial Scholarship was awarded to Orson S. Cannon for 1934-35.

The Phi Upsilon Omicron Scholarship was awarded to Ruth Linnebaugh for 1934-35.

The Chi Omega Fraternity Scholarship was awarded to Agnes Nichols.

The College Awards. Two certificates given for distinguished College Citizenship were awarded to: John Stewart and Ruth Peterson.

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 Howard Law.

The U.S.A.C. Science Medal. Given to the author of the best paper on some selected scientific subject, won by Robert J. Evans, Jr.

The U.S.A.C. Women's Club Essay Prize. A ten dollar prize given to the writer of the best literary essay, won by Raleigh Barlow.

The Sons of American Revolution Medal. Given to the student who gives the best prepared patriotic speech, won by Ellis Armstrong.

The American Legion Military Medal. Given to the Letterman exhibiting the most wholesome attitude toward military training during the football season, awarded to Jay Tolman.

The American Legion Scholarship Medal. Given to the Letterman maintaining the highest scholastic standing during the football season, won by Rudy L. VanKampen.

The Home Economics Award. Given to an outstanding senior in the School of Home Economics, was awarded to Afton Bingham.

The Alpha Kappa Psi Medallion. Given to the male commercial student of junior standing who possesses the highest scholastic average, won by Lynn W. Kloepfer.

The Myers Dramatic Award. Given to the senior student who is considered the most outstanding in Speech and Dramatics, awarded to Floyd Morgan.

The Leadership Challenge Cup. Given to the senior student in Agriculture that has exhibited the greatest measure of constructive organization and leadership in the School of Agriculture throughout his college course, awarded to John Stewart.

The Alpha Zeta Fraternity Cup. Given to the sophomore student in Agriculture who maintained the highest scholastic average in his freshman year, won by Henry D. Zobell.

The John K. Madsen Trophy. Given to the student who ranks the highest in judging sheep, won by Clyde Stewart.

The John M. Ritchie Trophy. Given to the student who ranks the highest in judging horses, won by Farrell Olson.

The Ogden Union Stock Yards Trophy. Given to the student who ranks the highest in judging beef cattle, won by Eldon Campbell.

The Salt Lake Union Stock Yards Trophy. Given to the student who ranks the highest in judging swine, won by Elmo Miller.

The American Packing Company Trophy. Given to the student who ranks the highest in judging commercial meat carcasses, won by Leon Swenson.

The American-Hawaiian Steamship Trophy. Given to the student who ranks the highest in judging wool, won by Russell Freeman.

The Danforth Foundation Fellowship. Awarded to Elmer Facer.

## SUMMARY OF ATTENDANCE—1933-34

RANK	Agriculture Men	Arts & Sci. Men	Arts & Sci. Women	Commerce Men	Commerce Women	Education Men	Education Women	Engineering Men	Home Ec. Women	TOTALS
Graduates .....	9	22	10	9	5	9	4	2	2	72
Seniors .....	40	46	22	39	9	14	12	29	24	235
Juniors .....	59	57	24	26	7	21	13	22	26	255
Sophomores .....	90	93	45	59	29	26	48	37	47	474
Freshmen .....	164	120	81	76	61	33	71	70	67	743
Unclassified .....			3	2		1		1	2	9
Vocational .....	9	8	10	4	3	2	3	8	1	48
TOTALS .....	371	346	195	215	114	106	151	169	169	1836

(Men 1207, Women 629)

Six-weeks Summer Session 1933—(316 Men, 177 Women).... 493

2329

Less Names Repeated—(59 Men, 37 Women)..... 96

Net Total Resident Enrollment..... 2233

Correspondence Department—(160 Men, 95 Women)..... 255

Extension Classes—(54 Men, 93 Women)..... 147 402

2635

Names Repeated:

Correspondence and Extension—(10 Men, 4 Women).... 14

Resident and Non-Resident Groups—

(81 Men, 40 Women)..... 121

135

GRAND TOTAL ENROLLMENT ..... 2500

EXTENSION SERVICE AND SUMMER SCHOOL  
SHORT COURSES

4H Club School ..... 112

Adult Leaders School (Women) ..... 65

Adult Leaders School (Men) ..... 63

Live at Home Meetings (27) ..... 4262

Short Course in Recreational Leadership—Summer Session 1933 83

High School Students in 1933 Summer Session Band Course..... 255

# List of Students 1933-34

In the following list "a" stands for agriculture; "as" for arts and science; "e" for engineering and mechanic arts; "ed" for education; "ho" for home economics; "c" for commerce; "SS" for summer school; "G" for Graduate; "S" for Senior; "J" for Junior; "So" for Sophomore; "F" for Freshman; "V" for Vocational.

Aadnesen, Oertel ed-So.....	Ogden	Andersen, Loyal Irvin c-S.....	Hyrum
Aagard, Laurel as-F.....	Provo	Andersen, Mary L. SS.....	Brigham City
Abbott, George Emerson as-G.....	Tremonton	Andersen, Merle ed-So.....	Hyrum
Abbott, George a-F.....	Midvale	Andersen, Valere ho-J.....	Hyrum
Abbott, Irving Wayne a-F.....	Midvale	Andersen, William a-J.....	Huntington
Abbott, James SS.....	Swan Lake, Ida.	Anderson, Alfred Jay ed-J.....	Richfield
Abbott, Jed R. a-So.....	Tremonton	Anderson, Allan c-S.....	Brigham City
Abersold, Weldon c-J.....	Logan	Anderson, Annie SS.....	Logan
Adams, Afton SS.....	Roy	Anderson, Brice O. a-J.....	Salina
Adams, Alma ed-So.....	Layton	Anderson, Bryce W. as-J.....	Grantsville
Adams, Hazel SS.....	Logan	Anderson, C. Victor as-J.....	Logan
Adams, Ivan M. c-So.....	Layton	Anderson, Claris Beth c-F.....	Hyrum
Adams, John R. SS.....	Richfield	Anderson, Edwin Fred c-So.....	American Fork
Adams, Lisle J. SS.....	Tremonton	Anderson, Elaine c-F.....	Richmond
Adams, Munro Robert e-V.....	Logan	Anderson, Ernest LeRoy c-J.....	Logan
Adamson, Delsa c-So.....	Logan	Anderson, Evan Roy SS.....	Ephraim
Aebischer, Matilda SS.....	Logan	Anderson, Fawn Stewart as-So.....	Logan
Aegerter, Hettie c-F.....	Logan	Anderson, G. Marlowe c-S.....	Brigham City
Affleck, Preston C. e-S.....	Logan	Anderson, George W. ed-G.....	Logan
Alder, Ferdinand C. SS.....	Manti	Anderson, Grant Henry e-F.....	Providence
Alder, Horace B. as-J.....	Logan	Anderson, Harriette Lorraine ed-F.....	Logan
Alder, Karl G. as-So.....	Logan	Anderson, J. Lee SS.....	Fountain Green
Alder, Laree ed-So.....	Logan	Anderson, Jessie LaMarr as-F.....	Logan
Alder, LaRee ed-So.....	Providence	Anderson, Max V. as-F.....	Salt Lake City
Alder, Lynn Campbell c-F.....	Providence	Anderson, Melva c-G.....	Logan
Alder, Seth Leon c-F.....	Providence	Anderson, Merrill B. c-S.....	Logan
Alexander, George Mirle a-So.....	Vernal	Anderson, Naomi as-So.....	River Heights
Alexander, Glen M. SS.....	Panquitch	Anderson, Nedra L. ho-F.....	Logan
Aljets, Anna Mae c-F.....	Tooele	Anderson, Norman Stillwell e-F.....	Tooele
Allen, Glen L. as-F.....	Wellsville	Anderson, R. Clark a-S.....	Logan
Allen, A. Douglas e-So.....	Hyrum	Anderson, Rudolph as-So.....	Ogden
Allen, Albert Bailey SS.....	American Fork	Anderson, Vera as-F.....	Logan
Allen, Chrystal ho-F.....	Hyrum	Anderson, Wanda ed-F.....	Shelley, Ida.
Allen, David Etham e-F.....	Providence	Anderson, Wendell B. c-J.....	Logan
Allen, Foster Baker c-F.....	Logan	Anderson, Willard as-F.....	Logan
Allen, George H. as-V.....	Logan	Anderson, Woodruff H. SS.....	Logan
Allen, Golden L. ed-J.....	Portage	Andreassen, Ruby C. ho-F.....	Cleveland, Ida.
Allen, Jay Victor e-F.....	Hyrum	Andrew, Donald as-F.....	Trenton
Allen, Jean ed-So.....	Hyrum	Andrews, Horace M. a-F.....	Moab
Allen, Jesse Stewart e-F.....	Logan	Andrews, Norman Beaumont a-F.....	Moab
Allen, Luris Porter a-S.....	Kingston	Andrus, Beaumont T. as-F.....	Firth, Ida.
Allen, Merlin W. a-J.....	Logan	Andrus, Owen E. a-S.....	Salt Lake City
Allen, Roland R. a-So.....	Logan	Anthoan Tad as-S.....	Springville
Allen, Ruth May c-J.....	Providence	Arave, Bessie ed-So.....	Hooper
Allen, Uleta as-S.....	Logan	Arave, Margaret SS.....	Hooper
Allen, Wayne a-J.....	Idaho, Falls, Ida.	Archibald, Marion W. e-S.....	Hyrum
Allmendinger, Irene Pearl ho-F.....	Gunnison	Arentson, Robert Willard as-J.....	Logan
Allred, Leora Elizabeth ed-F.....	Hyrum	Armstrong, Ellis LeRoy e-J.....	Cedar City
Allred, Thede N. e-V.....	Logan	Armstrong, Herbert Clarence as-F.....	Logan
Alvord, Lloyd I. as-J.....	North Ogden	Ashby, Melvin Jay c-F.....	Leamington
Anderegg, Pearl Alice ed-J.....	Logan	Ashcroft, Theron M. e-So.....	Hyde Park
Andersen, Ariel A. as-G.....	Logan	Ashman, Harold SS.....	Fillmore
Anderson, E. Milton a-J.....	Tremonton	Astle, Lloyd J. a-J.....	Logan
Anderson, Glenn Sanders a-F.....	Mendon	Astle, Orrin W. ed-J.....	Richmond
Anderson, Homer Paul a-F.....	Hyrum	Athay, Clarke LeRoy as-F.....	Logan
Anderson, J. F. ed-F.....	Brigham City	Athay, Morris B. a-S.....	Paris, Ida.

Atkinson, George H. a-F.....	Ogden
Atkinson, LeRoy Alfred a-F.....	Garland
Atwood, Grant L. a-F.....	Pleasant Grove
Aylworth Arthur Andrew a-F.....	Richmond
Bach, Kennth e-F.....	Logan
Badger, Margery ho-S.....	Salt Lake City
Badger, Phil J. a-F.....	Salt Lake City
Baer, Vernon SS.....	Providence
Bagley, Grant Lyle SS.....	Richmond
Bahen, Paul S. a-S.....	Paradise
Bailey, Keneth B. c-S.....	Wellsville
Bailey, Loile J. a-F.....	Monticello
Bailey, Lucille ed-So.....	Manti
Bailey, Merva as-F.....	Ogden
Bailey, Wanda ho-F.....	Escalante
Bair, Amos W. SS.....	Richmond
Bair, John Sildon a-So.....	Richmond
Baird, Glenn T. a-J.....	Ogden
Baker, Arthella as-G.....	Logan
Baker, H. Cecil SS.....	Salt Lake City
Baker, Hayward e-So.....	Logan
Baker, Nan LaRue c-F.....	Logan
Ball, Frank E. e-F.....	Salt Lake City
Ball, Marjorie SS.....	White Pine, Nev.
Ball, Roy C. a-So.....	Logan
Ball, Vernon as-F.....	Logan
Ballam, Oral Lynn SS.....	Richmond
Ballard, June ho-So.....	Smithfield
Ballard, Willard Russell as-So.....	Logan
Balls, Clin A. ed-F.....	Hyde Park
Bancroft, Edna Lois SS.....	Rudyard, Mont.
Bancroft, Guy Roy SS.....	Rudyard, Mont.
Bankhead, Ruth as-F.....	Wellsville
Bardizbanian, Kourken e-S.....	Cairo, Egypt
Barkdull, P. H. ed.....	Logan
Barker, Lynn S. as-J.....	Cache Junction
Barlow, Dean Rampton a-F.....	Logan
Barlow, Joel Call c-F.....	Woods Cross
Barlow, Naomi SS.....	Woods Cross
Barlow, Raleigh as-So.....	Logan
Barrus, Fern L. ed-S.....	Sugar City, Ida.
Barrus, Layton R. SS.....	Tooele
Barrus, Leola ho-So.....	Blackfoot, Ida.
Barrus, Merle C. ed-J.....	Logan
Barrus, Thayer Clark as-J.....	Logan
Barrus, Verla ho-So.....	Blackfoot, Ida.
Barrus, Winford Melvin e-J.....	Blackfoot, Ida.
Bartholomew, Irene ed-J.....	Roy
Barton, Dale S. e-J.....	Kaysville
Barton, Donna c-F.....	Blanding
Barton, Harmon ed-F.....	Kaysville
Barton, Roma ho-F.....	Blanding
Bartschi, Naomi ho-F.....	Providence
Bastian Ruth ed-F.....	Logan
Baugh, Alice Boyd c-F.....	Burley, Ida.
Baugh, Frederick Ray a-So.....	Salt Lake City
Baugh, Pearl ho-J.....	Logan
Baugh, William Jr. a-J.....	Benson
Baugh, William Howard e-S.....	Salt Lake City
Baxter, James Lowell c-S.....	Logan
Baxter, Libbie Haslam c-J.....	Logan
Beach, Ellis c-So.....	Ferron
Beagley, Harry SS.....	Nephi
Beal, George Leon SS.....	Ephraim
Beal, Max as-S.....	Tremonton
Bean, Russell R. a-J.....	Brigham City
Beasley, John Lewis e-So.....	Salt Lake City
Beck, Irma c-V.....	Logan
Bedier, Frances Louise as-J.....	Greenriver
Bedier, Richard Paul as-F.....	Greenriver
Behling, Wesley e-F.....	Kaysville
Behrman, Wallace H. as-F.....	Logan
Beishline, Hazel Fern SS.....	Ogden
Bell, Asael Enos SS.....	Franklin, Ida.
Bell, Douglas a-So.....	Salt Lake City
Bell, Ellen Mabel SS.....	Franklin
Bell, George M. as-J.....	Logan
Bell, Sheldon Archie a-F.....	Logan
Belliston, Harold W. e-So.....	Nephi
Belliston, Walter e-So.....	Nephi
Belnap, Wendell e-F.....	Hooper
Bench, George Worth e-F.....	Fairview
Bennett, William Hunter a-F.....	Logan
Bennion, Dale Irving a-F.....	Magna
Bennion, Edna SS.....	Salt Lake City
Bennion, Hugh C. SS.....	Farmington
Bennion, Kora ed-F.....	Vernal
Bennion, Mark a-J.....	Logan
Bennion, Noel L. SS.....	Logan
Behnion, Ruth Elene ed-F.....	Magna
Benson, Fae as-So.....	Logan
Benson, Virgo ed-So.....	Logan
Berg, Anna Laura ho-J.....	Logan
Berg, Mary Naomi ho-J.....	Logan
Bergeson, Arnold as-So.....	Lewiston
Bergeson, I. Sheldon c-J.....	Lewiston
Bernhisel, Hortense ed-F.....	Lewiston
Berrells, Laura K. as-G.....	Logan
Berrett, Halvor S. as-J.....	Ogden
Berrett, Maurice Allan as-S.....	North Ogden
Berrett, Rex W. as-F.....	Rexburg, Ida.
Berrey, Boyd a-F.....	Logan
Beutler, Eva Mae ho-S.....	Logan
Bickmore, Lydia c-J.....	Logan
Bingham, Afton ho-S.....	Vernal
Bingham, Earl a-F.....	Honeyville
Bingham, Heber Glenn a-F.....	Weston, Ida.
Bingham, Richard a-F.....	Logan
Bingham, Virginia as-F.....	Salt Lake City
Binns, Wayne a-J.....	American Fork
Birch, George e-J.....	Hyrum
Bird, Virgil H. as-So.....	Springville
Bischoff, Dean E. e-F.....	Logan
Bischoff, Rebecca SS.....	Lovell, Wyo.
Bishop, Avery Alvin e-S.....	Delta
Bishop, LeRoy SS.....	Tremonton
Bishop, Theral as-F.....	Garland
Bitters, Melvin Jensen a-So.....	Providence
Black, Emily as-F.....	Logan
Black, Jesse R. SS.....	Salmon City, Ida.
Blackham, Rupert F. SS.....	Moroni
Blaisdell, Dale a-F.....	Logan
Blaisdell, LaPreal as-J.....	Logan
Blaisdell, Waldo a-F.....	Logan
Blanton, Paul as-F.....	Logan
Boam, Grant O. a-F.....	Logan
Bodily, Lawrence Cole a-So.....	Richmond
Bogh, Roy a-V.....	Mayfield
Bohne, E. F. SS.....	Spanish Fork
Borup, Fern Charlton ed-S.....	Ogden
Bott, Arola ho-F.....	Brigham City
Bott, Henrietta SS.....	Brigham City
Bowen, Beth J. as-So.....	Logan
Bowen, Dale S. c-S.....	Logan
Bowen, John M as-F.....	Logan

Bowen, Lucy S-SS.....	Logan	Cahoon, J. Wayne e-S.....	Magna
Bowen, Myles ed-G.....	Spanish Fork	Caine, Lawrence B. a-F.....	Richmond
Bowen, Ray Brigham a-F.....	Logan	Calder, Grant H. c-J.....	Vernal
Bower, Arleen as-S.....	Ogden	Caldierwood, James W. as-So.....	Logan
Bowers, Douglass Pixton c-S.....	Salt Lake City	Callister, Orson Pratt c-So.....	Logan
Bowman, Claudius a-So.....	Logan	Callister, T. Hyrum ed-F.....	Logan
Boyce, Paul SS.....	Sandy	Campbell, Eldon Ray a-F.....	Farmington
Boyer, Fern as-So.....	Springville	Campbell, Jean ed-F.....	Lewiston
Boyle, Shirley ed-F.....	Logan	Campbell, Theodore as-V.....	Juniper, Ida
Brady, Elmo C. ed-S.....	Sandy	Cannon, Angus Welden a-J.....	Bountiful
Brady, William W. SS.....	Castle Dale	Cannon, Clarence Bennion a-So.....	Salt Lake City
Braithwaite, V. J. SS.....	Huntsville	Cannon, Howell Lee c-S.....	Fielding
Brannwell, Keith Brown SS.....	Hamer, Ida	Cannon, Ida Mae Burton c-F.....	Salt Lake City
Brenchley, Louis H. SS.....	Wellsville	Cannon, Marva ho-So.....	Mt. Emmons
Bridge, Darl ed-V.....	Garfield	Cannon, Orson Silver a-S.....	Bountiful
Briggs, Florence ed-F.....	Layton	Cardon, Beth as-F.....	Logan
Briggs, Glen a-F.....	Logan	Cardon, Blanche c-F.....	Logan
Brimhall, Ralph SS.....	Mesa, Ariz.	Cardon, Doyle a-J.....	Smithfield
Broberg, Paul e-S.....	Logan	Cardon, Edna c-So.....	Logan
Brough, Augusta ed-So.....	Tremonton	Cardon, Jennie Gayle as-F.....	Logan
Brough, Elmo Anderson a-So.....	Nephi	Cardon, Lucy Elizabeth as-So.....	Logan
Brough, Jack a-F.....	Nephi	Cardon, Margaret ho-S.....	Smithfield
Brown, Helen May ed-F.....	Brigham	Cardon, Margaret Ivins as-F.....	Logan
Brown, James B. SS.....	Sunnyside	Cardon, Ruby Leith c-F.....	Logan
Brown, Norman Kershaw as-F.....	Layton	Cardon, Ruth c-J.....	Logan
Brown, Oranona as-So.....	Hyrum	Carlisle, Evelyn ho-So.....	Logan
Brown, Rachel ed-F.....	Grantsville	Carlisle, Thain as-So.....	Logan
Brown, Vera Carolyn ho-So.....	Ogden	Carlson, Conrad Stark SS.....	Logan
Bruce, Willard W. SS.....	Smoot, Wyo.	Carlson, Horace C. as-J.....	Logan
Bryant, Wayne a-J.....	Cedar City	Carlson, Leland H. a-S.....	Logan
Buchanan, Douglas L. e-So.....	Venice	Carlson, Minette Rosalinds ho-So.....	Tooele
Buchanan, Joseph Wallace as-F.....	Richfield	Carlson, Stella ho-So.....	Logan
Budd, Joe L. as-J.....	Salt Lake City	Carpita, Dan William e-F.....	Logan
Budge, Athleen Farr as-S.....	Ogden	Carter, Pearl J. ho-S.....	Logan
Budge, Lex SS.....	Logan	Carver, Vesse Robert ed-S.....	Wellsville
Budge, Mack Sheperd as-F.....	Lewiston	Casperson, Z. Genevieve ed-F.....	Logan
Budge, Morgan Thomas e-F.....	Logan	Cates, Frona Christensen SS.....	Bear River City
Budge, Omar Sutton as-J.....	Logan	Chadwick, John W. SS.....	Ogden
Budge, S. E. ed-J.....	Logan	Chadwick, Rulon W. a-J.....	North Ogden
Budge, William Lennox a-F.....	Logan	Chambers, Don Goddard as-So.....	Garland
Bullen, Philip Asa c-So.....	Logan	Chapin, Hazel ho-F.....	Morgan
Bullen, Reese c-F.....	Richmond	Chard, Marcellus as.....	Ogden
Bullen, Tad H. c-J.....	Logan	Chase, Nephi Bennion a-F.....	Nephi
Bunderson, Mary ho-So.....	Brigham	Cheney, Clayton as-S.....	Brigham City
Bunker, Robert Evan c-F.....	Salt Lake City	Cheney, Ford A. e-V.....	Logan
Bunker, Robert Ferris a-F.....	Las Vegas, Nev.	Cheney, Harmon Weston as-F.....	Laketown
Bunnell, LeRoy SS.....	Provo	Cheney, Orval e-So.....	Garland
Bunten, Ernest Stanley a-So.....	American Fork	Cherrington, Jack A. c-F.....	Springville
Bunten, Glenn as-J.....	American Fork	Ching, Walter H. W. a-J.....	Honolulu, Hawaii
Burgess, Stanley a-J.....	Salina	Chipman, Margaret Smart SS.....	Logan
Burgi, Floyd S. as-F.....	Logan	Christensen, Alex Ledingham as-S.....	Logan
Burgoynne, Allie Petersen c-G.....	Newton	Christensen, Boyd Ted as-F.....	Ferron
Burgoynne, Lucile SS.....	Logan	Christensen, Byron ed-J.....	Hyrum
Burn, William Richard as-F.....	Hiawatha	Christensen, Carol C. ho-S.....	Newton
Burnham, Weldon Stanley ed-S.....	Logan	Christensen, Daisy Dean c-V.....	Logan
Burningham, Melvin S. a-So.....	Bountiful	Christensen, Dale Dreston as-So.....	Logan
Burns, A. Ethelyn c-G.....	Logan	Christensen, Dean Christian ed-J.....	Ephraim
Burns, James C. a-F.....	Bountiful	Christensen, Ivan John SS.....	Shelby, Ida
Burrup, Clyde L. as-So.....	Logan	Christensen, J. Oral SS.....	Tropic
Burrup, Marjorie Mae as-So.....	Logan	Christensen, Jay Burton a-J.....	Fairview
Burton, Bernice SS.....	Afton, Wyo.	Christensen, Leonard a-So.....	Los Angeles, Cal.
Burton, Ruth ho-So.....	Salt Lake City	Christensen, Maurine as-J.....	Logan
Bush, Richard Andrew a-F.....	Salt Lake City	Christensen, Merlin SS.....	Delta
Buttars, Hedvig ho-So.....	Cornish	Christensen, Velma as-F.....	Logan
Buttars, Vada ho-F.....	Lewiston	Christenson, Erma Lorraine ed-F.....	Logan
Bybee, Mildred ed-F.....	Lewiston	Christenson, Loraine as-S.....	Logan
Byington, Ila M. ed-F.....	Logan		
Byington, Leo Irving c-So.....	Logan		



Christianson, Archie L. SS.	Ogden
Christiansen, Frances R. a-V.	Ibapah
Christiansen, Ione as-F.	Beaver
Christiansen John M. e-F.	Logan
Christiansen, John Reid c-S.	Logan
Christiansen, Robert Leon as-F.	Ibapah
Christiansen, Verland L. SS.	Moreland, Ida.
Christiansen, Ralph P. as-S.	Wellsville
Chugg, Nile R. c-J.	Providence
Church, Vernon SS.	LaVerkin
Clark, Carl Nelson e-V.	Logan
Clark, Clayton as-G.	Logan
Clark, J. O. SS.	Pleasant Grove
Clark, Leland A. SS.	Pleasant Grove
Clark, Lewis a-S.	Ogden
Clark, Vera c-F.	Farmington
Clark, Wesley C. c-J.	Logan
Clawson, Cleo Betty c-F.	Providence
Clawson, Gwen c-F.	Hyrum
Clawson, Joyce c-S.	Providence
Clawson, Vincent Roy c-So.	Providence
Clay, Edward P. e-F.	Bountiful
Clay, Evan P. a-So.	Bountiful
Clayton, Ruth Carol SS.	Salt Lake City
Clegg, Florence ed-F.	Tooele
Clegg, H. J. a-J.	Tooele
Cole, Afton c-So.	Logan
Cole, Rex e-F.	Paris, Ida.
Cole, William C. a-So.	Nephi
Coleman, Beth ho-J.	Milford
Coles, Leland a-S.	Logan
Collier, Theodore R. e-G.	Logan
Comish, Dona ho-F.	Richmond
Condie, James P. as-So.	Logan
Cook, J. Vernon e-So.	Garden City
Cook, LaRue c-J.	Logan
Cook, Ray e-F.	Logan
Cook, Wayne Henry c-J.	Syracuse
Cooley, Carma as-So.	Logan
Cooley, Vern A. a-J.	Logan
Coombs, Ross Harold SS.	Ftn. Green
Cooper, Henry R. as-S.	Wellsville
Cooper, Marjorie SS.	Murray
Copley, Tyler Benjamin SS.	Clearwater, Ida.
Corbridge, Elaine c-F.	Logan
Cordon, Theone C. as-G.	Rigby
Cordon, William Alfred e-J.	Logan
Costley, Richard J. as-S.	Logan
Cottam, Moroni SS.	Provo
Couch, Joe a-So.	Logan
Couch, Sherman K. SS.	Salt Lake
Cowley, Joseph E. a-V.	Logan
Cox, J. Gilbert e-So.	Woodruff
Cox, Veda SS.	Manti
Cragun, Earl Budge SS.	Ogden
Cragun, Paul Budge SS.	Ogden
Crandall, Bliss H. a-F.	Springville
Crane, Basil a-J.	Logan
Crane, C. B. SS.	Circleville
Crane, Clayton e-S.	Logan
Crane, Mary SS.	Goldsfield, Nev.
Craner, Edward William c-V.	Logan
Cranney, Rie ed-G.	Logan
Cranney, Willard O. a-F.	Oakley, Ida.
Crapo, Fred M. a-F.	Logan
Crapo, Maurice a-V.	St. Anthony, Ida.
Crawford, Beth ho-S.	Price
Criddle, Wayne D. e-So.	Clearfield
Crockett, Cardon T. c-J.	Richmond
Crockett, Donald Eugene as-J.	Richmond
Crockett, Joseph Turner as-F.	Richmond
Crockett, Kenneth A as-J.	Preston, Ida.
Croft, Jack a-G.	Logan
Croft, Lucille Ballif ed-F.	Preston, Ida.
Cromar, Eugene E. SS.	Salt Lake City
Crook, Royal Don SS.	Heber
Crookston, Glenna Marjorie as-F.	Logan
Crookston, R. Burns SS.	Logan
Crosby, DeVon a-F.	Salt Lake City
Crowl, John M. a-S.	Logan
Cullimore, William James SS.	Garland
Cummings, Leona c-G.	Brigham
Curtis, Morris Hugh e-F.	Salina
Curtis, Ray B. e-G.	Logan
Cutler, Barbara ed-F.	Newdale, Ida.
Cutler, Harold Harris c-G.	Logan
Cutler, Lucy ed-So.	Logan
Dahle, Robert SS.	Logan
Daines, Faye as-J.	Logan
Daines, J. Gordon as-So.	Logan
Daines, Myra ho-So.	Hyde Park
Daines, Rudgar H. SS.	Whitney, Ida.
Daines, Weston Ray as-F.	Logan
Daley, R. J. SS.	Teasdale
Daly, Rex F. a-F.	Delta
Daniels, Cleon Price SS.	Logan
Daniels, Willa as-So.	Logan
Darley, Archibald E. SS.	Mt. Pleasant
Darley, Elizabeth ho-J.	Wellsville
Darley, Farrell B. c-G.	Wellsville
Darley, Rebecca ho-F.	Wellsville
Darrington, Clifford H. ed-S.	Logan
Davidson, Edna May SS.	Logan
Davies, Charles Hyrum SS.	Provo
Davis, Dorcas D. as-F.	Salt Lake City
Davis, Marvin Floyd c-F.	Logan
Davis, Wendel A. c-J.	Mesa, Ariz.
Dean, Warren H. as-S.	Beaver
Decker, Clyde Morris e-So.	Farmington
Delong, Alta L. SS.	Winnamucca, Nev.
DeLong, Maude SS.	Winnemucca, Nev.
Dempsey, John Joseph c-F.	Logan
Densley, Duane A. ed-So.	Riverton
Dermody, Edward William a-J.	Ogden
Deschamps, Ray c-S.	Logan
Despain, Clive SS.	Axtell
Dibble, Jane ed-F.	Layton
Dickerson, Wes R. a-So.	Pleasant Grove
Dickson, Ross SS.	Morgan
Dixon, Gordon A. as-S.	Logan
Dizikes, Jim a-F.	Draper
Dockum, Norman Leslie as-So.	Ogden
Dolphin, Lambert T. SS.	Emmett, Ida.
Doman, James C. e-J.	Logan
Donahoo, Dewey C. a-V.	Lupoint
Dopp, Donald E. c-So.	Logan
Dorins, Lewis SS.	Delta
Doty, Ina c-S.	Richmond
Douglas, Allan G. as-S.	Salt Lake City
Dover, Charles Victor a-So.	Salt Lake City
Draper, Clark Lynn a-So.	Hinckley
Driggs, Norval A. a-F.	Pleasant Grove
Drummond, Don M. as-F.	Ft. Duchesne
Drummond, John Paul a-F.	Ft. Duchesne
Drysdale, Elwood H. ed-S.	Ogden



Duce, William B. c-So.....	Hyde Park	Fallows, Albert D. as-P.....	Hyrum
Duckworth, Florence Alyce ho-F.....	Nephi	Farnes, Loree SS.....	Logan
Duke, Vern V. c-G.....	Logan	Farr, Doris as-G.....	Arimo, Ida.
Duke, Wilson c-J.....	Vernal	Farr, Leah as-S.....	Ogden
Duncan, Lyman E. ed-F.....	Moab	Farrer, Wells a-F.....	Beaver
Dunkley, Parley L. c-J.....	Franklin	Faus, Reo Rae e-So.....	Merrill, Oregon
Dunkley, Willis R. a-S.....	Whitney, Ida.	Favero, Alfred as-So.....	Hooper
Dunn, John Eldon as-So.....	Logan	Felsted, Harold N. e-S.....	Logan
Dunn, Lula M. c-J.....	Logan	Felsted, LaNay Edwin e-J.....	Logan
Dunn, Meryl SS.....	Logan	Ferguson, Louise ho-F.....	Tooele
Dunn, Reed T. as-So.....	Logan	Fife, Blanche c-So.....	Providence
Dunoskovich, Johnny Milan c-F.....	Midvale	Fife, Glenchora SS.....	Logan
Dutson, Rollo c-J.....	Logan	Fifield, Floyd ed-F.....	Weston, Ida.
Eames, Donna ed-So.....	Logan	Fillerup, Albert L. e-F.....	Lovell, Wyo.
Eames, Roberta Geddes, ed-J.....	Logan	Fillmore, A. James as-G.....	Richfield
Earl, Clyde M. a-So.....	Brigham City	Fillmore, Parker P. c-S.....	Richfield
Earl, Janice c-F.....	Fielding	Fink, Lucille ed-F.....	Logan
Earl, Lemuel R. as-So.....	Fielding	Finlinson, Rich Lyman a-So.....	Leamington
Eberhard, Hugo a-V.....	Melba	Finlinson, William Walker a-S.....	Leamington
Ebert, Raymond SS.....	Salt Lake City	Fish, Irvin T. c-F.....	Logan
Edmunds, Davora as-J.....	Salt Lake City	Fisher, Emma SS.....	Richmond
Edwards, Bernell J. SS.....	Pleasant Grove	Fisher, Fern as-So.....	Clearfield
Edwards, Melvin Dee SS.....	Salt Lake City	Fisher, Mitchell a-F.....	Milford
Egbert, Gordon Roy e-So.....	Logan	Fitches, Neone SS.....	Salt Lake City
Egbert, Hortence as-So.....	Smithfield	Fitzgerald, Walter Blake a-F.....	Richfield
Ekins, Alda ho-F.....	Hinckley	Fletcher, Esther Williamson ho-So.....	Wellsville
Ekstrom, Dorothy May c-F.....	Malad	Fletcher, Joel E. as-S.....	Logan
Eldest, Floyd Stanley a-So.....	Salt Lake City	Fletcher, Myrle ed-F.....	Logan
Eliason, Courtleigh as-So.....	Logan	Fletcher, Ruth ho-J.....	Logan
Eliason, Ethel Dawn ho-F.....	Logan	Fletcher, Sam SS.....	Franklin, Ida.
Elliot, Tom E. SS.....	Rock Springs, Wyo.	Fletcher, Sara SS.....	Logan
Ellison, Phay Edward a-F.....	Ogden	Flinders, Virginia ho-F.....	Grantsville
Emigh, George Ebwer SS.....	Burns, Ore.	Floyd, James Whitney a-S.....	Logan
Emmett, Gladys SS.....	Lovell, Wyo.	Follett, Verda Gene ed-F.....	Logan
Emmett, Lucille c-F.....	Logan	Fonnesbeck, Baron c-F.....	Logan
England, Clarence H. e-V.....	Logan	Fonnesbeck, Frances L. as-So.....	Logan
England, Edwin S. a-J.....	Logan	Fonnesbeck, Herman S. as-So.....	Logan
England, Eugene e-So.....	Logan	Fonnesbeck, Marguerite as-F.....	Logan
England, Maurine ed-So.....	Logan	Ford, Jeanette as-So.....	Farmington
Engstrom, LaMar a-So.....	Huntsville	Forgeon, Jack Holmes a-So.....	Salt Lake City
Engstrom, Uno e-J.....	Los Angeles, Cal.	Forsgren, Donna SS.....	Ogden
Ensign, Marion as-J.....	Ogden	Forsgren, John Clifford SS.....	Preston, Ida.
Ericksen, Durell a-F.....	Beaver	Foster, Reed a-So.....	Logan
Ericksen, Kenneth J. a-F.....	Beaver	Fowers, Ardell ho-F.....	Hooper
Eriksson, Carl G. a-So.....	Salina	Fowler, Don Parker a-F.....	Hooper
Esplin, Oleen as-J.....	Logan	Fowler, Frances Harriet ho-So.....	Logan
Etzel, John Archie e-F.....	Mohrland	Fowler, Virginia Marion c-F.....	Salt Lake City
Eschler, Eunice SS.....	Logan	Fox, C. Wray c-F.....	Salt Lake City
Evans, Annie SS.....	Malad, Ida.	Frandsen, Lloyd Victor as-J.....	Logan
Evans, Bertie Mae ed-S.....	Logan	Frandsen, Vernon Otto a-So.....	Firth, Ida.
Evans, James E. SS.....	Logan	Fraughton, Virgie as-S.....	Heber
Evans, Laura as-F.....	Logan	Frederickson, Carmen D. c-G.....	Logan
Evans, Peter E. SS.....	Morgan	Frederickson, Harold ed-F.....	Roosevelt
Evans, Richard Stevenson ed-J.....	Layton	Frederickson, Pat ed-S.....	Ogden
Evans, Robert John as-S.....	Logan	Freeman, A. L. SS.....	Brigham City
Evans, Ruth ed-F.....	Raymond, Ida.	Freeman, Russell H. a-V.....	Riverton
Evans, Sam as-F.....	Logan	Fridal, K. H. as-J.....	Tremonton
Evans, Valeria ed-So.....	Salt Lake City	Fridal, Max as-So.....	Tremonton
Everton, Bessie c-S.....	Logan	Froyd, Glen c-SS.....	Cedar City
Ewer, Afton c-So.....	Logan	Fry, Burke as-S.....	Ogden
Ewing, Lazelle ed-So.....	Smithfield	Fugal, Delbert J. SS.....	Pleasant Grove
Facer, J. Elmer a-J.....	Brigham, City	Fuhrman, Delbert A. SS.....	Providence
Faddies, Velma Martha SS.....	Superior, Wyo.	Fuhrman, Earl Godfrey c-F.....	Providence
Fahrni, Beth Maxine as-J.....	Lark	Fuhrman, Ione ho-So.....	Providence
Fairbanks, Reed S. as-S.....	Logan	Fuhrman, Jacob A. c-F.....	Providence
Falk, Bennherd Carl SS.....	Pocatello, Ida.	Fuller, Donald Hugh as-J.....	Columbia

Fullmer, Anita ed-F.....Logan  
 Funk, Edith SS.....Richmond  
 Funk, McLaren J. as-F.....Brigham City

Gadda, George Frank SS.....Nashoe, Nev.  
 Gaddie, Mary c-So.....Garland  
 Gailley, Clyde H. c-F.....Kaysville  
 Galbraith, Ted W. as-J.....Blanding  
 Gale, Hannah ho-F.....Logan  
 Galloway, George a-F.....Vernal  
 Garbett, Donna Olive ed-So.....Nephi  
 Garbett, Jack c-F.....Nephi  
 Garbett, William Edwin c-F.....Nephi  
 Gardner, Eldon John as-S.....Logan  
 Gardner, Eugene as-J.....Logan  
 Garff, Wayne Brimhall e-So.....Salt Lake City  
 Garner, Ray D. SS.....Parowan  
 Garrett, Ernest Bowers SS.....Nephi  
 Garrett, Wayne ed-F.....Garland  
 Gay, Florence ed-J.....Ogden  
 Gaz, John A. a-So.....Salt Lake City  
 Geddes, Joseph W. c-F.....Logan  
 Geddes, Paul David c-So.....Logan  
 Gerald, Mercedes SS.....Logan  
 Gerber, Robert K. a-G.....Salt Lake City  
 Gerend, Wanda LaRue ed-So.....Logan  
 Gessel, Julia Deane c-J.....Providence  
 Gessel, Theodore e-J.....Providence  
 Gibbs, Letitia SS.....McCammon, Ida.  
 Gibson, Elmer Hadley a-S.....Ogden  
 Gibson, Floyd H. a-F.....Las Vegas, Nev.  
 Gibson, J. Leland SS.....Ogden  
 Gilbert, Merlin J. a-F.....Preston, Ida  
 Gilchrist, Irene ed-F.....Logan  
 Gilchrist, Ruth as-F.....Parma, Ida.  
 Gillispie, Beth ed-F.....Tooele  
 Gilmer, Mildred SS.....Elko, Nev.  
 Gilmore, Margaret Robertson c-V.....Logan  
 Gmlin, Marian ed-J.....Ogden  
 Gleason, Earl M. c-F.....Garland  
 Glead, Marvelyn Laura ho-F.....Logan  
 Glenn, Darwin a-So.....Logan  
 Glenn, George a-J.....Logan  
 Glenn, Madelyn as-F.....Salt Lake City  
 Glenn, Marshall Weston a-J.....Logan  
 Glenn, Vernon a-F.....Logan  
 Glenn, Vivienne Allen ho-F.....Logan  
 Glover, Grace as-F.....Brigham City  
 Goates, Roma P. ho-So.....Logan  
 Goates, Wallace A. as-G.....Logan  
 Godfrey, LaRue as-F.....Clarkston  
 Goetz, Louis SS.....Shelley, Ida.  
 Goff, Ivanowna as-So.....Logan  
 Goff, Lovo ho-F.....Logan  
 Gold, Russel Willis a-F.....Murray  
 Goodey, Barson A. as-So.....Clarkston  
 Goodey, Tellma SS.....Clarkston  
 Goodrich, Irene Ellen ho.....Logan  
 Goodsell, Jean as-F.....Logan  
 Gordon, Beth c-F.....Smithfield  
 Gourley, Roland M. SS.....Brigham City  
 Gowans, Dee James ed-So.....Tooele  
 Gowans, Robert Noel ed-So.....Tooele  
 Graff, Elmer SS.....Santa Clara  
 Grandy, Wallace Henry a-J.....Logan  
 Grange, A. Hollis c-S.....Price  
 Grove, Carl E. SS.....Eagle, Ida.  
 Greave, Paul C. c-J.....Logan

Greaves, Vaughn c-F.....Logan  
 Greaves, Vera D. as-So.....Logan  
 Green, Harold William SS.....Ogden  
 Green, Harry Alfred c-F.....Richfield  
 Green, Nathan SS.....Wenatchee, Wash.  
 Green, Zenda c-F.....Logan  
 Greene, Lawrence William SS.....Salt Lake City

Greenwood, Afton ed-So.....Nephi  
 Griffeth, Preale ed-F.....Logan  
 Griffin, Marye c-F.....Logan  
 Griffin, Spencer SS.....Newton  
 Griffith, Louva Perkins ed-So.....Logan  
 Griffith, Tressa c-F.....Farmington  
 Griggs, Archie James as-F.....Logan  
 Grossenbach, Paul August a-So.....Ogden  
 Grunder, Idell Rose as-F.....Logan  
 Gundersen, Arden B. a-S.....Salt Lake City  
 Gunderson, J. D. SS.....Garland  
 Gunderson, V. H. SS.....Mt. Pleasant  
 Gunn, Edith Ann ed-J.....Richfield  
 Gunn, James F. c-So.....Richfield  
 Gunnell, Elsie SS.....Wellsville  
 Gunnell, Ernest B. c-J.....Richmond  
 Gunnell, Farrell H. as-J.....Wellsville  
 Gunnell, Franklin Wyatt c-F.....Wellsville  
 Gunnell, Luther R. as-F.....Wellsville  
 Gutke, Ralph as-J.....Smithfield

Hadfield, Lynn e-F.....Smithfield  
 Hale, Clara as-F.....Logan  
 Hale, Elsa c-F.....Logan  
 Hale, Lucius M. e-So.....Logan  
 Hale, Olive ho-S.....Logan  
 Halgren, Joseph as-F.....Cornish  
 Hall, Elva ho-S.....Minersville  
 Hall, Joseph Alma ed-F.....Smithfield  
 Hall, Morgan a-F.....Vernal  
 Hall, Wayne ed-F.....Portage  
 Hamilton, Don Parley SS. Sugar City, Ida.  
 Hammar, Glen L. as-So.....Providence  
 Hammond, Diantha SS.....Providence  
 Hammond, Frank c-F.....Providence  
 Hammond, Leo Louis c-F.....Salt Lake City  
 Hammond, Mark D. c-V.....Providence  
 Hammond, Ruth as-S.....Logan  
 Hammond, Viola ed-F.....Logan  
 Hancey, Mae c-F.....Logan  
 Hancock, Cleve V. e-V.....Mendon  
 Handley, Thatcher ed-J.....Richfield  
 Hanegan, Marye M. ed-So.....Logan  
 Hanks, Ruth Emma ho-F.....Tooele  
 Hansen, Alice Mildred c-S.....Logan  
 Hansen, Bruce Smith ed-F.....Providence  
 Hansen, C. Winston a-J.....Providence  
 Hansen, Eliza Jones ho-G.....Mt. Pleasant  
 Hansen, Ellis S. as-So.....Paradise  
 Hansen, Evelyn ho-S.....Tooele  
 Hansen, Frank Mondell c-F.....Tooele  
 Hansen, Gerald M. as-J.....Logan  
 Hansen, Gorden J. a-J.....Logan  
 Hansen, Gwendolyn SS.....Providence  
 Hansen, Harold I. as-F.....Logan  
 Hansen, Harold James c-J.....Richfield  
 Hansen, Kimber J. as-F.....Logan  
 Hansen, Leora Anne ho-F.....Logan  
 Hansen, Lorenzo F. e-S.....Logan

Hansen, LuDean as-F.....	Logan	Henderson, Dean as-So.....	Logan
Hansen, Marvin Olaf as-F.....	Tremonton	Henderson, Ernest Wayne a-F.....	Vernal
Hansen, Royce a-So.....	Providence	Henderson, Helen B. as-J.....	Logan
Hansen, Ruby Marjorie ho-So.....	Logan	Hendricks, Beth E. ed-S.....	Richmond
Hansen, Thad Andrew c-F.....	Elsinore	Hendricks, Gayle ed-F.....	Lewiston
Hansen, Wayne a-F.....	Spanish Fork	Hendricks, George c-So.....	Logan
Hanson, Alvin M. a-F.....	Providence	Hendricks, Glen M. ed-So.....	Ogden
Hanson, Eldon G. e-So.....	Logan	Hendrickson, Virginia SS.....	Idaho Falls, Ida.
Hanson, Glenn L. SS.....	Ogden	Hennefer, Jay Fisher ss.....	Layton
Hanson, Harold Alva c-F.....	Sandy	Henrie, Irvn Lund SS.....	Gunnison
Hanson, Olive c-S.....	Providence	Henrie, Veryl Clayton c-So.....	Garland
Hanson, Paul Seeley a-F.....	Roosevelt	Herbert, Harry L. SS.....	Malad, Ida.
Hanson, Walter O. a-J.....	Providence	Hermansen, Royce D. a-F.....	Logan
Harding, Zella SS.....	Logan	Hervilla, Ole A. c-S.....	Bingham Canyon
Harris, Audrey ed-S.....	Richmond	Hess, Beth c-F.....	Logan
Harris, Berdean Franklin SS.....	Grace, Ida.	Hess, Fred e-F.....	Farmington
Harris, Charles Marion a-So.....	Richmond	Hess, Guinevere as-F.....	Ogden
Harris, Franklin Berdean as-F.....	Logan	Hess, Harold G. SS.....	Montpelier, Ida.
Harris, Grant A. as-F.....	Logan	Hess, Henry D. SS.....	Montpelier, Ida.
Harris, L. Dale as-J.....	Layton	Hess, Willis as-J.....	Fielding
Harris, Lillian c-F.....	Layton	Heyrend, Noel Bernard as-F.....	Rigby, Ida.
Harris, Lorin E. a-F.....	Mayrsvale	Heyrend, Wilford Wendell as-J.....	Logan
Harris, Norma ho-F.....	Tremonton	Hickman, Amar c-So.....	Ogden
Harris, Reed LaVon as-So.....	Tremonton	Hickman, Felton H. SS.....	Panaca, Nev.
Harris, Ruby J. ho-J.....	Tremonton	Hickman, Iola as-G.....	Ogden
Harris, Spencer Anderson e-S.....	Layton	Hickman, Margaret Cardon c-So.....	Logan
Harris, Sterling Richard SS.....	Tooele	Hickman, Marva ed-J.....	Logan
Harris, Vernal SS.....	Tremonton	Hickman, Thorval Lawisch as-S.....	Logan
Harrison, Conrad B. as-S.....	Logan	Hill, Jessie ed-J.....	Logan
Harrison, Leslie Alfred ed-F.....	Logan	Hill, Kathleen S. as-J.....	Ogden
Harrison, Robert Bullen as-F.....	Logan	Hill, Mark E. SS.....	Salt Lake City
Hart, Adelbert William ed-S.....	Logan	Hill, Reuben L. c-So.....	Logan
Hart, Alfred B. ed-G.....	Logan	Hill, Richard Snow ed-F.....	Logan
Hart, Eugene A. a-F.....	Bloomington, Ida.	Hill, Ruth Leone ho-F.....	Layton
Hart, Joel L. as-F.....	Logan	Hill, VaLoie Rosenbaum as-F.....	Logan
Hart, Marcus F. SS.....	Preston, Ida.	Hillman, Rita c-So.....	Logan
Hart, Philip as-J.....	Bloomington, Ida.	Hinckley, Ellen R. SS.....	Brigham City
Hartman, Edward Max e-So.....	Mt. Emmons	Hinckley, Franklin A. SS.....	Brigham City
Hartvigsen, Donald Edgar as-F.....	Logan	Hirst, Ivan T. as-So.....	Logan
Hartvigsen, Lester A. as-So.....	Logan	Hirst, Russell N. as-So.....	Logan
Harvey, James B. as-V.....	Kaysville	Hobbs, Gladys M. as-J.....	Logan
Harvey, Ray B. e-S.....	Kaysville	Hodges, Fanny Kave as-So.....	Logan
Hatch, Allen W. a-J.....	Randolph	Hodges, Lynn J. SS.....	Logan
Hatch, Beulah Taggart SS.....	Logan	Hodgson, Elinor ed-So.....	Logan
Hatch, Charles Steven SS.....	Idaho Falls, Ida.	Hodgson, Mary as-S.....	Logan
Hatch, Elton as-S.....	Woods Cross	Hoeft, Mary Bertha ed-So.....	Vernal
Hatch, Hyra as-J.....	Logan	Hoff, Anna Elizabeth as-J.....	Casper, Wyo.
Hatch, J. Willard c-F.....	Logan	Hoge, Pearl SS.....	Paris, Ida.
Hatch, Sumner SS.....	Heber	Hogensen, James C. as-F.....	Logan
Hatch, Victor Maurice as-J.....	Logan	Hogenson, Beatrice Lucy as-S.....	Logan
Hatch, William Roy a-S.....	Logan	Hogenson, Lydia B. c-S.....	Logan
Hatch, Zelma Orton ho-F.....	Woods Cross	Holbrook, L. Dale c-So.....	Clearfield
Hauk, Eldon as-F.....	Brigham City	Holbrook, Nora ho-F.....	Layton
Hawkes, Claudius Eugene SS.....	Preston, Ida.	Holladay, Eugene I. e-F.....	Tremonton
Hawkes, Gordon e-S.....	Logan	Holland, Arnold Grant SS.....	Hooper
Hawkes, Kendrick Charles ed-S.....	Preston, Ida.	Holland, Vernal Thomas a-F.....	Logan
Hawkes, Leo Rogers as-J.....	Logan	Holmes, Lucy A. SS.....	Ogden
Hawkes, Lorin Jones e-So.....	Logan	Holmes, M. M. SS.....	Ogden
Hawkins, Franklin Hill ed-F.....	Tremonton	Holmgren, Lyle E. c-So.....	Tremonton
Hawkins, John Fairfield a-So.....	Tremonton	Holt, Alma Matthew a-F.....	Midvale
Hayward, Evelyn c-F.....	Logan	Holt, Arthur Emil a-F.....	Salt Lake City
Healy, Carson R. SS.....	Magna	Holt, William D. SS.....	Tooele
Heaton, Israel Cox ed-So.....	Kanab	Holton, Hyrum Perry e-S.....	Brigham City
Heaton, J. Floyd a-F.....	Alton	Homer, C. M. SS.....	Missoula, Mont.
Heggie, John L. e-S.....	Clarkston	Homer, John Wendell as-So.....	Logan
Heitz, Albert Melville c-F.....	Logan	Hone, Mark A. as-V.....	Brigham City
Heitz, William Sneddon e-So.....	Logan	Hood, Flora SS.....	Fairview, Wyo.
Henderson, Afton as-So.....	Logan	Hooper, Carl George as-So.....	Hooper

Hoops, Earl A. e-F.....	Magna	Jamison, Joseph L. SS.....	Eureka
Hopkins, Clair a-J.....	Delta	Jamison, Vernon C. as-So.....	Logan
Hopkins, Clyde Martin a-So.....	Salt Lake City	Jeffries, Herbert Caswell ed-So.....	Logan
Hopkins, LaRoy a-F.....	Coalville	Jeffs, Vaughn Samuel e-F.....	Logan
Hovey, Lois Jane as-F.....	Logan	Jenkins, Archie SS.....	Newton
Howard, Fred P. a-S.....	Malad, Ida.	Jenkins, C. Evan a-So.....	Logan
Howell, Keith ed-So.....	Logan	Jenkins, Elmina c-F.....	Logan
Howell, LeRay S. c-S.....	Clifton, Ida.	Jenkins, G. Amos as-F.....	Logan
Howell, Ray Hyrum e-F.....	Tooele	Jenkins, John L. ed-S.....	Logan
Hoyt, Elmo R. a-G.....	Kamas	Jenkins, LuluRae as-S.....	Robertson, Wyo.
Hudson, Maxine Clara as-F.....	Salt Lake City	Jenkins, Royal A. a-F.....	Logan
Hughes, Durrell ed-G.....	Mendon	Jenne, Floyd L. a-F.....	Ogden
Hughes, Gladys SS.....	Mendon	Jensen, Cyril L. a-So.....	Afton, Wyo.
Hughes, H. G. SS.....	Mendon	Jensen, Darwin ed-S.....	Bear River City
Hull, A. C. Jr. a-J.....	Whitney, Ida.	Jensen, David C. SS.....	Preston, Ida.
Hull, Harold Maughan a-F.....	Preston, Ida.	Jensen, Don A. c-S.....	Hyrum
Hull, John E. as-S.....	Logan	Jensen, Earl S. e-S.....	Logan
Hull, Keith Maughan e-F.....	Preston, Ida.	Jensen, Edmund James as-S.....	Logan
Hull, Lorna ed-So.....	Logan	Jensen, Elaine as-J.....	Mantua
Hull, Robert M. as-J.....	Logan	Jensen, Ethel ed-S.....	Brigham City
Hull, Roy c-So.....	Logan	Jensen, Gordon M. as-So.....	Hyrum
Hulme, Harriet as-P.....	Logan	Jensen, Grant e-F.....	Hyrum
Hulme, Orval W. c-F.....	Logan	Jensen, Irwin SS.....	Paris, Ida.
Hulse, Carlos a-So.....	Kamas	Jensen, Lee G. c-J.....	Sandy
Humpherys, Dean Harvard c-J.....	Logan	Jensen, Lois L. ed-V.....	Hyrum
Humpherys, Glen S. as-F.....	Logan	Jensen, Marion James ed-F.....	Salt Lake City
Humpherys, Russell LeGrande c-S.....	Logan	Jensen, Phoebe ed-F.....	Dayton, Ida.
Humphries, Albert Lee ed.....	Abraham	Jensen, Randal Duzett as-F.....	Emery
Hunsaker, Harper LeGrande as-So.....	Honeyville	Jensen, Wallace B. ed-So.....	Preston, Ida.
Hunsaker, Reginald e-S.....	Tremonton	Jenson, Dewane SS.....	Delta
Hunsaker, Rex as-J.....	Tremonton	Jenson, Eleanor ed-S.....	Bear River City
Hunt, Dalton Edward a-So.....	Richfield	Jepsen, Darwin as-So.....	Logan
Hunter, Don J. as-So.....	Logan	Jessen, Dorothy ho-J.....	Richfield
Hunter, Muriel Hogan c-S.....	Logan	Jessop, Sylmar Greene SS.....	Lewiston
Huntsman, Alonzo SS.....	Fillmore	Johnsen, Willard S. a-J.....	Garland
Hurst, Lucy SS.....	Shelley, Ida.	Johnson, A. Evert Jr. SS.....	Overton, Nev.
Hurst, Rhea ho-F.....	Salt Lake City	Johnson, Afton ed-F.....	Collinston
Hurst, Vera Mae ho-So.....	Salt Lake City	Johnson, Anna ho-So.....	Richmond
Hyde, Allen A. a-F.....	Salt Lake City	Johnson, Arlo F. as-F.....	Richmond
Hyde, Elaine ed-F.....	Salt Lake City	Johnson, Cale C. e-J.....	Ioka
Hyde, Thelma c-J.....	Salt Lake City	Johnson, Carl B. SS.....	Richmond
		Johnson, Clyde L. ed-J.....	Lewiston
Imlay, Fern as-J.....	Hurricane	Johnson, D. LaRell e-V.....	Springville
Imlay, Luetta SS.....	Hurricane	Johnson, David LeRoy e-F.....	Lewiston
Isaacson, Eddie I. SS.....	Nephi	Johnson, Dorothy as-F.....	Richmond
Israelsen, Afton Mary ed-F.....	Hyrum	Johnson, Earl F. as-F.....	Logan
Israelsen, Ester c-F.....	Logan	Johnson, Edythe C. SS.....	Logan
Iverson, Boyd a-So.....	Copperton	Johnson, Elma M. as-So.....	Logan
Iverson, LaFell SS.....	LaVerkin	Johnson, Farrell J. c-F.....	Logan
Iverson, Victor E. SS.....	Washington	Johnson, Gwen c-F.....	Holden
Ivie, H. Leon SS.....	Salina	Johnson, Harold H. a-F.....	Logan
Ivie, James Ovi as-G.....	Salina	Johnson, Helen as-S.....	Logan
Ivory, Howard M. a-J.....	Fountain Green	Johnson, Herbert a-F.....	Lehi
		Johnson, Joe L. ed-S.....	Firth, Ida.
Jackman, Clenna June ho-J.....	Logan	Johnson, Leo SS.....	Laketown
Jackman, Francis A. SS.....	Junction	Johnson, Leola Marentine as-F.....	Logan
Jackman, Mark A. SS.....	Brigham City	Johnson, Lloyd N. c-J.....	Ashton, Ida.
Jackson, Esther ho-S.....	Logan	Johnson, Lynne George a-F.....	Brigham City
Jackson, George a-G.....	Ephraim	Johnson, Margaret Signe c-F.....	Logan
Jackson, Helen ho-F.....	Randolph	Johnson, Marion ho-So.....	Garland
Jackson, Richard Woolley SS.....	Salt Lake	Johnson, Melba ho-So.....	Logan
Jackson, Shirley Samuel c-F.....	Salt Lake	Johnson, Milton L. as-J.....	Logan
Jacobsen, Ashlaug ho-S.....	Logan	Johnson, Myrle ho-So.....	Logan
Jacobsen, Maurine as-F.....	Logan	Johnson, Oreta ho-F.....	Laketown
Jacobson, A. E. SS.....	Springville	Johnson, R. Leon as-J.....	Logan
Jaggi, Walter G. a-So.....	Logan	Johnson, Reha SS.....	Pleasant Grove
James, Lois ho-F.....	Logan	Johnson, Rolland as-S.....	Lewiston
Jamison, Ada ho-F.....	Logan	Johnson, Ruth SS.....	Logan

Johnson, Vera SS.....	Manti	Klingham, Vera SS.....	Salt Lake City
Johnson, Verda ho-F.....	Logan	Kloepfer, Lynn William c-J.....	Providence
Johnson, Vernon Richard e-So.....	Aurora	Knobel, Fred Henry SS.....	Yakima, Wash.
Jones, Charles Henry e-S.....	Sunnyside	Knowles, Howard ed-J.....	Logan
Jones, Clyde Gerald as-F.....	Logan	Knowlton, Dorothy ho-J.....	Grantsville
Jones, Dwight L. as-F.....	Salt Lake City	Koike, Momoya Barbara ho-F.....	Logan
Jones, E. Ronald as-S.....	Logan	Kotter, Jack a-J.....	Brigham City
Jones, G. Allen SS.....	Henefer	Kowallis, Wilford Abrams a-F.....	Logan
Jones, George O. e-S.....	Cache Junction	Kropfli, Walter George as-So.....	Logan
Jones, J. Virgil c-S.....	Malad, Ida.	Kropfli, William e-V.....	Logan
Jones, Jay P. a-So.....	Spanish Fork	Kunkel, Robert c-F.....	Salt Lake City
Jones, Leah c-F.....	Malad, Ida.	Kunz, Vernon Leon c-F.....	Logan
Jones, Lewis W. SS.....	Malad, Ida.		
Jones, Lyle as-F.....	Lewiston	Kunz, Walter Henry ed-So.....	Logan
Jones, Mack F. a-J.....	Springville	Lallatin, Mark M. as-J.....	Soda Springs, Ida.
Jones, Oren James a-S.....	Logan	Lambert, Carl T. as-J.....	Parowan
Jorgensen, John c-F.....	Salina	Lambert, Joe Henry ed-So.....	Ogden
Jorgensen, Leonard Nielsen e-F.....	Hyrum	Lambert, Walden a-F.....	Kamas
Jorgensen, LeRoy I. as-So.....	Hyrum	Lamborn, Grant a-F.....	Laketown
Jorgensen, Nephi ed-So.....	Salt Lake City	Larsen, Annie ho-S.....	Newton
Jorgensen, Orba SS.....	Huntsville	Larsen, Arland Alvin a-So.....	Logan
Joseph, Howard a-So.....	Parowan	Larsen, Carlos G. as-F.....	Castle Dale
Joy, William SS.....	Wellsville	Larsen, Cora ho-J.....	Logan
Judah, George A. SS.....	Logan	Larsen, Effie Cecelia as-F.....	Hyrum
Judd, Augusta Grant as-F.....	Salt Lake City	Larsen, Erna ed-So.....	Logan
Judd, Ora ed-F.....	Nephi	Larsen, Grace c-So.....	Logan
Judd, Raleigh Martin ed-F.....	Grantsville	Larsen, Hyrum Fielding e-So.....	Logan
		Larsen, Lars Harvey SS.....	Preston, Ida.
Karle, Gene Emil a-F.....	Logan	Larsen, Maude as-F.....	Logan
Karren, M. Ted as-F.....	Logan	Larson, A. Bardell SS.....	Mt. Pleasant
Kaufman, Oreal as-V.....	Providence	Larson, Dora ho-S.....	Logan
Kearl, Leonard Charles e-F.....	Logan	Larson, Eldrid Stuart e-So.....	Hyrum
Kearns, Abbott B. c-F.....	Logan	Larson, Ethelyn ho-J.....	Smithfield
Keetch, Eliza I. SS.....	St. Charles, Ida.	Larson, Glen Marion e-F.....	Garland
Keetch, Louise SS.....	St. Charles, Ida.	Larson, J. Stanford as-S.....	Clarkston
Keller, Crystle ho-So.....	Logan	Larson, Keith P. as-So.....	Logan
Keller, D. D. SS.....	Mink Creek, Ida.	Larson, E. Waive a-J.....	Garland
Keller, Ernest V. e-F.....	Logan	Larson, LaDell M. a-S.....	Logan
Keller, Floyd Leslie as-G.....	Mink Creek, Ida.	Larson, Lavon Freeman e-S.....	Logan
Keller, Lynn a-J.....	Manti	Larson, LaVern E. as-F.....	Richmond
Keller, Park D. as-S.....	Logan	Larson, Lois ho-F.....	Logan
Keller, Paul D. as-S.....	Logan	Larson, Lynn Alma e-So.....	Logan
Kemp, Ellen ho-So.....	Logan	Larson, Mark Howard as-J.....	Logan
Kendall, Jean ho-F.....	Nephi	Larson, Norman Victor e-So.....	Garland
Kendall, Lorna SS.....	Nephi	Larson, Olga Evelyn SS.....	Smithfield
Kendall, Maureen June as-F.....	Nephi	Larson, Vincent as-G.....	Smithfield
Kendrick, Alda C. ed-J.....	Providence	Larson, Walter C. ed-So.....	Mayfield
Kennard, John Gleason a-G.....	Logan	Laub, Emma ed-G.....	Logan
Kennard, L. H. as-So.....	Logan	Lauritzen, Ephie R. c-S.....	Logan
Kennard, Leona D. ed-J.....	Logan	Lavin, Fred a-J.....	Ogden
Kennedy, Herman H. c-J.....	Richmond	Law, Howard Earl c-S.....	Springville
Kennedy, Reed W. ed-F.....	Randolph	Law, Melvin James c-So.....	Logan
Kenner, Glenn P. c-S.....	Manti	Lawrence, Clair R. c-F.....	Logan
Kent, Raymond Donald a-F.....	Kelly, Wyo.	Lawrence, Clifford Dean e-So.....	Logan
Ketchum, Clara Whitten c-F.....	Logan	Lawrence, Reid S. c-F.....	Logan
Keveren, Kinsey Ernest SS.....	Blackfoot, Ida.	Layton, Ruth Annie as-So.....	Kaysville
Khoubesserian, Hovannes N. e-S.....	Cairo, Egypt	Leaton, Harold M. e-F.....	Challis, Ida.
Kidd, Loyd T. c-So.....	Preston, Ida.	Leavitt, Melvin SS.....	Bunkerville, Nev.
Kidman, LaVere SS.....	Logan	Lee, Elliot Burns as-J.....	Paradise
Kilburn, Glen A. as-So.....	Morgan	Lee, Etta Dee c-S.....	Thatcher, Ariz.
Kimball, Bernice Cleo ho-F.....	Draper	Lee, Florence SS.....	Brigham City
King, Carroll as-So.....	Marysvale	Lee, Joseph Karl a-So.....	Rigby, Ida.
King, Lula D. as-F.....	Marysvale	Lee, Lawrence ed-J.....	Logan
Kinsey, Alvin D. a-F.....	Midway	Lee, Orrin E. as-J.....	Logan
Kinyon, Margaret E. as-S.....	Logan	Lee, Orville Smith as-S.....	Paradise
Kirk, Margaret ho-So.....	Pleasant Grove	Lee, Sherman Wells c-So.....	Tooele
Kirkham, Robert S. as-F.....	Garland	Lenkersdorfer, Beryl Anna ho-S.....	Logan



Lenkersdorfer, Clara D. SS.....	Logan	Mandry, Elinore Daisy ed-F.....	Logan
Lenkersdorfer, Jean as-So.....	Logan	Mandry, James Elmer e-J.....	Logan
Leonard, Ross as-S.....	Huntington	Manning, Rex J. a-F.....	Farmington
Lewis, Elmer J. e-S.....	Logan	Manning, RuLon Hollist SS.....	Garland
Lewis, Leonore ed-G.....	Logan	Manning, Wallace Alfred a-J.....	Ogden
Lewis, Leonel C. a-F.....	Logan	Manwaring, Orson Elwood as-J.....	Logan
Lewis, Phyllis c-So.....	Logan	Marble, Dona Ray ho-F.....	Deweyville
Lewis, Ted Low a-F.....	Lewiston	Marble, LaRain SS.....	Logan
Liddle, Clarice c-So.....	Logan	Marble, Orlin G. as-S.....	Deweyville
Liljenquist, Alice L. SS.....	Hyrum	Marshall, Walter Lamar a-J.....	Randolph
Liljenquist, Coy as-F.....	Hyrum	Martin, Audrey Matilda ed-F.....	Tooele
Lindquist, George Rigby a-F.....	Logan	Martin, Earl a-F.....	Willard
Lindsay, Eldon Thompson c-So.....	Logan	Martin, Jay S. as-So.....	Ogden
	San Francisco, Calif.	Martin, Wesley Maddison SS.....	Yerington, Nev.
Linford, Cyril A. c-V.....	Garland	Mason, Herschel E. as-G.....	Logan
Linford, DeVerl ed-So.....	Salt Lake City	Mason, Reed H. a-F.....	Plymouth
Linford, Jean Hulme SS.....	Logan	Matheson, Margaret as-So.....	Salt Lake City
Linford, Raymond H. as-V.....	Logan	Mathews, F. Dorsey as-F.....	Logan
Linford, William Orlo ed-F.....	Garland	Mathias, Uarda ed-F.....	Brigham City
Linnebach, Ruth Katherine ho-F.....	Logan	Matthews, George Parley a-F.....	Grantsville
	Salt Lake City	Matthews, Lawrence W. a-F.....	Grantsville
Litz, Grover Marvin e-F.....	Trenton	Maughan, Helen ho-F.....	Logan
Lloyd, Sherman as-J.....	Logan	Maughan, Howard Cooper c-F.....	Wellsville
Lockyer, Ted ed-So.....	Firth, Ida.	Maughan, LeMoine B. as-G.....	Wellsville
Lohman, Bill c-So.....	Logan	Maughan, Lois Evelyn as-S.....	Logan
Longenbaugh, Dillon A. SS.....	Malad, Ida.	Maughan, Lyman P. e-J.....	Wellsville
Longhurst, Eddis SS.....	Randolph	Maughan, Marian as-V.....	Hyrum
Longhurst, Irel L. e-J.....	Randolph	Maughan, Nona Geddes ed-So.....	Denver, Colo.
Loosle, Norman D. c-So.....	Clarkston	Maughan, Roy H. as-So.....	Logan
Lougy, Wilma Alice ho-F.....	Tooele	Maughan, Theodore c-S.....	Hyrum
Lovell, Edward a-F.....	Oak City	Maughan, Zaida Poppleton ho-F.....	Wellsville
Lovell, Helen Mildred as-F.....	Ogden	Maxwell, Floyd Nye c-F.....	Ft. Duchesne
Low, Clyde Thomas a-F.....	Providence	Maxwell, James P. SS.....	Pioa
Low, Jessop B. a-F.....	Providence	May, J. Herbert a-J.....	Salt Lake City
Low, Morris David SS.....	Montpelier, Ida.	Maynard, Ethel ed.....	Logan
Low, Virginia Diana as-J.....	Providence	McAllister, Eugene James as-F.....	Logan
Lowe, Jennie SS.....	Hooper	McAllister, Warrington Walker SS.....	Spanish Fork
Lowe, Ray D. a-So.....	Richfield		
Lowe, T. Rex c-S.....	Richfield	McBride, Claude D. SS.....	Logan
Lucas, Veda Rebecca ho-So.....	Logan	McBride, Grant a-F.....	Hyrum
Lucas, Vida Marion ho-So.....	Logan	McCarrey, Rulon Squires ed-F.....	Richmond
Ludlow, Frances Helman SS.....	Filer, Ida.	McCausland, James Charles as-F.....	Provo
Ludlow, Jesse Woodrow SS.....	Spanish Fork	McClellan, Cyril Elwin as-J.....	Logan
Ludlow, Paul LeRoy SS.....	Filer, Ida.	McClellan, Lincoln H. as-So.....	Logan
Luke, Floe ed-F.....	Tremonton	McClellan, Mary J. c-F.....	Salt Lake City
Lund, Howard a.....	Ephraim	McConkie, Andrew R. a-J.....	Moab
Lund, Merlin Boden c-So.....	Logan	McConkie, George Wilson e-S.....	Moab
Lundahl, Ernest William c-So.....	Logan	McCowan, Alma Lee SS.....	Logan
Lundahl, Ruth as-F.....	Logan	McCracken, Bernice ed-J.....	Logan
Lundberg, Donald George e-V.....	River Heights	McCracken, Earl J. a-J.....	Ogden
Lundberg, Dorothy as-F.....	Logan	McCracken, Henry William ed-So.....	Smithfield
Lundberg, Horace as-So.....	Ft. Duchesne	McCulloch, Clyde G. a-S.....	Logan
Lundell, Harold M. SS.....	Vernal	McCulloch, Stanley as-So.....	Logan
Lundquist, E. Maurice as-F.....	Smithfield	McCune, Lee Mrs. ho-V.....	Los Angeles, Calif.
Luthy, Roma ho-So.....	Preston, Ida.	McDermaid, Dick as-F.....	Logan
		McDermaid, Ferris a-J.....	Logan
Mabey, Emerson a-So.....	Bountiful	McDonald, Helen Dorothea ho-J.....	Ogden
Mabey, Joseph L. Jr. a-So.....	Clearfield	McEntire, D. Wells as-F.....	Logan
Madison, E. John as-J.....	Salt Lake City	McFarland, Seth B. a-S.....	Ogden
Madson, Donald Ellsworth a-So.....	Logan	McGee, Loree c-F.....	Logan
	Salt Lake City	McKinnon, Ada B. ho-F.....	Randolph
Madsen, Grace ed-J.....	Brigham City	McKinnon, Joyce ho-F.....	Hiawatha
Madsen, Laura c-F.....	Brigham City	McNeil, Donald William e-F.....	Logan
Madsen, Milton A. a-S.....	Manti	McNeil, Elva ho-F.....	Logan
Maeser, Earl SS.....	Weston, Ida.	McNeil, Frank David c-So.....	Logan
Malecek, Gertrude ho-So.....	Ogden	McNeil, James Clyde c-V.....	Logan
Malmberg, Joseph SS.....	Clarkston	McVicker, Helen Roberta ed-J.....	Logan
Malouf, Raymond N. a-F.....	Glenwood		

Meacham, James A. as-G.....	Logan	Munk, Orpha SS.....	Manti
Meadows, Merle SS.....	Logan	Munns, Ruth ed-So.....	Tremonton
Meister, Lydia ed-F.....	Tremonton	Munson, Delna as-F.....	Tropic
Meldrum, Albert SS.....	Tremonton	Murphy, John E. as-J.....	Logan
Mendenhall, Vern Cornell SS.....	Springville	Murray, David P. SS.....	Logan
Merrill, Donald Grower as-So.....	Logan	Murray, Mabel Murray ho-So.....	Logan
Merrill, Glacus SS.....	Richmond	Murray, Mabel Shipley SS.....	Logan
Merrill, Heber K. as-F.....	Logan	Myers, K. Holley c-So.....	Riverton
Merrill, Howard SS.....	Ogden		
Merrill, Hyrum Waldo as-J.....	Richmond	Naisbett, Jack Leslie e-V.....	Logan
Merrill, Jean ed-G.....	Logan	Nalder, Norma as-F.....	Layton
Merrill, Robert Lowe as-J.....	Logan	Nash, Hazel Larsen as-F.....	Logan
Merrill, Ruth Evelyn c-F.....	Logan	Nebeker, Eileen ho-F.....	Salit Lake
Merrill, Spencer Cecil a-F.....	Richmond	Needham, Sylvan E. c-So.....	Logan
Merrill, Theola ho-J.....	Richmond	Neeley, Helen Maud SS.....	Logan
Merritt, Curtis Clay ed-F.....	Logan	Neilson, Adrain Peterson c-F.....	Logan
Michaelis, Mabel ed-So.....	Garland	Neilsen, Ray Leon c-So.....	Logan
Michaelson, Leon Claude as-F.....	Gunnison	Nelson, Beth ho-So.....	Brigham City
Mikkelsen, Margaret c-F.....	Logan	Nelson, Dorothy as-J.....	Ogden
Miles, Leonard c-So.....	Smithfield	Nelson, Glen A. a-So.....	Ferron
Miles, Walter Jarvis SS.....	St. George	Nelson, Herman Evans c-F.....	Brigham City
Miller, Alice Lucile ed-F.....	Tremonton	Nelson, Herman V. SS.....	Weston, Ida.
Miller, Elmo a-F.....	Nephi	Nelson, John A. ed-F.....	Logan
Miller, Ruth Carolyn SS.....	Salt Lake City	Nelson, John A. as-F.....	Springville
Miller, Wendell L. as-F.....	Venice	Nelson, Leslie W. SS.....	Magna
Miller, William P. SS.....	Syracuse	Nelson, Mary Henderson as-G.....	Arimo, Ida.
Milligan, Herbert e-F.....	Smithfield	Nelson, Rasmus K. c-G.....	Logan
Milligan, Warren Grant as-F.....	Lewiston	Nelson, Ray J. as-J.....	Corinne
Mills, Ray a-So.....	Fairview	Nelson, William Herman ed-J.....	Logan
Miner, E. Devere a-J.....	Fairview	Nelson, Z. George a-J.....	Logan
Miner, Merthyr L. a-J.....	Heiner	Nelson, Zula J. c-F.....	Logan
Mitchell, Daphne ho-G.....	Greeley, Colo.	Neuberger, Augusta ed-So.....	Logan
Mitchell, Yoma ho-F.....	Upala	Neuberger, Lawrence Mark c-G.....	Logan
Mitton, Lorenzo H. e-So.....	Logan	Newey, Helen Beatrice as-F.....	Logan
Mitton, Marilyn as-F.....	Logan	Newey, Margaret c-G.....	Logan
Moench, Hortense ho-F.....	Logan	Nichols, Angas Edith as-J.....	Logan
Mohr, Alzon as-F.....	Providence	Nichols, Mark SS.....	Garland
Mollinet, Leo Clarence a-So.....	Brigham City	Nicholson, Paul as-S.....	Roosevelt
Monson, Amy c-S.....	Richmond	Nielsen, Alta c-So.....	Hyrum
Monson, Ida Vee S. c-J.....	Logan	Nielsen, Cleo SS.....	Logan
Monson, J. Harold c-S.....	Logan	Nielsen, Gayle Dee c-So.....	Logan
Monson, Vern Iverson c-S.....	Ogden	Nielson, H. Carl e-So.....	Preston, Ida.
Monson, Wilford Russell SS.....	Hyrum	Nielsen, Harold M. as-G.....	Hyrum
Moore, Elmont a-F.....	Ogden	Nielsen, H. Eugene e-J.....	Hyrum
Moore, Irving as-F.....	Logan	Nielson, Hugh Bryce e-F.....	Salina
Moore, William c-G.....	Salt Lake City	Nielsen, John Parkinson as-S.....	Logan
Morgan, Beulah c-S.....	Liberty, Ida.	Nielsen, Lowell Wendell as-S.....	Ogden
Morgan, Cassie Lucille SS.....	Ovid, Ida.	Nielsen, Marion Louis as-J.....	Logan
Morgan, Elmo R. e-S.....	Liberty	Nielson, Martin Alma SS.....	Ephraim
Morgan, Floyd T. as-S.....	Logan	Nielson, Robert D. a-S.....	Ephraim
Morgan, Margaret as-So.....	Logan	Nielsen, Ruth Mae SS.....	Mantua
Morrill, Charles Rupert a-F.....	Logan	Nielson, Ted R. a-So.....	Logan
Morrill, Josephine ho-So.....	Logan	Nielsen, Veneta Leatham as.....	Hyrum
Morrill, Laren D. e-So.....	Logan	Nielsen, Wade F. e-So.....	Hyrum
Morris, Clyde H. as-S.....	Brigham City	Nilsson, Ivy as-J.....	Heber
Morris, Edward H. a-S.....	Brigham City	Nilsson, Maud SS.....	Heber
Morris, Finis as-V.....	Logan	Nixon, Wilma c-F.....	Holden
Morrison, Earnest Merrill a-F.....	Tremonton	Noble, Eldon a-F.....	Trenton
Morrison, Lucy ho-S.....	Preston, Ida.	Noel, Virginia c-F.....	Vernal
Morrison, Ruth Louise as-F.....	Logan	Noel, Wright, H. ed-F.....	Vernal
Moser, Faye Yeaman as-G.....	Logan	Norr, Myrl c-F.....	Deweyville
Moser, K. A. ed-G.....	Logan	Norris, Thomas D. SS.....	Paradise
Moss, Jessie Jeanette ho-J.....	Logan	Nyman, Kenneth a-J.....	Logan
Moss, Veril e-F.....	Logan	Nyman, LaRayne SS.....	Logan
Muir, Joe a-S.....	Heber City	Nyman, Rodney Stephen a-S.....	Logan
Muir, Kenneth Earl SS.....	Randolph		
Mulleneaux, Carl Kenneth as-F.....	Logan		
Munk, Mildred c-J.....	Logan		



Oberhaansly, Verne SS.....Ogden  
 Ogden, Gae c-F.....Richfield  
 Ogden, Richard as-F.....Richfield  
 Oldham, Edna ho-J.....Paradise  
 Oldham, Reed e-F.....Logan  
 Olsen, Carl F. e-J.....Hyrum  
 Olsen, Edith SS.....Brigham City  
 Olsen, Margaret ho-J.....Pleasant Grove  
 Olsen, Ray F. a-J.....Ephraim  
 Olsen, Ross L. c-S.....Logan  
 Olsen, Violet SS.....Logan  
 Olson, Clarice ed-J.....Logan  
 Olson, Farrell G. a-J.....Payson  
 Olson, Ralph Dallas ed-J.....Brigham City  
 Orme, Lincoln A. e-F.....Nephi  
 Orton, Clark L. a-F.....Parowan  
 Orton, Otis Leland a-F.....Ogden  
 Orwin, Dean Voss as-J.....Tremonton  
 Orwin, LaRue ho-So.....Tremonton  
 Osborne, Wallace Walter ed-S.....Minersville  
 Ostler, Elda LaVee ed-So.....Nephi  
 Outzen, Warren James as-F.....Richfield  
 Ovesom, Crawford Moroni a-F.....Ferron  
 Owen, Arnold c-F.....Logan  
 Owen, Fred B. SS.....Logan  
 Owen, LaVawn a-F.....Logan  
 Owens, Ruth as-So.....Logan

Packer, Elmo J. a-J.....Logan  
 Packer, J. Lyman e-J.....Logan  
 Packer, Thane as-So.....Fielding  
 Page, Edna ho-S.....Payson  
 Page, John Samuel e-F.....Roosevelt  
 Page, Joseph a-F.....Roosevelt  
 Painter, John Seth a-F.....Ogden  
 Painter, Sue ho-F.....Ogden  
 Palmer, Elva ed-S.....Logan  
 Palmer, Eva ed-F.....Preston, Ida.  
 Palmer, Grace ed-F.....Preston, Ida.  
 Palmer, Helen ed-F.....Logan  
 Palmer, Merlin Clyde c-S.....Logan  
 Palmer, N. Revier SS.....Logan  
 Palmer, T. Hoyt as-J.....Alton  
 Palmer, W. Horace a-S.....Milford  
 Pantone, Junior c-J.....Ogden  
 Parker, Henry R. c-So.....Wellsville  
 Parker, Lorenzo R. SS.....Pegram, Ida.  
 Parker, Max R. a-J.....Joseph  
 Parker, Pert R. as-F.....Wellsville  
 Parkinson, Albert Monson c-So.....Logan  
 Parkinson, Berkley Homer a-F.....Logan  
 Parkinson, Grace West c-F.....Gunnison  
 Parkinson, Joseph M. a-J.....Rexburg, Ida.  
 Parkinson, Maughan as-J.....Rexburg, Ida.  
 Parkinson, Reid Williamson as-So.....Wellsville  
 Parkinson, Virginia ed-So.....Logan  
 Parr, Paul H. c-J.....Riverton  
 Parrish, Grant E. as-S.....Farmington  
 Parrish, Joseph F. a-G.....Farmington  
 Parrish, Welden Collings c-So.....Farmington  
 Parry, Ardella ed-F.....Logan  
 Parry, J. Herbert a-J.....Salt Lake City  
 Parry, Jeanette as-J.....Ogden  
 Parson, Wilford as-F.....Smithfield  
 Parsons, Harold c-S.....Logan  
 Partington, Arthur ed-J.....Logan  
 Partridge, Carol SS.....Provo  
 Partridge, Karma SS.....Provo

Partridge, Maude SS.....Provo  
 Passey, Earl F. SS.....Raymond, Ida.  
 Passey, Howard B. a-F.....Logan  
 Passey, Scott Budge as-So.....Logan  
 Patterson, Norma ho-So.....Mendon  
 Paull, Charles George as-So.....Logan  
 Paull, Don Richard as-F.....Preston, Ida.  
 Paulsen, Phyllis as-F.....Logan  
 Paxton, Genevieve c-J.....Kanosh  
 Pearson, Dwain John a-S.....Marysville  
 Pearson, Harriet Marchant ho-S.....Oakley  
 Pearson, Marden I. a-So.....Marysville  
 Peart, Mildred as-J.....Logan  
 Pectol, Rulon SS.....St. George  
 Pedersen, Peter A. C. SS.....Logan  
 Pedersen, Phillip as-F.....Logan  
 Pedersen, Trix as-J.....Logan  
 Pedersen, Troy Helen ho-So.....Logan  
 Pederson, George Vernon ed-J.....Ephraim  
 Peery, Julina ho-F.....Salt Lake City  
 Peirce, Yvonne ed-J.....Ogden  
 Penrod, Marion H. as-S.....Ogden  
 Perkins, Lewis D. a-S.....Montpelier  
 Perkins, Mary SS.....Wellsville  
 Perkins, W. Wendell ed-G.....Smithfield  
 Perry, Clarence a-F.....Deweyville  
 Perry, Ellis M. e-S.....Deweyville  
 Perry, Gaye ho-J.....Logan  
 Perry, Mary ho-F.....Logan  
 Perry, Zada c-So.....Logan  
 Peters, Iretta as-J.....Brigham City  
 Petersen, Arvid C. as-J.....Logan  
 Petersen, Clark as-F.....Hyrum  
 Petersen, Constance SS.....Hyrum  
 Petersen, Florence J. ed-F.....Grover, Wyo.  
 Petersen, LaVern H. as-So.....Hyrum  
 Petersen, Marene ed-S.....Newton  
 Petersen, Ray K. as-F.....Newton  
 Petersen, Reed Louis a-F.....Hyrum  
 Petersen, Roy as-So.....Preston, Ida.  
 Petersen, Thornton Wendel c-S.....Hyrum  
 Petersen, Vernell SS.....Bear River City  
 Petersen, Wanda ho-F.....Smithfield  
 Peterson, Alton Haws e-J.....Mendon  
 Petersen, Arthur Russell ed-F.....Salt Lake  
 Peterson, C. N. SS.....Afton, Wyo.  
 Peterson, Claire c-So.....Logan  
 Peterson, Cleo as-F.....Delta  
 Peterson, Clinton E. c-F.....Vernal  
 Peterson, Conrad R. e-So.....Petersboro  
 Peterson, Dean F. e-S.....Delta  
 Peterson, Edwin L. a-F.....Provo  
 Peterson, Edwin M. ed-So.....Smithfield  
 Peterson, Eldora as-F.....Logan  
 Peterson, Elsie ho-So.....Ogden  
 Peterson, Elwyn F. c-F.....Smithfield  
 Peterson, Elwin Herbert as-G.....Logan  
 Peterson, Henry E. a-J.....Logan  
 Peterson, Howard a-F.....Firth, Ida.  
 Peterson, Joan c-F.....Smithfield  
 Peterson, John Darrel as-G.....Logan  
 Peterson, John H. SS.....Smithfield  
 Peterson, Juana ed-J.....Richfield  
 Peterson, Lorenzo E. SS.....Scipio  
 Peterson, Lorin M. SS.....Sterling  
 Peterson, Louise ed-So.....Trenton  
 Peterson, Louise ho-So.....Ogden  
 Peterson, Magda B. SS.....Logan

Peterson, Margaret J. SS	Logan	Pulley, Maon F. as-F	Logan
Peterson, Marian as-F	Logan	Purcell, Ronald W. SS	Idaho Falls, Ida.
Peterson, Norma SS	Smithfield	Pyper, Dean R. c-F	Heber
Peterson, Rhea Merle as-F	Hyrum	Pyper, Glen G. a-S	Heber
Peterson, Ruth ho-S	Logan		
Peterson, Utahna C. ho-So	Preston, Ida.	Quayle, Ruth J. c-F	Laramie, Wyo.
Peterson, Vic E. as-J	Logan	Quinn, Elwyn F. e-J	Alton
Peterson, William Don as-S	Logan	Quinney, Bernice SS	Logan
Peterson, Woodrow W. as-So	Logan	Quist, Albert Owen c-F	Salt Lake City
Petterborg, Wesley e-F	Logan		
Pettigrew Alden George SS	Ogden	Rahman, Hafiz A. e-S	
Petty, Cleo Manoyo c-So	Nephi		Ahmadfur Lamma, India
Petty, Norma ho-S	Cedar City	Ralphs, Leonard T. SS	Logan
Phillips, Ella May ed-F	Logan	Ralphs, Raymond R. a-F	Salt Lake City
Phillips, Ivan as-F	Smithfield	Rampton, Leonard H. a-J	Bountiful
Phipps, John F. SS	Montpelier	Randall, Faith ed-So	Logan
Piranian, George as-So	Salt Lake City	Randall, Kermit Earl as-S	Ogden
Pitzer, John H. as-G	Martinsburg, W. Va.	Randall, Ray F. as-So	Tremonton
Plant, Ross Henry c-J	Richmond	Rasmussen, Floyd D. ed-So	Mantua
Pocock, Elda ho-So	Rexburg	Rasmussen, Grace c-F	Logan
Poindexter-Dryden, Leora M. ed-So	Logan	Rasmussen, Mae as-F	Logan
		Rasmussen, Sylvan B. as-F	Clarkston
Pointdexter, Walter Harry SS	Deer Lodge, Mont.	Rasmussen, Victor P. a-J	Clarkston
		Ratcliff, Charles L. SS	Twin Falls, Ida.
Pollard, Leonard H. a-G	Emmett, Ida.	Rawlins, M. Edward SS	Salt Lake City
Pomeroy, E. Earl SS	Salt Lake City	Raymond, Ace Scott c-F	Logan
Pond, Afton Hogan c-F	Lewiston	Raymond, G. Frank ed-S	Smithfield
Pond, Chase E. a-So	Salt Lake City	Read, Blanche c-F	Trenton
Pond, Clair B. as-F	Fairfield, Ida.	Redd, John DeMar a-J	Blanding
Pond, Dorothy as-F	Logan	Redd, Kermit a-F	Blanding
Pond, Howard M. as-S	Logan	Redd, L. Burton c-So	Blanding
Pond, Jay ed-So	Island Park, Ida.	Redford, Gwen as-J	Logan
Pond, Vaughn M. as-F	Logan	Reed, Jane Grant as-S	Salt Lake City
Poole, Margaret ed-So	Logan	Reeder, Edna SS	Corinne
Poole, Morris Hasley a-F	Logan	Reeder, Elaine ed-S	Brigham City
Pope, Gladys c-V	Garden City	Reeder, Ethel SS	Brigham City
Porter, Burdell ed-J	Escalante	Reeder, Jesse W. as-S	Brigham City
Porter, Earl LeRoy SS	Annabella	Reeder, Joseph Rex a-F	Brigham City
Porter, Fred V. e-J	Logan	Reeder, Ray as-So	Corinne
Porter, Lyle R. e-So	Logan	Reeder, Rhea as-F	Corinne
Postma, Vean c-J	Smithfield	Reeder, William W. c-J	Brigham City
Poulson, Owen as-F	Providence	Reeder, Wendell as-G	Hyde Park
Poulter, Eloise ho-J	Logan	Reese, Dorothy as-F	Logan
Powell, Authnell John SS	Beaver	Reese, Evelyn as-So	Logan
Powell, Dee e-F	Logan	Rees, Vincent L. as-J	Smithfield
Powell, Lannett M. c-F	Logan	Reese, Winifred Foster SS	Preston, Ida.
Pratt, Alma e-S	Logan	Reid, Eldon S. c-S	St. George
Pratt, Paul H. a-J	Hinckley	Reid, Enid Mae ed-F	Orangeville
Preator, Frederick e-J	Logan	Reid, F. Horace SS	Orangeville
Preston, Earl SS	Salt Lake City	Reid, Lucian C. e-S	Manti
Preston, Faye ed-F	Weston, Ida.	Reid, Marjorie as-So	Orangeville
Preston, William B. e-J	Logan	Reid, Phyllis SS	Nephi
Price, Alys ho-F	Logan	Rencher, Ray R. as-So	Logan
Price, Helen ed-F	Logan	Renner, Roland William, a-F	Pasadena, Cal.
Price, Jeniel A. as-F	Fielding, Ida.		
Price, Kathleen SS	Salt Lake City	Rex, Fred S. c-So	Logan
Price, Minnie S. SS	Logan	Reynolds, Zina Harris ed-J	Evanston, Wyo.
Price, Theone e-F	Logan	Rice, Eva SS	Carey, Ida.
Price, Verla c-So	Logan	Rice, Moyle as-So	Logan
Pritchett, Glenn B. as-F	Gunnison	Rich, C. Carlyle e-S	Brigham City
Proctor, Dorothy Mary ed-F	Logan	Rich, Ellen as-J	Brigham City
Proctor, Max Kidd ed-F	Logan	Rich, Lorraine Rogers as-S	Logan
Pueschel, Heinz J. A. a-F	Salt Lake	Rich, Lyle M. c-So	Logan
Pugh, Clarence Duffin as-S	Kanab	Rich, Nada ho-J	Logan
Pugmire, Alice as-J	Logan	Rich, Oreta K. as-So	Logan
Pugmire, Arvilla ed-SS	St. Charles, Ida.	Rich, Russell R. as-So	Logan
Pugmire, Helen as-J	Logan	Rich, Vernon B. e-So	Logan
Pulley, Leora ho-F	Logan	Rich, Wendell O'Neal as-J	Logan

Richard, Helen ho-So.....	Logan	Sant, Franklin a-So.....	Logan
Richards, Bert Louis a-J.....	Logan	Santistevan, Bailey J. SS.....	Salt Lake City
Richards, Franklin Dewey c-So.....	Logan	Schaub, George Wesley SS.....	Morgan
Richards, Ivan Ford e-S.....	Garland	Schaub, Howard Adams ed-J.....	Logan
Richards, Jennie SS.....	Mendon	Schaub, Leland Stanford e-V.....	Logan
Richards, Loraine ho-J.....	Logan	Schaub, Mildred ed-V.....	Logan
Richards, Melvin Merrill as-So.....	Logan	Scheby, Vera as-S.....	Logan
Richards, Phyllis ho-So.....	Garland	Schmidt, Eric e-So.....	Logan
Richards, Stuart H. a-F.....	Midvale	Schnepel, Richard Lawrence a-F.....	Logan
Richardson, Ebbie L. V. as-J.....	Brigham City	Elizabeth, N. J.....	
Richardson, Joyce SS.....	Logan	Scholes, J. Fred a-S.....	Logan
Ricks, Louise c-J.....	Benson	Schott, Fred W. c-S.....	Ogden
Rider, John Leonard c-So.....	Logan	Schow, Rodney c-J.....	Mantua
Rigby, Don C. c-So.....	Newton	Schutt, Thomas A. a-F.....	Salt Lake City
Rigby, Irene ed-F.....	Logan	Scott, Jewel Jacobsen as-F.....	Logan
Rigby, Vera as-So.....	Logan	Scott, Mary Emma as-J.....	Logan
Rigby, Woodrow M. c-So.....	Logan	Scott, Woodrow SS.....	Logan
Riggs, Velma Bernice ho-F.....	Logan	Seager, C. Austin as-So.....	Tremonton
Ririe, Margaret as-So.....	Lewiston	Seager, Fay SS.....	Ogden
Ritchie, Ursula as-So.....	Logan	Seamons, Vern Waite as-F.....	Hyde Park
Robbins, Raymond SS.....	Logan	Seemiller, Gerald SS.....	St. George
Roberts, Don C. as-F.....	Vernal	Seeley, Hugh a-So.....	Castle Dale
Roberts, Eleanor as-F.....	Logan	Seeley, Virginia Hope as-F.....	Vernal
Roberts, Helen SS.....	Logan	Shah, Mohd Ibrahim a-G.....	
Roberts, Louis Avery a-So.....	Vernal	.....Hanger, N. W. F. Province, India	
Robertson, Cleah SS.....	Fountain Green	Shaner, Genevieve Estella ho-F.....	
Robertson, Heber Lloyd as-F.....	Orangeville	.....Green River	
Robertson, Wanda ed-J.....	Fountain Green	Sharp, Maxine ho-So.....	Coalville
Robinette, Martin Luther as-So.....	Brigham	Shaw, David Glen ed-S.....	Ogden
Robinson, Charles R. SS.....	Ontario, Ore.	Shepherd, Alvin Brighton a-F.....	
Robinson, Clayton H. as-S.....	Laketown	.....Salt Lake City	
Robinson, Earle W. c-S.....	Logan	Shepherd, Carlyle SS.....	Paris, Ida.
Robinson, Helen as-F.....	Richmond	Shepherd, Erschel Earl as-F.....	Vernal
Robinson, Julian LeRoy as-So.....	Richmond	Shepherd, Nyena ed-F.....	Logan
Robinson, Kathleen Mecham ho-F.....	Logan	Shields, E. Reed ed-S.....	Tooele
Robinson, Leslie a-F.....	Ogden	Shields, Harold Denon as-F.....	
Robinson, William F. SS.....	Murray	.....Alberta, Canada	
Robison, Chloe as-F.....	Morgan	Shields, Raymond M. SS.....	Tooele
Roe, Dale Evans ed-F.....	Logan	Shiffman, Erma Lois c-F.....	Logan
Rogers, Dalles SS.....	Kanosh	Shipley, Bernice c-F.....	Paradise
Rogers, Leon a-F.....	Garland	Shipley, Fern SS.....	Logan
Rohwer, A. Lamont a-So.....	Logan	Shipley, Mark A. a-So.....	Honeyville
Rohner, Anna as-F.....	Logan	Shipley, Roy L. a-F.....	Logan
Romney, Miles Conrad c-J.....	Logan	Shoore, Isadore SS.....	Salt Lake City
Roper, Melvin J. SS.....	Oak City	Shumway, Gwyneth ed-F.....	Logan
Rork, Alice Margaret as-J.....	Logan	Shumway, James Gail a-F.....	Garland
Rose, Virginia as-So.....	Logan	Shumway, Richard F. SS.....	Trenton
Roskelley, Lowell John a-S.....	Brigham	Shurtleff, Joy N. e-F.....	Logan
Roskelley, Rigby Clyde as-So.....	Brigham	Sill, Milton C. a-S.....	Logan
Roskelley, Ruth ho-J.....	Smithfield	Silvester, John Arthur SS.....	Rexburg, Ida
Ross, Richard as-F.....	Richfield	Simmonds, Arthur C. ed-F.....	Cornish
Ross, Robert William as-So.....	Logan	Simmons, Carl as-So.....	Garfield
Rothe, Ruth May SS.....	Lehi	Simmons, Christa Ann c-So.....	Spanish Fork
Roundy, Helen ed-F.....	Smithfield	Simmons, Eileen SS.....	Burley, Ida.
Roundy, Kenneth J. as-J.....	Tremonton	Simmons, Lawrence B. a-So.....	Spanish Fork
Rowe, Delos Allen as-F.....	Logan	Simmons, Valeria SS.....	Burley, Ida.
Rowe, James Allen as-G.....	Spanish Fork	Simmons, W. Reed c-F.....	Layton
Rubenstein, Wilma as-S.....	Ogden	Simpson, Charles D. SS.....	Weston, Ida.
Rundquist, Eric A. a-So.....	Midvale	Simpson, May ed-F.....	Logan
Rutledge, Mary F. ed-F.....	Salt Lake City	Simpson, Ralph Elwood a-F.....	Hooper
Ryan, J. Stewart c-J.....	Logan	Singleton, Geniel Helen ed-So.....	Ferron
Ryan, Kent c-F.....	Logan	Skanchy, Thelma F. as-F.....	Logan
Ryan, Miller M. c-J.....	Logan	Skanchy, Zelda as-F.....	Logan
Sage, Dorothy N. SS.....	Bingham, Ida.	Skeen, Anne LaRae ed-J.....	Salt Lake City
Sandberg, Oscar Kenneth SS.....	Salt Lake	Skidmore, Henry J. as-F.....	Logan
Sandberg, V. c-So.....	Huntington	Skinner, Elda Mae SS.....	Nounam
Sanders, Paul M. SS.....	Salt Lake City	Skinner, Halver M. e-J.....	Logan
		Skinner, Joseph F. SS.....	Spanish Fork

Skinner, Marion Stratton a-S	Logan	Stanford J. S. as-G	Logan
Smith, Arthur D. a-J	Ogden	Stanford, Pearl Ivie as-F	Logan
Smith, Carl B. a-F	Delta	Stanley, Lowell E. ed-G	Miles City, Mont.
Smith, Charles E. c-G	Salt Lake City	Starley, Reid G. SS	Delta
Smith, Clay Robert c-F	Rigby, Ida.	Starr, Nora SS	Springville
Smith, Clinton P. as-J	Garland	Stauffer Glade ho-F	Willard
Smith, Clyde F. ed-J	Preston, Ida.	Steed, Dale R. ed-F	Clearfield
Smith, Clyde L. as-J	Logan	Steele, John H. e-S	Delta
Smith, Dale Terry a-F	Sandy	Stephens, Lloyd T. a-So	Hienefer
Smith, Daniel Max e-J	Logan	Stephenson, Ada SS	Holden
Smith, Eldred E. c-So	Logan	Stephenson, Allen c-S	Holden
Smith, Farrell P. SS	Kaysville	Stephensen, Helen E. ho-So	Delta
Smith, Gwen H. as-G	Logan	Stephenson, Mabel ho-So	Holden
Smith, Howard Hall as-F	Logan	Stettler, Elmer Ernest as-F	Logan
Smith, Ivan D. c-G	Salt Lake City	Stevens, Flora ho-J	Ephraim
Smith, Jean SS	Sugar City	Stevens, Iona B. as-G	Logan
Smith, Josephine SS	Logan	Stevens, Lloyd P. a-J	Salt Lake City
Smith, Lenore ed	Logan	Stevens, Margaret ho-F	Salt Lake City
Smith, LeRoy B. a-J	Delta	Stevens, Marjorie c-So	Salt Lake City
Smith, Luther Yeates as-J	Logan	Stevens, Owen F. a-V	Salt Lake City
Smith, Maurice F. a-So	Logan	Stevenson George c-F	Layton
Smith, Perry as-F	Logan	Stewart, Clyde E. a-J	Ogden
Smith, Richard a-F	Lewiston	Stewart, Ernest I. as-J	Logan
Smith, Samuel W. c-F	Tooele	Stewart, Jean ho-So	Brigham City
Smith, Stratford Jones a-J	Logan	Stewart, John a-S	Salt Lake City
Smith, Velma ed-So	Logan	Stewart, Julie Gale as-F	Logan
Smith, Vie SS	Beaver	Stewart, Kenneth as-J	Logan
Smith, Wayne as-So	Smithfield	Stewart, Miriam as-S	Logan
Smith, Wendell E. a-F	Logan	Stewart, Rebecca as-So	Logan
Smith, Wendell H. e-So	Preston, Ida.	Stewart, William M. c-F	Logan
Snedden, Henry D. as-S	Ogden	Stock, Cordell B. e-F	Ogden
Snow, Bessie SS	Pine Valley	Stock, Eldon M. e-S	Logan
Snow, Cullen ho-F	Richfield	Stock, Merlin R. a-S	Ogden
Soffe, Vaughn a-F	Midvale	Stock, Montana G. ho-S	Logan
Somers, G. Fred a-J	Garland	Stocking, Charles N. as-F	South Jordan
Sonne, Faye as-J	Logan	Stocks, Maxine ho-F	Bountiful
Sonne, J. Dean c-S	Logan	Stoddard, Carl B. SS	Lewiston
Sonne, Richard B. c-S	Logan	Stoddard, Charles J. SS	Richmond
Sorensen, Carl W. as-J	Lark	Stoddard, Nedra ed-F	Lewiston
Sorensen, Charles Cole as-So	Logan	Stoddard, Ruth c-F	Logan
Sorensen, Fredrick W. a-F	Mendon	Stokes, H. Quinn c-F	Logan
Sorensen, Alta L. ho-So	Ogden	Stokes, Victor N. a-J	Ogden
Sorensen, Lillian S. ho-So	Logan	Stone, Charlotte L. SS	Corinne
Sorensen, Wallace as-So	Logan	Stone, Ernest C. as-So	Ogden
Sorensen, W. C. SS	Montpelier, Ida.	Stone, Sara Margaret c-F	Ogden
Soulier, Wesley D. a-So	Provo	Stout, Emerald W. SS	Moab
Sowley, Rulon C. e-F	Nephi	Strang, Earl c-F	Richfield
Spackman, LaVell as-J	Richmond	Strate, James A. e-F	Columbia
Spaulding, Lynn as-J	Logan	Strate, Myron Ernest e-F	Columbia
Spencer, Barbara E. c-F	Salt Lake City	Stuart, John M. c-F	Smithfield
Spencer, Earl SS	Paris, Ida.	Stucki, Alvin J. as-So	Logan
Spencer, G. Elwood a-G	Murray	Stucki, Joseph W. a-J	Logan
Spencer, Jack J. a-F	Pleasant Grove	Stucki, Leon G. e-F	Logan
Spencer, Keith SS	Logan	Stucki, Max a-So	Paris, Ida.
Spencer, Kenneth c-So	Murray	Stumm, Donald J. a-F	Tremonton
Spencer, LeGrand Dee as-J	Logan	Summerhays, Preston L. SS	Salt Lake City
Spencer, Mondell as-J	Logan	Surface, Victor A. a-J	Springville
Spencer, Paul N. as-F	Logan	Sutherland, Allen as-G	Logan
Spencer, Robert K. as-F	Logan	Swainston, Anna as-F	Logan
Spicker, Mary as-So	Logan	Swainston, George D. as-J	Logan
Spillman, Camilla as-J	Logan	Swapp, Iris c-So	Logan
Spillman, F. L. SS	Garland	Swapp, Willis L. c-F	Kanab
Spongberg, Ruth ho-S	Logan	Sweet, Winifred SS	Montpelier, Ida.
Squires, Henry Ballard as-So	Logan	Swenson, Lorenzo SS	Montpelier, Ida.
Stagg, Lea J. ed-So	Pleasant Grove	Swenson, Anna May as-SS	Logan
Staheli, Lafayette SS	St. George	Swenson, Leon H. a-J	Spanish Fork
Stains, Albert John e-F	Delta	Swenson, Mont A. a-So	Spanish Fork
Stallings, Maude SS	Eden	Swenson, Roy Arthur SS	Logan

Swenson, Roy W. a-F..... Pleasant Grove  
 Swinyard, Alfred W. c-F..... Logan

Taggart, John S. a-J..... Ogden  
 Talbot, W. C. ed-J..... Lewiston  
 Tams, Niel R. as-V..... Paradise  
 Tangren, Keith E. e-F..... Ogden  
 Tanner, Arthur E. SS..... Tulare, Calif.  
 Tanner, Elden S. c-So..... Logan  
 Tanner, Gilbert as-J..... Provo  
 Tarbet, Wilson D. a-F..... Arimo, Ida.  
 Taylor, Beulah May ed-F..... Tremonton  
 Taylor, C. William c-S..... Ogden  
 Taylor, Harold Dee a-So..... Ogden  
 Taylor, Lawrence Chester a-S..... Ogden  
 Taylor, Marjorie A. ed-F..... Logan  
 Taylor, Rex B. c-F..... Logan  
 Teeple, Clifton H. e-F..... Shelley, Ida.  
 Teeple, Verl W. SS..... Shelley, Ida.  
 Terry, Frank N. a-F..... Ogden  
 Teuscher, Ivan M..... Logan  
 Teuscher, Woodruff J. e-V..... Logan  
 Tew, Merlene ho-J..... Springville  
 Thatcher, Louise c-F..... Logan  
 Thatcher, Reid B. a-So..... Ogden  
 Thatcher, Theodore O. as-G..... Logan  
 Theurer, Barbara as-S..... Tremonton  
 Theurer, Beth ed-So..... Providence  
 Theurer, Clark c-S..... Providence  
 Theurer, Grant a-F..... Tremonton  
 Theurer, Reed F. c-S..... Providence  
 Thomas, Cecil e-So..... Ogden  
 Thomas, Conley as-So..... Logan  
 Thomas, Florence as-J..... Logan  
 Thomas, H. Ward c-J..... Logan  
 Thomas, Herbert Reed ed-F..... Logan  
 Thomas, Madison H. SS..... Logan  
 Thomas, William ed-J..... Ogden  
 Thomas, Wylie L. as-G..... Logan  
 Thompson, Ardella ed-F..... Logan  
 Thompson, Armond H. e-F..... Logan  
 Thompson, C. Ray e-F..... Logan  
 Thompson, Fred H. c-So..... Logan  
 Thorn, Paul Ashel SS..... Springville  
 Thornley, Beatrice G. SS..... Smithfield  
 Thornley, Elliot as-F..... Smithfield  
 Thornley, Gwendella SS..... Smithfield  
 Thornley, Heber F. SS..... Smithfield  
 Thornley, Mary H. SS..... McCannon, Ida.  
 Thornock, Clarence S. ed-G..... Logan  
 Thornock, Fay a-S..... Logan  
 Thornock, LaMont W. ed-So..... Logan  
 Thorpe, Everett C. ed-So..... Providence  
 Thorpe, Zelma ho-F..... Logan  
 Thueson, Ivan O. a-S..... Logan  
 Timmins, Joseph ed-J..... Smithfield  
 Tingey, Grace Venice c-J..... Logan  
 Tippet, Jean ho-So..... Logan  
 Tolman, Jay W. as-S..... Honeyville  
 Tolman, Ornette c-F..... Logan  
 Tolman, Ralph W. as-J..... Tremonton  
 Torbensen, Elden ed-G..... Logan  
 Torgeson, Eloise N. c-So..... Logan  
 Torgeson, Kingsley C. c-So..... Ogden  
 Tovey, Morgan E. a-So..... Logan  
 Townsend, William J. a-J..... Ogden  
 Tremelling, Jesse a-F..... Lorenzo, Ida.  
 Tremewan, Edith E. ed-J..... Logan

Tripp, Lyle ed-So..... Richmond  
 Tucker, Ned A. a-So..... Fairview  
 Turley, Louis O. ed-F..... Logan  
 Turner, Jessie ed-F..... Logan  
 Tuttle, Eugene K. a-J..... Manti  
 Tyson, Ross S. c-S..... Logan

Van Buren, Gordon a-S..... Ogden  
 Vance, LaMont ed-F..... Tremonton  
 Van Fleet, Beth A. as-F..... Garland  
 Van Kampen, Rudy L. ed-S..... Ogden  
 Vickers, Verdena as-J..... Logan  
 Vietti, Edward c-G..... Bingham Canyon  
 Vranes, John ed-G..... Lark

Waale, Nina Maxine ho-F..... Logan  
 Wacker, Eva R. ed-S..... Ogden  
 Wade, Edward W. c-So..... Ogden  
 Waddoups, Vivien B. c-F..... Bountiful  
 Wadsworth, Carrol LaVon SS..... Hyrum  
 Wadsworth, Charles D. a-So..... Logan  
 Wadsworth, Harold M. SS..... Richmond  
 Wagstaff, Louise ho-J..... Mt. Pleasant  
 Wagstaff, Milton B. e-F..... Mt. Pleasant  
 Wahlstrom, Julia as-F..... Laketown  
 Wahlstrom, Ruby as-So..... Laketown  
 Waite, Ariel T. a-F..... Hyde Park  
 Waite, Victor W. ed-So..... Smithfield  
 Waite, Wilda ho-So..... West Point  
 Wakley, Ralph C. c-F..... Logan  
 Waldron, Virgil C. ed-F..... Tremonton  
 Walker, Orville W. a-V..... Logan  
 Walker, Vernon F. a-So..... Salt Lake City  
 Walker, William L. c-So..... Salt Lake City  
 Wallace, Clara ho-So..... Logan  
 Wallace, Mervin H. a-J..... Logan  
 Walters, Barbara SS..... Rock Springs, Wyo.  
 Walters, Jesse R. a-G..... Rexburg, Ida.  
 Walters, LeRoy F. e-G..... Rexburg, Ida.  
 Walters, Myrtle B. ho-F..... Wellsville  
 Wangsgaard, Dee F. c-So..... Ogden  
 Wangsgard, Vivian ho-S..... Logan  
 Wanlass, Eva P. as..... Logan  
 Ward, Charles E. c-J..... Ogden  
 Ward, Dwayne c-V..... Rosett  
 Ward, Edna Mae ed-So..... Riverside  
 Ward, Edward D. SS..... Brigham City  
 Ward, Elmer H. a-J..... Willard  
 Ward, George ed-So..... Malad, Ida.  
 Ward, Glen J. SS..... Liberty  
 Ward, Golden ed-So..... Malad, Ida.  
 Ward, Mary E. c-So..... Malad, Ida.  
 Ward, Sylvia as-S..... Ogden  
 Ward, William G. as-S..... Logan  
 Wardell, Clayton D. ed-So..... Cowley, Wyo.  
 Wardle, James SS..... Salt Lake City  
 Ware, Gretel J. SS..... Spencer, Ida.  
 Warner, Lloyd e-F..... Peterson  
 Warnick, Charles W. a-So..... Pleasant Grove  
 Warnick, George W. a-F..... Pleasant Grove  
 Warren, Marvin F. a-F..... Spanish Fork  
 Warren, Melvin W. a-F..... Spanish Fork  
 Watkins, Eddie W. SS..... Brigham City  
 Watkins, Margaret as-S..... Logan  
 Watson, Ross D. a-J..... Ogden  
 Watterson, Nevada C. ed-F..... Logan  
 Watts, Arvilla c-J..... Logan  
 Watts, Austin L. c-J..... Logan



Watts, Conley ed-J.....	Logan
Waymire, Dick SS.....	Overton, Nev.
Weatherston, Bertha SS.....	Ogden
Webb, Barbara ed-F.....	Richmond
Webb, Burton R. c-F.....	Idaho Falls, Ida.
Webb, Delmar H. as-G.....	Richmond
Webb, Evelyn ed-F.....	Richmond
Webb, Helene C. as-So.....	Idaho Falls, Ida.
Webb, Phyllis Gayle ed-F.....	Richmond
Webber, Albert J. a-J.....	Logan
Webber, Esther as-F.....	Logan
Webster, Teddie SS.....	Logan
Weeks, Philip V. e-So.....	Ogden
Welch, Edith as-So.....	Mendon
West, Burnell G. as-S.....	Pleasant Grove
West, Lulu ho-So.....	Provo
West, Philip e-So.....	Logan
West, Ray W. a-So.....	Pleasant Grove
West, Vern P. a-F.....	Farmington
Westenskow, Elden SS.....	Manti
Westenskow, Lewis A. e-F.....	Manti
Westfall, Helen L. ed-F.....	Elko, Nev.
Westfall, Robert J. as-J.....	Elko, Nev.
Weston, Benjamin E. a-F.....	Laketown
Weston, Berniece SS.....	Laketown
Weston, Emma Lou as-So.....	Laketown
Weston, Phoebe ed-J.....	Laketown
Westring, Lois ho-J.....	Spanish Fork
Whattcott, C. L. SS.....	Logan
Whattcott, Thomas A. SS.....	Fillmore
Wheatley, Estelle SS.....	Brigham City
Wheeler, Herbert J. as-F.....	Lewiston
Whitaker, Eugene G. as-So.....	Kaysville
White, Dallas ed-F.....	Garland
White, Dorothy ed-So.....	Paradise
White, Evelyn ed-F.....	Logan
White, Glen B. as-F.....	Logan
White, June H. SS.....	Paradise
White, Mae ed-F.....	Logan
White, Vanice c-So.....	Beaver
White, Wilson E. SS.....	Murray
Whitesides, Alice ed-F.....	Layton
Whitesides, Joe E. ed-So.....	Layton
Whitesides, Myron D. a-F.....	Layton
Whiting, Heber SS.....	Richmond
Whittemore, Nolen N. a-J.....	Bountiful
Whittle, Perry D. SS.....	Preston, Ida.
Widdison, R. Eugene SS.....	Hooper
Wight, Francisca SS.....	Tremonton
Wilcox, Bessie ho-J.....	Layton
Wilcox, C. M. SS.....	Lewiston
Wilcox, Doris ho-F.....	Ogden
Wilcox, Elmer W. a-F.....	Layton
Wilcox, Elton ed-So.....	Kaysville
Wilcox, Harold as-So.....	Kaysville
Wilkins, Terry SS.....	Salt Lake City
Willer, Emery H. e-F.....	Salt Lake City
Willey, Armenia SS.....	Byron, Wyo.
Willey, Irene ed-F.....	Bountiful
Williams, John Robert c-So.....	Salt Lake City
Williams, Mark ed-J.....	Castle Dale
Williams, Norma c-F.....	Logan
Williams, Oliver as-F.....	Logan
Williams, Pearl Helen ed-S.....	Logan
Williams, Raleigh F. a-F.....	Spanish Fork
Williamson, Reid L. as-F.....	Wellsville
Wilson, Clifton a-F.....	Hurricane
Wilson, Mandie F. SS.....	Jerome, Ida.
Wilson, Woodrow as-J.....	Logan
Wimmer, Rex F. c-J.....	Logan
Winkel, A. G a-V.....	Logan
Winkler, Orval E. SS.....	Ogden
Winn, Florence L. c-G.....	Logan
Winn, Lloyd SS.....	Vernal
Winsor, Eleanor H. SS.....	Morgan
Wintle, Clifford W. e-So.....	Honeyville
Wintle, Dorothy L. ed-J.....	Ogden
Wintle, Eldon G. as-S.....	Honeyville
Wittwer, Ardice ho-So.....	Summit
Wixom, Earl P. ed-G.....	Logan
Wixom, Joseph as-J.....	Logan
Woffinden, Walter c-F.....	Garland
Woffinden, William c-F.....	Garland
Wolfe, Otto George e-So.....	Logan
Wood, Edith A. SS.....	Trenton
Wood, Harvey as-So.....	Smithfield
Wood, Melvin W. a-V.....	Woods Cross
Wood, Vertis C. ed-S.....	Cedar City
Wood, Walter L. ed-S.....	Trenton
Wood, Zella c-F.....	River Heights
Woodbury, Florence ho-F.....	Salt Lake City
Woodland, Anna Laura, as-F.....	Logan
Woodland, Eloise ho-So.....	Logan
Woodland, Hazel ho-S.....	Logan
Woods, Lowell G. a-S.....	Ogden
Woodward, Guy Owen a-F.....	Logan
Woodward, Harry K. as-S.....	Logan
Woodward, Ivan H. a-F.....	Logan
Woodward, Lowell a-S.....	Logan
Worley, Keith c-So.....	Logan
Wright, John W. SS.....	St. Charles, Ida.
Wright, Milton M. a-So.....	Blackfoot, Ida.
Wright, Morris H. c-J.....	Logan
Wright, Rodney L. a-So.....	Logan
Wright, Ruth as-F.....	Logan
Wrigley, Robert L. c-S.....	Logan
Wursten, Joseph a-F.....	Logan
Wursten, Karine SS.....	Logan
Wycoff, Harold M. a-F.....	Ogden
Wynn, G. Edgar c-J.....	Logan
Yates, Joseph L. a-F.....	Brigham City
Yearsley, Norma c-F.....	Logan
Yeates, Evert E. a-F.....	Logan
Yeates, Harris D. c-F.....	Logan
Young, David J. e-J.....	Grace, Ida.
Young, G. E. SS.....	Logan
Young, Stella SS.....	Brigham City
Young, Velda ed-So.....	Brigham City
Young, Anna Mary SS.....	Pocatello, Ida.
Zbinden, Alma W. e-F.....	Logan
ZoBell, Henry D. a-So.....	Salt Lake City
Zollinger, Dallas e-J.....	Providence
Zollinger, Rae SS.....	Providence
Zollinger, Ruth E. SS.....	Providence
Zuppann, Ruth as-S.....	Ogden

# Schedule of Courses Offered During the Fall, Winter, and Spring Quarters, 1934-35

See pages 39 to 54 for Admission, Registration, Certification, and Graduation Requirements.

## Steps in Registration

STEP No. 1—Obtain registration forms and fill out trial study list.

NEW STUDENTS, those who have never registered at the U. S. A. C. before, go to the Entrance Committee to obtain entrance permits and registration forms in Band Room, No. 133 Main Building. New students transferring from other colleges or universities, after receiving entrance permits from the Entrance Committee should visit the Advanced Standing Committee in the Registrar's Office, No. 131 Main Building for the evaluation of college credits.

FORMER STUDENTS, those who have registered in a previous year but are now registering for the first time this current year, go to the Registrar's Office to obtain registration forms and progress reports.

REPEATING STUDENTS (Winter and Spring Quarters only). Those who are registering for the second or third time this current year will obtain registration forms and progress reports in hallway; women in the south hallway, and men in the north hallway on the first floor of the Main Building.

STEP No. 2—Go to the registration office in the particular school in which you are registering to consult Faculty Adviser on selection of course, and obtain signature of Faculty Adviser as approving study list.

## Offices of Faculty Advisers

### SCHOOL OF AGRICULTURE:

Freshmen and Sophomores ..... L101

Juniors and Seniors ..... Offices of Major Professors

### SCHOOL OF HOME ECONOMICS:

All students in Home Economics will register in Board Room, No. 103 Main Building.

### SCHOOL OF ARTS AND SCIENCE:

Freshmen and Sophomores ..... M102

Juniors and Seniors ..... Offices of Major Professors



## SCHOOL OF COMMERCE:

Freshmen and Sophomores ..... M301  
 Juniors and Seniors ..... Offices of Major Professors

## SCHOOL OF EDUCATION:

Freshmen and Sophomores ..... M280  
 Juniors and Seniors ..... Offices of Major Professors

## SCHOOL OF ENGINEERING AND MECHANIC ARTS:

All students in this school register in Engineering  
 Auditorium ..... E210

STEP No. 3—Go to Sectioning Committee on second floor of Main Building if registering for a course that is listed as having more than one section during the year. All sectioned classes are starred in the Schedule Bulletin. Students are held responsible for knowing which classes are sectioned, and for obtaining the proper enrollment cards from the Sectioning Committee for such classes. Students will not be admitted to classes that are sectioned unless they have obtained class enrollment cards from the Sectioning Committee for such classes. Every male student must visit the Military Department on second floor of Main Building and secure a Military Registration Card, unless his Progress Report or his Registration Book has been stamped by the Registrar's Office showing completion of the military requirements. This must be done before the student goes to the checking tables.

STEP No. 4—Go to checking tables on second floor of Main Building. All cards must be carefully checked for clerical details. Be sure to do this before getting in line for the Secretary's Office, because students whose cards have not been checked will be sent back and the time spent in the line will have been wasted.

STEP No. 5—Go to Secretary's Office for payment of fees; also final delivery of forms if registering on regular registration days.

STEP No. 6—Go to Registrar's Office for final delivery of forms if registering on any day other than those designated above as registration days.

The following abbreviations are used for buildings:

M—Main Building  
 W—Widtsoe Hall or Chem. Bldg.  
 A—Mechanic Arts Bldg.  
 E—Engineering Bldg.  
 P—Plant Industry Bldg.  
 L—Animal Husbandry Bldg.

H—Home Economics Bldg.  
 G—Gymnasium Bldg.  
 N—New Library Bldg.  
 V. C.—Veterinary Clinic Bldg.  
 J. P.—Stock Judging Pavilion

# SCHEDULE OF COURSES

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## FALL QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
<b>Accounting (See Bus. Adm.)</b>					
<b>Agricultural Economics and Marketing</b>					
102	Farm Management	3	M. W. F. 8	M178	Fuhrman
105	Agricultural Finance	3	M. W. F. 11	M178	Fuhrman
106	Land Economics	3	T. Th. 8 M. 1	M178	Fuhrman
210	Research	3	Arranged	M178	Blanch
211	Seminar	1	Arranged	M178	Thomas & Blanch
<b>Agricultural Engineering (AE)</b>					
1	Surveying	4	M. W. 2-5	E205	Tingey
13	Farm Motors	3	T. Th. 2-5	A205	Powell
14	Farm Shop Repair Work	2	Arranged	Shop	Egbert
16	Tractor Operation and Repair	3	M. W. F. 2-5	A205	Powell
<b>Agronomy and Soils</b>					
1	General Farm Crops	3	M. W. F. 9	P201	Tingey, Evans
5	Identification, Judging of Farm Crops	2	W. 8 Lab. arranged	P201	Evans
6	General Soils	4	M. W. F. 9 Th. 2	P210	Pittman
102	Root Crops (Lab. T. 2-5)	3	T. Th. 9	P201	Tingey
104	Weeds, Seeds and Grading (Lab. W. 2-5, one lab to be arranged)	3	Th. 1	P202	Tingey
106	Soils	4	M. W. F. 9 Th. 2	P210	Pittman
108	Soil Management (Lab. T. 2-5)	3	T. Th. 10	P201	Pittman
111	Seminar	1	T. 11	P201	Evans
208	Management of Arid Soils	4	Arranged	P210	Pittman
218	Special Problems	1-5	Arranged		Staff
230	Thesis	2-5	Arranged		Staff
<b>Animal Husbandry</b>					
1	General Animal Husbandry (Lab. T. 2-4)	3	T. Th. 10	L207	Smith
110	Beef Cattle Production	3	M. W. F. 9	L207	Smith
160	Advanced Stock Judging	4	M. W. F. 2-5	JP	Smith
180	Animal Husbandry Seminar	1	T. 1	L208	Smith
200	Graduate Research		Arranged		Staff
207	Animal Experimentation		Arranged		Staff
210	Graduate Thesis	2-5	Arranged		Staff
215	Seminar		Arranged		Staff
<b>Art</b>					
1*	El. Design and Nature App. (Sec. 1)	3	M. 1 T. Th. 8	M330	Fletcher
1*	El. Design and Nature App. (Sec. 2)	3	M. W. F. 9	M330	Reynolds
3*	Art Appreciation (Sec. 1)	3	T. Th. 9 W. 12	M330	Reynolds
52	Design for Schools	3	M. W. F. 11	M355	Reynolds
122	House Planning, Construction & Design	3	M. W. F. 11	M355	Fletcher
124	Perspective	3	M. W. F. 10	M330	Fletcher
	Fine Art Studio Work	1-5	M. T. W. Th. 2-5	M330	Fletcher
	Drawing, Painting, Illustrating				
	Lettering, Prof. Design, etc.				
	3 hrs. in Studio per credit each week				
	Crafts Studio Work		M. T. W. Th. 2-5	M330	Reynolds
	Fabric Decoration, Leather, Jewelry, Copper, Basketry, etc.	1-4			
<b>Auto Mechanics (MA)</b>					
1	Principles of Auto Construction	3	M. W. F. 8-10	A205	Powell
4	Automobile Repair	3	M. W. F. 10-12	A205	Powell
5	Automobile Care and Lubrication	2	M. W. F. 8	A205	Powell
103	Carburetion and Combustion Engines	3	T. Th. 8-10	A205	Powell

\*Sectioned Classes.

## FALL QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Aviation (See Radio and Aviation) (MA)</b>					
<b>Bacteriology and Biochemistry</b>					
1*	General Bacteriology (Sec. 1)	5	Daily 9	W302	Greaves
2*	General Bacteriology Lab.	2	W. F. 2-5	W303	Stevens
101	Soil Bacteriology	2	M. W. 8	W302	Stevens
104	Dairy Bacteriology (Lab. W. F. 2-5)	3 or 5	M. W. F. 11	W302	Stevens
109	Advanced Bacteriology	2	M. W. 10	W302	Greaves
113	Advanced Biochemistry	2	T. Th. 1	W302	Greaves
<b>Botany and Plant Pathology</b>					
1*	Elementary Botany (Sec. 1) (Lab. T. or Th. 9-12)	5	Daily 9	P105	Richards
21*	General Botany (Sec. 1)	3	T. Th. 8	P105	Maguire
21*	General Botany (Sec. 2) any day 2-5 and T. Th. 9-12	3	T. Th. 10	P105	Maguire
126	Plant Ecology (Lab. M. W. 2-5)	4	M. W. 9	P105	Maguire
130	Principles of Plant Pathology (Lab. M. F. 2-5)	3	W. 11	P8	Richards
150	Mycology (Lab. T. Th. 2-5)	3	Th. 11	P8	Richards
160	Laboratory Methods		Arranged		Staff
234	Special Problems	2-4	Arranged		Staff
240	Seminar	2	Arranged		Staff
<b>Business Administration and Accounting</b>					
1*	Introductory Acct. (Lab. T. Th. 2-5)	5	M. W. F. 11	M302	Gardner
25	Introductory Business	5	Daily 10	M351	Peterson
26	Applications of Engineering to Business	2	T. Th. 11	E203	West, R. B.
55	Personnel Administration	5	Daily 9	M357	Ketchum
75	Elementary Stenography (Sec. 1)	5	Daily 9	M302	Fogelberg
78	Advanced Stenography	3	M. W. F. 10	M305	Fogelberg
86*	First Yr. Typewriting (1st. Qtr. Sec. 1)	1	M. W. 11	M303	Neuberger
86*	First Yr. Typewriting (1st. Qtr. Sec. 2)	1	T. Th. 8	M303	Neuberger
87*	First Yr. Typewriting (2nd Qtr. Sec. 1)	1	M. W. 10	M303	Neuberger
89*	Advanced Typewriting (4th Qtr. Sec. 1)	1	T. Th. 9	M303	Neuberger
89*	Advanced Typewriting (4th Qtr. Sec. 2)	1	T. Th. 11	M303	Neuberger
93*	El. Calculator Operation (Sec. 1)	1	M. 2-5	M303	Neuberger
93*	El. Calculator Operation (Sec. 2)	1	W. 2-5	M303	Neuberger
93*	El. Calculator Operation (Sec. 3)	1	Th. 2-5	M303	Neuberger
98*	Burroughs Posting Machine—Comm. (Sec. 1)	1	M. 2-5	M305	Neuberger
98*	Burroughs Posting Machine—Comm. (Sec. 2)	1	T. 2-5	M305	Neuberger
99*	Burroughs Posting Machine—Bank (Sec. 1)	1	W. 2-5	M305	Neuberger
99*	Burroughs Posting Machine—Bank (Sec. 2)	1	Th. 2-5	M305	Neuberger
101	Fundamentals of Accounting	5	Daily 9	M351	Peterson
111	Cost Accounting	5	Daily 8	M351	Gardner
120	Auditing	3	M. W. F. 2-5	M351	Peterson
127	Income Tax Accounting	2	T. Th. 11	M351	Peterson
146	Risk and Risk-Bearing	5	Daily 8	M357	Ketchum
175	Business and Office Practice	3	M. W. F. 9	M305	Neuberger
176	Report Writing	2	T. Th. 10	M302	Fogelberg
<b>Chemistry</b>					
1*	Introductory Chemistry	5	Daily 11	W201	Maeser
3*	Inorganic Chemistry (Lab. M. W. 2-5, T. Th. 2-5)	5	M. W. F. 8	W201	Maeser
10*	General Chemistry (Sec. 1)	5	M. W. F. 9	W201	Hill

\*Sectioned Classes

## FALL QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
10*	General Chemistry (Sec. 2) (Lab. Sec 1 W. F. 2-5, Sec 2 T. Th. 2-5, Sec. 3 T. Th. 9-12)	5	M. W. F. 10	W201	Hill
	Note: General Chemistry Sec. 1 runs only Fall and Winter Quarters. Students must register at 10 o'clock in Spring Quarter.				
104	Physical Chemistry	3	T. Th. 9 F. 12	W201	Maeser
109	Physical Chemistry Lab.	1	F. 2-5	W201	Maeser
121	Organic Chemistry (Lab. M. W. 2-5)	5	T. Th. 10 F. 1	W201	Hill
<b>Child Development &amp; Parental Education</b>					
13*	Children's Literature	3	T. Th. F. 11	M204	Pedersen
38	Music for Young Children	1	T. 11	M130	Welti
60	Child Management (Lab. to be arranged)		M. 2	H12	Bate
111	Heredity and Eugenics	3	M. W. F. 11	M227	Henderson
125	Mothercraft	3	M. W. F. 10	H45	Dancy
135	Child Care and Training (Observation in Nursery School to be arranged)	3	W. F. 2	H12	Bate
140	Special Problems in Child Development	1-3	Arranged	Office	Bate
171	Social Problems of the Family	3	M. W. F. 11	M206	Hendricks
<b>Civil Engineering (CE)</b>					
1	Materials of Engineering (Lab. F. 2-5)	3	T. Th. 11	E304	Newey
61	Engineering Drawing (Lab. M. W. 2-5)	3	T. 10	E306	Kepner
81	Plane Surveying (Lab. T. Th. 2-5)	4	T. Th. 11	E205	Tingley
103	Strength of Materials (Lab. T. Th. 2-5)	5	M. W. F. 8	E304	Clyde
107	Masonry Const. & Foundations (Lab. F. 2-5)	5	M. W. Th. F. 8	E306	Kepner
110	Adv. Structural Theory	4	M. W. Th. F. 10	E306	Kepner
113	Structural Design (Lab. T. Th. 2-5)	4	M. W. 11	E306	Kepner
120	Highway Const. & Design (Lab. W. 2-5)	5	M. T. Th. F. 9	E203	West
125	Highway Transportation	3	M. W. F. 10	E203	West
146	Design of Irrig. Systems (Lab. M. W. 2-5)	5	M. W. F. 9	E304	Israelsen
149	Irrigation Inst. & Management	5	Daily 10	E304	Clyde
190	Contacts and Specifications	3	M. W. F. 11	E203	West
<b>Dairy Husbandry &amp; Manufacturing</b>					
1	General Dairy (Lab. Th. 2-5)	3	T. Th. 9	L207	Caine & Morris
6	Market Milk (Lab. T. 2-5)	3	T. Th. 8	L105	Morris
12	Breeds of Dairy Cattle (Lab. M. 2-5)	4	M. W. F. 9	L105	Caine
103	Mfg. of Cheese (Lab. F. 11-5)	5	M. W. F. 10	L105	Morris
105	Mgt. of Dairy Plants (Lab. arranged)	2	Arranged	Creamery	Morris
115	Seminar		Arranged		Staff
150	Special Problems		Arranged		Staff
216	Research		Arranged		Staff
<b>Economics</b>					
1*	General Social Science (Sec. 1)	5	Daily 8	M205	Wanlass
1*	General Social Science (Sec. 2)	5	Daily 9	N310	Merrill
1*	General Social Science (Sec. 3)	5	Daily 10	M361	Gardner
1*	General Social Science (Sec. 4)	5	Daily 2	M361	Daines
4*	Economic Resources of the U. S.	3	M. W. F. 11	M357	Ketchum
51*	General Economics (Sec. 1) (not open to Freshmen)	5	Daily 9	M361	Daines
51*	General Economics (Sec. 2) (not open to Freshmen)	5	Daily 11	M352	Cutler
52*	Advanced Gen. Economics (Sec. 1)	5	Daily 8	M352	Cutler
52*	Advanced Gen. Economics (Sec. 2)	5	Daily 9	M358	Cutler
165	Money and Credit	5	Daily 9	M352	Wanlass

\*Sectioned Classes

## FALL QUARTER

<i>Course No. of</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
175	Public Utility Economics	3	T. Th. 10 M. 1	M357	Ketchum
180	Economic Seminar	1	T. 11	M305	Wanlass
<b>Education</b>					
80*	Orientation in Education	3	M. W. F. 9	M356	McClellan
104*	Elementary School Curriculum	3	T. Th. 8 M. 1	M280	Bowen
105	Principles of Teaching in Elementary Schools	3	M. W. F. 8	M280	Bowen
106	Practice Teaching in Elementary Schools	10	Arranged		Bowen
111*	Science of Education	3	T. Th. 8 M. 1	M279	Jacobsen
114*	Methods in Secondary Education	3	M. W. F. 8	M279	McClellan
115	Practice Teaching in Secondary Schools	4-8	Arranged		McClellan, Bates & Hess
121*	School Organization & Adm.	3	M. W. F. 10	M352	Jacobsen
237	Education Seminar	1	Arranged		Staff
229	Advanced School Administration	2	T. Th. 10	M280	Jacobsen
267	Introduction to Research	2	W. 7-9 p. m.	M280	McClellan
<b>English and Speech</b>					
10*	Freshman Composition (Sec. 1)	5	Daily 9	N320	Sorensen
10*	Freshman Composition (Sec. 2)	5	Daily 9	N318	Vickers
10*	Freshman Composition (Sec. 3)	5	Daily 10	M360	Bell
10*	Freshman Composition (Sec. 4)	5	Daily 2	N310	Brite
10*	Freshman Composition (Sec. 5)	5	Daily 10	M204	Pedersen
10*	Freshman Composition (Sec. 6)	5	Daily 2	M360	Merrill
11*	Sophomore Composition (Sec. 1)	4	M. T. W. F. 8	M361	Bell
11*	Sophomore Composition (Sec. 2)	4	M. T. W. F. 10	N310	Merrill
11*	Sophomore Composition (Sec. 3)	4	M. T. W. F. 11	N310	Brite
	(Freshmen may not register for Eng. 11)				
13*	Children's Literature	3	T. Th. F. 11	M204	Pedersen
16	Scandinavian Literature	1	T. 1	N310	Hansen
19	Scientific Vocabulary	2	T. Th. 8	N316	Arnold
50	Readings in English Prose	3	M. W. F. 10	N320	Sorensen
86	Emerson	2	T. Th. 10	N320	Sorensen
105	Grammar	5	Daily 8	N314	Vickers
108	Advanced Writing	3	M. W. F. 9	M204	Pedersen
111	18 Century Novel	5	Daily 11	N320	Sorensen
131	Greek Drama	5	Daily 10	N318	Vickers
<b>Speech</b>					
1	Fundamentals of Speech	5	Daily 10	M205	Myers
2	Oral Interpretation	4	Daily 11	M359	Myers
3	Extemporaneous Speaking	3	M. W. F. 8	M204	Pedersen
5	Speech Delivery	5	Daily 9	M359	Goates
8	Private Instruction	2-4	Arranged		Myers & Goates
60	Drama Appreciation	3	M. W. F. 10	M280	Goates
60	Drama Appreciation	3	T. Th. 11 T. 12	M280	Goates
112	Professional Reading	2-8	Arranged		Myers & Goates
150a	Drama Production	4	M. W. F. 11	M205	Goates
158	Acting	5	Daily 9	M205	Myers
<b>Entomology (See Zoology and Entomology)</b>					
<b>Foods and Nutrition &amp; Household Administration</b>					
5	Principles of Nutrition	5	Daily 11	HE26	Clayton
8	Meal Preparation for Men (Lab. Th. 4-7)	2	T. 4	HE25	Clayton

\*Sectioned Classes

## FALL QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
9	Meal Preparation & Serving (Lab. T. Th. 11-2)	3	M. 2	HE25	Kelly
20*	Food Study (Lab. M. W. 10-1)	5	T. Th. F. 10	HE26	Kelly
140	Dietetics (Lab. W. 2-4)	4	M. W. F. 9	HE26	Clayton
160	Problems in Nutrition	2	Arranged		Clayton
<b>(Household Administration)</b>					
10*	Survey of Home Economics	1	T. 10	H26	Clayton
25†	Care of Sick (Lab. T. 2-5)	2	T. 10	H45	Dancy
149	Home Management (Lab. Th. 2-5)	4	M. W. F. 8	H26	Kelly
150	Residence in Home Econ. Cottage	5	Arranged	Cottage	Kelly
<b>Forestry</b>					
12*	Dendrology I (Lab. W. or F. 2-5)	3	T. Th. 8	L308	Becraft
25	Logging	2	T. Th. 10	L303	Dunn
106	Forest Measurements I (Lab. W. 2-5)	4	M. W. F. 8	L303	Dunn
114	Silviculture I	5	Daily 11	L308	Taylor
121	Forest Management	4	M. T. W. F. 8	L308	Taylor
143	Forestry Seminar	2	M. T. Th. 1	L303	Taylor & Dunn
145	Forestry Thesis	2-6	Arranged	L301	Taylor & Dunn
<b>Forging (MA)</b>					
31	Forge Practice (Sec. 1)	3	M. W. F. 2-5	Shop	Egbert
32	Forge Practice (Sec. 2)	2	T. Th. 2-5	Shop	Egbert
33	Forge Practice (Sec. 3)	5	Daily 2-5	Shop	Egbert
34	Forge Shop Operations (Sec. 1)	3	M. W. F. 2-5	Shop	Egbert
34	Forge Shop Operations (Sec. 2)	2	T. Th. 2-5	Shop	Egbert
37	Select Work from Forge Practice	2	M. W. F. 3-5	Shop	Egbert
37	Select Work from Forge Practice	2	T. Th. 2-5	Shop	Egbert
40	Forge Shop Work	2	M. W. F. 3-5	Shop	Egbert
40	Farm Shop Work	2	T. Th. 2-5	Shop	Egbert
43	Fender and Body Work	2	T. Th. 8-10	Shop	Egbert
131	Adv. Shop Practice (Sec. 1)	2	T. Th. 2-5	Shop	Egbert
131	Adv. Shop Practice (Sec. 2)	3	M. W. F. 2-5	Shop	Egbert
132	Smith Hughes Unit	3	T. Th. 2-5	Shop	Egbert
132	Smith Hughes Unit	3	M. W. 2-5	Shop	Egbert
134	Smith Hughes Unit	3	T. Th. 2-5	Shop	Egbert
<b>French (See Modern Languages)</b>					
<b>Geology</b>					
2*	Principles of Geology	5	Daily 8	M283	Bailey
100	Agricultural & Forest Geology	5	Daily 9	M283	Bailey
108	Economic Geology	5	Daily 11	M283	Bailey
114	Field Problems		Arranged	M283	Bailey, Peterson
<b>German (See Modern Languages)</b>					
<b>Health Education (See Physiology)</b>					
<b>History</b>					
1*	Medieval European History	5	Daily 9	M360	Brite
13*	United States History—Early Period	5	Daily 11	N312	Ricks
15*	United States History Since Civil War	5	Daily 10	N312	Ricks
31*	English History Early Period	3	M. W. F. 8	N312	Merrill
111	Middle Ages	3	M. T. Th. 9	N312	Ricks
125	French Revolution and Napoleon	3	M. W. F. 9	N312	Ricks
<b>Home Economics (See Child Development, Foods and Nutrition, and Household Administration, and Textiles and Clothing)</b>					

\*Sectioned Classes

†Limited to 18 students



## FALL QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Horticulture</b>					
1	General Horticulture (Lab. M. 2-5)	3	T. Th. 11	L309	Stark
5	Plant Propagation & Greenhouse Practice	2	M. 1 F. 2-5	L309	Stark
105	Major Vegetable Crops (Lab. M. 2-5)	3	T. Th. 9	L309	Wilsom
110	Orchard Practice	1	Arranged	L309	Stark
151	Systematic Pomology (Lab. T. Th. 2-5)	5	M. W. F. 10	L309	Stark

**Household Administration (See Foods)****Ignition (See Radio, and Automotive Electricity) (MA)****Irrigation (See Civil Engineering) (CE)****Latin (See Modern Languages)****Machine Work (MA)**

51	Machine Shop Practice (Sec. 1)	4	M. T. W. F. 2-5	Shop	Newey
52	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
53	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
54	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
54	M. S. P. Short Course (Sec. 2)	3	M. W. F. 9-12	Shop	Newey
54	M. S. P. Short Course (Sec. 3)	2	T. Th. 2-5	Shop	Newey
54	M. S. P. Short Course (Sec. 4)	3	M. W. F. 2-5	Shop	Newey
55	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
55	M. S. P. Short Course (Sec. 2)	3	M. W. F. 9-12	Shop	Newey
55	M. S. P. Short Course (Sec. 3)	3	M. W. F. 2-5	Shop	Newey
56	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
56	M. S. P. Short Course (Sec. 3)	3	M. W. F. 2-5	Shop	Newey
57	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
57	M. S. P. Short Course (Sec. 3)	3	M. W. F. 2-5	Shop	Newey
58	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
58	M. S. P. Short Course (Sec. 3)	3	M. W. F. 2-5	Shop	Newey
59	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
59	M. S. P. Short Course (Sec. 3)	3	M. W. F. 2-5	Shop	Newey
151	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
152	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
153	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
154	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
155	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
156	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
157	Smith-Hughes Machine Course	2-9	Arranged	Shop	Newey

**Marketing (See Ag. Economics) (See also Bus. Adm.)****Mathematics**

15*	Algebra (Sec. 1)	5	Daily 9	E205	Tingey
15*	Algebra (Sec. 2)	5	Daily 9	N314	Linford
15*	Algebra (Sec. 3)	5	Daily 11	N314	Egbert
34*	College Algebra (Sec. 1)	5	Daily 8	E205	Tingey
34*	College Algebra (Sec. 2)	5	Daily 10	N314	Egbert
97	Analytic Geometry	5	Daily 10	E205	Tingey
120	Advanced Analytic Geometry	3	T. Th. 10 M. 1	W100	Linford
150	Functions of a Real Variable	3	T. Th. F. 1	W101	Linford
160	Seminar		Arranged		Staff

**Mechanical Drawing (See Civil Engineering) (CE)****Military Science and Tactics****First Year Basic**

1† During the Fall Quarter the Classes will meet for field work as follows:  
 Sec. 1 M. T. 1-2; Sec. 2 M. T. 2-3;  
 Sec. 3 Th. F. 1-2; Sec. 4 Th. F. 2-3.  
 Also in section for class instruction as

Waller  
 Goodrich

\*Sectioned Classes

## FALL QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
	follows: Sec. 1 T. 9; Sec. 2 T. 11; Sec. 3 T. 11; Sec. 4 W. 8; Sec. 5 Th. 8; Sec. 6 Th. 10.	1		M1	Pitzer Callahan

Students must arrange to take one of the above laboratory sections and one lecture section

## Second Year Basic

4†	During the Fall Quarter the class will meet in sections for field work as follows: Sec. 1 M. T. 1-2; Sec. 2 M. T. 2-3; Sec. 3 Th. F. 1-2; Sec. 4 Th. F. 2-3. Also in sections for class instruction as follows: Sec. 1 T. 9; Sec. 2 T. 11; Sec. 3 Th. 8; Sec. 4 Th. 10.	1		M1	Waller Goodrich Pitzer Callahan
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†Must obtain registration cards at Military Department.

## First Year Advanced

101	(Lab. M. T. Th. or F. 1-3)	3	M. W. F. 10	M1	Goodrich
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## Second Year Advanced

104	(Lab. M. T. Th. or F. 1-3)	3	M. W. F. 11	M1	Pitzer
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## Modern Languages and Latin

1	French (Sec. 1)	5	Daily 9	N316	Arnold
1	French (Sec. 2)	5	Daily 2	M352	Fogelberg
1a	French	3	M. W. F. 8	N316	Arnold
101	Sec. Year French	3	M. W. F. 11	N316	Arnold
107	French Composition	1	M. 1	N316	Arnold
110	French Research		Arranged	N316	Arnold
113	French Drama	2	T. Th. 1	N316	Arnold
1	Latin	3	T. Th. 11 F. 1	N316	Arnold
1	German (Sec. 1)	5	Daily 8	M356	Jensen
1	German (Sec. 2)	5	Daily 10	M356	Jensen
101	Sec. Year German	3	M. W. F. 11	M356	Jensen
104	Scientific German	2	T. Th. 9	M356	Jensen
121	Lessing and Schiller	3	M. 12 T. Th. 11	M356	Jensen

## Music

1	Musical Types	3	M. W. F. 10	M130	Welti
4	Eye and Ear Training	2	T. Th. 10	M130	Welti
15	Orchestra Combinations	½	Arranged	M133	Christiansen
18	Symphony Orchestra	1½	M. F. 12-2	M133	Christiansen
21	Band and Orchestra Methods	2	T. Th. 11	M133	Christiansen
24	Men's Glee	1	M. W. F. 12	M205	Welti
27	Ladies' Glee	1	T. Th. F. 12	M205	Welti
32	Band B	1	T. Th. 12-2	M132	Torbensen
35	Vocal Groups	1	Arranged	M130	Welti
38	Music for Young Children	1	T. 11	M130	Welti
41	Band A	1	T. Th. 12-2 W. 12-1	M133	Christiansen
44	Brass and Reed Groups	½	Arranged	M133	Christiansen
50	Piano (Private)	1½-3	Arranged		Associate Teachers Welti & Asso. Teachers
53	Vocal (Private)		Arranged		Christiansen
56	Wind Instruments (Private)	1½-3	Arranged	M133	Christiansen
60	Violin (Private)	1½-3	Arranged	M133	Christiansen and Spicker
80	Opera Appreciation	2	T. Th. 2	M133	Christiansen
111	Advanced Harmony	3	M. W. F. 9	M133	Christiansen

\*Sectioned Classes

## FALL QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
124	Advanced Chorus	1	Daily 12	M205	Welti
134	Counterpoint	3	M. W. F. 11	M130	Welti
141	Band A	1½	T. Th. 12-2 W. 12-1	M133	Christiansen
150	Piano (Private)	1½-3	Arranged		Associate Teachers
156	Wind Instruments (Private)	1½-3	Arranged	M133	Christiansen
160	Violin (Private)	1½-3	Arranged	M133	Christiansen and Spicketer
163	Pipe Organ (Private)	1½-3	Arranged		S. E. Clark

## Physical Education

## Activity Classes for Men and Women

62*	Archery (Sec. 1)	1	M. W. F. 9	G	Carlisle
62*	Archery (Sec. 2)	1	T. Th. F. 2	G	Jenson
63	Recreative Games	1	T. Th. 10	G	Carlisle
68	Elementary Folk Dancing	1	M. W. F. 11	G	Carlisle
70	Elementary Tap Dancing	1	T. Th. F. 12	G	Carlisle
72*	Social Dancing	1	T. Th. 11	G	Carlisle

## Activity Classes for Men

4*	Boxing (Sec. 1)	1	M. W. F. 11	G	Jenson
4*	Boxing (Sec. 2)	1	M. W. F. 2	G	Jenson
7*	Wrestling (Sec. 1)	2	Daily 1	G	Nelson
7*	Wrestling (Sec. 2)	2	Daily 2	G	Nelson
9*	Fencing	1	M. W. F. 2	G	Jenson
11	Football	1	Daily 4	Stad.	Romney
13*	Hand Ball (Sec. 1)	1	M. W. F. 10	G	Jenson
13*	Hand Ball (Sec. 2)	1	M. W. F. 12	G	Jenson
16	Elementary Swimming (Sec. 1)	1	M. W. F. 9	G	Jenson
16	Elementary Swimming (Sec. 2)	2	Daily 3	G	Jenson
19	Elementary Tumbling	1	T. Th. 10	G	Jenson
22*	Basket Ball (Sec. 1)	1	M. W. F. 10	G	Jenson
22*	Basket Ball (Sec. 2)	1	M. W. F. 12	G	Jenson
25	Restricted Gymnastics	1	Arranged	G	Jenson

## Activity Classes for Women

40*	Soccer and Volley Ball (Sec. 1)	1	M. W. 12	G	Carlisle
40*	Soccer and Volley Ball (Sec. 2)	1	T. Th. 11	G	Carlisle
40*	Soccer and Volley Ball (Sec. 3)	1	T. Th. 1	G	Carlisle
43	Advanced Gymnastics	1	T. Th. 9	G	Carlisle
45	Individual Gymnastics	1	Arranged	G	Carlisle
48	Elementary Creative Dancing	1	M. 2-4 F. 2-3	G	Carlisle
51*	Elementary Swimming (Sec. 1)	1	M. W. F. 12	G	Carlisle
51*	Elementary Swimming (Sec. 2)	1	T. Th. F. 12	G	Carlisle
54*	Advanced Swimming	1	T. Th. F. 2	G	Carlisle

## Theory Courses

1	Orientation in Physical Education	2	T. Th. 10	M227	Jenson
81	Rhythms and Dramatic Games	2	M. W. F. 10	G	Carlisle
85	Competitive Activities for Men	2	T. Th. 1	G27	Jenson
91	Methods and Practice in Competitive Athletics	2	T. Th. 2	G27	Carlisle
106	Applied Anatomy and Physiology of Exercise	5	Daily 10	M132	Carter
141	Advanced Creative Dancing	2	W. 2-4 F. 3	G	Carlisle
183	Principles of Physical Education	5	Daily 9	G27	Jenson
188	Football Coaching	3	M. W. F. 9	G27	Romney & Croft

\*Sectioned Classes

## FALL QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
<b>Physics</b>					
1*	General Physics (Sec. 1)	5	Daily 11	W101	Linford
2*	General Physics (Sec. 1)	5	Daily 2	W101	West
20	Mechanics (Lab. M. W. or T. Th. 2-5)	5	M. W. F. 9	W101	West
108	Advanced Laboratory	1	F. 2	W100	West
110	Electricity and Magnetism	3	T. Th. F. 11	W100	West
119	Modern Physics	4	T. Th. 9 M. W. 11	W100	West
153	Analytical Mechanics	3	M. W. F. 9	W100	Gardner
166	Geometrical Optics	3	M. W. F. 10	W101	Linford
250	Research		Arranged		Staff

**Physiology, Public Health, and Hygiene**

4*	Anatomy and Physiology	5	Daily 11	M132	Carter
4*	Anatomy and Physiology	5	Daily 9	M132	Dancy
4*	Anatomy and Physiology	5	Daily 2	M132	Dancy
5	General Physiology Lab.	1	T. 2-5	M29	Carter
5	General Physiology Lab.	1	W. 2-5	M29	Carter
14*†	Health Education	3	M. W. F. 8	M132	Carter
15†	Methods and Materials in Health Education	2	T. Th. 8	M132	Carter
106	Physiology of Exercise	5	Daily 10	M132	Carter
115	Journal Club	1	Arranged	M126	Carter

†Physiology 14 and 15 cannot be used in Biological Science Group.

**Plant Pathology (See Botany)****Political Science**

11	Commercial Law	3	M. W. F. 8	M360	Bullen
104	Commercial Law	3	T. Th. 8 M. 12	M360	Bullen
118	Political Parties	3	M. W. F. 11	M361	Daines
201	Current Political Problems	2	T. Th. 11	M361	Daines

**Poultry Husbandry (No classes Fall quarter)****Psychology**

3*	Elementary Psychology (Sec. 1)	5	Daily 9	M279	Peterson
101*	Principles of Psychology (Sec. 1)	3	M. W. F. 10	M279	Peterson
102*	Adv. Educational Psychology (Sec. 1)	3	M. W. F. 8	M358	Jacobsen

**Public Speaking (See English)****Radio, Aviation, and Automotive Electricity (MA)**

11	Elements of Electricity and Magnetism	3	T. Th. 8-10	A203	Stock
23	Radio Receiving Sets	4	M. W. F. 2-5	A207	Stock
26	Aerodynamics (Lab. T. Th. 2-4)	4	T. Th. 10	A203	Stock
111	Starting, Lighting and Ignition	4	M. W. F. 8-10	A203	Stock
127	Operation and Servicing A. C. Receivers	4	M. W. F. 10-12	A207	Stock

**Range Management**

162	Range Management (Lab. M. 2-5)	5	M. W. Th. F. 10	L305	Becraft
166	Range Management Plans (Lab. F. 2-5)	2	T. 10	L305	Becraft
193	Range Seminar	2	T. Th. F. 9	L305	Becraft
195	Range Thesis	2-6	Arranged	L306	Becraft

**Secretarial Science (See Bus. Adm.)****Sociology**

10	Rural Sociology	3	T. W. Th. 10	M206	Geddes
40	Modern Social Problems	3	T. Th. 9 W. 12	M280	Hendricks
70*	Principles of Sociology (Sec. 1)	5	Daily 10	M283	Hendricks
140	Social Psychology	5	Daily 8	M206	Geddes

**\*Sectioned Classes**

## FALL QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
171	Problems of the Family	3	M. W. F. 9	M206	Hendricks
190	Seminar	1	Th. 3	M206	Geddes
201	Research in Sociology	4	Arranged	M206	Geddes
<b>Spanish (See Modern Languages)</b>					
<b>Speech (See English)</b>					
<b>Stenography (See Bus. Adm.)</b>					
<b>Textiles and Clothing</b>					
1*	Clothing Construction (Sec. 1)	3	T. Th. 2-5	H36	Crockett
5	Clothing Appreciation	2	T. Th. 11	H36	Crockett
10*	Clothing Selection and Construction (Sec. 1)	3	M. W. 2-5	H36	Crockett
10*	Clothing Selection and Construction (Sec. 2)	3	W. F. 10-1	H36	Crockett
20	Household Textiles	5	Daily 9	H33	Moen
105	History of Costumes	3	M. W. F. 11	H33	Moen
160	Advanced Problems in Clothing	2	T. Th. 11-1	H33	Moen
190	Special Problems in Clothing		Arranged	H36	Moen
<b>Typewriting (See Bus. Adm.)</b>					
<b>Veterinary Science</b>					
10	Veterinary Elements	3	M. W. F. 8	L203	Frederick
40	Comparative Veterinary Physiology	3	M. W. F. 9	L203	Frederick
<b>Wild Life Management</b>					
159	Wild Life Thesis	2-6	Arranged		Rasmussen
<b>Woodwork (MA)</b>					
61	Elementary Woodwork	2	T. Th. 2-5	Shop	Swenson
62	Elementary Woodwork	3	M. W. F. 2-5	Shop	Swenson
63	Elementary Woodwork	2	T. Th. 9-12	Shop	Swenson
64	Mill Work	3	M. W. F. 2-5	Shop	Swenson
65	Mill Work	2	T. Th. 9-12	Shop	Swenson
66	Mill Work	3	M. W. F. 9-12	Shop	Swenson
67	Elementary Wood Turning	2	T. Th. 2-5	Shop	Swenson
68	Elementary Wood Turning	3	M. W. F. 9-12	Shop	Swenson
69	General Woodwork		Arranged	Shop	Swenson
70	Farm Woodwork	2	T. Th. 2-5	Shop	Swenson
71	Wood Carving	2	M. W. F. 8-10	Shop	Swenson
161	Advanced Woodwork	2	T. Th. 2-5	Shop	Swenson
162	Advanced Woodwork	3	M. W. F. 9-12	Shop	Swenson
163	Advanced Woodwork	2	T. Th. 9-12	Shop	Swenson
164	Fundamentals of Pattern Making	2	T. Th. 8-11	Shop	Swenson
166	Building Construction	3	M. W. F. 2-5	Shop	Swenson
169	Wood Finishing	2	M. W. F. 8-10	Shop	Swenson
170	Advanced Wood Turning	2	M. W. F. 10-12	Shop	Swenson
170B	Advanced Wood Turning	2	T. Th. 9-12	Shop	Swenson
<b>Zoology and Entomology</b>					
1*	Principles of Zoology (Lab. T. or Th. 2-5)	5	Daily 8	M227	Henderson
3	Invertebrate Zoology (Lab. M. W. 2-5)	5	M. W. F. 10	M227	Stanford
	Pre-Medical students should consult Dean of Arts and Science before registering.				
13	General Entomology (Lab. Th. 2-5)	4	M. W. F. 9	M227	Stanford
102	Systematic Entomology (2 other labs to be arranged)	3	T. 2-5	M227	Henderson
111	Heredity and Eugenics	3	M. W. F. 11	M227	Henderson
117	Histological Tech. (Lab. T. F. 2-5)	3	T. 1	M227	Stanford
124	Seminar	1	Arranged	M227	Staff
140	Animal Ecology (Lab. F. 2-5)	4	M. W. F. 11	L303	Rasmussen

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Accounting (See Bus. Adm.)</b>					
<b>Agricultural Economics and Marketing</b>					
53	Agricultural Economics	5	Daily 11	M178	Fuhriman
112	Cooperative Marketing (Lab. T. Th. 2-5)	5	M. W. F. 9	M178	Fuhriman
113	Cooperative Marketing	3	T. Th. 2-5	M178	Fuhriman
120	Prices	3-5	M. W. F. 11	M206	Thomas & Blanch
191	Advanced Farm Management	3	T. Th. 9 W. 12	M178	Blanch
210	Research	4	Arranged	M178	Blanch
212	Seminar	1	Arranged	M178	Thomas & Blanch

**Agricultural Engineering (AE) (No classes scheduled Winter quarter)****Agronomy and Soils**

1	General Farm Crops (Sec. 2)	3	M. W. F. 9	P201	Evans & Tingey
6	General Soils (Sec. 2)	4	M. W. F. 9 Th. 2	P210	Pittman
101	Cereal Crops	3	T. Th. 9 T. 2-5	P201	Bracken
106	Soils	4	M. W. F. 9 Th. 2	P210	Pittman
109	Principles of Plant Breeding	3	M. W. F. 11	P201	Evans & Tingey
112	Seminar	1	T. 11	P201	Evans
114	History of Agriculture	3	M. W. F. 9	P204	Bracken
115	Biometry	2	W. 2-5	P204	Tingey
116	Dry Farming	3	M. W. F. 8	P201	Bracken
117	Geography of Agriculture	3	M. W. F. 10	P201	Evans
119	Crop Products	3	Arranged	P201	Bracken
121	Advanced Crop Identification and Judging	3	Arranged		Evans & Tingey
207	Soil Technology	2	Arranged	P210	Pittman
209	Advanced Plant Breeding	3-6	Arranged	P201	Evans & Tingey
214	History of Agriculture	2-5	Arranged		Bracken
217	Geography of Agriculture	2-5	Arranged		Evans
218	Special Problems	1-5	Arranged		Staff
230	Thesis	2-5	Arranged		Staff

**Animal Husbandry**

1	General Animal Husbandry (Lab. T.2-4)	3	M. W. 10	L208	Caine
10	Feeds and Feeding	5	Daily 8	L207	Smith
120	Swine Management	2	T. Th. 9	L208	Smith
125	Sheep Husbandry	3	M. W. F. 9	L208	Esplin
130	Wool Study (Lab. T. or Th. 2-5)	3	T. Th. 1	L208	Esplin
145	Problems in Livestock Production	3	M. W. F. 9	L207	Smith
150	Animal Nutrition	5	Daily 11	L208	Maynard
170*	Farm Meats and Meat Pro. (Sec. 1)	3	T. Th. 2-5	V.C.	Smith
170*	Farm Meats and Meat Pro. (Sec. 2)	3	W. F. 2-5	V.C.	Smith
181	Animal Husbandry Seminar	1	M. 1		Caine & Esplin
200	Graduate Research		Arranged		Staff
203	Scientific Meat Studies		Arranged	L207	Smith
204	Wool Problems		Arranged	L208	Esplin
207	Animal Experimentation		Arranged		Staff
210	Graduate Thesis	2-5	Arranged		Staff
215	Seminar		Arranged		Staff

**Art**

2*	Design and Color (Sec. 1)	3	T. Th. 8 M. 1	330M	Fletcher
2*	Design and Color (Sec. 2)	3	M. W. F. 9	330M	Reynolds
3*	Art Appreciation (Sec. 2)	3	M. W. F. 11	355M	Fletcher
20	Puppetry	2	M. W. 2-5	330M	Reynolds
34	Art for Young Children	2	T. Th. 1	355M	Fletcher

\*Sectioned Classes



## WINTER QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
53	Handwork for Public Schools	3	M. W. F. 11	330M	Reynolds
126	History of Architecture	3	M. W. F. 10	355M	Fletcher
151	Art Education for High Schools	3	T. Th. 10 F. 2-5	355M	Reynolds
	Fine Art Studio Work	1-5	M. T. W. Th. 2-5	330M	Fletcher
	Drawing, Painting, Lettering, Illustration, etc. 3 hrs. studio per credit each week.				
	Crafts Studio Work	1-4	M. T. W. Th. 2-5	330M	Reynolds
	Textile decoration, Leathercraft, Gesso, Copper work, Basketry, Jewelry, etc. Also Posters.				
<b>Auto Mechanics (MA)</b>					
2	Principles of Auto Const. and Operation	3	M. W. F. 8-10	A205	Powell
3	Auto Care and Maintenance	3	M. W. F. 10-12	A205	Powell
4	Automobile Repairing	3	T. Th. 10-12	A205	Powell
5	Auto Care and Lubrication	2	T. Th. 2-5	A205	Powell
5	Auto Care and Lubrication	2	M. W. F. 10	A205	Powell
21	Gas and Electric Welding	3	T. Th. 8	A205	Powell
101	Automobile Repairing	3	M. W. F. 2-5	A205	Powell
<b>Aviation (See Radio and Aviation) (MA)</b>					
<b>Bacteriology and Biochemistry</b>					
1*	General Bacteriology (Sec. 2)	5	Daily 8	W302	Stevens
1*	General Bacteriology (Sec. 3)	5	Daily 9	W302	Greaves
2*	General Bacteriology Lab.	2	W. F. 2-5	W303	Stevens
102	Soil Bacteriology	2	M. W. 11	W302	Stevens
110	Advanced Bacteriology	2	M. W. 10	W302	Greaves
114	Advanced Biochemistry	2	T. Th. 1	W302	Greaves
<b>Botany and Plant Pathology</b>					
1*	Elementary Botany (Lab. T. or Th. 9-12)	5	Daily 9	P105	Wann
22*	General Botany (Sec. 1)	3	T. Th. 8	P105	Maguire
22*	General Botany (Sec. 2) (Lab. any day 2-5) (T. Th. Lab. 9-12)		T. Th. 10	P105	Maguire
116	Histological Technique (Lab. to be arranged)		M. 10	P105	Wann
124	Plant Chemistry	3	M. W. F. 11	P105	Wann
131	Truck Crop Diseases (Lab. M. F. 2-5)		W. 11	P8	Richards
140	Forest Crop Diseases (Lab. T. Th. 2-5)	3	Th. 10	P8	Richards
161	Laboratory Methods	2-4	Arranged	P105	
222	Photography (One lecture, two labs.)	3	Arranged		Richards
235	Special Problems	2-4	Arranged		
241	Seminar	2	Arranged		
<b>Business Administration and Accounting</b>					
1*	Introductory Accounting (Lab. T. Th. 2-5)	5	M. W. F. 11	M302	Gardner
27	Material Handling and Plant Layouts	2	T. Th. 11	E306	Kepner
28	Business Finance	5	Daily 10	M358	Gardner
30	Business English	3	M. W. F. 9	M357	Neuberger
75	Elementary Stenography (Sec. 2)	5	Daily 9	M302	Fogelberg
79	Advanced Stenography	3	M. W. F. 10	M302	Fogelberg
86*	First Year Type (1st Qtr. Sec. 3)	1	M. W. 11	M303	Neuberger
87*	First Year Type (2nd Qtr. Sec. 2)	1	M. W. 10	M303	Neuberger
87*	First Year Type (2nd Qtr. Sec. 3)	1	T. Th. 2	M303	Neuberger
90*	Advanced Type (5th Qtr. Sec. 1)	1	T. Th. 9	M303	Neuberger
90*	Advanced Type (5th Qtr. Sec. 2)	1	T. Th. 11	M303	Neuberger
93*	Elem. Calculator Operation (Sec. 4)	1	M. 2-5	M305	Neuberger
93*	Elem. Calculator Operation (Sec. 5)	1	W. 2-5	M305	Neuberger
94*	Elem. Calculator Operation (Sec. 1)	1	Th. 2-5	M305	Neuberger

\*Sectioned Classes

## WINTER QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
98*	Burroughs Posting Maching—Comm. Sec. 3)	1	M. 2-5	M305	Neuberger
98*	Burroughs Posting Maching—Comm. (Sec. 4)	1	W. 2-5	M305	Neuberger
99*	Burroughs Posting Machine—Bank (Sec. 3)	1	Th. 2-5	M305	Neuberger
102	Problems in Accounting Principles	3	M. W. F. 9	M351	Peterson
108	Accounting for Non-Commercial Students	3	M. W. F. 10	M351	Peterson
121	Auditing	3	M. W. F. 2-5	M358	Peterson
137	Management Seminar	2	T. Th. 9	M351	Peterson
157	Principles of Advertising	3	T. Th. 9 M. 1	M357	Ketchum
161	Problems in Retailing	5	Daily 11	M351	Peterson
176	Report Writing	2	T. Th. 10	M302	Fogelberg

**Chemistry**

4*	Inorganic Chemistry (Lab. M. W. or T. Th. 2-5)	5	M. W. F. 8	W201	Maeser
10	General Chemistry (Lab M. W. 2-5)	5	M. 1 T. Th. 8	W201	Hirst
11*	General Chemistry (Sec. 1)	5	M. W. F. 9	W201	Hill
11*	General Chemistry (Sec. 2) (Lab. T. Th. 9-12)	5	M. W. F. 10	W201	Hill
	(Lab. T. Th. 2-5, W. F. 2-5)				
14	Qualitative Analysis	3	T. Th. F. 2-5	W201	Hirst
102	Quantitative Analysis	3	T. Th. F. 2-5	W201	Hirst
105	Physical Chemistry	3	T. Th. 9 F. 12	W201	Maeser
110	Physical Chemistry Lab.	1	F. 2-5	W201	Maeser
122	Organic Chemistry (Lab. M. W. 2-5)	5	T. Th. 10 F. 1	W201	Hill

**Child Development & Parental Education**

2	Home Hygiene	3	M. W. F. 10	H45	Dancy
34	Art for Young Children	2	T. Th. 1	M355	Fletcher
35	Nutritional Growth and Development	3	M. 1 T. Th. 9	H26	Clayton
55	Children's Clothing	2	T. Th. 2-4	H33	Moen
60	Child Management (Lab. to be arranged)	3	M. 2	H12	Bate
111	Heredity and Genetics	3	M. W. F. 8	M227	Henderson
135	Child Care and Training (Observation in the nursery School to be arranged)	3	W. F. 2	H12	Bate
140	Special Problems in Child Development	1-3	Arranged	Office	Bate
170	Juvenile Delinquency	3	T. Th. 9 W. 12	M206	Heddricks
190	Child Development Seminar	1-2	W. 3-5	H12	Bate

**Civil Engineering (CE)**

62	Engineering Drawing	2	M. W. 2-5	E306	Kepner
83	Office Practice	2	T. Th. 2-5	E205	Tingey
101	Applied Mechanics	5	Daily 8	E306	Kepner
106	Reinforced Concrete (Lab. T. Th. 2-5)	5	M. W. F. 9	E304	Clyde
108	Building Construction	3	M. T. Th. 9	E306	Kepner
121	Highway Administration	3	M. W. F. 9	E203	West
141	Hydraulics (Lab. M. W. 2-5)	5	M. W. F. 11	E304	Clyde
147	Design of Irrig. Systems (Lab. F. 2-5)	5	M. T. W. F. 8	E304	Israelsen
191	Railroads	3	T. Th. 9 W. 12	E203	West
192	Engineering Economics	5	Daily 10	E203	West
197	Electric Machinery	3	T. Th. F. 11	W101	F. L. West

**Dairy Husbandry and Manufacturing**

1	General Dairy (Lab. Th. 2-5)	3	T. Th. 9	L207	Caine & Morris
2	Dairy Farming	3	T. Th. 10 F. 1	L208	Caine
102	Mfg. of Butter (Lab. T. 2-5)	5	M. T. W. Th. 11	L105	Morris
105	Mgt. of Dairy Plants (Lab. arranged)	2	Arranged	Creamery	Morris
106	Varieties of Cheese (Lab. F. 11-5)	5	M. W. F. 8	L105	Morris

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
109	Dairy Production	3	M. W. F. 11	L207	Caine
115	Seminar	1	Arranged		Staff
150	Special Problems		Arranged		Staff
216	Research		Arranged		Staff
<b>Economics</b>					
1*	General Social Science (Sec. 5)	5	Daily 10	M357	Ketchum
1*	General Social Science (Sec. 6)	5	Daily 2	M206	Hendricks
4*	Economic Resources of the U. S.	3	M. W. F. 11	M357	Ketchum
30*	Economic Development of the U. S.	3	M. W. F. 8	M357	Ketchum
51*	General Economics (Sec. 3) (Not open to Freshmen)	5	Daily 8	M361	Cutler
51*	General Economics (Sec. 4) (Not open to Freshmen)	5	Daily 11	M283	Cutler
52*	Advanced General Economics (Sec. 3)	5	Daily 9	M358	Cutler
52*	Advanced General Economics (Sec. 4)	5	Daily 11	M361	Daines
131	Statistics (Lab. M. 2-5)	5	T. W. Th. F. 8	M358	Gardner
155	Principles of Taxation	5	Daily 10	M352	Wanlass
167	Banking	5	Daily 9	M352	Wanlass
181	Seminar	1	T. 11	M305	Wanlass
<b>Education</b>					
30	Prin. of Scoutmastership	2	F. 2-4	M280	Pond
80*	Orientation in Education	3	M. W. F. 9	M206	McClellan
104*	Elementary School Curriculum	3	T. Th. 8 M. 1	M280	Bowen
105*	Principles of Teaching in Elem. Schools	3	M. W. F. 8	M280	Bowen
106*	Practice Teaching in Elementary Schools	10	Arranged		Bowen
110	History of Education	2	T. Th. 11	M279	Jacobsen
111*	Science of Education	3	T. Th. 8 M. 1	M351	Jacobsen
114*	Methods in Secondary Education	3	M. W. F. 8	M351	McClellan
115	Practice Teaching in Secondary Schools	4-8	Arranged		McClellan
119	Methods in Home Economics	3	T. Th. 8 M. 1	M227	Bates & Hess
121*	Public School Organization and Adm.	3	M. W. F. 11	M358	Bate
122	Practice Teaching in Home Economics	4-8	Arranged		Humpherys
124	Methods in Teaching Shop Work	5	Daily 8	M352	Bate
125	Practice Teaching in Shop Work	4-8	Arranged		Humpherys
126	Methods in Teaching Agriculture	5	Daily 9	M280	Humpherys
127	Practice Teaching in Agriculture	4-8	Arranged		Humpherys
129	Guidance and Personnel	3	M. W. F. 10	M360	Humpherys
131	Educational Tests and Measurements	3	M. W. F. 8	M206	Jacobsen
230	Educational Supervision	2	Arranged		McClellan,
268	Introduction to Research	2	W. 7-9 p. m.	M280	Jacobsen
<b>English and Speech</b>					
10*	Freshman Composition (Sec. 7)	5	Daily 2	N320	Sorenson
10*	Freshman Composition (Sec. 8)	5	Daily 10	N310	Brite
10*	Freshman Composition (Sec. 9)	5	Daily 11	M360	Bell
10*	Freshman Composition (Sec. 10)	5	Daily 11	M204	Pedersen
10*	Freshman Composition (Sec. 11)	5	Daily 2	N318	Vickers
11*	Sophomore Composition (Sec. 4)	4	M. T. W. Th. 11	N320	Sorenson
11*	Sophomore Composition (Sec. 5)	4	M. T. W. Th. 9	M360	Bell
11*	Sophomore Composition (Sec. 6)	4	M. T. W. Th. 10	N314	Merrill
17*	Scandinavian Literature	1	T. 1	N310	Hansen
51	Readings in Poetry	3	M. W. F. 10	N318	Vickers
109	Advanced Writing	3	M. W. F. 10	M204	Pedersen
130	Bible as English Literature	5	Daily 8	N318	Vickers
140	Shakespeare	4	T. W. Th. F. 9	M204	Pedersen
186	Elizabethian Drama	5	Daily 10	N320	Sorenson

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Speech</b>					
1	Fundamentals of Speech	5	Daily 10	M205	Myers
4	Principles of Reading	4	Daily 11	M359	Myers
7	Speech Technique	5	Daily 10	M359	Goates
8	Private Instruction	2-4	Arranged		Myers & Goates
9	Speech Organization	4	Daily 9	M205	Goates
104	Platform Reading	3	M. W. F. 8	M204	Pedersen
110	Program Building	3	M. W. F. 9	M359	Myers
112	Professional Reading	2-8	Arranged		Myers & Goates
113	Pedagogy of Speech	2	T. Th. 9	M359	Myers
150b	Drama Production (Crew Lab. arranged)	5	M. W. F. 11	M205	Goates

**Entomology (See Zoology and Entomology)****Food and Nutrition, and Household Administration**

5	Principles of Nutrition	5	Daily 8	H26	Kelly
20†	Food Study (Lab. T. Th. 2-5)	5	M. W. F. 2	H25	Kelly
21†	Food Study and Meal Preparation	5	Daily 10	H25	Kelly
35	Nutrition and Growth	3	M. 1 T. Th. 9	H26	Clayton
106	Food Engineering	3	M. W. F. 11-1	H25	Clayton
141	Ad. Nutrition (Lab. W. 2-4)	4	M. W. F. 9	H26	Clayton
†Enrollment Limited					

**(Household Administration)**

25*	Care of the sick (Lab. T. 2-5)	2	T. 10	H45	Dancy
150	Residence in Home Econ. Cottage	5	Arranged	Cottage	Kelly

**Forestry**

18	Fire Protection	3	M. W. F. 11	L308	Taylor
107	Forest Measurements II (Lab. F. 2-5)	3	T. Th. 10	L303	Dunn
115	Silviculture II	3	T. Th. 11 F. 1	L308	Taylor
122	Forest Finance	5	Daily 8	L303	Dunn
126	Wood Technology and Products (Lab. M. W. 2-5)	5	M. W. F. 11	L303	Dunn
132	Forest Administration	3	M. W. F. 10	L308	Taylor
144	Forestry Seminar	2	M. Th. 1	L303	Taylor & Dunn
145	Forestry Thesis	2-6	Arranged	L301	Taylor & Dunn

**Forging (MA)**

31	Forge Practice (Sec. 1)	3	M. W. F. 2-5	Shop	Egbert
32	Forge Practice	2	T. Th. 2-5	Shop	Egbert
33	Forge Practice	5	Daily 2-5	Shop	Egbert
35	Forge Shop Operations (Sec. 1)	3	M. W. F. 2-5	Shop	Egbert
35	Forge Shop Operations (Sec. 2)	2	T. Th. 2-5	Shop	Egbert
37	Select Work From Forge Practice	2	M. W. F. 3-5	Shop	Egbert
37	Select Work From Forge Practice	2	T. Th. 2-5	Shop	Egbert
41	Farm Shop Practice	2	M. W. F. 3-5	Shop	Egbert
41	Farm Shop Practice	2	T. Th. 2-5	Shop	Egbert
131	Adv. Shop Practice	3	M. W. F. 2-5	Shop	Egbert
131	Adv. Shop Practice	2	T. Th. 2-5	Shop	Egbert

**French (See Modern Languages)****Geology**

1	Geology and Geography of Utah	5	Daily 9	M283	Bailey
2"	Principles of Geology	5	Daily 8	M283	Bailey
105	Physical Geology	5	Daily 10	M283	Bailey

**German (See Modern Languages)****Health Education (See Physiology)****History**

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
2*	European History	5	Daily 9	N310	Brite
3*	European History	5	Daily 11	N314	Merrill
4*	World Civilization	5	Daily 10	N312	Ricks
14*	United States History, Middle Period	5	Daily 11	N312	Ricks
32*	English History, Middle Period	3	M. W. F. 8	N312	Merrill
127	Nineteenth Century Europe	4	M. T. W. Th. 11	N310	Brite
171	Constitutional History of U. S.	3	M. W. F. 9	N312	Ricks
197	History Seminar	1	Arranged	N312	Ricks

**Home Economics (See Child Development, Foods and Nutrition, and Household Administration, and Textiles and Clothing)**

**Horticulture**

4	Vegetable Crops (Lab. M. 2-5)	3	T. Th. 10	L309	Wilson
6	Greenhouse Practice (F. 2-5, Lab.)	2	T. 1	L309	Stark
152	Commercial Pomology (Lab. T. 2-5)	4	M. W. F. 8	L309	Stark
205	Advanced Vegetable Crops	5	Daily 11	L309	Wilson

**Household Administration (See Foods)**

**Ignition (See Radio, and Automotive Electricity) (MA)**

**Irrigation (See Civil Engineering) (CE)**

**Latin (See Modern Languages)**

**Machine Work (MA)**

51	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
52	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
53	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
54	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
54	M. S. P. Short Course (Sec. 2)	3	M. W. F. 9-12	Shop	Newey
54	M. S. P. Short Course (Sec. 3)	2	T. Th. 2-5	Shop	Newey
54	M. S. P. Short Course (Sec. 4)	2	T. Th. 9-12	Shop	Newey
54	M. S. P. Short Course (Sec. 5)	3	M. W. F. 2-5	Shop	Newey
55	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
55	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
56	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
56	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
57	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
57	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
58	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
58	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
59	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
59	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
151	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
152	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
153	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
154	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
155	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
156	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
157	Smith-Hughes Machine Course	2-9	Arranged		Newey

**Marketing (See Ag. Economics) (See also Bus. Adm.)**

**Mathematics**

15*	Algebra (Sec. 4)	5	Daily 8	N314	Egbert
16*	General Mathematics (Sec. 1)	5	Daily 9	E205	Tingey
16*	General Mathematics (Sec. 2)	5	Daily 9	M356	Linford
34*	College Algebra (Sec. 3)	5	Daily 9	N314	Egbert
35*	College Algebra (Sec. 1)	5	Daily 8	E205	Tingey
35*	College Algebra (Sec. 2)	5	Daily 10	E304	Egbert
60	Mathematical Theory of Investment	3	M. W. F. 11	E205	Tingey

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
98	Differential Calculus	5	Daily 10	E205	Tingey
110	Advanced Statistics	3	Arranged		Tingey
121	Advanced Calculus	3	T. Th. 10 M. 1	W100	Linford
151	Functions of a Real Variable	3	T. Th. F. 1	W101	Linford
161	Seminar		Arranged		Staff

**Mechanical Drawing (See Civil Engineering) (CE)****Military Science and Tactics****First Year Basic**

- 2† During the Winter Quarter classes meet for field work as follows: Sec. 1 M. T. 1-2, Sec. 2 M. T. 2-3, Sec. 3 Th. F. 1-2, Sec. 4 Th. F. 2-3.

Also in sections for class instruction as follows: Sec. 1 T. 9, Sec. 2 T. 11, Sec. 3 T. 11, Sec. 4 W. 8, Sec. 5 Th. 8, Sec. 6 Th. 10.

Students must arrange to take one of the above laboratory sections and one lecture section

1

Goodrich  
Pitzer  
M1 Callahan

**Second Year Basic**

- 5† During the Winter Quarter the class will meet in sections for field work as follows: Sec. 1 M. T. 1-2, Sec. 2 M. T. 2-3, Sec. 3 Th. F. 1-2, Sec. 4 Th. F. 2-3. Also in sections for class instruction as follows: Sec. 1 T. 9, Sec. 2 T. 11, Sec. 3 Th. 8, Sec. 4 Th. 10.

1

Students must arrange to take one of the above laboratory sections and one lecture section.

Waller  
Pitzer  
M1 Parker

**First Year Advanced**

- |     |                            |   |             |    |          |
|-----|----------------------------|---|-------------|----|----------|
| 102 | (Lab. M. T. Th. or F. 1-3) | 3 | M. W. F. 10 | M1 | Goodrich |
|-----|----------------------------|---|-------------|----|----------|

**Second Year Advanced**

- |     |                            |   |             |    |        |
|-----|----------------------------|---|-------------|----|--------|
| 105 | (Lab. M. T. Th. or F. 1-3) | 3 | M. W. F. 11 | M1 | Pitzer |
|-----|----------------------------|---|-------------|----|--------|

**Modern Languages and Latin**

- |     |                    |   |                 |      |           |
|-----|--------------------|---|-----------------|------|-----------|
| 2   | French (Sec. 1)    | 5 | Daily 9         | N316 | Arnold    |
| 2   | French (Sec. 2)    | 5 | Daily 2         | M352 | Fogelberg |
| 102 | Second Year French | 3 | M. W. F. 11     | N316 | Arnold    |
| 108 | French Composition | 1 | M. 1            | N316 | Arnold    |
| 111 | Research           |   | Arranged        | N316 | Arnold    |
| 114 | French Drama       | 2 | T. Th. 1        | N316 | Arnold    |
| 2   | Latin              | 3 | M. 1 T. Th. 11  | N316 | Arnold    |
| 1   | Spanish            | 4 | M. T. W. Th. 10 | N316 | Arnold    |
| 2   | German (Sec. 1)    | 5 | Daily 8         | M356 | Jensen    |
| 2   | German (Sec. 2)    | 5 | Daily 10        | M356 | Jensen    |
| 102 | German             | 3 | M. W. F. 11     | M356 | Jensen    |
| 131 | Goethe's Prose     | 3 | M. 12 T. Th. 11 | M356 | Jensen    |

**\*Sectioned Classes**

†Must obtain registration card from Military Dept.

## WINTER QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
<b>Musie</b>					
5	Eye and Ear Training	2	T. Th. 10	M130	Welti
12*	Harmony	3	M. W. F. 11	M130	Welti
12*	Harmony (Sec. 2)	3	M. W. F. 10	M133	Christiansen
16	Orchestra Combinations	$\frac{1}{2}$	Arranged	M133	Christiansen
19	Symphony Orchestra	$1\frac{1}{2}$	M. F. 12-2	M133	Christiansen
22	Band and Orchestra Methods	2	T. Th. 11	M133	Christiansen
25	Men's Glee Club	1	M. W. F. 12	M205	Welti
28	Ladies' Glee Club	1	T. Th. F. 12	M205	Welti
33	Band B	1	T. Th. 12-2	M132	Torbensen
36	Vocal Groups	1	Arranged	M130	Welti
42	Band A	1	T. Th. 12-2 W. 12	M133	Christiansen
45	Brass and Reed Groups	$\frac{1}{2}$	Arranged	M133	Christiansen
51	Piano (Private)	$1\frac{1}{2}$ -3	Arranged		Asso. Teachers Welti &
54	Vocal (Private)		Arranged		Asso. Teachers
57	Wind Instruments (Private)	$1\frac{1}{2}$ -3	Arranged	M133	Christiansen
61	Violin (Private)	$1\frac{1}{2}$ -3	Arranged		Christiansen
81	Symphony Appreciation	2	T. Th. 2	M133	Christiansen
105	Musie History	2	T. Th. 11	M130	Welti
112	Advanced Harmony	3	M. W. F. 9	M133	Christiansen
117	Opera Production	2	T. Th. 9	M130	Welti
125	Advanced Chorus	1	Daily 12	M205	Welti
142	Band A	$1\frac{1}{2}$	T. Th. 12-2 W. 12-1		Christiansen
151	Piano (Private)	$1\frac{1}{2}$ -3	Arranged		Asso. Teachers
157	Wind Instruments (Private)	$1\frac{1}{2}$ -3	Arranged	M133	Christiansen
161	Violin (Private)	$1\frac{1}{2}$ -3	Arranged		Christiansen & Welti
164	Pipe Organ (Private)	$1\frac{1}{2}$ -3	Arranged		S. E. Clark

## Physical Education

## Activity Classes for Men and Women

64	Recreative Games	1	T. Th. 10	G	Carlisle
66	Winter Sports	1	T. Th. F. 1	G	Croft
69	Elementary Folk Dancing	1	M. W. F. 11	G	Carlisle
72*	Social Dancing	1	T. Th. 11	G	Carlisle
170	Advanced Tap Dancing	1	T. Th. F. 12	G	Carlisle

## Activity Classes for Men

5*	Boxing (Sec. 1)	1	M. W. F. 11	G	Jenson
5*	Boxing (Sec. 2)	1	M. W. F. 2	G	Jenson
8*	Wrestling (Sec. 1)	2	Daily 1	G	Nelson
8*	Wrestling (Sec. 2)	2	Daily 2	G	Nelson
10*	Fencing	1	M. W. F. 2	G	Jenson
14*	Hand Ball (Sec. 2)	1	T. Th. F. 10	G	Jenson
14*	Hand Ball (Sec. 3)	1	M. W. F. 12	G	Jenson
17	Elementary Swimming	1	M. W. F. 9	G	Jenson
20	Elementary Tumbling	1	T. Th. 10	G	Jenson
23*	Basket Ball (Sec. 1)	1	M. W. F. 10	G	Jenson
23*	Basket Ball (Sec. 2)	1	M. W. F. 12	G	Jenson
26	Restricted Gymnastics	1	Arranged	G	Jenson

## Activity Classes for Women

41*	Basket Ball (Sec. 1)	1	M. W. 9	G	Carlisle
41*	Basket Ball (Sec. 2)	1	T. Th. 9	G	Carlisle
41*	Basket Ball (Sec. 3)	1	T. Th. 12	G	Carlisle
41*	Basket Ball (Sec. 4)	1	M. F. 1	G	Carlisle

\*Sectioned Classes



## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
44	Tumbling and Stunts	1	T. Th. 9	G	Carlisle
46	Individual Gymnastics	1	Arranged	G	Carlisle
49	Elementary Creative Dancing	1	M. 2-4 F. 3	G	Carlisle
52*	Elementary Swimming (Sec. 1)	1	M. W. F. 12	G	Carlisle
52*	Elementary Swimming (Sec. 2)	1	T. Th. F. 12	G	Carlisle
54*	Advanced Swimming	1	T. Th. F. 2	G	Carlisle
<b>Theory Courses</b>					
1	Orientation in Physical Education	2	T. Th. 10	M280	Jenson
82	Materials and Methods in Physical Education for Elementary Schools	3	M. W. F. 10	G27	Carlisle
87	Hygiene for Men	2	T. Th. 11	G27	Jenson
92	Methods and Practice in Competitive Activities	2	T. Th. 2	G	Carlisle
142	Advanced Creative Dancing	2	W. 2-4 F. 3	G	Carlisle
180a	Corrective Gymnastics	3	M. W. F. 9	M229	Carlisle
185	History of Physical Education	3	M. W. F. 11	G27	Jenson
187	Advanced Swimming	2	Daily 3	G	Jenson
189	Methods of Coaching Basketball	3	M. W. F. 9	G	Romney & Croft
<b>Physics</b>					
1*	General Physics (Sec. 2)	5	Daily 10	W101	West
2*	General Physics (Sec. 2)	5	Daily 2	W101	Linford
21	Electricity and Magnetism (Lab. M. W. or T. Th. 2-5)	5	M. W. F. 9	W101	West
108	Advanced Laboratory	1	F. 2	W100	West
112	Electrical Engineering	3	T. Th. F. 11	W101	West
120	Modern Physics	4	T. Th. 9 M. W. 11	W101	West
154	Analytical Mechanics	3	M. W. F. 9	W100	Gardner
167	Physical Optics	3	M. W. F. 10	W100	Linford
251	Research		Arranged		Staff
<b>Physiology, Public Health, and Hygiene</b>					
4*	Anatomy and Physiology	5	Daily 9	M132	Dancy
4*	Anatomy and Physiology	5	Daily 2	M132	Dancy
5	General Physiology Lab.	1	T. 2-5	M29	Carter
5	General Physiology Lab.	1	W. 2-5	M29	Carter
14*	Health Education	3	M. W. F. 11	M280	Carter
15†	Methods and Materials in Health Education	2	T. Th. 11	M280	Carter
107	Human Physiology	5	Daily 10	M132	Carter
108*	Public Health and Hygiene	3	M. W. F. 8	M132	Carter
108*	Public Health and Hygiene	3	M. W. F. 11	M279	Preston
116	Journal Club	1	Arranged	M126	Carter
†Physiology 14 and 15 cannot be used in Biological Science Group.					
<b>Plant Pathology (See Botany)</b>					
<b>Political Science</b>					
12	Commercial Law	3	M. W. F. 8	M360	Bullen
103	International Relations	3	M. W. F. 9	M361	Daines
107	Commercial Law	3	T. Th. 8 M. 12	M360	Bullen
117	American Political Ideas	3	T. Th. 9 W. 12	M361	Daines
124	Public Opinion	3	M. W. F. 10	M361	Daines
202	Current Political Problems	2	T. Th. 10	M361	Daines
<b>Poultry Husbandry</b>					
1	General Poultry	3	M. W. F. 11	L205	Alder
2	General Poultry Lab.	1	M. 2-5	L205	Alder
8	Turkey Production	2	T. Th. 9	L205	Alder

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
105	Poultry Management	3	M. W. F. 9	L205	Alder
107	Poultry Feeds and Feeding	3	M. W. F. 10	L205	Alder
125	Special Problems		Arranged	L205	Frischknecht
126	Seminar	1	T. 11	L205	Alder & Frischknecht
127	Adv. Poultry Practice		Arranged	L205	Alder & Frischknecht
<b>Psychology</b>					
3*	Elementary Psychology (Sec. 2)	5	Daily 9	M279	Peterson
101*	Principles of Psychology (Sec. 2)	3	M. W. F. 10	M279	Peterson
102	Adv. Education Psychology (Sec. 2)	3	T. Th. 10 M. 1	M279	Peterson
<b>Public Speaking (See English)</b>					
<b>Radio, Aviation, and Automotive Electricity (MA)</b>					
12	Ignition Starting and Lighting	3	T. Th. 8-10	A203	Stock
15	Ignition Starting and Lighting for Car Owners	2	T. Th. 8	A203	Stock
23	Radio Receiving Sets	4	Arranged	A207	Stock
24	Radio Receiving Sets	4	M. W. F. 2-5	A207	Stock
27	Aviation Engines	4	M. W. F. 10-12	A203	Stock
112	Gen. Repair and Armature Winding	4	Arranged	A203	Stock
128	Short Wave Receivers and Transmitters		T. Th. 2-5	A207	Stock
<b>Range Management</b>					
181	Range Economics	3	M. W. F. 11	L305	Becraft
194	Range Seminar	2	M. T. Th. 1	L305	Becraft
195	Range Thesis	2-6	Arranged	L306	Becraft
<b>Secretarial Science (See Bus. Adm.)</b>					
<b>Sociology</b>					
70*	Principles of Sociology Sec. 2	5	Daily 10	M206	Hendricks
170	Juvenile Delinquency	3	T. Th. 9 W. 12	M206	Hendricks
191	Seminar	1	Th. 3	M206	Hendricks
<b>Spanish (See Modern Languages)</b>					
<b>Speech (See English)</b>					
<b>Stenography (See Bus. Adm.)</b>					
<b>Textiles and Clothing</b>					
10*	Clothing Selection and Construction (Sec. 3)	3	M. W. 2-5	H33	Moen
10*	Clothing Selection and Construction (Sec. 4)	3	T. Th. 2-5	H36	Crockett
11*	Clothing Selection and Construction (Sec. 1)	3	M. W. 2-5	H36	Crockett
11*	Clothing Selection and Construction (Sec. 2)	3	W. F. 10-1	H33	Moen
50	Textile Selection	3	M. W. F. 9	H36	Crockett
55	Children's Clothing	2	T. Th. 2-4	H33	Moen
115	Costume Design	3	T. Th. 10-1	H36	Crockett
161	Advanced Problems in Clothing	2	T. Th. 11-1	H33	Moen

\*Sectioned Classes

## WINTER QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Typewriting (See Bus. Adm.)</b>					
<b>Veterinary Science</b>					
10	Veterinary Elements	3	M. W. F. 10	L203	Frederick
41	Comparative Veterinary Physiology	3	M. W. F. 9	L203	Frederick
60	Horse Shoeing and Soundness	3	T. Th. 9 F. 1	L203	Frederick
70	Poultry Diseases	3	M. W. F. 11	L203	Frederick
107	Hygiene and Infectious Diseases	3	M. 1 T. Th. 8	L203	Frederick
<b>Wild Life Management</b>					
153	Wild Life Management I (Lab. F 2-5)	5	M. T. W. Th. 9	L308	Rasmussen
157	Wild Life Seminar	1	W. 1		Rasmussen
159	Wild Life Thesis	2-6	Arranged		Rasmussen
<b>Woodwork (MA)</b>					
61	Elementary Woodwork	2	T. Th. 2-5	Shop	Swenson
62	Elementary Woodwork	3	M. W. F. 2-5	Shop	Swenson
63	Elementary Woodwork	2	T. Th. 9-12	Shop	Swenson
64	Mill Work	3	M. W. F. 2-5	Shop	Swenson
65	Mill Work	2	T. Th. 9-12	Shop	Swenson
66	Mill Work	3	M. W. F. 9-12	Shop	Swenson
67	Elementary Wood Turning	2	T. Th. 2-5	Shop	Swenson
68	Elementary Wood Turning	3	M. W. F. 9-12	Shop	Swenson
69	General Woodwork		Arranged	Shop	Swenson
70	Farm Woodwork	2	T. Th. 2-5	Shop	Swenson
71	Wood Carving	2	M. W. F. 8-10	Shop	Swenson
161	Advanced Woodwork	2	T. Th. 2-5	Shop	Swenson
162	Advanced Woodwork	3	M. W. F. 9-12	Shop	Swenson
163	Advanced Woodwork	2	T. Th. 9-12	Shop	Swenson
164B	Fundamentals of Pattern Making	2	T. Th. 8-11	Shop	Swenson
166	Building Construction	3	M. W. F. 2-5	Shop	Swenson
167	Building Construction	3	M. W. F. 9-12	Shop	Swenson
169	Wood Finishing	2	M. W. F. 8-10	Shop	Swenson
170	Advanced Wood Turning	2	M. W. F. 10-12	Shop	Swenson
170B	Advanced Wood Turning	2	T. Th. 9-12	Shop	Swenson
<b>Zoology and Entomology</b>					
1*	Principles of Zoology (Sec. 2) (Lab. T. Th. or F. 2-5)	5	Daily 9	M227	Henderson
4	Vertebrate Zoology (Lab. M. W. 2-5)	5	M. W. F. 10	M227	Stanford
14	Agric. Entomology (Lab. Th. 2-5)	4	T. Th. 9 W. 12	M230	Stanford
103	Systematic Entomology (Lab. T. and 2 others)	3	T. 2-5	M227	Henderson
111	Heredity and Eugenics	3	M. W. F. 8	M227	Henderson
118	Histology and Organology (Lab. T. F. 2-5)	3	T. 1	M227	Stanford
125	Seminar	1	Arranged	M227	Staff
155	Ichthyology (Lab. T. Th. 2-5)	5	M. W. F. 8	L308	Rasmussen

\*Sectioned Classes

## SPRING QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
<b>Accounting (See Bus. Adm.)</b>					
<b>Agricultural Economics and Marketing</b>					
53	Agricultural Economics	5	Daily 8	M178	Fuhrman
62	Principles of Marketing	3	M. W. F. 10	M178	Fuhrman
70	Farm Management	3	T. Th. 10 M. 1	M178	Fuhrman
210	Research	3	Arranged	M178	Blanch
213	Seminar	1	Arranged	M178	Thmoas & Blanch
<b>Agricultural Engineering (AE)</b>					
2	Agricultural Surveying	4	M. W. 2-5	E205	Tingey
12	Irrigation Practice (Lab. F. 2-5)	4	M. W. F. 11	E304	Israelsen
14	Farm Shop Repair Work	2	Arranged	Shop	Egbert
15	Farm Machinery	3	T. Th. 2-5	A206	Powell
16	Tractor Repair and Operation	3	T. Th. 10-12	A206	Powell
<b>Agronomy and Soils</b>					
1	General Farm Crops (Sec. 3)	3	M. W. F. 9	P201	Evans & Tingey
103	Forage Crops (Lab. T. 2-5)	3	T. Th. 9	P201	Tingey & Evans
110	Soil Fertility (Lab. Th. 2-5)	3	T. Th. 10	P210	Pittman
113	Seminar	1	T. 11	P205	Evans
215	Methods in Agronomic Research	3	M. W. F. 10	P201	Tingey & Evans
218	Special Problems	1-5	Arranged	Staff	Staff
230	Thesis	2-5	Arranged	Staff	Staff
<b>Animal Husbandry</b>					
5	Principles and Practice of Judging	2	M. W. 2-5	JP	Smith
100	Breed Types of Livestock	5	Daily 8	L207	Smith
104	Market Breed Types (Lab. T. Th. 3-5)	3	T. Th. 2	JP	Smith
105	Classifying and Grading Market Livestock (Lab. F. 3-5)	3	W. F. 2	L207	Smith
115	Horse Husbandry	2	T. Th. 9	L207	Caine
140	Livestock Management	1-2	Arranged	JP	Caine, Smith & Dryden
155	Animal Breeding	4	M. T. W. Th. 9	L208	Smith
182	Animal Husbandry Seminar	1	M. 1	L207	Smith
200	Graduate Research		Arranged		Staff
205	Special Problems	3	Arranged		Maynard, Esplin & Smith
207	Animal Experimentation		Arranged		Staff
215	Seminar		Arranged		Staff
<b>Art</b>					
3*	Art Appreciation (Sec. 3)	3	M. 1 T. Th. 8	M355	Fletcher
3*	Art Appreciation (Sec. 4)	3	M. W. F. 8	M355	Reynolds
32	Color	3	M. W. F. 11	M355	Reynolds
51	Drawing for Elementary Grades	3	M. W. F. 11	M330	Fletcher
123	Interior Decoration (Lab. F. 2-5)	5	M. T. W. F. 9	M355	Fletcher
133	History and Appreciation of Painting	3	M. W. F. 10	M355	Reynolds
	Fine Art Studio Work	1-5	M. T. W. Th. 2-5	M330	Fletcher
	Drawing, Painting, Lettering, Illustration, etc., 3 hours of studio per credit each week.				
	Crafts Studio Work	1-4	M. T. W. Th. 2-5	M330	Reynolds
	Textile Decoration, Leathercraft, Jesso Work, Copper Work, Jewelry, etc., Also Posters.				

\*Sectioned Classes

## SPRING QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Auto Mechanics (MA)</b>					
4	Auto Repair (Sec. 1)	3	M. W. F. 8-10	A205	Powell
4	Auto Repair (Sec. 2)	3	M. W. F. 10-12	A205	Powell
5	Auto Care, Lubrication and Operation	2	M. W. F. 11	A205	Powell
102	Auto Repair	3	M. W. F. 2-5	A205	Powell
103	Gas Engine Carburetion & Combustion	3	T. Th. 8-10	A205	Powell
<b>Aviation (See Radio and Aviation) (MA)</b>					
<b>Bacteriology and Biochemistry</b>					
1*	General Bacteriology (Sec. 4)	5	Daily 9	W302	Stevens
2*	General Bacteriology Lab.	2	W. F. 2-5	W303	Stevens
106	Pathogenic Bacteriology (Lab. W. F. 2-5)	3 or 5	M. W. F. 8	W302	Stevens
111	Biochemistry	5	Daily 10	W302	Greaves
115	Advanced Biochemistry	2	T. Th. 1	W302	Greaves
<b>Botany and Plant Pathology</b>					
1*	Elementary Botany (Sec. 3) (Lab. T. or Th. 10-1)	5	Daily 11	P105	Wann
23*	General Botany (Sec. 1)	3	T. Th. 8	P105	Maguire
23*	General Botany (Sec. 2) (Lab. any day 2-5)	3	T. Th. 10	P105	Maguire
30	Taxonomy of Vascular Plants (Lab. M. W. 2-5)	4	M. W. 9	P105	Maguire
102	Advanced Taxonomy		Arranged	P105	Maguire
120	Elementary Plant Physiology (Lab. T. and Th. 2-5)	5	T. Th. 9 W. 12	P105	Wann
162	Laboratory Methods	2-4	Arranged	P105	Staff
170	Limnology (Lab. F. 1-5)	4	T. Th. 11		
236	Special Problems	2-4	Arranged	P105	Staff
242	Seminar	2	Arranged	P105	Staff
<b>Business Administration and Accounting</b>					
2	Introductory Accounting (Lab. T. Th. 2-5)	5	M. W. F. 11	M302	Gardner
76	Elementary Stenography	5	Daily 9	M302	Fogelberg
80	Advanced Stenography	3	M. W. F. 10	M302	Fogelberg
86*	1st Year Typewriting (1st Qtr., Sec. 4)	1	M. W. 11	M303	Neuberger
87*	1st Year Typewriting (2nd Qtr., Sec. 4)	1	T. Th. 11	M303	Neuberger
88*	1st Year Typewriting (3rd Qtr., Sec. 2)	1	M. W. 10	M303	Neuberger
88*	1st Year Typewriting (3rd Qtr., Sec. 3)	1	T. Th. 8	M303	Neuberger
91*	Advanced Typewriting	1	T. Th. 9	M303	Neuberger
93*	Elem. Calculator Operation (Sec. 6)	1	M. 2-5	M305	Neuberger
93*	Elem. Calculator Operation (Sec. 7)	1	W. 2-5	M305	Neuberger
94*	Adv. Calculator Operation (Sec. 2)	1	Th. 2-5	M305	Neuberger
98*	Burroughs Posting Machine—Comm. (Sec. 5)	1	M. 2-5	M305	Neuberger
98*	Burroughs Posting Machine—Comm. (Sec. 6)	1	T. 2-5	M305	Neuberger
99*	Burroughs Posting Machine—Bank. (Sec. 4)	1	W. 2-5	M305	Neuberger
99*	Burroughs Posting Machine—Bank. (Sec. 5)	1	Th. 2-5	M305	Neuberger
99*	Burroughs Posting Machine—Bank. (Sec. 6)	1	F. 2-5	M305	Neuberger
103	Problems in Accounting Principles	3	M. W. F. 9	M351	Peterson
124	Seminar	2	T. Th. 9	M351	Peterson

\*Sectioned Classes

## SPRING QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
135	Budgets	5	Daily 10	M351	Peterson
141	Real Estate and Insurance	3	M. W. F. 10	M357	Ketchum
149	Business Policy	5	Daily 8	M302	Gardner
158	Marketing Management	3	T. Th. 8 M. 1	M357	Ketchum
162	Problems in Retailing	5	Daily 11	M351	Peterson
178	Secretarial Science	3	M. W. F. 11	M360	Fogelberg
<b>Chemistry</b>					
1*	Introductory Chemistry (Sec. 2)	5	Daily 11	W201	Maeser
5*	Inorganic Chemistry (Lab. M. W. or T. Th. 2-5)	5	M. W. F. 8	W201	Maeser
11	General Chemistry (Lab. M. W. 2-5)	5	M. 1 T. Th. 8	W201	Hirst
12	General Chemistry (Organic) (Lab. W. F. or T. Th. 2-5, or T. Th. 9-12)	5	M. W. F. 10	W201	Hill
15	Qualitative Analysis	3	T. Th. F. 2-5	W201	Hirst
103	Quantitative Analysis	3	T. Th. F. 2-5	W201	Hirst
106	Physical Chemistry	3	T. Th. 9 F. 12	W201	Maeser
111	Physical Chemistry Lab.	1	F. 2-5	W201	Maeser
107	Dairy Chemistry	4	M. T. W. Th. 9	W201	Hill
108	Dairy Chemistry Laboratory	3	M. W. F. 2-5	W201	Hill
123	Advanced Organic Chemistry (Lab. M. W. 2-5)	5	T. Th. 10 F. 1	W201	Hill
160	Chemistry Seminar	2	Arranged	W201	Maeser
<b>Child Development &amp; Parental Education</b>					
35	Nutritional Growth and Development	3	M. W. F. 8	H26	Clayton
60	Child Management (Lab. to be arranged)	3	M. 2	H12	Bate
103	Psychology of Adolescence	3	M. 1 T. Th. 8	M279	Peterson
110	Psychology of Infancy and Childhood	3	M. W. F. 10	M279	Peterson
112	Genetics	5	Daily 10	M227	Henderson
125	Mothercraft	3	M. W. F. 10	H45	Dancy
135	Child Care and Training (Observation in Nursery School to be arranged)	3	W. F. 2		Bate
150	Environmental Factors of Child Life	3	M. W. F. 11	M206	Geddes
171	Social Problems of the Family	3	M. W. F. 9	M358	Hendricks
<b>Civil Engineering (CE)</b>					
2	Materials of Engineering (Lab. Th. 2-5)	3	T. Th. 11	E203	West
63	Descriptive Geometry	3	M. W. F. 2-5	E307	Kepner
82	Plane Surveying (Lab. T. Th. 2-5)	4	T. Th. 11	E205	Tingey
102	Applied Mechanics	5	Daily 8	E306	Kepner
109	Elementary Structural Theory (Lab. Th. 2-5)	5	M. T. W. F. 11	E306	Kepner
143	Water Supply and Hydrology (Lab. M. 2-5)	5	M. W. Th. F. 9	E304	Clyde
145	Design of Drainage Systems (Lab. Sat.)	3	T. Th. 11	E304	Israelsen
148	Hydro-Electric Design (Lab. T. Th. 2-5)	5	M. W. F. 8	E304	Israelsen
181	Railroads and Highway Curves and Earthwork (Lab. M. W. 2-5)	5	M. W. F. 9	E203	West
194	Sewerage and Sewage Disposal (Lab. F. 2-5)	5	M. T. W. Th. 10	E306	Kepner
196	Heat and Power Machinery	3	M. W. F. 10	W101	Gardner
<b>Dairy Husbandry and Mfg.</b>					
4	Dairy Mechanics (Lab. Th. 2-5)	4	M. W. F. 8	L105	Morris
5	Judging Dairy Products (Lab. M. 2-5)	2	M. 1	L208	Morris
101	Mfg. of Ice Cream (Lab. T. 2-5)	5	M. T. W. Th. 10	L105	Morris

\*Sectioned Classes

# SCHEDULE OF COURSES

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## SPRING QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
105	Management of Dairy Plants (Lab. Arr.)	2	Arranged	Creamery L208 JP	Morris
110	Dairy Production (Lab. T. 2-5)	5	M. T. W. F. 11		Caine
111	Dairy Cattle Judging	2	T. Th. 2		Caine
115	Seminar	1	Arranged		Staff
150	Special Problems		Arranged		Staff
216	Research		Arranged		Staff

### Economics

1*	General Social Science (Sec. 7)	5	Daily 8	M358	Cutler
1*	General Social Science (Sec. 8)	5	Daily 11	N318	Merrill
1*	General Social Science (Sec. 9)	5	Daily 2	M358	Cutler
5*	Economic Resources of the World	3	M. W. F. 11	M357	Ketchum
51*	General Economics (Sec. 5) (Not open to Freshmen)	5	Daily 9	M357	Ketchum
51*	General Economics (Sec. 6) (Not open to Freshmen)	5	Daily 10	M360	Gardner
52	Advanced General Economics (Sec. 5)	5	Daily 9	M359	Cutler
110	Commerce and Commercial Policies	3	M. W. F. 10	M352	Wanlass
135	Transportation Economics	3	M. W. F. 11	M352	Wanlass
145	Economics of Consumption	2	T. Th. 10	M352	Wanlass
182	Seminar	1	T. 11	M305	Wanlass
206	Advanced Economic Theory	2	T. Th. 9	M352	Wanlass

### Education

31	Elements of Scoutmastership	2		M280	Pond
80*	Orientation in Education	3	M. W. F. 9	M280	McClellan
104	Elementary School Curriculum	3	T. Th. 8 M. 1	M280	Bowen
105	Principles of Teaching in Elem. Schools	3	M. W. F. 8	M280	Bowen
106	Practice Teaching in Elem. Schools	10	Arranged		Bowen
109	History of Education	2	T. Th. 10	M279	Jacobsen
111	Science of Education	3	T. Th. 8 M. 1	M351	Jacobsen
114	Methods in Secondary Education	3	M. W. F. 8	M351	McClellan
115	Practice Teaching in Secondary Schools	4-8	Arranged		McClellan
119	Methods of Teaching in Home Economics	3	T. Th. 8 M. 1	M359	Bate
121	Organization and Administration in Elementary Schools	3	M. W. F. 10	M280	Jacobsen
122	Practice Teaching in Home Economics	4-8	Arranged		Bate
125	Practice Teaching in Shop Work	4-8	Arranged		Humpherys
127	Practice Teaching in Agriculture	4-8	Arranged		Humpherys
135	Statistics for Teachers	3	M. W. F. 11	M280	Jacobsen
160	Philosophy of Education	2	W. 7-9 p. m.	M280	Jacobsen

### English and Speech

10*	Freshman Composition (Sec. 12)	5	Daily 2	N320	Sorenson
10*	Freshman Composition (Sec. 13)	5	Daily 2	N318	Vickers
10*	Freshman Composition (Sec. 14)	5	Daily 10	N318	Merrill
10*	Freshman Composition (Sec. 15)	5	Daily 9	N314	Bell
10*	Freshman Composition (Sec. 16)	5	Daily 11	N310	Brite
11*	Sophomore Composition (Sec. 7)	4	M. T. W. Th. 9	N318	Merrill
11*	Sophomore Composition (Sec. 8)	4	M. T. W. Th. 10	N314	Bell
11*	Sophomore Composition (Sec. 9)	4	M. T. W. Th. 8	N310	Brite
18	Scandinavian Literature in Translation	1	T. 1	N310	Hansen
19	Scientific Vocabulary	2	T. Th. 10	N316	Arnold
82	American Literature	5	Daily 11	N320	Sorenson
105	College Grammar	5	Daily 11	N314	Vickers
141	Shakespeare	4	T. W. Th. F. 9	M204	Pedersen
143	Milton	5	Daily 8	N318	Vickers
150	History of English Literature	5	Daily 10	N320	Sorenson
163	Modern Drama	3	M. W. F. 8	M204	Pedersen

\*Sectioned Classes



## SPRING QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
<b>(Speech)</b>					
1	Fundamentals of Speech	5	Daily 10	M205	Myers
3	Extemporaneous Speaking	3	M. W. F. 10	M204	Pedersen
8	Private Instruction	2-4	Arranged		Myers & Goates
10	Advanced Interpretation	4	Daily 10	M359	Goates
60	Drama Appreciation	3	M. W. F. 9	M206	Goates
103	Persuasion	3	M. W. F. 8	M205	Goates
111	Psychology of Speech	5	Daily 9	M205	Myers
112	Professional Reading	2-8	Arranged		Myers & Goates
114	Children's Theatre	5	Daily 11	M359	Myers
150c	Drama Production (Crew Lab. Arranged)	5	M. W. F. 11	M205	Goates

**Entomology (See Zoology and Entomology)****Foods and Nutrition, and Household Administration**

8	Meal Preparation for Men (Lab. Th. 4-7)	2	T. 4	H25	Clayton
9	Meal Preparation and Serving (Lab. T. Th. 2-5)	3	M. 1	H25	Kelly
21*	Food Study and Meal Preparation (Lab. T. Th. 10-1)	5	M. W. F. 10	H25	Kelly
30	Food Economics (Lab. W. 2-4)	4	M. W. F. 8	H12	Kelly
35	Nutrition and Growth	3	M. W. F. 8	H26	Clayton
36	Meal Preparation for Nursery School	2	Daily 11	H26	Clayton
111	Nutrition for Athletes	2	T. Th. 9	H26	Clayton
192	Reading in Nutrition	2	W. 3-5	DR	Clayton

**(Household Administration)**

25*	Care of the Sick (Lab. T. 2-5)	2	T. 10	H45	Dancy
150	Residence in H. Ec. Cottage	5	Arranged	Cottage	Kelly

**Forestry**

13*	Dendrology II (Lab. W. or F. 2-5)	4	T. Th. 8 F. 1	L308	Becraft
116	Planting (Lab. M. 9-11)	3	M. 1 T. 8	L303	Dunn
154	Forest Recreation	3	M. W. F. 11	L308	Hansen
155	Recreational Improvements (Lab. F. 2-5)	4	T. Th. 11 F. 12	L308	Hansen
156	Design for Recreational Areas (Lab. M. T. W. 2-5)	4	F. 9	L308	Hansen

**Forging (MA)**

31	Forge Practice	3	M. W. F. 2-5	A Shop	Egbert
32	Forge Practice	2	T. Th. 2-5	A Shop	Egbert
33	Forge Practice	5	Daily 2-5	A Shop	Egbert
35	Forge Shop Operations	2	T. Th. 2-5	A Shop	Egbert
36	Forge Shop Operations	3	M. W. F. 2-5	A Shop	Egbert
37	Select Work from Forge Practice	2	M. W. F. 3-5	A Shop	Egbert
37	Select Work from Forge Practice	2	T. Th. 2-5	A Shop	Egbert
42	Farm Shop Work	2	M. W. 2-5	A Shop	Egbert
42	Farm Shop Work	2	T. Th. 2-5	A Shop	Egbert
42	Farm Shop Work	2	W. F. 2-5	A Shop	Egbert
43	Fender and Body Repair	2	Arranged	A Shop	Egbert
131	Adv. Shop Practice	3	M. W. F. 2-5	A Shop	Egbert
131	Adv. Shop Practice	2	T. Th. 2-5	A Shop	Egbert
132	Smith-Hughes Unit	3	T. Th. 2-5	A Shop	Egbert
133	Foundry	2	Arranged	A Shop	Egbert
134	Smith-Hughes Unit	3	M. W. 2-5	A Shop	Egbert

\*Sectioned Classes

## SPRING QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>French (See Modern Languages)</b>					
<b>Geology</b>					
5	Natural Economic Resources of Utah and Their Utilization. (Cannot be used to fill Exact Science Group.)	5	Daily 10	M206	Peterson
10	Engineering Geology (Lab. T. 2-5)	5	M. W. Th. F. 9	M283	Bailey
106	Historical Geology	5	Daily 10	M283	Bailey
111	Geology of Ground Water	5	Daily 11	M283	Peterson
113	Paleontology	5	Daily 8	M283	Bailey
114	Field Problems		Arranged	M283	Peterson & Bailey

**German (See Modern Languages)**  
**Health Education (See Physiology)**

**History**

3*	European History, Modern	5	Daily 9	N310	Brite
4*	World Civilizations	5	Daily 10	N312	Ricks
15*	Modern United States History	5	Daily 11	N312	Ricks
33*	Modern English History	3	M. W. F. 10	N310	Brite
128	Recent European History	3	M. W. F. 8	N312	Merrill
134	History of the West	5	Daily 9	N312	Ricks

**Home Economics (See Child Development, Foods and Nutrition, and Household Administration, and Textiles and Clothing)**

**Horticulture**

1	General Horticulture (Lab. T. 2-5)	3	T. Th. 9	L308	Stark
3	Landscape Gardening (Lab. W. 2-5)	3	T. Th. 10	L309	Stark
7	Garden and Nursery Practice	1	F. 2-5	L309	Stark
111	Orchard Practice	1	Arranged		Stark

**Household Administration (See Foods)****Ignition (See Radio and Automotive Electricity) (MA)****Irrigation (See Civil Engineering) (CE)****Latin (See Modern Languages)****Machine Work (MA)**

51	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
52	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
53	Machine Shop Practice	4	M. T. W. F. 2-5	Shop	Newey
54	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
54	M. S. P. Short Course (Sec. 2)	3	M. W. F. 9-12	Shop	Newey
54	M. S. P. Short Course (Sec. 3)	2	T. Th. 2-5	Shop	Newey
54	M. S. P. Short Course (Sec. 4)	2	T. Th. 9-12	Shop	Newey
54	M. S. P. Short Course (Sec. 5)	3	M. W. F. 2-5	Shop	Newey
55	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
55	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
56	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
56	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
57	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
57	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
58	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
58	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
59	M. S. P. Short Course (Sec. 1)	2	M. W. F. 10-12	Shop	Newey
59	M. S. P. Short Course (Sec. 2)	3	M. W. F. 2-5	Shop	Newey
151	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey

\*Sectioned Classes

## SPRING QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
152	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
153	General Machine Work	4	M. W. Th. F. 2-5	Shop	Newey
154	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
155	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
156	Tool Making	4	M. W. Th. F. 2-5	Shop	Newey
157	Smith-Hughes Machine Course	2-9	Arranged	Shop	Newey

**Marketing (See Ag. Econ., also Bus. Adm.)****Mathematics**

15*	Algebra (Sec. 5)	5	Daily 8	M361	Egbert
35*	College Algebra (Sec. 3)	5	Daily 9	M360	Egbert
46*	Trigonometry (Sec. 1)	5	Daily 8	E205	Tingey
46*	Trigonometry (Sec. 2)	5	Daily 9	M356	Linford
75	Statistical Methods	5	Daily 9	E205	Tingey
99	Integral Calculus	5	Daily 10	E205	Tingey
122	Differential Equations	3	T. Th. 10 M. 1	W100	Linford
152	Partial Differential Equations	3	T. Th. F. 1	W101	Linford
162	Seminar		Arranged		Staff

**Mechanical Drawing (See Civil Engineering) (CE)****Military Science and Tactics****First Year Basic**

3†	Entire class meets.	1	T. Th. 1	M1	Waller
	Also in sections as follows: Sec. 1 T. 9, Sec. 2 T. 11, Sec. 3 T. 11, Sec. 4 W. 8, Sec. 5 Th. 8, Sec. 6 Th. 10. Students must arrange to take one of the above sections.				Goodrich

**Second Year Basic**

6†	Entire class meets	1	T. Th. 1	M1	Pitzer
	Also in sections as follows: Sec. 1 T. 9, Sec. 2 T. 11, Sec. 3 Th. 8, Sec. 4 Th. 10. Students must arrange to take one of the above sections.				
103	First Year Advanced	3	M. W. F. 10	M1	Pitzer
106	Second Year Advanced (also one 2 hr. period for field work to be arranged)	3	M. W. F. 11	M1	Goodrich

**Modern Languages and Latin**

3*	French (Sec. 1)	5	Daily 9	N316	Arnold
3*	French (Sec. 2)	5	Daily 2	M352	Fogelberg
103	French	3	M. W. F. 11	N316	Arnold
109	French	1	M. 1	N316	Arnold
112	Research		Arranged	N316	Arnold
115	French Drama	2	T. Th. 1	N316	Arnold
3	Latin	3	T. Th. 11	N316	Arnold
3	Spanish	3	M. W. F. 10	N316	Arnold
3*	German (Sec. 1)	5	Daily 8	M356	Jensen
3*	German (Sec. 2)	5	Daily 10	M356	Jensen
103	German	3	M. W. F. 11	M356	Jensen
133	German Drama	3	T. Th. 11 M. 12	M356	Jensen

**\*Sectioned Classes**

†Must obtain registration card from Military Dept.

## SPRING QUARTER

<i>No. of Course</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Music</b>					
6	Eye and Ear Training	2	T. Th. 10	M130	Welti
13*	Harmony	3	M. W. F. 11	M130	Welti
13*	Harmony (Sec. 2)	3	M. W. F. 10	M133	Christiansen
17	Orchestra Combinations	$\frac{1}{2}$	Arranged	M133	Christiansen
20	Symphony Orchestra	$1\frac{1}{2}$	M. F. 12-2	M133	Christiansen
23	Band and Orchestra Methods	2	T. Th. 11	M133	Christiansen
26	Men's Glee	1	M. W. F. 12	M205	Welti
29	Ladies' Glee	1	T. Th. F. 12	M205	Welti
37	Vocal Groups	1	Arranged	M130	Welti
43	Band A	$1\frac{1}{2}$	T. Th. 12-2 W. 12	M133	Christiansen
46	Brass and Reed Groups	$\frac{1}{2}$	Arranged	M133	Christiansen
52	Piano (Private)	$1\frac{1}{2}$ -3	Arranged	M133	Asso. Teachers
55	Vocal (Private)		Arranged	M130	Welti & Asso. Teachers
58	Wind Instruments (Private)	$1\frac{1}{2}$ -3	Arranged		Christiansen
62	Violin (Private)	$1\frac{1}{2}$ -3	Arranged		Christiansen
106	Music History	2	T. Th. 11	M130	Welti
113	Advanced Harmony	3	M. W. F. 9		Christiansen
126	Advanced Chorus	1	Daily 12	M205	Welti
135	Counterpoint	3	M. W. F. 10	M130	Welti
143	Band A	$1\frac{1}{2}$	T. F. 12-2 W. 12-1		Christiansen
152	Piano (Private)	$1\frac{1}{2}$ -3	Arranged		Asso. Teachers
158	Wind Instruments (Private)	$1\frac{1}{2}$ -3	Arranged		Christiansen
162	Violin (Private)	$1\frac{1}{2}$ -3	Arranged		Christiansen & Asso. Teachers
165	Pipe Organ (Private)	$1\frac{1}{2}$ -3	Arranged		S. E. Clark

**Physical Education****Activity Classes for Men and Women**

60	Hiking	1	Arranged	G	Carlisle
62*	Archery (Sec. 1)	1	M. W. F. 9	G	Carlisle
62*	Archery (Sec. 2)	1	T. Th. F. 2	G	Jenson
65	Recreative Games	1	T. Th. 10	G	Carlisle
67*	Tennis (Sec. 1)	1	M. W. F. 9	G	Carlisle
67*	Tennis (Sec. 2)	1	M. W. F. 1	G	Carlisle
67*	Tennis (Sec. 3)	1	M. W. F. 12	G	Jenson
67*	Tennis (Sec. 4)	1	M. W. F. 8	G	Jenson
67*	Tennis (Sec. 5)	1	T. Th. 12	G	Jenson
67*	Tennis (Sec. 6)	1	M. W. F. 10	G	Jenson
71	Elementary Tap Dancing	1	T. Th. F. 12	G	Carlisle
72*	Social Dancing	1	T. Th. 11	G	Carlisle
73	Golf	1	M. W. F. 11	G	Croft
171	Advanced Tap Dancing	1	M. W. F. 10	G	Carlisle

**Activity Classes for Men**

6*	Horseshoes (Sec. 1)	1	M. W. F. 9	G	Jenson
6*	Horseshoes (Sec. 2)	1	M. W. F. 10	G	Jenson
6*	Horseshoes (Sec. 3)	1	T. Th. F. 11	G	Jenson
12	Track	1	Arranged	G	Croft
15*	Handball (Sec. 1)	1	M. W. F. 11	G	Jenson
15*	Handball (Sec. 2)	1	M. W. F. 12	G	Jenson
18	Elementary Swimming	1	M. W. F. 3	G	Jenson
21	Elementary Tumbling	1	T. Th. F. 10	G	Jenson
24*	Basketball	1	M. W. F. 12	G	Jenson
27	Restricted Gymnastics	1	Arranged	G	Jenson

\*Sectioned Classes

## SPRING QUARTER

No. of Course	Title of Course	Credit	Time	Room	Instructor
<b>Activity Classes for Women</b>					
42*	Speedball and Soft Baseball (Sec. 1)	1	T. Th. 9	G	Carlisle
42*	Speedball and Soft Baseball (Sec. 2)	1	M. W. 10	G	Carlisle
42*	Speedball and Soft Baseball (Sec. 3)	1	M. F. 1	G	Carlisle
47	Individual Gymnastics	1	Arranged	G	Carlisle
50	Elementary Creative Dancing	1	M. 2-4 F. 3	G	Carlisle
53*	Elementary Swimming (Sec. 1)	1	M. W. F. 12	G	Carlisle
53*	Elementary Swimming (Sec. 2)	1	T. Th. F. 12	G	Carlisle
55*	Red Cross Life Saving	1	M. W. F. 2	G	Carlisle
<b>Theory Courses</b>					
1	Orientation in Physical Education	2	T. Th. 10	M280	Carlisle
83	Community Recreation	3	M. W. F. 10	G	Jenson
93	Competitive Activities for Women	2	T. Th. 2	G27	Carlisle
111	Nutrition for Athletes	2	T. Th. 9	H26	Clayton
143	Advanced Creative Dancing	2	W. 2-4 F. 3	G	Carlisle
180b	Practice in 180a		Arranged		Carlisle
181	Corrective Physical Education (Men)	3	M. W. F. 2	G27	Jenson
184	Administration of Physical Education in Secondary Schools	3	T. Th. F. 1	G27	Carlisle
186	Advanced Gymnastics	2	Daily 4	G	Bell
190	Methods of Coaching Track	3	M. W. F. 9	Stad	Romney & Croft
191	Physical Diagnosis	3	M. W. F. 11	G27	Preston
<b>Physics</b>					
1*	General Physics (Sec. 3)	5	Daily 2	W101	Linford
2*	General Physics (Sec. 3)	5	Daily 10	W101	West
22	Heat, Light and Sound (Lab. M. W. or T. Th. 2-5)	5	M. W. F. 9	W101	West
108	Advanced Laboratory	1	F. 2	W100	West
113	Theory of A. C. Circuits	3	M. W. F. 10	W100	Linford
118	Thermodynamics for Engineers	3	M. W. F. 10	W100	Gardner
121	Modern Physics	4	T. Th. 9 M. W. 11	W101	West
155	Analytical Mechanics	3	M. W. F. 9	W100	Gardner
252	Research		Arranged		Staff
<b>Physiology, Public Health, and Hygiene</b>					
4*	Anatomy and Physiology	5	Daily 2	M132	Dancy
4*	Anatomy and Physiology	5	Daily 10	M132	Carter
5	General Physiology Lab.	1	T. 2-5	M29	Carter
5	General Physiology Lab.	1	W. 2-5	M29	Carter
14*†	Health Education	3	M. W. F. 11	M132	Carter
15†	Methods and Materials in Health Education	2	T. Th. 11	M132	Carter
109	Public Health and Hygiene	3	M. W. F. 8	M132	Carter
110	Advanced Physiology	2	T. Th. 8	M132	Carter
117	Journal Club	1	Arranged	M126	Carter
120	Advanced Physiology Lab.		Arranged	M26	Carter
191	Physical Diagnosis	3	M. W. F. 11	G27	Preston
†Physiology 14 and 15 cannot be used in Biological Science Group.					
<b>Plant Pathology (See Botany)</b>					
<b>Political Science</b>					
13	Commercial Law	3	M. W. F. 8	M360	Bullen
51	General Political Science	5	Daily 2	M361	Daines
108	Commercial Law	3	T. Th. 8 M. 12	M360	Bullen
116	Theory of the State	3	M. W. F. 11	M361	Daines
125	Public Opinion	3	M. W. F. 10	M361	Daines

\*Sectioned Classes

## SPRING QUARTER

<i>No. of Courses</i>	<i>Title of Course</i>	<i>Credit</i>	<i>Time</i>	<i>Room</i>	<i>Instructor</i>
127	Constitutional Law	3	M. W. F. 9	M361	Daines
203	Current Political Problems	2	T. Th. 11	M361	Daines
	<b>Poultry Husbandry</b>				
1	General Poultry	3	M. W. F. 11	L205	Alder
2	General Poultry Lab.	1	M. 2-5	L205	Alder
3	General Poultry for H. E. Students	2	T. Th. 10	L205	Alder
10	Poultry Practice		Arranged	L205	Alder & Frischknecht
104	Incubation and Brooding	2	T. Th. 9	L205	Alder & Frischknecht
125	Special Problems		Arranged	L205	Alder & Frischknecht
127	Adv. Poultry Practice		Arranged		
	<b>Psychology</b>				
3*	Elementary Psychology (Sec. 3)	5	Daily 9	M279	Peterson
103	Psychology of Adolescence	3	T. Th. 8 M. 1	M279	Peterson
110	Psychology of Infancy and Childhood	3	M. W. F. 10	M279	Peterson
	<b>Public Speaking (See English)</b>				
	<b>Radio, Aviation and Automotive Electricity (MA)</b>				
14	Low and High Tension Magnetos	3	T. Th. 8-10	A203	Stock
25	Radio Testing and Trouble Shooting	4	M. W. F. 2-5	A207	Stock
28	Aviation and Aerology	4	M. W. F. 10-12	A203	Stock
113	Automotive Electrical Equipment	4	Arranged	A203	Stock
123	Practical Electricity for Shop Teachers	4	M. W. F. 8-10	A203	Stock
129	Operation of Short Wave Transmitters and Public Address Systems	4	T. Th. 2-5	A207	Stock
	<b>Range Management (No classes Spring quarter)</b>				
	<b>Secretarial Science (See Bus. Adm.)</b>				
	<b>Sociology</b>				
4*	Social Relations	3	M. W. F. 11	M279	Hendricks
61	Women and Culture	2	T. Th. 9	M280	Hendricks
70*	Principles of Sociology (Sec. 3)	5	Daily 10	M358	Hendricks
100	Educational Sociology	3	T. Th. 9 W. 12	M206	Geddes
150	Environmental Factors in Child Life	3	M. W. F. 11	M206	Geddes
171	Problems of the Family	3	M. W. F. 9	M356	Hendricks
185	Community Organization	3	T. Th. 8 F. 1	M206	Geddes
192	Sociology Seminar	1	7 a. m.	M206	Geddes
201	Research in Sociology	4	Arranged	M206	Geddes
	<b>Spanish (See Modern Languages)</b>				
	<b>Speech (See English)</b>				
	<b>Stenography (See Bus. Adm.)</b>				
	<b>Textiles and Clothing</b>				
1*	Clothing Construction (Sec. 2)	3	T. Th. 2-5	H33	Moen
11*	Clothing Selection and Const. (Sec. 3)	3	M. W. 2-5	H33	Moen
11*	Clothing Selection and Const. (Sec. 4)	3	T. Th. 2-5	H36	Crockett
15	Clothing App. and Selection (For Men)	2	W. F. 11	H36	Crockett
30	Millinery	2	M. W. 2-4	H36	Crockett
125	Applied Costume Design	3	T. Th. 10-11	H36	Crockett
162	Adv. Problems in Clothing	2	T. Th. 11-1	H33	Moen
175	Buying Textiles and Clothing	3	M. W. F. 9	H33	Moen

\*Sectioned Classes.

## SPRING QUARTER

<i>No. of Course</i>		<i>Time</i>	<i>Room</i>	<i>Instructor</i>
<b>Typewriting (See Bus. Adm.)</b>				
<b>Veterinary Science</b>				
10	Veterinary Elements	3 M. W. F. 10	L203	Frederickck
42	Comparative Veterinary Physiology	3 M. W. F. 9	L203	Frederickck
52	Clinic (Lab.)	1 M. 2-5	VC	Madsen
107	Hygiene and Infectious Diseases	3 M. 1 T. Th. 8	L203	Frederickck
<b>Wild Life Management</b>				
150	General Wild Life Management (Lab. W. 2-5)	5 M. T. W. Th. 10	L303	Rasmussen
154	Wild Life Management II (Lab. T. 2-5)	5 M. T. W. Th. 9	L303	Rasmussen
158	Wild Life Seminar	1 W. 1		Rasmussen
<b>Woodwork (MA)</b>				
61	Elementary Woodwork	2 T. Th. 2-5	Shop	Swenson
62	Elementary Woodwork	3 M. W. F. 2-5	Shop	Swenson
63	Elementary Woodwork	2 T. Th. 9-12	Shop	Swenson
64	Mill Work	3 M. W. F. 2-5	Shop	Swenson
65	Mill Work	2 T. Th. 9-12	Shop	Swenson
66	Mill Work	3 M. W. F. 9-12	Shop	Swenson
67	Elementary Wood Turning	2 T. Th. 2-5	Shop	Swenson
68	Elementary Wood Turning	3 M. W. F. 9-12	Shop	Swenson
69	General Woodwork	Arranged	Shop	Swenson
70	Farm Woodwork	2 T. Th. 2-5	Shop	Swenson
161	Advanced Woodwork	2 T. Th. 2-5	Shop	Swenson
162	Advanced Woodwork	3 M. W. F. 9-12	Shop	Swenson
163	Advanced Woodwork	2 T. Th. 9-12	Shop	Swenson
165	Advanced Pattern Making	2 T. Th. 8-11	Shop	Swenson
167	Building Construction	3 M. W. F. 9-12	Shop	Swenson
169	S. H. Teachers Course	1 T. 2-5	Shop	Swenson
169B	Wood Finishing	2 M. W. F. 8-10	Shop	Swenson
170	Advanced Wood Turning	2 M. W. F. 10-12	Shop	Swenson
170B	Advanced Wood Turning	2 T. Th. 9-12	Shop	Swenson
171	Advanced Wood Carving	2 T. Th. 9-12	Shop	Swenson
<b>Zoology and Entomology</b>				
1*	Principles of Zoology (Lab. T. or F. 2-5)	5 Daily 11	M227	Henderson
101	Insect Morphology (Lab. W. F. 2-5)	4 T. Th. 9	M227	Stanford
104	Systematic Entomology (Lab. T and 2 others)	3 T. 2-5	M227	Henderson
105	Forest Entomology (Lab. Th. 2-5)	4 M. W. F. 8	M227	Stanford
112	Genetics	5 Daily 10	M227	Henderson
116	Parasitology (Lab. M. W. 2-5)	5 M. W. F. 9	M227	Stanford
119	Vertebrate Embryology (Lab. T. F. 2-5)	3 T. 1	M227	Stanford
126	Seminar	1 Arranged	M227	Staff
131	Organic Evolution	3 T. Th. 8 M. F. 1	M227	Henderson

\*Sectioned Classes.



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