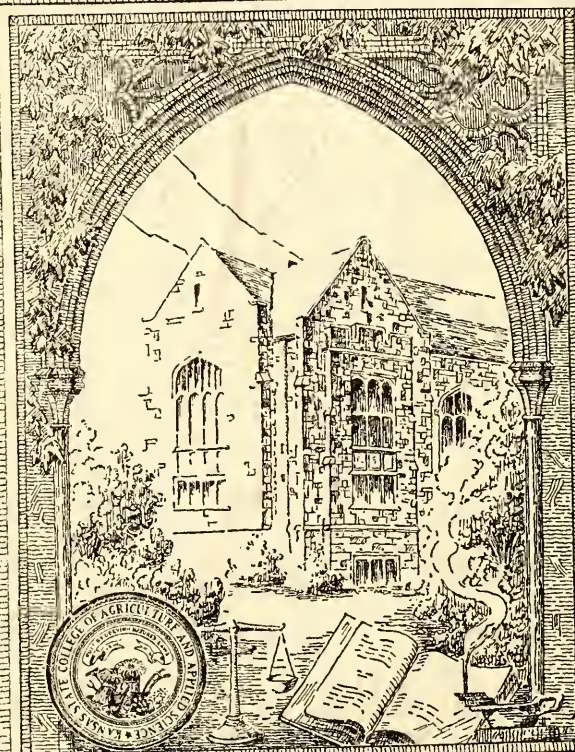


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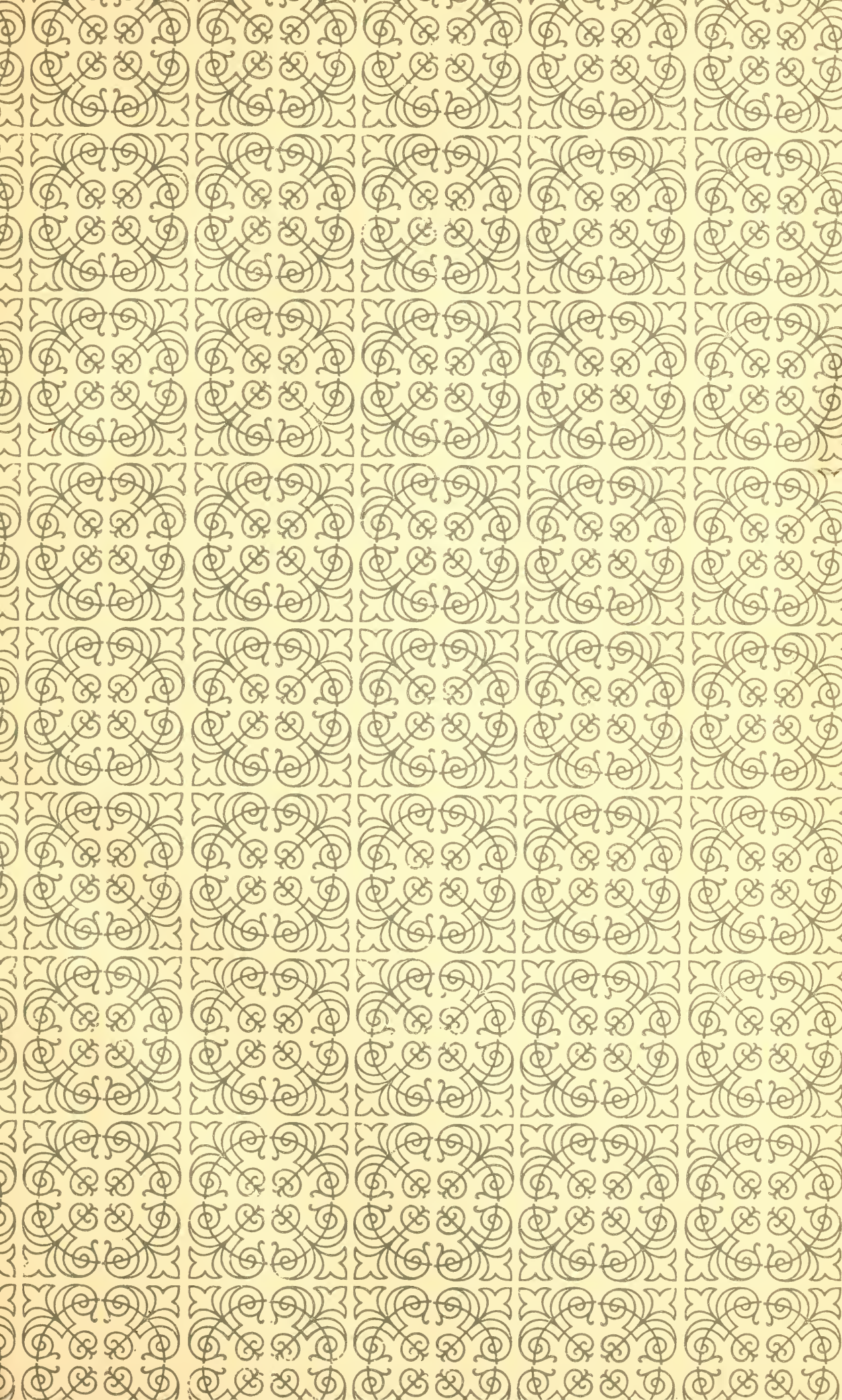
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KANSAS STATE COLLEGE
OF AGRICULTURE AND
APPLIED SCIENCE



KANSAS STATE COLLEGE BULLETIN

VOLUME XXII

JULY 1, 1938

No. 7

COMPLETE CATALOGUE NUMBER

SEVENTY-FIFTH SESSION, 1937-1938

ANNOUNCEMENTS FOR THE SESSION OF 1938-1939



KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

MANHATTAN, KANSAS

Published by the College

PRINTED BY KANSAS STATE PRINTING PLANT
W. C. AUSTIN, STATE PRINTER
TOPEKA 1938
17-4440

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TABLE OF CONTENTS

	PAGE
The College Calendar.....	7
Registration and Assignment Schedules.....	9
Administrative Officers.....	10
Officers of Administration, Instruction and Research.....	11
Agricultural Agents.....	47
Home Demonstration Agents.....	56
Standing Committees of the Faculty.....	60
History and Location of the College.....	61
Aims and Purposes of the College.....	61
Buildings and Grounds.....	63
Admission.....	65
Requirements for Admission.....	65
Methods of Admission.....	67
Junior Colleges.....	68
Late Admission.....	69
Undergraduate Degrees.....	70
General Information.....	72
Student Health.....	94
The College Library.....	95
The Division of Graduate Study.....	96
The Division of Agriculture.....	103
Curriculum in Agriculture.....	103
Curriculum in Agricultural Administration.....	107
Curriculum in Specialized Horticulture.....	108
Curriculum in Milling Industry.....	109
Agricultural Economics Section of Economics and Sociology.....	111
Agronomy.....	113
Animal Husbandry.....	115
Dairy Husbandry.....	117
General Agriculture.....	120
Horticulture.....	120
Milling Industry.....	123
Poultry Husbandry.....	124
Agricultural Experiment Station and Branch Stations.....	126
The Division of Engineering and Architecture.....	128
Curriculum in Agricultural Engineering.....	130
Curriculum in Architectural Engineering.....	131
Curriculum in Architecture.....	132
Curriculum in Chemical Engineering.....	133
Curriculum in Civil Engineering.....	134
Curriculum in Electrical Engineering.....	135
Curriculum in Industrial Arts.....	136
Curriculum in Mechanical Engineering.....	137
Agricultural Engineering.....	138
Applied Mechanics.....	139

	PAGE
Architecture.	142
Civil Engineering.	145
Electrical Engineering.	148
General Engineering.	152
Machine Design.	152
Mechanical Engineering.	154
Shop Practice.	157
Engineering Experiment Station.	161
The Division of General Science.	162
Curriculum in General Science.	163
Premedical and Prepharmaceutical Adaptation of Curriculum in General Science.	164
Preveterinary Adaptation of Curriculum in General Science.	164
Curriculum in Industrial Chemistry.	165
Curriculum in Industrial Journalism.	165
Curriculum in Music Education.	166
Curriculum in Applied Music.	168
Curriculum in Physical Education for Men.	169
Curriculum in Physical Education for Women.	169
Curriculum in Commerce.	170
Curriculum in Commerce with Special Training in Accounting.	171
Groups of Electives and Options.	172
Bacteriology.	180
Botany and Plant Pathology.	182
Chemistry.	185
Economics and Sociology.	190
Education.	194
English.	201
Entomology.	204
Geology.	206
History and Government.	208
Industrial Journalism and Printing.	211
Library Economics.	214
Mathematics.	214
Military Science and Tactics.	217
Modern Languages.	220
Music.	221
Physical Education and Athletics.	225
Physics.	229
Public Speaking.	232
Zoölogy.	234
The Division of Home Economics.	236
Curriculum in Home Economics.	239
Curriculum in Home Economics with Special Training in Art.	240
Curriculum in Home Economics with Special Training in Institutional Management and Dietetics.	241
Curriculum in Home Economics and Nursing.	242
Groups of Electives.	242
Art.	244
Child Welfare and Euthenics.	247

	PAGE
Clothing and Textiles.....	247
Food Economics and Nutrition.....	249
General Home Economics.....	251
Home Economics Education.....	251
Household Economics.....	252
Institutional Management.....	254
Bureau of Research in Home Economics.....	255
The Division of Veterinary Medicine.....	256
Curriculum in Veterinary Medicine.....	257
Anatomy and Physiology.....	258
Pathology.....	259
Surgery and Medicine.....	261
The Division of College Extension.....	265
Extension Schools.....	265
County Agent Work.....	266
Home Economics.....	267
Boys' and Girls' 4-H Club Work.....	268
Rural Engineering.....	268
Home Study.....	269
Degrees Conferred in 1937.....	275
Honors.....	284
Index.....	287

CALENDAR FOR 1938-1939

1938														1939													
JANUARY							JULY							JANUARY							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	..	..	1	..	..	..	..	..	1	2	1	2	3	4	5	6	7	..	..	..	..	..	1	
2	3	4	5	6	7	8	3	4	5	6	7	8	9	8	9	10	11	12	13	14	2	3	4	5	6	7	8
9	10	11	12	13	14	15	10	11	12	13	14	15	16	15	16	17	18	19	20	21	9	10	11	12	13	14	15
16	17	18	19	20	21	22	17	18	19	20	21	22	23	22	23	24	25	26	27	28	16	17	18	19	20	21	22
23	24	25	26	27	28	29	24	25	26	27	28	29	30	29	30	31	..	..	..	..	23	24	25	26	27	28	29
30	31	..	..	..	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..
FEBRUARY							AUGUST							FEBRUARY							AUGUST						
..	..	1	2	3	4	5	..	1	2	3	4	5	6	..	..	1	2	3	4	..	..	1	2	3	4	5	
6	7	8	9	10	11	12	7	8	9	10	11	12	13	5	6	7	8	9	10	11	6	7	8	9	10	11	12
13	14	15	16	17	18	19	14	15	16	17	18	19	20	12	13	14	15	16	17	18	13	14	15	16	17	18	19
20	21	22	23	24	25	26	21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26
27	28	..	..	..	..	..	28	29	30	31	..	..	..	26	27	28	..	..	..	..	27	28	29	30	31	..	..
..
MARCH							SEPTEMBER							MARCH							SEPTEMBER						
..	..	1	2	3	4	5	..	..	..	..	1	2	3	..	..	1	2	3	4	..	..	..	..	..	1	2	
6	7	8	9	10	11	12	4	5	6	7	8	9	10	5	6	7	8	9	10	11	3	4	5	6	7	8	9
13	14	15	16	17	18	19	11	12	13	14	15	16	17	12	13	14	15	16	17	18	10	11	12	13	14	15	16
20	21	22	23	24	25	26	18	19	20	21	22	23	24	19	20	21	22	23	24	25	17	18	19	20	21	22	23
27	28	29	30	31	..	..	25	26	27	28	29	30	..	26	27	28	29	30	31	..	24	25	26	27	28	29	30
..
APRIL							OCTOBER							APRIL							OCTOBER						
..	..	..	..	..	1	2	..	..	..	..	..	..	1	..	..	..	..	..	1	1	1	2	3	4	5	6	7
3	4	5	6	7	8	9	2	3	4	5	6	7	8	2	3	4	5	6	7	8	8	9	10	11	12	13	14
10	11	12	13	14	15	16	9	10	11	12	13	14	15	9	10	11	12	13	14	15	15	16	17	18	19	20	21
17	18	19	20	21	22	23	16	17	18	19	20	21	22	16	17	18	19	20	21	22	22	23	24	25	26	27	28
24	25	26	27	28	29	30	23	24	25	26	27	28	29	23	24	25	26	27	28	29	29	30	31	..	..	..	..
..	..	..	..	..	..	..	30	31	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..
MAY							NOVEMBER							MAY							NOVEMBER						
1	2	3	4	5	6	7	..	..	1	2	3	4	5	..	1	2	3	4	5	6	..	..	..	1	2	3	4
8	9	10	11	12	13	14	6	7	8	9	10	11	12	7	8	9	10	11	12	13	5	6	7	8	9	10	11
15	16	17	18	19	20	21	13	14	15	16	17	18	19	14	15	16	17	18	19	20	12	13	14	15	16	17	18
22	23	24	25	26	27	28	20	21	22	23	24	25	26	21	22	23	24	25	26	27	19	20	21	22	23	24	25
29	30	31	..	..	..	..	27	28	29	30	..	..	..	28	29	30	31	..	..	..	26	27	28	29	30	..	..
..
JUNE							DECEMBER							JUNE							DECEMBER						
..	..	..	1	2	3	4	..	..	..	..	1	2	3	..	..	..	..	1	2	3	..	..	..	..	1	2	
5	6	7	8	9	10	11	4	5	6	7	8	9	10	4	5	6	7	8	9	10	3	4	5	6	7	8	9
12	13	14	15	16	17	18	11	12	13	14	15	16	17	11	12	13	14	15	16	17	10	11	12	13	14	15	16
19	20	21	22	23	24	25	18	19	20	21	22	23	24	18	19	20	21	22	23	24	17	18	19	20	21	22	23
26	27	28	29	30	..	..	25	26	27	28	29	30	31	25	26	27	28	29	30	..	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..

THE COLLEGE CALENDAR

SUMMER SCHOOL, 1938

May 31, Tuesday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
June 1, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.
June 1 to July 30, Wednesday to Saturday.—Nine-week Summer School in session.
June 6 to 10, Monday to Friday.—4-H Club Round-up.
June 30, Thursday.—Scholarship deficiency reports to students and dean are due.
July 4, Monday.—Independence Day, holiday.
July 5 to 30, Tuesday to Saturday.—Four-week Summer School in session.
July 29, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.
July 30, Saturday.—Summer School closes at 5 p. m.
August 6, Saturday.—Reports of all grades for Summer School are due in registrar's office.

FIRST SEMESTER, 1938-1939

Aug. 13, Saturday.—All preparatory school credentials and college credentials should be filed with the vice-president of the College not later than this date.
Sept. 8, Thursday.—Meeting of assigners with committee on schedule at 2 p. m. in L 58.
Sept. 8, Thursday.—Meeting of assigners with deans at 3 p. m.
Sept. 9, Friday.—*Registration and assignment of freshmen.
Sept. 9, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Sept. 10, Saturday.—†Induction exercises for freshmen.
Sept. 12 and 13, Monday and Tuesday.—†Induction exercises for freshmen.
Sept. 12 and 13, Monday and Tuesday.—†Registration and assignment of all other students.
Sept. 14, Wednesday.—§Classes meet according to schedule, beginning at 8 a. m.
Sept. 14, Wednesday.—Opening convocation at 11 a. m.
Sept. 30, Friday.—Annual student-faculty informal reception at 8 p. m.
Oct. 8, Saturday.—Examinations to remove conditions.
Oct. 15, Saturday.—Scholarship deficiency reports to students and deans are due.
Nov. 12, Saturday.—Midsemester scholarship deficiency reports to students and deans are due.
Nov. 23, Wednesday.—Thanksgiving vacation begins at 12 m.
Nov. 26, Saturday.—Thanksgiving vacation closes at 6 p. m.
Dec. 21, Wednesday.—Christmas vacation begins at 6 p. m.
Jan. 4, 1939, Wednesday.—Christmas vacation closes at 6 p. m.
Jan. 24 to 28, Tuesday, 1 p. m. to Saturday, 12 m.—Examinations at close of semester.
Jan. 28, Saturday.—First semester closes at 12 m.
Jan. 28, Saturday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.

SECOND SEMESTER, 1938-1939

Jan. 30, Monday.—Meeting of assigners with committee on schedule at 2 p. m. in L 58.
Jan. 30, Monday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Jan. 31 and Feb. 1, Tuesday and Wednesday.—Registration and assignment of all students.
Feb. 2, Thursday.—§Classes meet according to schedule, beginning at 8 a. m.
Feb. 4, Saturday.—Reports of all grades for first semester are due in registrar's office.
Feb. 7 to 10, Tuesday to Friday.—Farm and Home Week.
Feb. 16, Thursday.—Founders' Day. The College was located at Manhattan on Feb. 16, 1863.
Feb. 22, Wednesday.—Washington's Birthday, holiday.
Feb. 25, Saturday.—Examinations to remove conditions.
Mar. 4, Saturday.—Scholarship deficiency reports to students and deans are due.
April 1, Saturday.—Midsemester scholarship deficiency reports to students and deans are due.
April 6, Thursday.—Easter vacation begins at 6 p. m.
April 10, Monday.—Easter vacation closes at 6 p. m.
May 17 to 23, Wednesday to Tuesday.—Examinations for seniors graduating May 29.
May 25 to 29, Thursday to Monday.—Examinations at close of semester.
May 27, Saturday.—Alumni Day. Business meeting at 2 p. m.; banquet at 6 p. m.
May 28, Sunday.—Baccalaureate services at 7:30 p. m.
May 29, Monday.—Seventy-sixth annual Commencement at 7:30 p. m.
May 30, Tuesday.—Memorial Day, holiday.
May 31, Wednesday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.
June 3, Saturday.—Reports of all grades for second semester are due in registrar's office.

* See "Registration and Assignment Schedule for Freshmen."

† All freshmen students must attend the exercises on each of the three days.

‡ See "Registration and Assignment Schedule for All Other Students."

§ Students must be present at the first meeting of each class or render a reasonable excuse. Failure to take out an assignment is not accepted as an excuse for absence from classes. A fee of \$2.50 is charged those who are assigned after the time set for close of registration.

SUMMER SCHOOL, 1939

May 31, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.
 May 31, Wednesday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
 May 31 to July 29, Wednesday to Saturday.—Nine-week Summer School in session.
 June 5 to 9, Monday to Friday.—4-H Club Round-up.
 June 29, Thursday.—Scholarship deficiency reports to students and deans are due.
 July 3 to 29, Monday to Saturday.—Four-week Summer School in session.
 July 4, Tuesday.—Independence Day, holiday.
 July 28, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.
 July 29, Saturday.—Summer School closes at 5 p. m.
 August 5, Saturday.—Reports of all grades for Summer School are due in registrar's office.

FIRST SEMESTER, 1939-1940

Aug. 12, Saturday.—All preparatory school credentials and college credentials should be filed with the vice-president of the College not later than this date.
 Sept. 7, Thursday.—Meeting of assigners with committee on schedule at 2 p. m. in L 58.
 Sept. 7, Thursday.—Meeting of assigners with deans at 3 p. m.
 Sept. 8, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
 Sept. 9, Saturday.—Induction exercises for freshmen.
 Sept. 11 and 12, Monday and Tuesday.—Induction exercises for freshmen.
 Sept. 11 and 12, Monday and Tuesday.—Registration and assignment of all other students.

REGISTRATION AND ASSIGNMENT SCHEDULES

NICHOLS GYMNASIUM

The following tabulation shows the schedule of hours for registration and assignment of students for the college year 1938-1939, arranged according to the initial letters of their last names:

FIRST SEMESTER

SCHEDULE FOR FRESHMEN STUDENTS

FRIDAY, SEPTEMBER 9, 1938

College Auditorium, 7:30 a. m.

General Meeting for all Freshmen.

<i>Hours</i>	<i>Initial letters</i>
8:00 to 9:00.....	B F T V
9:00 to 10:00.....	K N Q S Z
10:30 to 11:30.....	C I G R
12:30 to 1:30.....	E P O U W
1:30 to 2:30.....	A D H Y
2:30 to 4:00.....	J L M X and any freshman students who failed to report during the period provided for their group.

SCHEDULE FOR ALL OTHER STUDENTS

MONDAY, SEPTEMBER 12, 1938

<i>Hours</i>	<i>Initial letters</i>
7:45 to 9:30.....	B F T V
10:00 to 11:15.....	K N Q S Z
1:00 to 2:30.....	C I G R and any students who failed to report during the two previous periods.

TUESDAY, SEPTEMBER 13, 1938

7:45 to 9:30.....	E P O U W
10:00 to 11:15.....	A D H Y
1:00 to 2:30.....	J L M X
2:30 to 4:00.....	Special students and any students who failed to report during the period provided for their group. Late assignment fee of \$2.50 in effect after this period.

SECOND SEMESTER

SCHEDULE FOR ALL STUDENTS

TUESDAY, JANUARY 31, 1939

<i>Hours</i>	<i>Initial letters</i>
7:45 to 9:30.....	J L M X
10:00 to 11:15.....	A D H Y
1:00 to 2:30.....	E P O U W and any students who failed to report during the two previous periods.

WEDNESDAY, FEBRUARY 1, 1939

7:45 to 9:30.....	C I G R
10:00 to 11:15.....	K N Q S Z
1:00 to 2:30.....	B F T V
2:30 to 4:00.....	Special students and any students who failed to report during the period provided for their group. Late assignment fee of \$2.50 in effect after this period.

The State Board of Regents

Name and address	Term expires
C. M. HARGER, <i>Chairman</i> , Abilene.....	June 30, 1938
E. F. BECKNER, Colby.....	June 30, 1941
JOHN BRADLEY, Wellington.....	June 30, 1941
SAM R. EDWARDS, Blue Rapids.....	June 30, 1940
FRED M. HARRIS, Ottawa.....	June 30, 1938
LESTER MCCOY, Garden City.....	June 30, 1939
DREW McLAUGHLIN, Paola.....	June 30, 1938
RALPH T. O'NEIL, Topeka.....	June 30, 1939
H. L. SNYDER, Winfield.....	June 30, 1940

J. A. MERMIS, *Business Manager*

MARK KROUCH, *Assistant Business Manager*

Administrative Officers* of the College

President	F. D. FARRELL
College Historian	J. T. WILLARD
Dean of the Division of Agriculture, and Director of the Agricultural Experiment Station.....	L. E. CALL
Dean of the Division of Engineering, and Director of the Engineering Experiment Station.....	R. A. SEATON
Dean of the Division of General Science.....	R. W. BABCOCK
Dean of the Division of Home Economics, and Direc- tor of the Bureau of Research in Home Econom- ics	MARGARET M. JUSTIN
Dean of the Division of Veterinary Medicine.....	R. R. DYKSTRA
Dean of the Division of College Extension.....	H. J. UMBERGER
Dean of the Division of Graduate Study.....	J. E. ACKERT
Dean of Women.....	MARY P. VAN ZILE
Dean of the Summer School.....	E. L. HOLTON
Vice-President	S. A. NOCK
Registrar	JESSIE McD. MACHIR
Librarian	ARTHUR B. SMITH
Superintendent of Maintenance.....	G. R. PAULING

* Also included in the general alphabetical list.

JAN 27 1939

Officers of Administration, Instruction and Research*

NELLIE ABERLE, Assistant Professor of English (1921, 1935).‡

B. S., K. S. C., 1912; M. S., *ibid.*, 1914.

† A 53; 1442 Fairchild.

ERWIN ABMEYER, Assistant Professor of Horticulture in Charge of Northeastern Kansas Experiment Fields (1934, 1936).

B. S., K. S. C., 1933.

Atchison, Kan.

FULTON GEORGE ACKERMAN, Associate Soil Conservationist, Soil Conservation Service, U. S. D. A.; in charge of Soil and Water Conservation Investigations, Fort Hays Branch Agricultural Experiment Station (1933, 1934).

B. S., K. S. C., 1931.

Hays, Kan.

JAMES EDWARD ACKERT, Dean of Division of Graduate Study (1931); Professor of Zoölogy (1913, 1918); Parasitologist, Agricultural Experiment Station (1913).

A. B., University of Illinois, 1909; A. M., *ibid.*, 1911; Ph. D. *ibid.*, 1918.

F 26; 1923 Leavenworth.

ANNA TESSIE AGAN, Instructor in Household Economics (1930); on sabbatic leave 1937-1938.

B. S., University of Nebraska, 1927; M. S., K. S. C., 1930.

L 64; 1201 Bertrand.

MICHAEL FRANCIS AHEARN, Professor and Head of Department of Physical Education, and Director of Athletics (1904, 1920).

B. S., Massachusetts Agricultural College, 1904; M. S., K. S. C., 1913.

N 35; 104 N. Juliette.

LOUIS C. AICHER, Superintendent, Fort Hays Branch Agricultural Experiment Station (1921).

B. S., K. S. C., 1910.

Hays, Kan.

HARRY WORKMAN AIMAN, Assistant Professor of Woodwork (1918, 1925).

A. B., Oskaloosa College, 1921.

S 27A; Tull Apts., No. 12.

LYNN A. AITKEN, Graduate Assistant in Botany (1937; Sept. 1, 1937).

B. S., University of Idaho, 1937.

H 56; 1127 Vattier.

* The staff of a department is listed under the department heading in the body of the Catalogue. See Table of Contents, page 3 *ante*, or Index at end of volume.

† The College buildings are designated by letters, as follows:

A—Anderson Hall (Administration)
Ag—Waters Hall (Agr., Chem., Physics)
Bks—Barracks
CH—College Hospital
D—Chemistry Annex No. 2
E—Engineering Hall
EA—Extension Annex
F—Fairchild Hall (Hist., Zoöl., Ent.)
G—Education Hall (Educ., Publ. Spkg.)
H—Dickens Hall (Hort., Botany)
I—Illustrations Hall
K—Kedzie Hall (Printing)
L—Calvin Hall (Home Ec.)
Li—Library

M—Auditorium
N—Nichols Gymnasium
(Phys. Ed., Mil. Sci., Music)
P—Stock Judging Pavilion
PP—Power, Heat and Service Building
R—Farm Machinery Hall
S—Engineering Shops
T—Thompson Hall (Cafeteria)
V—Veterinary Hall (Vet. Med., Bact.)
VH—Veterinary Hospital
VRL—Veterinary Research Laboratory
VZ—Van Zile Hall (Girls' Dormitory)
W—Chemistry Annex No. 1

‡ One date standing after the title shows when the office was assumed. In the case of two dates separated by a comma or semicolon, the first date indicates when services with the College began, the second when present office was assumed. Dates separated by a dash indicate time of assumption and termination, respectively, of the duties indicated in the title.

ALFRED EVAN ALDOUS, Professor of Pasture Improvement (1926); Coöperative Agent (Agronomist), U. S. D. A.

B. S., Utah Agricultural College, 1910; Ph. D., University of Nebraska, 1934.
E. Ag 216; 200 N. 16th.

HARRY STARKEY ALDRICH, Capt., C. A. C., U. S. A.; Assistant Professor of Military Science and Tactics (Sept. 1, 1937).

B. S., Michigan College of Mines, 1917. N 26; 1825 Anderson.

GERTRUDE EDNA ALLEN, Assistant Professor of Foods and Nutrition, Division of College Extension (1929, 1936).

B. S., University of Minnesota, 1923; M. S., K. S. C., 1936.
EA 304; 1508 Humboldt.

OSCAR WILLIAM ALM, Professor of Psychology (1929, 1933).

A. B., University of Nebraska, 1917; A. M., Columbia University, 1918; Ph. D., University of Minnesota, 1929. G 30; 1615 Fairchild.

INEZ GERTRUDE ALSOP, Assistant Professor of History and Government (1923, 1927).

B. S., K. S. T. C., Emporia, 1916; M. S., University of Kansas, 1920.
F 63; 1429 Laramie.

DONALD JULES AMEEL, Instructor in Zoölogy (Feb. 15, 1937).

A. B., Wayne University, 1928; M. A., University of Michigan, 1930; Sc. D., *ibid.*, 1933.
F 78; 714 Poyntz.

EDGAR MCCALL AMOS, Associate Professor of Industrial Journalism and Printing (1920, 1936).

B. S., K. S. C., 1902. K 29; 1015 Leavenworth.

WILLIAM GERALD AMSTEIN, Assistant Professor of Horticulture, Division of College Extension (1935).

B. S., Massachusetts Agricultural College, 1927; M. S., K. S. C., 1928.
A 3; 1715 Leavenworth.

JOHN EDMOND ANDERSON, Instructor in Milling Industry (1932, 1933).

B. S., K. S. C., 1932; M. S., *ibid.*, 1933. E. Ag 101B; 1528 Pierre.

KLING LEROY ANDERSON, Research Assistant in Agronomy (1936).

B. S., University of California, 1936. E. Ag 206; 1116 Bluemont.

ARTHUR CLINTON ANDREWS, Instructor in Chemistry (1926).

B. S., University of Wisconsin, 1924; M. S., K. S. C., 1929. D 28; 1417 Poyntz.

DOROTHY ARNOLD, Nurse, Department of Student Health (1936; Sept. 1, 1937); resigned Nov. 6, 1937.

R. N., St. Mary's Hospital, Winfield, 1933. CH; College Hospital.

FLOYD WARNICK ATKESON, Professor and Head of Department of Dairy Husbandry (1935); Dairy Husbandman, Agricultural Experiment Station (1935).

B. S., University of Missouri, 1918; M. S., K. S. C., 1929.
W. Ag 128; 1734 Leavenworth.

CLIFF ERRETT AUBEL, Associate Professor of Animal Husbandry (1919, 1928).

B. S., Pennsylvania State College, 1915; M. S., K. S. C., 1917; Ph. D., University of Minnesota, 1935. E. Ag 24; 323 N. 15th.

MADALYN AVERY, Assistant Professor of Physics (1928).

B. S., K. S. C., 1924; M. S., *ibid.*, 1932. W. Ag 134; 1425 Laramie.

THOMAS BURT AVERY, (Temporary) Instructor in Poultry Husbandry (Aug. 1, 1937).

B. S., K. S. C., 1934. W. Ag 230; 1116 Bluemont.

RODNEY WHITTEMORE BABCOCK, Dean of Division of General Science (1930).

A. B., University of Missouri, 1912; A. M., University of Wisconsin, 1915; Ph. D., *ibid.*, 1924. A 47; 1928 Leavenworth.

- HARRY CHARLES BAIRD, Assistant Professor of Agricultural Extension, District Supervisor, Division of College Extension (1920, 1934).
B. S., K. S. C., 1914. A 60; 1027 Houston.
- CLARENCE POTTER BAKER, (Temporary) Instructor in English (Sept. 1, 1937).
B. S., Haverford College, 1933; A. M., Harvard University, 1936. A 69; 800 Humboldt.
- GLADYS BAKER, Classifier in College Library (1935).
B. L. S., University of Illinois, 1924. Li 52; 1407 Laramie.
- ROBERT METCALFE BAKER, Instructor in Electrical Engineering (Sept. 1, 1937).
B. S. in E. E., University of Texas, 1926; M. S., University of Pittsburgh, 1931. E 120; 354 N. 16th.
- WALTER BUSWELL BALCH, Associate Professor of Horticulture (1921, 1931); Greenhouse Foreman (1921); resigned July 31, 1937.
B. S., Cornell University, 1919; M. S., K. S. C., 1925. H 34; 1734 Fairchild.
- NORMAN DAVIS BALL, Instructor in Mathematics (1936).
B. S., Baker University, 1936. S 52; 1731 Fairchild.
- MARGARET LOUISE BALLARD, (Temporary) Assistant in Art (Sept. 1, 1937).
B. S., K. S. C., 1937. A 55; 511 N. 14th.
- SARA VIRGINIA BANCROFT, Graduate Research Assistant in Institutional Management (Sept. 1, 1937).
B. S., University of Missouri, 1937. T 51B; 1740 Fairview.
- NORA ELIZABETH BARE,⁴ Assistant in Education (1927; Sept. 11, 1937).
B. S., K. S. C., 1925. G 32B; 1429 Laramie.
- DOROTHY BARFOOT, Professor and Head of Department of Art (1930, 1935); on sabbatic leave 1937-1938.
A. B., State University of Iowa, 1922; A. M., Columbia University, 1928. A 68A; 1429 Laramie.
- EDGAR LEE BARGER, Assistant Professor of Agricultural Engineering (1930, 1935).
B. S., K. S. C., 1929; M. S., *ibid.*, 1934. E 216; 1615 Humboldt.
- HAROLD NATHAN BARHAM, Associate Professor of Organic Chemistry (1929, 1932).
A. B., Bethany College, 1921; M. S., Ohio State University, 1922; Ph. D., University of Kansas, 1928. D 28; 820 Bluemont.
- JANE WILSON BARNES, Secretary to the Dean, Division of Home Economics (1928).
B. S., K. S. C., 1912; M. S., *ibid.*, 1932. L 29; 1209 Kearney.
- ROBERT JOHN BARNETT, Professor and Head of Department of Horticulture (1920, 1930); Horticulturist, Agricultural Experiment Station (1920, 1930).
B. S., K. S. C., 1895; M. S., *ibid.*, 1911. H 29; 1203 Thurston.
- ELLEN MARGARET BATCHELOR, Instructor and District Home Demonstration Agent Leader, Division of College Extension (1917, 1921).
B. S., K. S. C., 1911. EA 306; 1722 Humboldt.
- JAMES CHARLES BATES, Instructor in Botany (1935).
A. B., University of Kansas, 1927; A. M., *ibid.*, 1934; Ph. D., *ibid.*, 1935. H 53; 1510 Leavenworth.
- LAURA FALKENRICH BAXTER, Assistant Professor of Home Economics Education (1927, 1934).
B. S., K. S. C., 1915; M. S., *ibid.*, 1930. G 28; 601 Vattier.

4. In coöperation with the State Board for Vocational Education.

- MABEL GERTRUDE BAXTER, Assistant in Charge of Continuations, College Library (1916, 1918).
Li 26; 1620 Fairchild.
- BUELL WESLEY BEADLE, Assistant Chemist, Agricultural Experiment Station (1935).
B. S., K. S. C., 1935. E. Ag 204A; 1021 Leavenworth.
- GLENN HANSE BECK, Instructor in Dairy Husbandry (1936; Sept. 1, 1937).
B. S., University of Idaho, 1936. W. Ag 125; 412 N. 11th.
- RUSSELL JAMES BEERS, Instructor in Chemistry (1935).
B. S., University of Nebraska, 1933; M. S., *ibid.*, 1935. W 29A; 325 N. 17th.
- FLOYD WAYNE BELL, Professor of Animal Husbandry, in Charge of Advanced Judging (1918, 1921).
B. S., Cornell University, 1911. E. Ag 12; 1736 Fairview.
- JOHN GREGORY BELL, Assistant Professor of Farm Crops, Division of College Extension (1933; Aug. 16, 1937).
B. S., K. S. C., 1932. A 3; 1030 Bertrand.
- ERWIN JOHN BENNE, Instructor in Chemistry (1930); resigned Jan. 31, 1938.
B. S., K. S. C., 1928; M. S., *ibid.*, 1931; Ph. D., *ibid.*, 1937. W 29A; 902 Ratone.
- ADA GRACE BILLINGS, Associate Professor of History and Government, Department of Home Study, Division of College Extension (1921, 1927).
B. S., K. S. C., 1916; M. S., *ibid.*, 1927. A 5; 714 Moro.
- CHESTER BERT BILLINGS, Instructor in Agriculture, Department of Home Study, Division of College Extension (1936).
B. S., Fort Hays Kansas State College, 1930; M. S., K. S. C., 1936. A 5; 1642 Laramie.
- JOHN ALEXANDER BIRD, Associate Professor of Industrial Journalism (1936).
B. S., K. S. C., 1932. K 28C; 1218 Kearney.
- ALLEN A. BLATHERWICK, Instructor in Machine Design (Sept. 1, 1937); resigned Oct. 16, 1937.
B. S., State University of Iowa, 1936. S 51; 1116 Bluemont.
- FRANK OTTO BLECHA, Assistant Professor of Agricultural Extension; District Agricultural Agent, Division of College Extension (1919, 1923).
B. S., K. S. C., 1918; M. S., *ibid.*, 1926. A 60; 1507 Leavenworth.
- MARY ELSIE BORDER, Instructor in Junior Extension, Assistant State Club Leader, Division of College Extension (1929, 1936).
B. S., Ohio State University, 1926. A 35; 1508 Humboldt.
- WILLIAM RAYMOND BRACKETT, Associate Professor of Physics (1919, 1923).
A. B., University of Colorado, 1905. W. Ag 31; 1824 Humboldt.
- BOYD BERTRAND BRAINARD, Associate Professor of Mechanical Engineering (1923, 1929).
B. S. in M. E., University of Colorado, 1922; S. M., Massachusetts Institute of Technology, 1931. E 109; 1209 Vattier.
- GEORGE FRANCIS BRANIGAN, Assistant Professor in Engineering Drawing and Descriptive Geometry (1927, 1936).
B. S. in C. E., University of Nebraska, 1927; M. S., K. S. C., 1933. E 209; 1631 Humboldt.
- AUGUSTIN WILBER BREEDEN, Associate Professor of English (1926).
Ph. B., University of Chicago, 1924; A. M., *ibid.*, 1925. K 52; 1728 Laramie.
- JESSE LAMAR BRENNEMAN, Professor of Electrical Engineering (1920, 1928).
B. S., University of Chicago, 1908; E. E., University of Wisconsin, 1913. E 120; 1031 Moro.

- HALE H. BROWN,⁴ Instructor in Vocational Education (Sept. 1, 1937).
B. S., K. S. C., 1928; M. S., *ibid.*, 1937. G 28; 1843 Anderson.
- HELEN MARTIN BROWN,⁴ Assistant in Education (1937; Sept. 1, 1937).
A. B., Oberlin College, 1927. Capitol, Topeka, Kan.
- MARY VIOLA BROWN, Laboratory Technician, Department of Student Health (1936).
B. S., Baldwin-Wallace College, 1934. A 57; College Nurses' Home.
- NINA MYRTLE BROWNING, Assistant Professor of Food Economics and Nutrition (1930; Sept. 1, 1937).
B. S., K. S. C., 1923; M. S., *ibid.*, 1927. L 43; 908 Laramie.
- HOWARD W. BRUBAKER, Professor of Analytical Chemistry (1913, 1922).
B. S., Carleton College, 1899; Ph. D., University of Pennsylvania, 1904.
D 3; 1929 Leavenworth.
- ARTHUR MAXWELL BRUNSON,¹ Agronomist, U. S. D. A.; Corn Breeder, Agricultural Experiment Station (1923).
B. S., University of Illinois, 1913; M. S., *ibid.*, 1919; Ph. D., Cornell University, 1923.
E. Ag 301; 1730 Fairview.
- LOREN ALDRO BRYAN, Graduate Assistant in Chemistry (Sept. 1, 1937).
B. S. in Ed., K. S. T. C., Emporia, 1937; B. A., *ibid.*, 1937. W 29A; 1743 Fairchild.
- HARRY RAY BRYSON, Assistant Professor of Entomology (1924, 1929).
B. S., K. S. C., 1917; M. S., *ibid.*, 1924. F 54; 1821 Leavenworth.
- JAMES HENRY BURT, Professor and Head of Department of Anatomy and Physiology (1909, 1919).
V. S., Ontario Veterinary College, 1895; D. V. M., Ohio State University, 1905.
V 31; 800 Poyntz.
- LUCILE BEATRICE BURT, Graduate Assistant in Botany (Sept. 15, 1937).
B. S., K. S. C., 1928. H 30; 1127 Bluemont.
- LELAND DAVID BUSHNELL, Professor and Head of Department of Bacteriology (1908, 1912); Bacteriologist, Agricultural Experiment Station (1908, 1912).
B. S., Michigan Agricultural College, 1905; M. S., University of Kansas, 1915; Ph. D., Harvard University, 1921. V 56; 801 Osage.
- FRANK BYRNE, Instructor in Geology (1930).
B. S., University of Chicago, 1927. F 1A; 1116 Bluemont.
- MARION JOHN CALDWELL, Instructor in Chemistry (1932, 1934).
B. S., K. S. C., 1931; M. S., *ibid.*, 1933. W 29A; 1010 Laramie.
- LELAND EVERETT CALL, Dean of Division of Agriculture (1907, 1925); Director of Agricultural Experiment Station (1907, 1925).
B. S. in Agr., Ohio State University, 1906; M. S., *ibid.*, 1912. E. Ag 106; 223 N. 14th.
- JAMES PHILLIP CALLAHAN, Associate Professor of English (1924, 1930).
B. S., Kansas State Teachers College, Hays, 1919; A. M., University of Kansas, 1926.
K 56; 1601 Pierre.
- MILDRED CAMP, Head of Circulation Department, College Library (1927).
A. B., Eureka College, 1912; B. L. S., University of Illinois, 1924. Li; 1213 Kearney.
- JAMES KIRKER CAMPBELL, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (Sept. 1, 1937).
Graduate, Culver Military Academy, 1905; Graduate, Infantry School, 1926.
N 26; 117 N. 14th.

1. In coöperation with the U. S. Department of Agriculture.

4. In coöperation with the State Board for Vocational Education.

ALVIN BOYD CARDWELL, Professor and Head of Department of Physics (1936; July 1, 1937).

B. S., University of Chattanooga, 1925; M. S., University of Wisconsin, 1927; Ph. D., *ibid.*, 1930. W. Ag 225; 1622 Leavenworth.

WALTER WILLIAM CARLSON, Professor and Head of Department of Shop Practice (1910, 1917); Superintendent of Shops (1910, 1912); Industrial Engineer, Engineering Experiment Station (1913).

B. S., K. S. C., 1908; M. E., *ibid.*, 1916.

S 62; 1722 Laramie.

ARTHUR ADAM CASE, Graduate Research Assistant in Zoölogy (Sept. 1, 1937).

B. S., K. S. C., 1937.

F 36; 314 Thurston.

RALPH BOYD CATHCART, Assistant Professor of Animal Husbandry (1935; July 1, 1937).

B. S., K. S. C., 1933; M. S., University of Nebraska, 1934. E. Ag 9; 1116 Bluemont.

WILBUR JOHN CAULFIELD, Assistant Professor of Dairy Husbandry (1927, 1930).

B. S., University of Minnesota, 1924; M. S., Pennsylvania State College, 1926.

W. Ag 147; 1011 Moro.

GEORGE E. CAUTHEN, Technician and Instructor in Zoölogy (1935).

B. A., Austin College, 1928; M. S., K. S. C., 1931.

F 30; 1010 Ratone.

HARRY WINFIELD CAVE, Professor of Dairy Husbandry (1918, 1926).

B. S. A., Iowa State College, 1914; M. S., K. S. C., 1916.

W. Ag 128; 1638 Osage.

DENA C. CEDERQUIST, Technician in Food Economics and Nutrition (Sept. 15, 1937).

B. S., Iowa State College, 1931; M. S., *ibid.*, 1937.

L 13; 1631 Leavenworth.

ERNEST KNIGHT CHAPIN, Associate Professor of Physics (1923, 1932).

A. B., University of Michigan, 1918; M. S., *ibid.*, 1923.

W. Ag 134A; 1119 Laramie.

JAMES PERCY CHAPMAN, Assistant Extension Editor (1936).

B. S., K. S. C., 1932.

EA 104; 925 Thurston.

JOSEPH RUDOLPH CHELIKOWSKY, Instructor in Geology (Sept. 1, 1937).

B. A., Cornell University, 1931; M. A., *ibid.*, 1932; Ph. D., *ibid.*, 1935.

F 1A; 802 Leavenworth.

ROBERT FREDERICK CHILDS,² Road Materials, Engineering Experiment Station (1931).

B. S., K. S. C., 1929.

E 230; 1618 Houston.

ALFRED LESTER CLAPP, Associate Professor of Agronomy, in Charge of Coöperative Experiments (1920, 1934); on sabbatic leave Nov. 1, 1937 to March 31, 1938.

B. S., K. S. C., 1914; M. S., *ibid.*, 1934.

E. Ag 201; 1109 Kearney.

ELIZABETH VAN WYCK CLAPP, Associate Professor in Household Economics (1936).

A. B., Vassar College, 1923; M. S., University of Chicago, 1936.

L 65; 324 N. 15th.

ROWLAND JESSE CLARK, Associate Professor of Milling Industry (1935).

B. S., University of Kansas, 1918; C. E., *ibid.*, 1936.

E. Ag 111; 1715 Houston.

MARY SAUNDERS CLAY, Instructor in Art (1936).

B. S., Columbia University, 1932; M. A., *ibid.*, 1934.

A 68B; 1000 Vattier.

EUGENE ARTHUR CLEAVINGER, Assistant Professor of Farm Crops, Division of College Extension (1926, 1931).

B. S., K. S. C., 1925.

A 60; 345 N. 15th.

2. In coöperation with the Kansas Highway Department.

MAYNARD HENRY COE, Professor, State Club Leader, Division of College Extension (1922, 1927).

B. S., University of Minnesota, 1917.

A 35B; 336 N. 16th.

ALICE COLE, Nurse, Department of Student Health (Feb. 1, 1938).

R. N., Bethany Methodist Hospital School of Nursing, 1937. CH; College Hospital.

EMBERT HARVEY COLES,¹ Associate Agronomist, Bureau of Plant Industry, U. S. D. A.; Superintendent, Colby Branch Agricultural Experiment Station (1922, 1929).

B. S., K. S. C., 1922.

Colby, Kan.

CHARLES WILLIAM COLVER, Professor of Organic Chemistry (1919, 1925).

B. S., University of Idaho, 1909; M. S., *ibid.*, 1911; Ph. D., University of Illinois, 1919.
D 28; 1635 Fairchild.

LAWRENCE L. COMPTON, Assistant Professor of Soils, Division of College Extension (1930, 1935).

B. S., K. S. C., 1930.

A 3; 919 N. Juliette.

ROBERT WARREN CONOVER, Professor of English (1915, 1920).

A. B., Wesleyan University, 1911; A. M., *ibid.*, 1914.

K 53; 1730 Poyntz.

WILLIAM JOSEPH CONOVER, Assistant Professor of Agricultural Economics, Division of College Extension (1934; March 23, 1937).

B. S., K. S. C., 1932.

Pratt, Kan.

LOWELL EDWIN CONRAD, Professor and Head of Department of Civil Engineering (1908, 1909); Civil Engineer, Engineering Experiment Station (1913).

B. S., Cornell College, 1904; C. E., *ibid.*, 1906; M. S., Lehigh University, 1908.

E 124; 317 N. 17th.

RALPH MARTIN CONRAD, Assistant Professor of Poultry Chemistry (1936).

B. S., K. S. C., 1933; M. S., State University of Iowa, 1934; Ph. D., *ibid.*, 1936.

W. Ag 234; 1719 Anderson.

JOHN HERBERT COOLIDGE, Assistant Professor of Agricultural Economics, Division of College Extension (1926, 1931).

B. S., K. S. C., 1925; M. S., *ibid.*, 1932.

Farm Bureau Office; Kingman, Kan.

ESTHER MARGARET CORMANY, Assistant Professor of Clothing and Textiles (1936).

B. S., K. S. C., 1926; M. S., *ibid.*, 1932

L 68; 1006 N. Manhattan.

CHARLES MECLAIN CORRELL, Professor of History and Government (1922, 1934); Assistant Dean, Division of General Science (1927).

B. S., K. S. C., 1900; Ph. B., University of Chicago, 1907; Ph. M., *ibid.*, 1908.

F 61 and A 47A; 1621 Fairchild.

RICHARD THOMAS COTTON,³ Senior Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Stored Grain and Flour-mill Insects; in charge of U. S. Entomological Laboratory (1934).

B. S., Cornell University, 1914; M. S., *ibid.*, 1918; Ph. D., George Washington University, 1924.
U. S. Lab., 1204 Fremont; 343 N. 14th.

INA FOOTE COWLES, Associate Professor of Clothing and Textiles (1902, 1918).

B. S., K. S. C., 1901; M. S., University of Wisconsin, 1931.

L 68; 1531 Leavenworth, Apt. No. 3.

RUFUS FRANCIS COX, Associate Professor of Animal Husbandry (1930, 1935).

B. S., Oklahoma A. and M. College, 1923; M. S., Iowa State College, 1925.

E. Ag 6A; 1005 Thurston.

1. In coöperation with the U. S. Department of Agriculture.

3. In coöperation with the Kansas Agricultural Experiment Station.

MADELYN CRAWFORD, (Temporary) Laboratory Assistant in Clothing and Textiles (Feb. 3, 1938).

B. S., University of Kansas, 1929.

L 53; 412 N. 11th.

WILLIAM WESLEY CRAWFORD, Assistant Professor of Civil Engineering (1923, 1934).

A. B., State University of Iowa, 1912; B. S. in C. E., Iowa State College, 1917; M. Di., Iowa State Teachers College, 1908.

E 220; 721 Kearney.

DON BAKER CREAGER, Instructor in Botany (July 16, 1937).

B. S., Miami University, 1927; M. S., State University of Iowa, 1929; Ph. D., Harvard University, 1937.

H 54; 1447 Anderson.

CLARENCE EDWARD CREWS, Assistant Professor of Agronomy, South Central Kansas Experiment Fields (1928, 1932); resigned Dec. 15, 1937.

B. S., K. S. C., 1928; M. S., *ibid.*, 1930.

Goddard, Kan.

LEONARD ROSCOE CREWS, Maj., C. A. C., U. S. A.; Assistant Professor of Military Science and Tactics (1934).

Graduate, Battery Officers' Course, Coast Artillery School, 1929.

N 26; 1421 Humboldt.

CORNELIA WILLIAMS CRITTENDEN, Associate Professor of Modern Languages (1926, 1929).

A. B., University of Nebraska, 1918; A. M., *ibid.*, 1926.

A 71; 825 Bluemont.

MARTHA REBECCA CULLIPHER, Assistant Loan Librarian (1928).

A. B., Indiana University, 1926; B. S. in L. S., University of Illinois, 1928.

Li 51; 1730 Humboldt.

RUTH J. DALES, Instructor in Child Welfare and Euthenics (Sept. 1, 1937).

B. S., Elmira College, 1933; Merrill Palmer School, 1934.

L 32B; 1601 Fairchild.

ROSE MARIE DARST, Instructor in Art (1933, 1935).

B. S., Ohio University, 1926; A. M., Columbia University, 1927.

A 68B; 1429 Laramie.

ROBERT DODDS DAUGHERTY, Assistant Professor of Mathematics (1930, 1932).

Ph. B., Iowa Wesleyan College, 1910; M. S., State University of Iowa, 1930.

S 52; 615 Humboldt.

ALLAN PARK DAVIDSON, Professor of Vocational Education (1919, 1930).

B. S., K. S. C., 1914; M. S., *ibid.*, 1925.

G 28; 1600 Humboldt.

FLOYD EWING DAVIDSON, Assistant in Agronomy, Southeastern Kansas Experiment Fields (1934).

B. S., K. S. C., 1933.

R. F. D. 3, Parsons, Kan.

CHARLES DEFOREST DAVIS, Assistant Professor of Farm Crops (1921).

B. S., K. S. C., 1921; M. S., *ibid.*, 1926.

E. Ag 305A; 1013 Laramie.

ELIZABETH HAMILTON DAVIS, Reference Librarian (1920).

A. B., MacMurray College for Women, 1909; B. L. S., University of Illinois, 1914.

Li 51; 1126 Bertrand.

HALLAM WALKER DAVIS, Professor of English (1913, 1918); Head of Department of English (1913, 1921).

A. B., Indiana University, 1909; A. M., Columbia University, 1913.

K 54; 1727 Fairview.

WILMER ESLA DAVIS, Professor of Plant Physiology (1909, 1927).

Graduate, Ohio Normal University, 1894; A. B., University of Illinois, 1903.

H 32; 1123 Thurston.

EARLE REED DAWLEY, Professor of Engineering Materials (1920, 1933); Assistant Engineer of Tests (1920).

B. S., University of Illinois, 1919; M. S., K. S. C., 1927.

E 135; 1200 Kearney.

- GEORGE ADAM DEAN, Professor and Head of Department of Entomology (1902, 1913); Entomologist, Agricultural Experiment Station (1902, 1913).
B. S., K. S. C., 1895; M. S., *ibid.*, 1905. F 51; 1725 Poyntz.
- SAMUEL WESLEY DECKER, Associate Professor of Horticulture (Sept. 1, 1937).
B. S., K. S. C., 1924; M. S., University of Illinois, 1927. H 34; 216 S. 17th.
- MAUDE ELIZABETH DEELY, Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1923; July 1, 1937).
B. S., K. S. C., 1923; A. M., Columbia University, 1932. EA 306B; 1649 Fairchild.
- HERMANN CHARLES DEMPEWOLF, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1935).
Graduate, Infantry School, 1925; Graduate, Chemical Warfare School, 1930.
N 26; 1314 Fremont.
- GRACE EMILY DERBY, Associate Librarian (1911, 1918).
A. B., Western College for Women, 1905. Li 55; 1825 Leavenworth.
- ARTHUR DEVOR, Graduate Assistant in Chemistry (1936).
B. S., McPherson College, 1935. W 29A; 1408 Laramie.
- GEORGE FRANKLIN DILLON, Graduate Assistant in Entomology (Sept. 1, 1937).
A. B., Friends University, 1936. F 51; 1127 Vattier.
- FREDERIC TYSON DINES,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1936).
B. S., Colorado State College, 1936. E. Ag 304A; 1012 Kearney.
- MERLE ALFRED DODGE, Graduate Assistant in Chemistry (1936); resigned Aug. 14, 1937.
B. S., K. S. C., 1935. W 29A; Rockhill.
- RAYMOND JOSEPH DOLL, Instructor in Agricultural Economics (1935, 1936).
B. S., K. S. C., 1935. W. Ag 328; 1116 Bluemont.
- CHARLES EDWARD DOMINY, Assistant Professor of Agricultural Economics, Division of College Extension (1936).
B. S., K. S. C., 1926; Graduate Institute of Meat Packing, 1927.
W. Ag 327; 513 N. 16th.
- CARL ALFRED DORF, Instructor in Chemistry (1931, 1935).
A. B., Bethany College, 1920; M. S., K. S. C., 1932. W 26; 1622 Humboldt.
- LYLE WAYNE DOWNEY, Associate Professor of Music and Director of the College Band and the College Orchestra (1928, 1935).
A. B., James Millikin University, 1923; B. Mus., American Conservatory, 1928; M. S., K. S. C., 1932. M 30; 1840 Anderson.
- LESTER HENRY DRAYER, Chief Engineer, Heat and Power Department (1916, 1927).
E 3; 531 Moro.
- HUGH DURHAM, Associate Professor of Agricultural Education (1927); Assistant in the Division of Agriculture and in the Agricultural Experiment Station (1915; July 1, 1937).
Graduate, Kansas State Teachers College, Emporia, 1901; A. B., University of Kansas, 1909; A. M., *ibid.*, 1915. E. Ag 105; 730 Osage.
- MERRILL AUGUSTUS DURLAND, Professor of Machine Design (1919, 1928); Assistant Dean of Division of Engineering (1926).
B. S., K. S. C., 1918; M. E. *ibid.*, 1922; M. S., *ibid.*, 1923. E 116; 1300 Fremont.
- RALPH R. DYKSTRA, Dean of Division of Veterinary Medicine (1919); Professor of Surgery (1911, 1913).
D. V. M., Iowa State College, 1905. V 30; 607 Houston.

1. In coöperation with the U. S. Department of Agriculture.

- CHARLES DEXTER EBERTZ, Instructor in Surgery and Medicine (1936).
D. V. M., Cornell University, 1935. VH; 613 N. 9th.
- SAMUEL ALLEN EDGAR, Graduate Assistant in Zoölogy (Sept. 1, 1937).
A. B., Sterling College, 1937. F 29; 1127 Vattier.
- HAL F. EIER, Instructor in Rural Engineering, Division of College Extension (1934, 1935).
B. S., K. S. C., 1936. E 131; 1738 Fairchild.
- HELEN ELIZABETH ELCOCK, Associate Professor of English (1920, 1926).
A. B., College of Emporia, 1907; A. M., University of Chicago, 1921. A 52; 1429 Laramie.
- CARL G. ELLING, Associate Professor of Animal Husbandry, Division of College Extension (1918, 1921).
B. S., K. S. C., 1904. A 3; R. F. D. 1.
- OTTO HERMAN ELMER, Associate Professor of Botany and Plant Pathology (1927; July 1, 1937).
B. S., Oregon Agricultural College, 1911; M. S., *ibid.*, 1916; Ph. D., Iowa State College, 1924. H 56; 354 N. 15th.
- WALTER TITUS EMERY,³ Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Staple Crop Insects (1934).
A. B., University of Kansas, 1911; A. M., *ibid.*, 1913. U. S. Lab., 1204 Fremont; 1226 Vattier.
- ANDREW BRIAN ERHART, Assistant in Agronomy in charge of the Southwest Kansas Experiment Fields (1934, 1936).
B. S., K. S. C., 1933. Meade, Kan.
- FRED P. ESHBAUGH, Forest Nurseryman, Fort Hays Branch Agricultural Experiment Station (1934).
B. S., K. S. C., 1926; M. S., Purdue University, 1928. Hays, Kan.
- LOUISE HELEN EVERHARDY, Associate Professor of Art (1919, 1920); on sabbatic leave 1937-1938.
Graduate, New York School of Fine and Applied Art, 1916; B. S., Columbia University, 1925; A. M., *ibid.*, 1926. A 55A; 1104 Vattier.
- WILLIAM LAWRENCE FAITH, Professor of Chemical Engineering (1933, 1936).
B. S., University of Maryland, 1928; M. S., University of Illinois, 1929; Ph. D., *ibid.*, 1932. D 29; 1447 Anderson Ave.
- HERMAN FARLEY, Assistant Professor of Pathology (1929).
D. V. M., K. S. C., 1926; M. S., *ibid.*, 1934. V 61 and VRL; 1006 Bertrand.
- FRANCIS DAVID FARRELL, President of the College (1918, 1925).
B. S., Utah Agricultural College, 1907; Agr. D., University of Nebraska, 1925. A 30; President's House, College Campus.
- JACOB OLIN FAULKNER, Professor of English (1922, 1927).
A. B., Washington and Lee University, 1907; A. M., Pennsylvania State College, 1920. K 62; 1720 Fairview.
- HURLEY FELLOWS,¹ Associate Pathologist, U. S. D. A.; Cereal Investigations, Agricultural Experiment Station (1925).
B. S., Oregon State College, 1920; M. S., University of Wisconsin, 1921; Ph. D., *ibid.*, 1923. H 2; 1625 Humboldt.
- FREDERICK CHARLES FENTON, Professor and Head of Department of Agricultural Engineering (1928).
B. S., Iowa State College, 1914; M. S., *ibid.*, 1930. E 214; 322 N. 17th.

1. In coöperation with the U. S. Department of Agriculture.

3. In coöperation with the Kansas Agricultural Experiment Station.

JOHN M. FERGUSON, Instructor in Farm Machinery, Division of College Extension (Oct. 18, 1937).

B. S., K. S. C., 1934.

E 131; 1311 Laramie.

CHRIS HENRY FICKE,¹ Junior Pathologist, U. S. D. A.; Cereal Investigations, Agricultural Experiment Station (1930).

B. S., Iowa State College, 1925; M. S., K. S. C., 1927.

H 2; 1401 N. 10th.

GEORGE ALBERT FILINGER, Associate Professor of Pomology (1931; July 1, 1937); Assistant Pomologist, Agricultural Experiment Station (1931).

B. S., K. S. C., 1924; M. S., *ibid.*, 1925; Ph. D., Ohio State University, 1931.

H 35; 209 N. Delaware.

JACK FINERTY, Graduate Research Assistant in Zoölogy (Sept. 1, 1937).

A. B., Kalamazoo College, 1937.

F 5; 1127 Vattier.

EMORY D. FISHER, Instructor in Chemistry (1935).

B. S., Dakota Wesleyan University, 1931; Ph. D., University of Wisconsin, 1935.

A 74; 814 Leavenworth.

HELEN BERNICE FISHER, Assistant Professor of Child Welfare and Euthenics (1932; Sept. 1, 1937).

A. B., DePauw University, 1932; M. S., K. S. C., 1933.

L 32B; College Heights, R. F. D. 1.

BEATTY HOPE FLEENOR, Professor of Education, Department of Home Study, Division of College Extension (1923, 1927).

B. S., K. S. C., 1919; M. S., *ibid.*, 1923; Ph. D., University of Missouri, 1931.

A 5; 309 N. 16th.

HAZEL MARIE FLETCHER, Assistant Professor of Clothing and Textiles (Aug. 1, 1937).

A. B., Indiana University, 1922. A. M., *ibid.*, 1927; Ph. D., *ibid.*, 1929.

L 53; 1601 Fairchild.

MARY G. FLETCHER, Instructor in Foods and Nutrition, Division of College Extension (1936; Sept. 18, 1937).

B. S., K. S. C., 1928; M. S., *ibid.*, 1934.

EA 304.

ARTHUR ORAN FLINNER, Assistant Professor of Mechanical Engineering (1929, 1934).

B. S. in M. E., K. S. C., 1929; M. S., *ibid.*, 1933; S. M., Massachusetts Institute of Technology, 1937.

E 109; 530 Bertrand.

EUSTACE VIVIAN FLOYD, Professor of Physics (1911, 1921).

B. S., Earlham College, 1903.

W. Ag 228; 1417 Laramie.

VERNON DANIEL FOLTZ, Assistant Professor of Bacteriology (1927, 1932); Food Bacteriologist, Agricultural Experiment Station (1937).

B. S., K. S. C., 1927; M. S., *ibid.*, 1929.

V 52; 1218 Bertrand.

HELEN WHEELER FORD, Professor and Head of Department of Child Welfare and Euthenics (1926, 1928); on sabbatic leave Feb. 1 to May 31, 1938.

B. S., Rhode Island State College, 1914; Ph. D., Yale University, 1925.

L 62; 1115 Bertrand.

KENNEY LEE FORD, Alumni Secretary (1928).

B. S., K. S. C., 1924; M. S., *ibid.*, 1932.

A 38A; 1516 Leavenworth.

HELEN GERTRUDE FORNEY, Instructor in Food Economics and Nutrition (Sept. 1, 1937).

A. B., Manchester College, 1927; A. M., Columbia University, 1936.

L 64; 1801 Poyntz.

SINA FAYE FOWLER, Instructor in Institutional Management (1935).

B. S., Northeast Missouri State Teachers College, 1927; M. S., K. S. C., 1933.

T 28; 426 N. 17th.

1. In coöperation with the U. S. Department of Agriculture.

- GLENN SYLVESTER FOX, Instructor in Agricultural Economics (1933, 1936).
B. S., K. S. C., 1933. W. Ag 330B; 915 N. Juliette.
- EDWARD RAYMOND FRANK, Professor of Surgery (1926, 1935).
B. S., K. S. C., 1918; D. V. M., *ibid.*, 1924; M. S., *ibid.*, 1929.
VH 53; 1837 Anderson.
- KARL C. FRANK, Capt., C. A. C., U. S. A.; Assistant Professor of Military Science and Tactics (1935).
Graduate, Battery Officers Course, Coast Artillery School, 1930.
N 26; 1416 Humboldt.
- THOMAS HENRY FRASER, JR., Graduate Assistant in Agronomy (Sept. 1, 1937).
B. S., Oregon State Agricultural College, 1937. E. Ag 303; 421 N. 16th.
- FORREST FAYE FRAZIER, Professor of Civil Engineering (1911, 1922).
C. E., Ohio State University, 1910. E 123; 1815 Leavenworth.
- JOHN CARROLL FRAZIER, Instructor in Plant Physiology (1936; July 1, 1937).
A. B., DePauw University, 1925; A. M., University of Nebraska, 1926.
H 28; 804 Moro.
- HARRY FREDERICK FREEMAN, Graduate Assistant in Chemistry (1936); resigned Aug. 31, 1937.
B. S., K. S. C., 1936. W 29A; 1127 Vattier.
- EDWIN JACOB FRICK, Professor of Medicine (1919, 1926); Head of Department of Surgery and Medicine (1935).
D. V. M., Cornell University, 1918. VH 54; 319 N. 16th.
- WESLEY LEONARD FRY, Professor of Physical Education (1934, 1935).
LL. B., State University of Iowa, 1926. N 35; 1635 Osage.
- MANFORD W. FURR, Professor of Civil Engineering (1917, 1927).
B. S., Purdue University, 1913; C. E., *ibid.*, 1925; M. S., K. S. C., 1926.
E 122; 1426 Humboldt.
- PERCEY LEIGH GAINNEY, Professor of Bacteriology (1914, 1922); Soil Bacteriologist, Agricultural Experiment Station (1914).
B. Agr., North Carolina A. and M. College, 1908; M. S., *ibid.*, 1910; A. M., Washington University, 1911; Ph. D., *ibid.*, 1927. V 26; 1123 Houston.
- ANNABEL ALEXANDER GARVEY, Assistant Professor of English (1920, 1927).
A. B. Wellesley College, 1912; A. M., University of Kansas, 1914.
A 51A; 1425 Laramie.
- FRANK CALEB GATES, Professor of Plant Taxonomy and Ecology (1919, 1928).
A. B., University of Illinois, 1910; Ph. D., University of Michigan, 1912.
H 76A; 1515 Humboldt.
- STEPHEN ARNOLD GEAUQUE, Assistant Custodian (1918; July 1, 1937).
PP 35; 1014 Laramie.
- GEORGE ALBERT GEMMELL, Professor of Education, in charge of Department of Home Study, Division of College Extension (1918, 1922).
B. S., Kansas State Teachers College, Pittsburg, 1917; B. S., K. S. C., 1920; M. S., *ibid.*, 1922; Ph. D., University of Missouri, 1930. A 5; 411 N. 16th.
- KATHERINE GEYER, Assistant Professor of Physical Education for Women (1927, 1935).
Diploma, Sargent School of Boston University, 1925; B. S., Ohio State University, 1927; A. M., Columbia University, 1934. N 3; 1531 Leavenworth.
- WILLIAM EVERETT GIBSON,² Engineer of Tests, Kansas State Highway Commission; Road Materials, Engineering Experiment Station (1930).
B. S., K. S. C., 1927; M. S., *ibid.*, 1933; C. E., *ibid.*, 1933. E 17; 219 N. 6th.

2. In coöperation with the Kansas State Highway Department.

- HENRY WILBUR GILBERT, Instructor in Landscape Gardening, Division of College Extension (1935).
B. S., K. S. C., 1931. A 3; 822 Houston.
- RANDOLPH FORNEY GINGRICH, Associate Professor of Engineering Drawing and Descriptive Geometry (1923, 1931); Assistant Superintendent of Maintenance (1933).
B. S. in C. E., University of Nebraska, 1923; M. S., K. S. C., 1929. S 51; 1731 Humboldt.
- CLARENCE LEE GISH, Superintendent of Poultry Farm (1934).
B. S., K. S. C., 1934. Poultry Farm; R. F. D. 1.
- KINGSLEY WALTON GIVEN, Associate Professor of Public Speaking (1930).
A. B., Park College, 1926; A. M., State University of Iowa, 1928. G 55; 913 Laramie.
- OTIS BENTON GLOVER, Assistant Professor of Agricultural Extension, District Supervisor, Division of College Extension (1929, 1934).
B. S., K. S. C., 1915. A 62; 1014 Houston.
- NEWELL E. GOOD,³ Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Stored Grain and Flour-mill Insects (1934).
A. B., Heidelberg College, 1927; M. S., George Washington University, 1929; Ph. D., U. S. Lab., 1204 Fremont; 1409 Humboldt. ibid., 1935.
- ARTHUR LEONARD GOODRICH, JR., Instructor in Zoölogy (1929); on sabbatic leave 1937-1938.
B. S., College of Idaho, 1928; M. S., University of Idaho, 1929. F 78; 1642 Laramie.
- MARGARET ROSE GOODYEAR, (Temporary) Instructor in Household Economics (Sept. 11, 1937).
B. S., K. S. C., 1931. T 53; 1601 Fairchild.
- STANLEY DOUGLAS GRALAK, JR., Instructor in Machine Design (Sept. 1, 1937).
B. S., University of Illinois, 1936; M. S., ibid., 1937. S 51; 820 Colorado.
- CLARENCE OWEN GRANDFIELD,¹ Assistant Agronomist, U. S. D. A.; Forage Crops, Agricultural Experiment Station (1927, 1929).
B. S., K. S. C., 1917; M. S., ibid., 1929. E. Ag 206A; 1806 Laramie.
- EDWARD GRANT, Instructor in Foundry (1913); Foreman of Foundry (1913).
S 45; 1802 Anderson.
- JOHN WILLARD GREENE, Assistant Professor of Chemical Engineering (July 1, 1937).
B. S., University of Washington, 1926; M. S., Carnegie Institute of Technology, 1927; Ph. D., University of Pittsburgh, 1930. D 28; 208 S. 17th.
- EDISON GREER, Instructor in Mathematics (1936).
B. S. in Ed., Kansas State Teachers College, Emporia, 1936. E 105; 501 N. Sunset.
- WALDO ERNEST GRIMES, Professor and Head of Department of Economics and Sociology (1913, 1936).
B. S., K. S. C., 1913; Ph. D., University of Wisconsin, 1923. W. Ag 330A; 203 N. Delaware.
- THOMAS CONRAD GROODY, (Temporary) Instructor in Zoölogy (Sept. 1, 1937).
B. S., K. S. C., 1936; M. S., ibid., 1937. F 78; 514 N. Juliette.
- HILDA ROSE GROSSMANN, Assistant Professor of Voice (1927, 1932).
B. Mus., Chicago Musical College, 1925; B. S. in Music Ed., K. S. C., 1932. N 76B; 1425 Laramie.

1. In coöperation with the U. S. Department of Agriculture.

3. In coöperation with the Kansas Agricultural Experiment Station.

- LAMOTTE GROVER, Instructor in Applied Mechanics (Jan. 1, 1938).
B. S., in C. E., K. S. C., 1924. E 135; 731 Laramie.
- LOREN DWIGHT GRUBB, Graduate Assistant in Chemistry (Sept. 1, 1937).
B. S. in Ch. E., K. S. C., 1937. W 29A; 1124 Laramie.
- JESSIE GULICK, Acting Cataloguer in Library (1907, 1923).
Li 52; 1514 Humboldt.
- MYRTLE ANNICE GUNSELMAN, Associate Professor of Household Economics (1926; July 1, 1937).
B. S., K. S. C., 1919; A. M., University of Chicago, 1926. T 54; 1111 Bertrand.
- GRACE MARY GUSTAFSON, (Temporary) Assistant in Art (Sept. 1, 1937).
B. S., K. S. C., 1938. A 69; 1800 Laramie.
- RUTH HAINES, Secretary of the Young Women's Christian Association (1934).
A. B., University of Denver, 1931; A. M., *ibid.*, 1933. A 36; 514 N. 17th.
- EVERETT RAYMOND HALBROOK, Assistant Professor of Poultry Husbandry, Division of College Extension (1934).
B. S. in Agr., University of Missouri, 1930; M. S., University of California, 1936.
W. Ag 230; 930 Ratone.
- JOSEPH LOWE HALL, Assistant Professor of Chemistry (1922, 1923); Meat Investigations, Agricultural Experiment Station (1937).
B. S., University of Illinois, 1919; M. S., *ibid.*, 1921; Ph. D., *ibid.*, 1922.
D 27A; 511 N. 14th.
- LAWRENCE FENER HALL,⁴ Assistant Professor of Vocational Education (1929, 1931).
B. S., K. S. C., 1923; M. S., *ibid.*, 1927. G 28; 116 N. Delaware.
- THOMAS ELLIOT HALL, (Temporary) Assistant in Agricultural Economics, Division of College Extension (1934; Aug. 1, 1936); resigned Aug. 31, 1937.
B. S., K. S. C., 1932; M. S., *ibid.*, 1937. W. Ag 329; 1723 Leavenworth.
- ALANSON LOLA HALLSTED,¹ Associate Agronomist, Division of Dry-land Agriculture, U. S. D. A., in charge of Dry-land Agriculture Investigations, Fort Hays Branch Agricultural Experiment Station (1909).
B. S., K. S. C., 1903. Hays, Kan.
- JEANNETTE ESTELLE HALSTEAD, (Temporary) Assistant in Clothing and Textiles (Sept. 15, 1937).
B. S., K. S. C., 1937. L 51A; 914 Moro.
- JOHN ORR HAMILTON, Professor of Physics (1901, 1908); Physicist, Engineering Experiment Station (1913); Head of Department of Physics, 1908-1937.
B. S. University of Chicago, 1900. W. Ag 225; 331 N. 14th.
- FLOYD JOSEPH HANNA, College Photographer (1922, 1930).
I; 1612 Leavenworth.
- EARL D. HANSING, Graduate Assistant in Botany (1935); resigned Aug. 5, 1937.
B. S., University of Minnesota, 1933. H 56; 1213 Bluemont.
- MURVILLE JENNINGS HARBAUGH, Assistant Professor of Zoölogy (1929, 1930).
A. B., University of Montana, 1926; A. M., *ibid.*, 1930. F 37; 1123 Vattier.
- VIRGINIA HARGER, Graduate Assistant in Institutional Management (Sept. 1, 1937).
B. S., Washington State College, 1934. VZ; Van Zile Hall.

1. In coöperation with the U. S. Department of Agriculture.

4. In coöperation with the State Board for Vocational Education.

ELISABETH PERRY HARLING, Seed Analyst, Department of Agronomy (1912, 1917).

A 77; 628 Fremont.

MARY THERESA HARMAN, Professor of Zoölogy (1912, 1921).

A. B., Indiana University, 1907; A. M., *ibid.*, 1909; Ph. D., *ibid.*, 1912.
F 39; 1821 Poyntz.

VIDA AGNES HARRIS, Assistant Professor of Art (1927, 1931).

B. S., K. S. C., 1914; A. M., University of Chicago, 1927. A 55A; 917 Osage.

STELLA MAUDE HARRISS, Assistant Professor of Chemistry (1917, 1927).

Graduate, (Peru) Nebraska State Normal School, 1908; B. S., K. S. C., 1917; M. S., *ibid.*, 1919. W 26; 311 Denison.

LAWRENCE WILLIAM HARTEL, Assistant Professor of Physics (1920).

A. B., Central Wesleyan College, 1911; B. S., *ibid.*, 1912; B. S. in Ed., University of Missouri, 1915; M. S., K. S. C., 1924. W. Ag 130; 350 N. 16th.

RUTH HARTMAN, Assistant Professor of Music (1924); on leave first semester, 1937-1938.

Graduate in Public School Music, Iowa State Teachers College, 1912; Two-year Certificate, Northwestern University, 1923. M 56; 1508 Humboldt.

EFFIE LoVISA HASTINGS, Second Assistant to the Registrar (1927, 1928).

A 29; 122 S. Manhattan.

WARD HILLMAN HAYLETT, Assistant Professor of Physical Education for Men (1928; Sept. 1, 1937).

A. B., Doane College, 1926. N 33; 1414 Humboldt.

HERBERT HENLEY HAYMAKER, Professor of Plant Pathology (1917, 1927).

B. S., K. S. C., 1915; M. S., University of Wisconsin, 1916; Ph. D., *ibid.*, 1927.
H 54; 315 N. 16th.

HENRY MILES HEBERER, Associate Professor of Public Speaking (1925, 1930); on sabbatic leave 1937-1938.

A. B., University of Illinois, 1922. G 55; 321 N. 17th.

J. ELDRED HEDRICK, Instructor in Chemical Engineering (1936).

B. A., Illinois College, 1931; M. S., State University of Iowa, 1932; Ph. D., *ibid.*, 1934.
D 29; 1616 Fairview.

LINN HELANDER, Professor and Head of Department of Mechanical Engineering (1935); Mechanical Engineer, Engineering Experiment Station (1935).

B. S. in M. E., University of Illinois, 1915. E 109; 1006 N. Manhattan.

JOHN FREDERICK HELM, JR., Associate Professor of Free-Hand Drawing and Painting (1924, 1931).

B. D., Syracuse University, 1924. E 305; 1508 Humboldt.

HOMER JAY HENNEY, Assistant Professor of Agricultural Economics (1927, 1928).

B. S., K. S. C., 1921; M. S., *ibid.*, 1928. W. Ag 330B; 1723 Leavenworth.

JOHN VERN HEPLER,¹ Assistant Professor of Agricultural Extension, District Agricultural Agent, Division of College Extension (1921, 1930).

B. S., K. S. C., 1915. A 60; 930 Bertrand.

EARL H. HERRICK, Associate Professor of Zoölogy (1935); Mammalogist, Agricultural Experiment Station (1935).

B. S., K. S. C., 1926; M. S., *ibid.*, 1927; Ph. D., Harvard, 1929. F 5; 324 N. Sunset.

KATHERINE JANE HESS, Associate Professor of Clothing and Textiles (1925, 1931).

B. S., K. S. C., 1900; M. S., *ibid.*, 1926. L 53; 319 N. 5th.

1. In coöperation with the U. S. Department of Agriculture.

ELMER G. HEYNE,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1936).

B. S., University of Nebraska, 1935.

E. Ag 301; 1127 Vattier.

JOHN CLIFFORD HIDE, Assistant Professor of Soils (1935; July 1, 1937).

B. Sc., University of Alberta, 1930; M. S., University of Minnesota, 1932; Ph. D., *ibid.*, 1935.

E. Ag 207; 1447 Anderson.

HOWARD TEMPLETON HILL, Professor and Head of Department of Public Speaking (1920, 1922).

B. S., Iowa State College, 1910; J. D., University of Chicago, 1917.

G 55; 403 N. 16th.

RANDALL CONRAD HILL, Professor of Sociology (1929, 1935).

B. S., K. S. C., 1924; M. S., *ibid.*, 1927; Ph. D., University of Missouri, 1929.

W. Ag 325A; 1902 Anderson.

LORA VALENTINE HILYARD, Instructor in Clothing and Textiles, Division of College Extension (1930, 1936).

B. S., K. S. C., 1930.

EA 304; 1649 Fairchild.

JULIAN ADAIR HODGES, Professor of Agricultural Economics (1923, 1936).

B. S. in Agr., University of Kentucky, 1917; M. S., *ibid.*, 1923.

W. Ag 328; 1741 Laramie.

LEONARD CASPER HOEGEMEYER,¹ Research Assistant in Agronomy, Agricultural Experiment Station (July 1, 1937).

B. S., University of Nebraska, 1937.

E. Ag 301; 1127 Vattier.

MARY ELIZABETH HOFF, Head of Documents Department, College Library (1928).

A. B., Friends University, 1925; B. S. in L. S., University of Illinois, 1928.

Li 26; 1224 Bertrand.

HILTON DELOS HOLLEMBEAK, Assistant in Agronomy (1936; Dec. 15, 1937).

B. S., K. S. C., 1937.

E. Ag 201; 1301 Poyntz.

INA EMMA HOLROYD, Assistant Professor of Mathematics (1900, 1929).

B. S., K. S. C., 1915; B. S., Kansas State Teachers College, Emporia, 1916; A. M., Columbia University, 1929.

S 53; 1001 Moro.

EDWIN LEE HOLTON, Professor and Head of Department of Education (1910, 1913); Dean of Summer School (1910, 1918).

A. B., Indiana University, 1904; Ph. D., Columbia University, 1927.

G 27; 217 N. 14th.

ADRIAN AUGUSTUS HOLTZ, Men's Adviser and Secretary of Young Men's Christian Association (1919); Associate Professor of Sociology (1929, 1935).

A. B., Colgate University, 1909; Ph. M., University of Chicago, 1910; B. D., *ibid.*, 1911; Ph. D., *ibid.*, 1914.

A 43; 419 Denison.

LEROY WILLIAM HORNE, Graduate Assistant in Chemistry (1937; Sept. 1, 1937).

B. S., K. S. C., 1937.

W 29A; 1503 Fairchild.

MAURICE WILSON HORRELL, Instructor in Electrical Engineering (1936).

B. S., K. S. C., 1935.

E 22; 902 Pierre.

ABRAM ELDRED HOSTETTER, Instructor in Chemistry (1930, 1934).

B. S., McPherson College, 1925; M. S., K. S. C., 1932.

D 28; 1104 Bluemont.

HELEN PANSY HOSTETTER, Associate Professor of Industrial Journalism and Printing (1932; Sept. 1, 1937).

A. B., University of Nebraska, 1917; M. S., Northwestern University, 1926.

K 28; 514 N. 17th.

1. In coöperation with the U. S. Department of Agriculture.

EUGENE EVERETT HOWE, Graduate Assistant in Chemistry (1936); resigned Aug. 31, 1937.

B. S., K. S. C., 1936.

W 29A; 1104 Moro.

HAROLD HOWE, Professor of Agricultural Economics (1925, 1934).

B. S., K. S. C., 1922; M. S., University of Maryland, 1923; Ph. D., University of Wisconsin, 1937.

W. Ag 325A; 1206 Thurston.

HAZEL DELL HOWE, Instructor in Clothing and Textiles (1936).

B. S., K. S. C., 1921; M. S., *ibid.*, 1935.

L 51; 1627 Anderson.

LEO EVERETT HUDIBURG, Assistant Professor of Physics (1930).

B. S., Kansas State Teachers College, Pittsburg, 1923; M. S., K. S. C., 1930.

W. Ag 130; 1819 Leavenworth.

JOSIAH SIMSON HUGHES, Professor of Biochemistry (1910, 1920); in charge of Animal Nutrition, Agricultural Experiment Station (1937); on sabbatic leave July 1, 1937 to Jan. 31, 1938.

B. S., Ohio Wesleyan University, 1908; M. S., *ibid.*, 1909; A. M., Ohio State University, 1910; Ph. D., *ibid.*, 1917.

D 28; 333 N. 15th.

ROBERT LEO HUMMER, Instructor in Surgery and Medicine (Sept. 10, 1937).

V. M. D., University of Pennsylvania, 1934.

VH 53; 1531 Leavenworth.

ORVILLE DON HUNT, Associate Professor of Electrical Engineering (1923, 1935).

B. S. in E. E., Washington State College, 1923; M. S., K. S. C., 1930.

E 127; 1822 Poyntz.

MYRON WILLIAMS HUSBAND, College Physician and Head of Department of Student Health (1935).

B. A., University of Kansas, 1921; B. S., University of Minnesota, 1925; M. D., *ibid.*, 1928.

A 65; 1733 Laramie.

EMMA HYDE, Associate Professor of Mathematics (1920, 1926).

B. A., University of Kansas, 1912; A. M., University of Chicago, 1916.

S 56; 320 N. 15th.

HEMAN LAURITZ IBSEN, Professor of Genetics (1919, 1924).

B. S., University of Wisconsin, 1912; M. S., *ibid.*, 1913; Ph. D., *ibid.*, 1916.

E. Ag 58; 1811 Laramie.

IVOR VICTOR ILES, Professor of History and Government (1911, 1920).

A. B., University of Kansas, 1905; A. M., *ibid.*, 1905.

F 57; 325 N. 17th.

CLARENCE ROY JACCARD,¹ Assistant Professor of Agricultural Economics, Division of College Extension (1922, 1936).

B. S., K. S. C., 1926.

A 4; 1419 Humboldt.

ELDEN VALORIUS JAMES, Professor of History and Government (1912, 1924).

A. B., Marietta College, 1901; A. B., University of Michigan, 1905; A. M., Marietta College, 1908.

F 64; 1723 Fairview.

FLORENCE ELIZABETH JAMES, Director of the Cafeteria, Instructor in Institutional Economics (1934).

B. S., K. S. C., 1931; M. A., Mills College, 1932.

T 28; 1800 Laramie.

WILLIAM CHARLES JANES, Assistant Professor of Mathematics (1922, 1926).

B. S., Northwestern University, 1919; A. M., University of Nebraska, 1922.

S 52; 1115 Thurston.

ALICE CLAYPOOL JEFFERSON, Assistant Professor of Piano (1925, 1927); on sabbatic leave 1937-1938.

Graduate, American Conservatory of Music, 1921; B. Mus., *ibid.*; 1929.

N 76D; 1649 Fairchild.

RICHARD ROSLYN JESSON, Assistant Professor of Music (1929, 1931).

B. Mus., Oberlin College, 1929.

M 54; 1223 Bluemont.

1. In coöperation with the U. S. Department of Agriculture.

- JOHN HAROLD JOHNSON, Instructor in Junior Extension, Assistant State Club Leader, Division of College Extension (1927, 1935).
B. S., K. S. C., 1927. A 35B; 1727 Humboldt.
- CHARLES OTIS JOHNSTON,¹ Associate Pathologist, U. S. D. A.; Cereal Investigations, Agricultural Experiment Station (1919).
B. S., K. S. C., 1918; M. S., *ibid.*, 1924. H 53; 1323 Laramie.
- EDWARD C. JONES, Assistant Professor of Machine Tool Work (1916, 1920).
B. M. E., Iowa State College, 1905; M. E., *ibid.*, 1922; M. S., K. S. C., 1934.
S 32; R. F. D. 1.
- ELMER THOMAS JONES,³ Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Staple Crop Insects (1934).
B. S., University of Missouri, 1924; A. M., *ibid.*, 1925.
U. S. Lab., 1204 Fremont; 1115 Laramie.
- LOUIS MARK JORGENSEN, Associate Professor of Electrical Engineering (1925, 1935).
B. S., K. S. C., 1907; M. S., *ibid.*, 1930. E 127; 730 Laramie.
- MARGARET M. JUSTIN, Dean of Division of Home Economics (1923).
B. S., K. S. C., 1909; B. S. in Educ., Teachers College, Columbia University, 1915; Ph. D., Yale University, 1923. L 29; 321 N. Delaware.
- VIRGINIA VOIGT KEIM, Graduate Assistant in Child Welfare and Euthenics (Sept. 1, 1937).
B. S., University of Nebraska, 1937. L 33; 354 N. 16th.
- EDGAR TALBERT KEITH, Professor of Industrial Journalism and Printing (1912, 1925).
B. S., K. S. C., 1912. K 26A; 1741 Fairview.
- ERNEST BAKER KEITH, Associate Professor of Chemistry (1918, 1927).
B. S., K. S. C., 1913; Ph. D., University of Chicago, 1924. W 27; 1719 Fairchild.
- LEONE BOWER KELL, Assistant Professor in Child Welfare and Euthenics (1927, 1936); on sabbatic leave 1937-1938.
B. S., K. S. C., 1923; M. S., *ibid.*, 1928. L 33A; 727 Leavenworth.
- ALTHEA LEONORE KELLER, Graduate Research Assistant in Household Economics (Sept. 1, 1937).
B. S., K. S. C., 1935. T 54; 1631 Fairchild.
- EDWARD GUERRANT KELLY, Professor of Entomology, Division of College Extension (1918, 1922).
B. S., University of Kentucky, 1903; M. S., *ibid.*, 1904; Ph. D., Iowa State College, 1927.
F 51; 1621 Humboldt.
- ALVIN LAWRENCE KENWORTHY, Graduate Assistant in Horticulture (Sept. 1, 1937).
B. S., Oklahoma A. and M. College, 1937. H 33; 1127 Vattier.
- RUSSELL MARION KERCHNER, Professor of Electrical Engineering (1922, 1934); on sabbatic leave 1937-1938.
B. S., University of Illinois, 1922; M. S., K. S. C., 1927. E 121; 1730 Poyntz.
- ALICE DAY KIMBALL, Technician in Veterinary Pathology (1935).
B. S., K. S. C., 1935. VH 59; R. F. D. 1.
- MARY KIMBALL, First Assistant to the Registrar (1918).
B. S., K. S. C., 1907. A 29; 1311 Laramie.

3. In coöperation with the Kansas Agricultural Experiment Station.

HERBERT HIRAM KING, Professor and Head of Department of Chemistry (1906, 1918); Chemist, Agricultural Experiment Station (1918); Chemist, Engineering Experiment Station (1909, 1918).

A. B., Ewing College, 1904; A. M., *ibid.*, 1906; M. S., K. S. C., 1915; Ph. D., University of Chicago, 1918. D 29; 1711 Fairchild.

RALPH WILLCOX KINGMAN, Col., Inf., U. S. A.; Professor and Head of Department of Military Science and Tactics (Sept. 1, 1937).

B. S. in C. E., University of Tennessee, 1902. N 26; 727 Humboldt.

EUNICE LEOLA KINGSLEY, Instructor in Botany and Plant Pathology (1929, 1935).

B. S., North Dakota Agricultural College, 1926; M. S., K. S. C., 1931. H 32; Apt. No. 5, 1814 Anderson.

CHARLES HOWARD KITSELMAN, Professor of Pathology (1919, 1933).

V. M. D., University of Pennsylvania, 1918; M. S., K. S. C., 1927. V 61 and VRL; 1810 Laramie.

ALBERT LOUIS KLECKNER, Instructor in Bacteriology (1936); resigned Aug. 31, 1937.

B. S., Franklin and Marshall, 1931; M. S., University of Pennsylvania, 1932; Ph. D., *ibid.*, 1935. V 54; 1218 Bertrand.

ROYCE GERALD KLOEFFLER, Professor and Head of Department of Electrical Engineering (1916, 1927).

B. S. in E. E., University of Michigan, 1913; S. M., Massachusetts Institute of Technology, 1930. E 120; Blue River Lodge.

DAISY KNEDLIK, Nurse, Department of Student Health (Jan. 1, 1938).

R. N., St. Elizabeth Hospital, Lincoln, Neb., 1937. CH; College Hospital.

LOUIS MEYERS KNIGHT, Assistant Professor of Agricultural Extension, District Agricultural Agent, Division of College Extension (1923, 1937).

B. S., K. S. C., 1923. A 60; 215 S. 17th.

KATHLEEN KNITTLE, Assistant to the Dean of Women (1931); on leave Oct. 1, 1937 to May 31, 1938.

B. S., K. S. C., 1923. A 42; 726 Leavenworth.

LESTER HENRY KOENITZER, Assistant Professor of Applied Mechanics (1929, 1934).

B. S., Iowa State College, 1926; M. S., *ibid.*, 1929; C. E., *ibid.*, 1930. E 14; 1610 Humboldt.

MARTHA MORRISON KRAMER, Professor of Food Economics and Nutrition (1922, 1925); on sabbatic leave Sept. 1, 1937 to June 30, 1938.

B. S., University of Chicago, 1916; A. M., Columbia University, 1920; Ph. D., *ibid.*, 1922. L 28; 426 N. 17th.

EVERETTE J. KREIZINGER,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1936).

B. S., University of Nebraska, 1932. E. Ag 205; 1719 Houston.

BERNICE LYDIA KUNERTH, Instructor in Food Economics and Nutrition (1932, 1936).

B. S., Iowa State College, 1932; M. S., K. S. C., 1933. L 7; 1447 Anderson.

JOSEPH BENJAMIN KUSKA,¹ Associate Agronomist, Division of Dry-land Agriculture, U. S. D. A.; in charge of Dry-land Agriculture Investigations, Colby Branch Agricultural Experiment Station (1914).

B. S., University of Nebraska, 1913. Colby Branch Station; Colby, Kan.

1. In coöperation with the U. S. Department of Agriculture.

RUSSELL LAMAN, Instructor in English (1935).

B. S., K. S. C., 1931; M. A., State University of Iowa, 1932. K 56; 826 Osage.

PAUL GRIFFITH LAMERSON, Assistant in Entomology, Agricultural Experiment Station (1932, 1936).

B. S., K. S. C., 1927; M. S., *ibid.*, 1931. Wathena, Kan.

ELIZABETH TYLER LANCASTER, (Temporary) Instructor in Child Welfare and Euthenics (Feb. 1, 1938).

A. B., Florida State College for Women, 1935; M. A., State University of Iowa, 1937. L 62; 1413 Laramie.

ROY CLINTON LANGFORD, Associate Professor of Psychology (1925; Sept. 1, 1937).

B. S., K. S. C., 1925; M. S., *ibid.*, 1926; Ph. D., Leland Stanford, Jr. University, 1934. G 32C; 1640 Osage.

ELMER LARSON, Staff Sergt., D. E. M. L., U. S. A.; Instructor in Military Science and Tactics (1933).

N 27; 1011 Bertrand.

MENDEL ELMER LASH, Assistant Professor of Chemistry (1929).

A. B., Ohio State University, 1920; M. S., *ibid.*, 1922; Ph. D., *ibid.*, 1928. A 74; 819 Kearney.

RALPH RICHARD LASHBROOK, Assistant Professor in Industrial Journalism and Printing (1934, 1936).

B. S., K. S. C., 1929. K 28B; 1436 Laramie.

ALPHA CORINNE LATZKE, Professor and Head of Department of Clothing and Textiles (1929, 1935).

B. S., K. S. C., 1919; M. S., *ibid.*, 1928. L 55; 1527 Humboldt.

HILMER HENRY LAUDE, Professor of Farm Crops (1920, 1931).

B. S., K. S. C., 1911; M. S., Texas A. and M. College, 1918; Ph. D., University of Chicago, 1936. E. Ag 208; 321 Denison.

BARBARA LAUTZ, Assistant to the Dean, Division of Home Economics (1936; Sept. 1, 1937).

B. S., K. S. C., 1934. L 37; 1447 Anderson.

ELDEN EMANUEL LEASURE, Professor of Physiology (1926, 1935).

D. V. M., K. S. C., 1923; M. S., *ibid.*, 1930. V 34; 318 S. 17th.

CAMILLE LEON LEFEBVRE, Assistant Professor of Botany (1932); resigned July 15, 1937.

B. S., University of Minnesota, 1929; A. M., Harvard University, 1931; Ph. D., *ibid.*, 1932. H 54; 501 Houston.

ELLIS PIERSON LEONARD, Instructor in Surgery and Medicine (1935); resigned July 31, 1937.

B. S., Rutgers University, 1929; D. V. M., Cornell University, 1934. VH 53; 1531 Leavenworth.

CLARENCE FLAVIUS LEWIS, Associate Professor of Mathematics (1920, 1926).

A. B., University of Denver, 1913; M. S., K. S. C., 1925. E 105; 1915 Poyntz.

HERBERT FREDERICK LIENHARDT, Professor and Head of Department of Pathology (1917, 1920); deceased Nov. 11, 1937.

V. M. D., University of Pennsylvania, 1916. V 60; 1118 Bertrand.

LOUIS HENRY LIMPER, Professor of Modern Languages (1914, 1926).

A. B., Baldwin Wallace College, 1907; A. M., University of Wisconsin, 1914; Ph. D., State University of Iowa, 1931. A 71; 1324 Laramie.

WILLIAM LINDQUIST, Professor and Head of Department of Music (1925, 1927).

B. Mus., Cosmopolitan School of Music and Dramatic Art, Chicago, 1925. M 33; 202 S. 17th.

ELLEN LINDSTROM, Instructor in Home Management, Division of College Extension (Aug. 1, 1937).

B. S., University of Nebraska, 1928; M. S., K. S. C., 1937.
EA 304; 1425 Laramie, Apt. No. 8.

ROGER P. LINK, Instructor in Veterinary Physiology (1935); on leave July 1 to Aug. 31, 1937.

D. V. M., Iowa State College, 1935. V 34; VH 57.

ALICE LINN, (Temporary) Instructor in Clothing and Textiles, Division of College Extension (1937; Oct. 6, 1937).

B. S., K. S. C., 1931. EA 304; Wareham Hotel, Apt. No. 605.

JAMES WALTON LINN, Associate Professor of Dairy Husbandry, Division of College Extension (1923, 1927).

B. S., K. S. C., 1915. W. Ag 125; 211 N. 15th.

BEATRICE M. LINS, Assistant Physician, Department of Student Health (1936).

B. A., University of Wisconsin, 1924; M. D., *ibid.*, 1927. A 58; 511 N. 14th.

SARAH JOSEPHINE LISTER, Graduate Assistant in Child Welfare and Euthenics (Sept. 1, 1937).

A. B., University of Kansas, 1937. L 32B; 1631 Fairchild.

HENRY LEWIS LOBENSTEIN, Assistant Professor of Horticulture, Division of College Extension (1928, 1929); resigned Aug. 2, 1937.

B. S., K. S. C., 1926. A 3; 1501 Humboldt.

CHARLES HOWARD LOCKHART, Graduate Assistant in Zoölogy (Sept. 9, 1937).

B. S., K. S. C., 1934. F 5; 1429 Laramie.

LISLE LESLIE LONGSDORF, Extension Editor and Radio Program Director, Division of College Extension (1927).

B. S., University of Wisconsin, 1925; M. S., *ibid.*, 1926. A 4; 825 Bertrand.

ALVIN ERNEST LOWE, Assistant in Agronomy, Garden City Agricultural Experiment Station (July 1, 1937).

B. S., K. S. C., 1933; M. S., *ibid.*, 1935. Garden City, Kan.

DAVID TAYLOR LOY, Assistant Physician, Department of Student Health (1936).

B. S., University of Kansas, 1931; M. S., *ibid.*, 1933; M. D., *ibid.*, 1935.
A 59; 1641 Fairview.

JOHN WALLACE LUMB, Professor of Veterinary Medicine, Division of College Extension (1924; July 1, 1937).

D. V. M., K. S. C., 1910; M. S., *ibid.*, 1930. V 32; 1631 Leavenworth.

DANIEL EMMETT LYNCH, Assistant Professor of Forging (1914, 1920); Foreman of Blacksmith Shop (1914).

S 41; 1519 Pierre.

ERIC ROSS LYON, Associate Professor of Physics (1921, 1928).

A. B., Phillips University, 1911; M. S., *ibid.*, 1923. W. Ag 134; 907 Osage.

WALDO HIRAM LYONS, Associate Professor of Mathematics (1924, 1926).

A. B., University of Denver, 1912; A. M., *ibid.*, 1916. S 52; 816 Leavenworth.

JESSIE McDOWELL MACHIR, Registrar (1913).

A 29; 1641 Fairchild.

ALBERT JOHN MACK, Professor of Mechanical Engineering (1917, 1928).

B. S., K. S. C., 1912; M. E., *ibid.*, 1921. E 109; 1619 Osage.

EUGENE JOSEPH MACKEY, Instructor in Architecture (Sept. 1, 1937).

B. Arch., Carnegie Institute of Technology, 1936. E 223; 715 Poyntz.

DAVID LESLIE MACKINTOSH, Associate Professor of Animal Husbandry (1921, 1935).

B. S., University of Minnesota, 1920; M. S., K. S. C., 1926.

E. Ag 1; 1425 Humboldt.

NELLE RUTH MACQUEEN, Graduate Research Assistant in Zoölogy (July 1, 1937).

B. S., K. S. C., 1936.

Insectary; 915 N. 11th.

RACHEL MARKWELL, Instructor and District Home Demonstration Agent Leader (1929; Feb. 15, 1937).

B. S., Oklahoma A. and M. College, 1926.

EA 306B; 1508 Humboldt.

HUBERT WHATLEY MARLOW, Assistant Professor of Chemistry (1925, 1932).

B. S., North Texas Teachers College, 1925; M. S., University of Chicago, 1928; Ph. D., *ibid.*, 1931.

W 27; 917 Fremont.

NELSON MARSHALL, Research Fellow in Animal Husbandry (July 1, 1937); resigned Sept. 30, 1937.

B. S., Rollins College, 1937.

E. Ag 58; ———.

RACHEL MARTENS, (Temporary) Instructor in Home Furnishings, Division of College Extension (1936; Oct. 6, 1937).

B. S., K. S. C., 1936.

EA 304; 821 Vattier.

MAX RULE MARTIN, Assistant Professor of Violin, Viola, and Reed Instruments (1929).

Graduate in Violin, William A. Bunzen; Graduate in Orchestra, Sander Harmati; Graduate in Musical Composition, R. Cuscaden. Violin Study with Michael Press, Summer School, 1936, Bay View, Mich.

N 76A; 1621 Leavenworth.

WILLARD HUNGATE MARTIN, Professor of Dairy Husbandry (1925, 1928).

B. S., Purdue University, 1918; M. S., Pennsylvania State College, 1922.

W. Ag 128C; 1615 Osage.

WILLMIMA PEARL MARTIN, Instructor in Home Health and Sanitation, Division of College Extension (1919); on leave July 14 to Aug. 31, 1937.

R. N., Christ's Hospital, Topeka.

EA 304; 930 Osage.

JAMES WARREN MATHER, Instructor in Agricultural Economics, Division of College Extension (1936).

B. S., K. S. C., 1934; M. S., *ibid.*, 1936.

W. Ag 329; 1116 Bluemont.

CHARLES WALTON MATTHEWS, Professor of English (1920, 1925); on sabbatic leave second semester, 1937-1938.

B. S., Kansas State Teachers College, Pittsburg, 1918; A. M., University of Chicago, 1923.

K 55; 1718 Fairview.

GEORGE WILLARD MAXWELL, Assistant Professor of Physics (1927, 1928).

A. M., University of Michigan, 1920.

W. Ag 134A; 1324 Laramie.

NELLIE MAY, Postmistress (1911).

A 44; R. F. D. 1.

LORRAINE MAYTUM, Instructor in Physical Education for Women (1933).

B. S., University of Wisconsin, 1926.

N 1; 1212 Fremont.

THOMAS MARK MCCALLA, Instructor in Bacteriology (Sept. 1, 1937).

B. S., Mississippi State College, 1934; M. A., University of Missouri, 1935; Ph. D., *ibid.*, 1937.

V 28; 1212 Fremont.

CHARLES WILBUR McCAMPBELL, Professor and Head of Department of Animal Husbandry (1910, 1918); Animal Husbandman, Agricultural Experiment Station (1910, 1918).

B. S., K. S. C., 1906; D. V. M., *ibid.*, 1910; B. S. in Agr., *ibid.*, 1918.

E. Ag 9A; 121 N. Juliette.

EDITH WILSON McCANN, Nurse, Department of Student Health (March 15, 1937); resigned Feb. 1, 1938.

R. N., Park View Hospital, Manhattan, 1933.

CH; College Hospital.

GEORGE REEVES McCALLLEY, Assistant Professor of Structural Design (Sept. 1, 1937).

B. S. in Arch. E., Massachusetts Institute of Technology, 1934; M. S., *ibid.*, 1936.

E 223; 1517 Leavenworth.

STERLING McCOLLUM, Instructor in Shop Practice (1930).

S 34; 1509 Pierre.

CLIFFORD DALE McDONALD, Sergt., D. E. M. L., U. S. A., Instructor in Military Science and Tactics (1933).

N 27; 1105 Kearney.

MAYNARD LEE McDOWELL, Instructor in Chemistry (1926).

A. B., Central College, 1924; A. M., University of Missouri, 1926; Ph. D., State University of Iowa, 1934.

W 29A; 1212 Thurston.

FLORENCE ELIZABETH MCKINNEY, Instructor in Household Economics (Sept. 1, 1937).

B. S., K. S. C., 1934; M. S., Iowa State College, 1937.

T 53; 901 Laramie.

WILLIAM MAX McLEOD, Professor of Anatomy and Physiology (1919, 1933).

D. V. M., Iowa State College, 1917.

V 33; 344 N. 15th.

EVA MYRTLE McMILLAN, Assistant Professor of Food Economics and Nutrition (1930; July 1, 1937); Assistant Dean of Division of Home Economics (July 1, 1937).

Ph. B., University of Chicago, 1918; M. S., *ibid.*, 1929.

L 38; 1407 Laramie.

JAMES HOWARD McMILLEN, Associate Professor of Physics (Sept. 1, 1937).

A. B., Oberlin College, 1926; M. S., Washington University, 1928; Ph. D., *ibid.*, 1930.

W. Ag 237; 1130 Bertrand.

ELLA JANE MEILLER, Instructor in Food Economics and Nutrition (Sept. 1, 1937).

B. S., K. S. C., 1932; M. S., University of Wisconsin, 1937.

L 28; 1649 Fairchild.

RAYMOND LAMAR MEISENHEIMER, Radio Operator, Division of College Extension (June 1, 1937).

EA 104 and N 79; 1428 Laramie.

LEO EDWARD MELCHERS, Professor and Head of Department of Botany and Plant Pathology (1913, 1919); Plant Pathologist, Agricultural Experiment Station (1913).

B. S., Ohio State University, 1912; M. S., *ibid.*, 1913.

H 57; 1931 Leavenworth.

RUSSELL FLOYD MELLIES, Graduate Assistant in Chemistry (1936).

B. S., K. S. C., 1936.

W 29; 1115 Vattier.

ALICE MAUDE MELTON, Assistant to the Dean, Division of General Science (1909, 1919).

B. S., K. S. C., 1898.

A 47; 804 Moro.

JOSEPH FARRINGTON MERRILL, Assistant Chemist, Agricultural Experiment Station (1921).

B. S., University of Maine, 1907.

E. Ag 204A; 318 N. 16th.

WILLIAM HAROLD METZGER, Associate Professor of Soils (1932, 1935).

B. S., Purdue University, 1922; M. S., K. S. C., 1927; Ph. D., Ohio State University, 1931.

E. Ag 207A; 809 N. 11th.

BERNADINE HELEN MEYER, Instructor in Food Economics and Nutrition (1936).

B. S. in Ed., University of Illinois, 1933; M. S., *ibid.*, 1936.

L 64; 1006 N. Manhattan.

- EDWIN CYRUS MILLER, Professor of Plant Physiology (1910, 1919).
A. B., Lebanon College, 1906; A. B., Yale University, 1907; Ph. D., *ibid.*, 1910.
H 27; 211 N. 18th.
- JOHN ORVILLE MILLER, Instructor in Plant Pathology, Division of College Extension (1935, 1936).
B. S., K. S. C., 1934. A 3; 1030 Bertrand.
- KENNETH WILLIAM MILLER,¹ (Temporary) Research Assistant in Agricultural Economics, Agricultural Experiment Station (1936; Aug. 1, 1937).
B. S., K. S. C., 1936.
- LEONARD FRED MILLER, Instructor in Agricultural Economics (1936).
B. S., K. S. C., 1936. W. Ag 328; 1611 Laramie.
- REBA CLARE MILLER, Assistant to the Vice-President (Aug. 1, 1937).
B. S., K. S. C., 1934. A 46; 1010 Thurston.
- CATHERINE BEATRICE MITCHELL, Assistant in Animal Husbandry (1936).
B. S., K. S. C., 1935. E. Ag 8A; 926 Laramie.
- MAURICE CHARLES MOGGIE, Assistant Professor of Education (1933; Sept. 1, 1937).
B. S., K. S. C., 1929; M. S., *ibid.*, 1931. G 27; 915 Kearney.
- CONRAD STEPHEN MOLL, Assistant Professor of Physical Education for Men (1929; Sept. 1, 1937).
Graduate, Concordia College, Fort Wayne, Ind., 1918; B. P. E., George Williams College, 1925; M. S., K. S. C., 1933. N 31A; R. F. D. 1.
- GEORGE MONTGOMERY, Assistant Professor of Agricultural Economics (1925, 1930).
B. S., K. S. C., 1925; M. S., *ibid.*, 1927. W. Ag 330B; 1116 Bluemont.
- DORIS LEOTA MOON, Instructor in Piano (Sept. 1, 1937).
B. Mus., Illinois Wesleyan University, 1937. N 76D; 315 N. 14th.
- FRITZ MOORE, Professor and Head of Department of Modern Languages (1934).
B. A., University of Akron, 1927; M. A., University of Illinois, 1930; Ph. D., *ibid.*, 1932.
A 75A; 501 Sunset.
- LEO ALBERT MOORE, Instructor in Shop Practice (1935; July 1, 1937).
B. S., K. S. C., 1925. S 27; 526 Moro.
- CHARLES CLEON MORRILL, Assistant Professor of Pathology (1935).
D. V. M., Michigan State College, 1933; M. S., *ibid.*, 1935. V 57A; 1022 Kearney.
- MARIA MORRIS, Assistant Professor of Art (1925, 1932).
B. S., K. S. C., 1911; Graduate, New York School of Fine and Applied Art, 1924; M. S., K. S. C., 1927. A 68A; 816 N. Juliette.
- WILLIAM CHARLES MORRO, JR., (Temporary) Instructor in Chemistry (Feb. 1, 1937).
B. S., Texas Christian University, 1935; M. S., State University of Iowa, 1937.
A 74; 1116 Bluemont.
- REED FRANKLIN MORSE, Assistant Professor of Civil Engineering (1929, 1934).
A. B., Cornell College, 1921; B. S., Iowa State College, 1923; M. S., K. S. C., 1933.
E 220; 922 Bertrand.
- THIRZA ADALINE MOSSMAN, Assistant Professor of Mathematics (1922, 1926).
A. B., University of Nebraska, 1916; A. M., University of Chicago, 1922.
S 53; 1601 Fairchild.
- JEPHTHA JERRY MOXLEY, Assistant Professor of Animal Husbandry, Division of College Extension (1925, 1927).
B. S., K. S. C., 1922. A 3; 1030 Thurston.

1. In coöperation with the U. S. Department of Agriculture.

CLYDE WILLIAM MULLEN, Associate Professor of Agronomy; Assistant to the Dean, Division of Agriculture; Assistant to the Director, Agricultural Experiment Station (July 1, 1937).

B. S., Oklahoma A. and M. College, 1915; M. S., K. S. C., 1917.
E. Ag 105; 1413 Laramie.

IVA M. MULLEN, Instructor in Food Economics and Nutrition (1936; Sept. 1, 1937).

B. S., K. S. C., 1925; M. S., Iowa State College, 1928.
L 43; 1425 Laramie, Apt. No. 8.

ANNA NEAL MULLER, Class Reserves Assistant in Library (1929).

B. S., K. S. C., 1921; B. S. in L. S., University of Illinois, 1937. Li 1; 1200 Bertrand.

GEORGE COLIN MUNRO, Assistant Professor of Mathematics (Sept. 1, 1937).

B. S., Acadia University, 1927; Ph. D., University of Michigan, 1930.
E 105; 318 N. 5th.

WILLIAM A. MURPHY, Assistant Professor of Economics (1933, 1934); on leave April 11, 1937 to June 30, 1938.

B. S., University of Kansas, 1928; M. B. A., *ibid.*, 1930. W. Ag 335; 122 S. 17th.

DONALD LEROY MURRAY, Graduate Assistant in Dairy Husbandry (Sept. 1, 1937).

B. S., North Dakota State College, 1934. W. Ag 127; 1425 Laramie.

FRANK LEWIS MYERS, Assistant to the Director of Physical Education (1926).

B. Mus., K. S. C., 1925. N 35; 1715 Poyntz.

HAROLD EDWIN MYERS, Associate Professor of Soils (1929; July 1, 1937).

B. S., K. S. C., 1928; M. S., University of Illinois, 1929; Ph. D., University of Missouri, 1937.
E. Ag 207; 1531 Leavenworth.

ROBERT KIRKLAND NABOURS, Professor and Head of Department of Zoölogy (1910, 1913); Zoölogist, Agricultural Experiment Station (1910, 1913); Curator of Natural History Museum (1910).

Ed. B., University of Chicago, 1905; Ph. D., *ibid.*, 1911. F 29; 401 Denison.

ARTHUR LESLIE NEAL, (Temporary) Instructor in Chemistry (Sept. 1, 1937).

B. S., Monmouth College, 1934; M. S., University of Illinois, 1935.
A 74; 1017 Laramie.

CARL LEROY NELSON, Assistant Professor of Economics (1935).

B. B. A., University of Minnesota, 1931. W. Ag 325B; 1429 Laramie.

ESTHER BRUNER NELSON, Assistant Professor of Clothing and Textiles (1920, 1927); resigned July 31, 1937.

B. S., K. S. C., 1920; M. S., *ibid.*, 1921. L 53; 311 Denison.

FRANK EUGENE NELSON, Assistant Professor of Bacteriology (Sept. 1, 1937).

B. S., University of Minnesota, 1932; M. S., *ibid.*, 1934; Ph. D., Iowa State College, 1936.
V 28; 1116 Bluemont.

MARGARET ALICE NEWCOMB, Assistant Professor of Botany (1925, 1935).

B. S., K. S. C., 1925; M. S., *ibid.*, 1927. H 32; 1510 Leavenworth.

SAMUEL ALBERT NOCK, Vice-President of the College (1936).

B. A., Haverford College, 1921; M. A., Carleton College, 1927; Ph. D., University of Tartu (Estonia), 1929. A 46B; 1724 Fairchild.

ALLEN LESLIE OLSEN, Instructor in Chemistry (1935).

B. A., St. Olaf College, 1929; M. S., University of Nebraska, 1931; Ph. D., *ibid.*, 1934.
D 28; 1116 Bluemont.

CHARLES ERNEST O'NEAL, JR., Graduate Assistant in Applied Mechanics (Sept. 1, 1937).

B. S., Mississippi State College, 1936. E 135; 1214 Vattier.

CHARLES K. OTIS, Instructor in Agricultural Engineering (1936).

B. S. in Agr., University of Wisconsin, 1932; B. S. in M. E., University of Wisconsin, 1933. E 217; 1614 Humboldt.

CLARICE MARIE PAINTER, Assistant Professor of Piano (1924).

Diploma in Piano, Hardin College, 1919; Diploma, New England Conservatory of Music, 1932. M 51; 1649 Fairchild.

REGINALD HENRY PAINTER, Associate Professor of Entomology (1926, 1930).

A. B., University of Texas, 1922; A. M., *ibid.*, 1924; Ph. D., Ohio State University, 1926. F 77; 1021 Kearney.

EUNICE ANDERSON PARDEE, Instructor in Home Management, Division of College Extension (1937).

B. S., Michigan State, 1929; M. S., *ibid.*, 1936. EA 304; 207 N. 14th.

HARRIET SHIPLEY PARKER, Assistant Professor of English (1924, 1927).

A. B., University of Kansas, 1909; A. M., Washington University, 1912. A 52; 1615 Fairchild.

JOHN HUNTINGTON PARKER,¹ Professor of Crop Improvement (1917, 1921); Agronomist, U. S. D. A.; Plant Breeder, Agricultural Experiment Station (1917); on half-time leave July 15 to Oct. 15, 1937.

B. S. in Agr., University of Minnesota, 1913; M. S., Cornell University, 1916; Ph. D., Cambridge University, 1928. E. Ag 304A; 1728 Fairview.

RALPH LANGLEY PARKER, Professor of Apiculture and Entomology (1925, 1930); State Apiarist (1925); Associate Entomologist, Agricultural Experiment Station (1925, 1930).

B. S., Rhode Island State College, 1915; Sc. M., Brown University, 1917; M. S., Iowa State College, 1922; Ph. D., Cornell University, 1925. F 82; 1809 Leavenworth.

FRED LOUIS PARRISH, Professor of History and Government (1927, 1935).

A. B., Northwestern University, 1917; B. D., Garrett Biblical Institute, 1920; A. M., Northwestern University, 1922. F 61; 727 Sunset.

EARL FOSTER PARSONS, Research Fellow in Agricultural Economics (Sept. 1, 1937).

B. S., K. S. C., 1938. W. Ag 329; 1707 Leavenworth.

FRANK GEORGE PARSONS, Assistant in Coöperative Experiments in Department of Agronomy (1935); resigned Nov. 30, 1937.

B. S., K. S. C., 1935. E. Ag 201; 1429 Laramie.

FRANKLIN LEONARD PARSONS, Assistant Professor of Agricultural Economics (1935).

B. S., K. S. C., 1932; M. S., *ibid.*, 1934. W. Ag 330B; 1707 Leavenworth.

BUEL ROREX PATTERSON, Instructor in Physical Education (1933; Sept. 1, 1937).

B. S., Oklahoma A. & M. College, 1934. N 32; 1429 Laramie.

FLOYD PATTISON, Professor of Mechanical Engineering, Department of Home Study, Division of College Extension (1919, 1927).

B. S., K. S. C., 1912; M. S., Massachusetts Institute of Technology, 1929. A 5; 421 N. Juliette.

GEORGE RICHARD PAULING, Superintendent of Maintenance, in Charge of Buildings and Repairs, Custodian, and Heat and Power Departments (1913, 1925).

PP 28; 1217 Kearney.

LOYAL FREDERICK PAYNE, Professor and Head of Department of Poultry Husbandry (1921, 1922); Poultry Husbandman, Agricultural Experiment Station (1921, 1922).

B. S., Oklahoma A. and M. College, 1912; M. S., K. S. C., 1925. W. Ag 227 A; 4 College Heights Road.

1. In coöperation with the U. S. Department of Agriculture.

CLINTON ELLICOTT PEARCE, Professor and Head of Department of Machine Design (1917, 1922).

S. B., Massachusetts Institute of Technology, 1913; M. S., Cornell University, 1937.
E 210; 316 Denison.

RUTH JEANETTE PECK, Instructor in Home Furnishings, Division of College Extension (1928, 1934); on sabbatic leave Oct. 6, 1937 to Aug. 31, 1938.

B. S., K. S. C., 1928. A 62A; 1617 Leavenworth.

FREDERICK ADAMS PEERY, Instructor in English (1935).

B. S., K. S. C., 1933. M. S., *ibid.*, 1936. K 53; 1430 Laramie, Apt. No. 8.

MARION HERFORD PELTON, Assistant Professor of Piano (1928, 1931).

B. Mus., University of Wisconsin, 1927; B. S., K. S. C., 1932; Graduate Study, Brussels Conservatory of Music. N 76E; 1127 Laramie.

ROYCE OWEN PENCE, Assistant Professor of Milling Industry (1927, 1935).

B. S. in F. M. E., K. S. C., 1924; M. S., *ibid.*, 1930; F. M. E., *ibid.*, 1935.
E. Ag 101; 917 Kearney.

ALFRED THOMAS PERKINS, Associate Professor of Chemistry (1925, 1933); Soil Chemist, Agricultural Experiment Station (1937).

B. S., Pennsylvania State College, 1920; M. S., Rutgers College, 1922; Ph. D., *ibid.*, 1923.
E. Ag 204A; 1516 Humboldt.

MILFRED JOHN PETERS, Military Property Custodian, Department of Military Science and Tactics (1935).

B. S., K. S. C., 1934. N 29; 1429 Laramie.

JOHN CHRISTIAN PETERSON, Professor of Psychology (1917, 1926).

A. B., University of Utah, 1913; Ph. D., University of Chicago, 1917.
G 30; 1330 Laramie.

WALTER JOHN PETERSON, Assistant Nutrition Chemist, Agricultural Experiment Station (1935, 1936).

B. S., Michigan State College, 1930; M. S., *ibid.*, 1933; Ph. D., University of Iowa, 1935.
W. Ag 42; 926 Humboldt.

DOROTHY BRADFORD PETTIS, Associate Professor of Modern Languages (1927; Sept. 1, 1937).

A. B., University of Nebraska, 1919; A. M., *ibid.*, 1924. A 70; 426 N. 17th.

HAZEL ELIZABETH TAYLOR PFUETZE, Secretary, Department of Education (1925).

G 27; 1724 Fairchild.

ROBERT EMMETT PHILLIPS, Instructor in Poultry Husbandry (Sept. 1, 1936); resigned July 31, 1937.

B. S., K. S. C., 1935; M. S., *ibid.*, 1936. W. Ag 230.

GERALD PICKETT, Assistant Professor of Applied Mechanics (1929, 1934).

B. S., Oklahoma A. and M. College, 1927; M. S., K. S. C., 1931; Ph. D., University of Michigan, 1938. E 113; 1421 Poyntz.

WILLIAM FRANCIS PICKETT, Professor of Horticulture (1917, 1936).

B. S., K. S. C., 1917; M. S., *ibid.*, 1923; Ph. D., Michigan State College, 1935.
H 33; 1119 Thurston.

WILFRED HAROLD PINE, Instructor in Agricultural Economics (1934, 1935).

B. S., K. S. C., 1934. W. Ag 328; 1116 Bluemont.

CLARENCE ANDREW PIPPIN, Instructor in Mechanical Engineering (Oct. 18, 1937).

B. S., University of Illinois, 1936. E 232; 321 N. 17th.

MARTHA S. PITTMAN, Professor and Head of Department of Food Economics and Nutrition (1919, 1922).

B. S., K. S. C., 1906; B. S., Columbia University, 1916; A. M., *ibid.*, 1918; Ph. D., University of Chicago, 1930. L 39; 1909 Poyntz.

CLARE ROBERT PORTER, Assistant in Agronomy, South Central Kansas Experiment Fields (1937; Jan. 16, 1938).

B. S., K. S. C., 1937.

Goddard, Kan.

CLARENCE OSBORN PRICE, Assistant to the President (1920).

A 30; 501 Bluemont.

IMOGENE PRICE, Assistant in Institutional Management (Sept. 1, 1937).

A. B., Park College, 1932; B. S. in Ed., Warrensburg Missouri Teachers College, 1934.
T 56; 312 N. 15th.

RALPH RAY PRICE, Professor and Head of Department of History and Government (1903).

A. B., Baker University, 1896; A. M., University of Kansas, 1898.

F 56; 615 Humboldt.

LEON REED QUINLAN, Professor of Horticulture, in Charge of Landscape Gardening (1927, 1931).

B. S., Colorado Agricultural College, 1920; M. L. A., Harvard University, 1925.

H 8; 919 Thurston.

GEORGE ELLSWORTH RABURN, Professor of Physics (1910, 1920).

A. B., University of Michigan, 1907; M. S., *ibid.*, 1913. W. Ag 225; College Heights.

GLEN BRADSHAW RAILSBACK, Instructor in Agricultural Economics, Division of College Extension (1933, 1935).

B. S., K. S. C., 1925.

Farm Bureau; Clay Center, Kan.

GEORGE NATHAN REED, Instructor in Chemistry (1929).

B. S., Oklahoma A. and M. College, 1922; M. S., University of Oklahoma, 1924.

D 27A; 1447 Anderson.

LAWRENCE REED, Assistant to the Superintendent, Fort Hays Branch Agricultural Experiment Station (1934).

B. S., K. S. C., 1933.

Hays, Kan.

ROGER ELI REGNIER, Instructor in Junior Extension, Assistant State Club Leader, Division of College Extension (1934, 1937).

B. S., K. S. C., 1924; M. S., *ibid.*, 1932.

A 35A; 1711 Leavenworth.

WILLIAM FRED REHM, Maj., Inf., U. S. A.; Assistant Professor of Military Science and Tactics (1932).

Graduate, Concordia College, Ft. Wayne, Ind., 1915; Graduate, Company Officers Course, Ft. Benning, 1924; Graduate, Advanced Course, Ft. Benning, 1932. N 26; 210 S. 10th.

BENJAMIN LUCE REMICK, Professor of Mathematics (1900); Head of Department of Mathematics, 1900-1937.

Ph. B., Cornell College, 1889; Ph. M., *ibid.*, 1892.

S 54; 613 Houston.

ADA RICE, Professor of English (1899, 1927).

B. S., K. S. C., 1895; M. S., *ibid.*, 1912.

A 51A; 917 Osage.

M. VESTA RICHMOND, Assistant to the Dean, Division of Extension (1936).

A 33; 412 N. 11th.

WILLIAM HUGH RIDDELL, Associate Professor of Dairy Husbandry (1929, 1931).

B. S. A., University of British Columbia, 1922; M. S., University of Minnesota, 1924; Ph. D., *ibid.*, 1932.

W. Ag 125; 326 N. 16th.

JULES HENRY ROBERT, Professor of Applied Mechanics and Hydraulics (1916, 1925).

B. S., University of Illinois, 1914.

E 113; 1729 Fairchild.

JUNE ROBERTS, Instructor in Agricultural Engineering (1934, 1935).

B. S., K. S. C., 1933; M. S., *ibid.*, 1934.

E 216; 1116 Bluemont.

MOTT LUTHER ROBINSON, Assistant Professor of Agricultural Extension, District Supervisor (Wheat), Division of College Extension (1923, 1934).
B. S., K. S. C., 1923; M. S., *ibid.*, 1938. EA 201; 1737 Laramie.

NOBLE WARREN ROCKEY, Professor of English (1921).
A. B., Ohio State University, 1905; A. M., *ibid.*, 1916. K 52; 1605 Leavenworth.

LEE MILES RODERICK, Professor and Head of Department of Pathology (June 1, 1938).
D. V. M., Ohio State University, 1915; M. S., North Dakota State College, 1922; Ph. D., University of Chicago, 1926. V 60; ———.

CHARLES ELKINS ROGERS, Professor and Head of Department of Industrial Journalism and Printing (1919, 1926).
A. B., University of Oklahoma, 1914; M. S., K. S. C., 1926; A. M., Stanford University, 1932. K 28; 1740 Fairview.

FRANK PLETCHER ROOT, Assistant Professor of Physical Education and Athletics (1924).
B. S., K. S. C., 1914; M. S., *ibid.*, 1924. N 34; 1429 Laramie.

VANCE MATHER RUCKER,⁵ Assistant Professor of Agricultural Economics, Division of College Extension (1928, 1930).
B. S., K. S. C., 1928; M. S., *ibid.*, 1937. A 3; 1519 Humboldt.

LUCILE OSBORN RUST, Professor of Home Economics Education (1924, 1929).
B. S., Kansas State Teachers College, Pittsburg, 1921; M. S., K. S. C., 1925. G 28; Tatarax Apts.

OLGA BARBARA SAFFRY, (Temporary) Assistant in Food Economics and Nutrition (Sept. 1, 1937).
B. S., K. S. C., 1928; M. S., *ibid.*, 1937. L 7; 908 Laramie.

HELEN G. SAUM, Professor of Physical Education for Women (1928, 1931).
Diploma, Battle Creek School for Physical Education, 1919; B. S. in Ed., Ohio State University, 1927; M. A., Columbia University, 1935. N 3; 1031 Fremont.

KATHERINE LOUISE SAWYER, Assistant in Education (1937; Sept. 1, 1937).
B. A., Duke University, 1935. A 52; 1601 Fairchild.

EDWIN DONALD SAYRE, Associate Professor of Voice (1925, 1934).
A. B., DePauw University, 1923; B. Mus., School of Music, *ibid.*, 1925; A. M., Columbia University, 1931. N 76C; 1848 Anderson.

JESSE MCKINLEY SCHALL, Associate Professor of English, Department of Home Study, Division of College Extension (1930; July 1, 1937).
A. B., Southeast Missouri State Teachers College, 1927; A. M., University of Missouri, 1930. A 5; 805 Kearney.

JEAN WILLARD SCHEEL, Assistant Extension Editor, Division of College Extension (1934, 1935).
B. S., K. S. C. 1934. A 4; 102 S. Manhattan.

RICHARD L. SCHNEPEL, Graduate Assistant in Poultry Husbandry (Sept. 1, 1937).
B. S., Utah Agricultural College, 1937. W. Ag 230; 1000 N. Manhattan.

CHARLES HENRY SCHOLER, Professor and Head of Department of Applied Mechanics (1920, 1922); Engineer of Tests in the Road Materials Laboratory (1920).
B. S., K. S. C., 1914. E 112; 806 Bluemont.

WILLIAM BENTON SCHRADER, Instructor in Education (1936); resigned July 31, 1937.
B. A., Bucknell University, 1934; M. A., *ibid.*, 1935. G 32B; 1211 Thurston.

5. In coöperation with the University of Nebraska.

OLIVE E. SCHROEDER, Graduate Assistant in Horticulture (Sept. 1, 1937).

B. S., K. S. C., 1937.

H 8; 1014 Bluemont.

LUKE MICHAEL SCHRUBEN, Instructor in Agricultural Economics, Division of College Extension (1933, 1935).

B. S., K. S. C., 1933.

W. Ag 329; 1800 Laramie.

FRED SCHUMANN, Instructor in Electrical Engineering (1933); resigned Oct. 15, 1937.

B. S. E., University of Michigan, 1931; M. S. E., *ibid.*, 1932; Ph. D., *ibid.*, 1937.

E 19; 713 Osage.

E. ROBERT SCHWARTZ, Resident Physician, Department of Student Health (Feb. 1, 1938).

B. S., University of Minnesota, 1936; M. B., *ibid.*, 1936; M. D., *ibid.*, 1937.

A 64; College Hospital.

LOUISE SCHWENSEN, Secretary to the Dean, Division of Engineering (1915, 1918).

E 115; 1800 Leavenworth.

HAROLD MARTIN SCOTT, Associate Professor of Poultry Husbandry (1928, 1931); on leave Sept. 1, 1937, to May 31, 1938.

B. S., Oregon Agricultural College, 1924; M. S., K. S. C., 1927.

W. Ag 230; 830 Bertrand.

MYRA EDNA SCOTT, Assistant Professor of English (1928; Sept. 1, 1937).

B. S., K. S. C., 1921; A. M., Stanford University, 1928.

A 53; 924 Moro.

DWIGHT M. SEATH, Assistant Professor of Dairy Husbandry, Division of College Extension (1930).

B. S., Iowa State College, 1926; M. S., K. S. C., 1930.

W. Ag 125; 1601 Humboldt.

MARTINE A. SEATON, Assistant Professor of Poultry Husbandry, Division of College Extension (1928).

B. S. in Agr., University of Missouri, 1924.

A 3; 808 Leavenworth.

ROY ANDREW SEATON, Dean of Division of Engineering (1904, 1920); Director of the Engineering Experiment Station (1904, 1920).

B. S., K. S. C., 1904; M. S., *ibid.*, 1910; S. B., Massachusetts Institute of Technology, 1911.

E 115; 731 Leavenworth.

GABE ALFRED SELLERS, Professor of Metallurgy and Metallography (1919, 1928).

B. S., K. S. C., 1917; M. S., *ibid.*, 1929.

S 30; 927 Moro.

HARNER SELVIDGE, Assistant Professor of Electrical Engineering (Feb. 1, 1938).

CHRISTIANA MARIE SHIELDS,⁴ Assistant in Education (1931; Sept. 1, 1937);

B. S., Massachusetts Institute of Technology, 1932; M. S., *ibid.*, 1933; M. S., Harvard University, 1934; D. Sc., *ibid.*, 1937.

E 19; 412 N. 11th.

FRED ALBERT SHANNON, Professor of History and Government (1926, 1934).

A. B., Indiana State Teachers College, 1914; A. M., Indiana University, 1918; Ph. D., State University of Iowa, 1924.

F 59; 823 Bluemont.

JOHN HENRY SHENK, Assistant Professor of Chemistry, (1929, 1936).

B. S., K. S. C., 1929; M. S., *ibid.*, 1931; Ph. D., University of Illinois, 1936.

D 28; 916 Osage.

CHRISTIANA MARIE SHIELDS,⁴ Assistant in Education (1931; Sept. 1, 1937). transferred Feb. 1, 1938.

B. S., K. S. C., 1929.

Capitol, Topeka, Kan.

CLARA MAGDALENE SIEM, Financial Secretary, Division of College Extension (1920, 1924).

A 34; 529 Houston.

4. In coöperation with the State Board for Vocational Education.

EARL LEROY SITZ, Assistant Professor of Electrical Engineering (1927, 1935).
B. S. in E. E., Iowa State College, 1927; M. S., K. S. C., 1932. E 24; 812 Moro.

ARTHUR BOURNE SMITH, College Librarian (1911).
Ph. B., Wesleyan University, 1900; B. L. S., University of Illinois, 1902.
Li 31; 1213 Bluemont.

HARRY HERBERT SMITH, Graduate Research Assistant in Animal Husbandry
(Oct. 15, 1937).
B. Sc., University of Nebraska, 1920; M. S., Colorado State Agricultural College, 1926.
E. Ag 58; 901 Thurston.

LLOYD FRANCIS SMITH, Associate Professor of Forestry (1935); State Forester
(1936).
B. A., University of Kansas, 1930; M. F., Yale University, 1932.
H 34; 1517 Leavenworth.

MABEL RACHEL SMITH, Instructor in Junior Extension, Assistant State Club
Leader, Division of College Extension (1929, 1931).
B. S., K. S. C., 1926. A 35A; 1722 Humboldt.

ROGER CLETUS SMITH, Professor of Entomology (1920, 1926); Associate
Entomologist, Agricultural Experiment Station (1926).
A. B., Miami University, 1911; A. M., Ohio State University, 1915; Ph. D., Cornell
University, 1917. F 54; 1801 Poyntz.

RUTH MARIE SMITH (Temporary), Instructor in Art (Sept. 15, 1937).
B. A., Montana State University, 1923; M. A., Columbia University, 1934. A 68B.

BENJAMIN LEVI SMITS, Assistant Professor of Chemistry and Associate Food
Chemist (1926, 1932).
B. S., Michigan State College, 1924; M. S., *ibid.*, 1925; Ph. D., *ibid.*, 1926.
W 29; 1734 Fairchild.

GEORGIANA SMURTHWAITE, Professor and State Home Demonstration Leader,
Division of College Extension (1924, 1937).
B. S., Utah Agricultural College, 1911; M. S., K. S. C., 1931.
EA 306A; 1531 Leavenworth.

FLOYD ALONZO SMUTZ, Professor of Engineering Drawing and Descriptive
Geometry (1918, 1934).
B. S. in Arch., K. S. C., 1914. E 210; 1843 Anderson.

BETTY LEE SPARLING, Assistant in Food Economics and Nutrition (Sept. 8,
1937).
B. S., Iowa State College, 1935; M. S., Washington State College, 1937.
L 64; 312 N. 15th.

ARTHUR BRADLEY SPERRY, Professor of Geology (1921, 1927).
B. S., University of Chicago, 1919. F 3A; 333 N. 18th.

MARY ASHMAN STALDER, Instructor in Art (1936).
A. B., Ohio University, 1929; M. A., *ibid.*, 1931. A 69; 1800 Laramie.

FLORENCE MARGARET STEBBINS, Research Assistant in Genetics, Department of
Zoölogy (1931).
B. S., K. S. C., 1923; M. S., *ibid.*, 1928. Insectary; 1425 Laramie.

ELIZABETH A. STEWART, Assistant in Food Economics and Nutrition (Sept. 8,
1937).
A. B., Southwestern College, 1922; M. A., Columbia University, 1924.
L 51B; 1821 Laramie.

HARRY MARTIN STEWART, Associate Professor of Accounting (1926, 1934).
A. B., University of Kansas, 1920; M. B. A., *ibid.*, 1926. W. Ag 327; 1122 Vattier.

EMMA ALICIA STILWELL, (Temporary) Instructor in Music (Sept. 1, 1937).

B. Sc., University of Nebraska, 1930; M. A., Northwestern University, 1937.
M 56; 315 N. 14th.

THOMAS BRUCE STINSON, Superintendent, Tribune Branch Agricultural Experiment Station (1924).

B. S., K. S. C., 1924. Tribune, Kan.

HAROLD EARL STOVER, Instructor in Rural Engineering, Division of College Extension (1936).

B. S., K. S. C., 1929. E 131; 1523 Poyntz.

CHARLES WILLIAM STRATTON, Assistant Professor of Piano (1927, 1930).

B. Mus., K. S. C., 1926; M. S., *ibid.*, 1933. M 55; 511 N. Sunset.

WILLIAM TIMOTHY STRATTON, Professor and Head of Department of Mathematics (1910; Sept. 1, 1937).

A. B., Indiana University, 1906; A. M., *ibid.*, 1913; Ph. D., University of Washington, 1931. S 54; 511 N. Sunset.

VIVAN LEWIS STRICKLAND, Professor of Education (1917, 1922).

A. B., University of Nebraska, 1906; A. M., *ibid.*, 1915; Ph. D., *ibid.*, 1925.
G 28; 1512 Leavenworth.

ANNA MARIE STURMER, Associate Professor of English (1920, 1926); on leave Sept. 1, 1937 to Jan. 31, 1938.

A. B., University of Nebraska, 1917; A. M., *ibid.*, 1920. A 54; 1821 Laramie.

MILO J. STUTZMAN, Assistant Professor of Metallurgy and Metallography (1934, 1936).

A. B., McPherson College, 1920; M. S., University of Nebraska, 1922; Ph. D., Iowa State College, 1927. S 30; 1029 Bertrand.

DONALD SUGGS, Instructor in Civil Engineering (Sept. 1, 1937).

B. S. in C. E., University of Oklahoma, 1934. E 220; 414 N. Juliette.

FRANCIS JOSEPH SULLIVAN, Instructor in Machine Design (Jan. 18, 1938).

B. S., in M. E., Harvard University, 1936. S 51; 1116 Bluemont.

HARRISON BOYD SUMMERS, Professor of Public Speaking (1923, 1930).

A. B., Fairmount College, Wichita University, 1917; A. M., University of Oklahoma, 1921; Ph. D., University of Missouri, 1931. G 55; 831 Pierre.

ARTHUR FRITHIOF SWANSON,¹ Associate Agronomist, Division of Cereal Crops and Diseases, U. S. D. A., in charge of Cereal Investigations, Fort Hays Branch Agricultural Experiment Station (1919).

B. S., K. S. C., 1919; M. S., University of Minnesota, 1923. Hays, Kan.

CHARLES OSCAR SWANSON, Professor and Head of Department of Milling Industry (1906, 1923).

A. B., Carleton College, 1899; M. Agr., University of Minnesota, 1905; Ph. D., Cornell University, 1922. E. Ag 110; 1640 Fairview.

LILLIAN JULIETTE SWENSON, Assistant Reference Librarian (1927).

A. B., Colorado College, 1924; B. S., Simmons College, 1927. Li 51; 1224 Bertrand.

MARTHA E. SWOYER,⁴ Assistant in Education (1936; Sept. 1, 1937).

A. B., Southwestern College, 1929; M. S., K. S. C., 1937. T 51B; 426 N. 17th.

FRANCES M. TANNAHILL, (Temporary) Assistant to the Dean of Women (Oct. 1, 1937).

B. S., K. S. C., 1937. A 42; 522 N. 14th.

WILLIAM AUGUSTUS TANNER, Graduate Assistant in Bacteriology (1937; Feb. 1, 1938).

B. S., University of Illinois, 1938. V 54; 1127 Vattier.

1. In coöperation with the U. S. Department of Agriculture.

4. In coöperation with the State Board for Vocational Education.

- DELOS CLIFTON TAYLOR, Instructor in Applied Mechanics (1931).
B. S. in C. E., K. S. C., 1925; M. S., *ibid.*, 1937. E 14; 729 Fremont.
- EARL HICKS TEAGARDEN, Assistant Professor of Agricultural Extension, District Agent, Division of College Extension (1929, 1934).
B. S., K. S. C., 1920. A 60; 1600 Pierre.
- CHARLES RAY THOMPSON, Associate Professor of Economics (1929; July 1, 1937).
A. B., University of Kansas, 1927; A. M., *ibid.*, 1928. W. Ag 327; 909 Thurston.
- FRANK JAMES THOMPSON, Instructor in Physical Education (Oct. 14, 1937).
B. Ed., Minnesota State Teachers College, Mankato, 1934; B. S., Springfield College, 1935; M. Ed., *ibid.*, 1936. N 35; 1423 Fairchild.
- WALTER W. THOMPSON, Assistant Professor of Pathology (1936; August 1, 1937).
D. V. M., Michigan State College, 1929. VH 51B; 521 N. 10th.
- WILLIAM T. THOMSON, Instructor in Applied Mechanics (Sept. 1, 1937).
B. S., University of California, 1933; M. S., *ibid.*, 1934. E 135; 818 Bertrand.
- RAY IAMS THROCKMORTON, Professor and Head of Department of Agronomy (1911, 1925); Agronomist, Agricultural Experiment Station (1911, 1925).
B. S. in Agr., Pennsylvania State College, 1911; M. S., K. S. C., 1922. E. Ag 206B; 825 Houston.
- FRANCIS LEONARD TIMMONS, Agent, Bureau of Plant Industry, U. S. D. A.; in charge of Bindweed Control Investigations, Fort Hays Branch Agricultural Experiment Station (1928, 1935).
B. S., K. S. C., 1928; M. S., *ibid.*, 1932. Hays, Kan.
- ARLIE TODD, Graduate Research Assistant in Zoölogy (Sept. 1, 1937).
A. B., Kalamazoo College, 1937. F 36; 1127 Vattier.
- IRENE TOLLIVER, (Temporary) Assistant in Institutional Management (1936; Sept. 1, 1937).
B. S., Iowa State College, 1931; M. S., K. S. C., 1937. VZ; Van Zile Hall.
- SUE TOWNSEND, Instructor in Modern Languages (1934).
B. S., Kansas State Teachers College, Emporia, 1923; M. A., University of Colorado, 1927. A 70; 1429 Laramie.
- DOROTHY TRIPLETT, Associate Professor of Child Welfare and Euthenics (1930, 1931).
B. S., Kansas State Teachers College, Emporia, 1924; A. M., State University of Iowa, 1927; Ph. D., *ibid.*, 1930. L 65; 530 N. 14th.
- WILSON TRIPP, Instructor in Mechanical Engineering (1936).
B. S., University of California, 1930; M. S., *ibid.*, 1933. E 109; 1429 Laramie.
- WILLIAM CHILTON TROUTMAN, Assistant Professor of Public Speaking (Sept. 1, 1937).
A. B., University of Illinois, 1917; M. A., *ibid.*, 1918. G 55; 1116 Bluemont.
- RUTH EMMA TUCKER, Assistant Professor of Food Economics and Nutrition (1925, 1935); resigned July 31, 1937.
A. B., University of Illinois, 1923; M. S., *ibid.*, 1925. L 43; 1503 Leavenworth.
- ALONZO FRANKLIN TURNER,¹ Associate Professor, Field Agent, Division of College Extension (1917, 1920).
B. S., K. S. C., 1905. EA; 810 Moro.
- MARVIN JOHN TWIEHAUS, Instructor in Bacteriology (July 1, 1937).
D. V. M., K. S. C., 1936. V 53; 928 Thurston.
- GRACE ELLEN UMBERGER, Head Nurse, Department of Student Health (1919).
B. S., K. S. C., 1905; R. N., Illinois Training School for Nurses, 1909. A 64; 1720 Poyntz.

1. In coöperation with the U. S. Department of Agriculture.

HARRY JOHN CHARLES UMBERGER, Dean and Director, Division of College Extension (1911, 1919).

B. S., K. S. C., 1905.

A 33; 1412 Leavenworth.

GLADYS ELLEN VAIL, Assistant Professor in Food Economics and Nutrition (1927, 1935); on leave 1937-1938.

A. B., Southwestern College, 1924; M. S., University of Chicago, 1927.

L 43; 511 N. 14th.

WILLIAM ALEXANDER VAN WINKLE, Associate Professor of Chemistry (1922, 1931).

B. S., University of Michigan, 1911; M. S., University of Illinois, 1917; Ph. D., *ibid.*, 1920.

D 28; 1110 Thurston.

MARY PIERCE VAN ZILE, Dean of Women (1908); Professor of Domestic Science, 1908-1918; Dean of the Division of Home Economics, 1912-1918.

Diploma, Iowa State College, 1904; B. S., K. S. C., 1929.

A 42; 800 Houston.

RICHARD GEORGE VOGEL, (Temporary) Instructor in Economics (Sept. 1, 1937).

B. S., K. S. C., 1931.

W. Ag 327; 914 Moro.

ROBERT PHILLIP WAGERS, Instructor in Anatomy and Physiology (Sept. 1, 1937).

D. V. M., Ohio State University, 1936; M. S., *ibid.*, 1937.

V 33; 1111 Bluemont.

FAY ARTHUR WAGNER,¹ Superintendent, Garden City Branch Agricultural Experiment Station (1919); Coöperative Agent, Division of Dry-land Agriculture, U. S. D. A.

B. S. in Agr., New Mexico Agricultural College, 1916.

Garden City, Kan.

• GEORGE B. WAGNER,³ Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Stored Grain and Flour Mill Insects (1934).

B. S., K. S. C., 1928; M. S., *ibid.*, 1929.

U. S. Lab., 1204 Fremont; 400 S. Delaware.

HERBERT HALDEN WALKDEN,³ Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A., Investigator of Staple Crop Insects (1934).

B. S., Massachusetts Agricultural College, 1916.

U. S. Lab., 1204 Fremont; 1706 Laramie.

CHARLES PHILIP WALTERS, Graduate Assistant in Geology (1936).

B. S., K. S. C., 1936.

F 3; R. F. D. 4.

CARROLL KRAMER WARD, Instructor in Economics and Sociology (1935).

B. S., University of Kansas, 1930; M. B. A., *ibid.*, 1937.

W. Ag 327; 1531 Leavenworth.

WALTER GILLING WARD, Professor in Charge of Rural Engineering, Division of College Extension (1920, 1925).

B. S. in Arch., K. S. C., 1912; Architect, *ibid.*, 1922; M. S., Iowa State College, 1931.

E 131; 519 N. Manhattan.

JOSEPH THOMAS WARE, Assistant Professor of Architecture (1929, 1935).

B. S., Georgia School of Technology, 1929

E 223; 1116 Bluemont.

EUGENE D. WARNER, Instructor in Rural Architecture, Division of College Extension (1935; July 1, 1937).

B. S. in Arch., K. S. C., 1934.

E 131; 1601 Poyntz.

DON CAMERON WARREN, Professor of Poultry Husbandry (1923, 1929).

A. B., Indiana University, 1914; A. M., *ibid.*, 1917; Ph. D., Columbia University, 1923.

W. Ag 229; 1616 Osage.

1. In coöperation with the U. S. Department of Agriculture.

3. In Coöperation with the Kansas Agricultural Experiment Station.

ELLEN GRACE WARREN, Assistant Extension Editor, Division of College Extension (1936).

B. S., K. S. C., 1933.

EA 104; 426 N. 17th.

LOUIS PIERCE WASHBURN, Professor of Physical Education for Men (1926, 1931).

B. S., Carleton College, 1907; B. P. E., Springfield Y. M. C. A. College, 1911; M. P. E., *ibid.*, 1926.

N 35; 1809 Poyntz.

ARTHUR D. WEBER, Professor of Animal Husbandry (1931).

B. S., K. S. C., 1922; M. S., *ibid.*, 1926.

E. Ag 13; 359 N. 15th.

NORMAN COATES WEBSTER, Instructor in Public Speaking (Sept. 1, 1937).

B. O., Geneva College, 1927; A. B., *ibid.*, 1928.

G 55; 1116 Bluemont.

PAUL WEIGEL, Professor and Head of Department of Architecture (1921, 1924).

B. Arch., Cornell University, 1912; Architect, University of State of New York, 1920; Graduate, Buffalo Normal School, 1921.

E 305; 1918 Leavenworth.

LEON ELBERT WENGER,¹ Agent, Bureau of Plant Industry, U. S. D. A.; Forage Crops Specialist, Fort Hays Branch Agricultural Experiment Station (1936; March 1, 1937).

B. S., K. S. C., 1936.

Hays, Kan.

BESSIE BROOKS WEST, Professor and Head of Department of Institutional Management (1928); Manager of Cafeteria (1928).

A. B., University of California, 1924; A. M., *ibid.*, 1928.

T 52; 1531 Leavenworth.

MABLE WESTCOT, Graduate Assistant in Institutional Management (Sept. 1, 1937).

B. S., Iowa State College, 1927.

T 53; 321 N. 14th.

ALFRED EVERETT WHITE, Professor of Mathematics (1909, 1918).

B. S., Purdue University, 1904; M. S., *ibid.*, 1909.

A 72; 1743 Fairchild.

EDITH ZERILLA WHITE, Head Hospital Nurse, Department of Student Health (1932).

R. N., Christ Hospital Training School, 1918.

CH; College Hospital.

HATTIE HELEN WHITE, Secretary and Treasurer, Business Office (1912, 1925).

A 27; 717 Laramie.

LEON VINCENT WHITE, Associate Professor of Civil Engineering (1918, 1927).

B. S., K. S. C., 1903; C. E., *ibid.*, 1918; M. S., *ibid.*, 1927.

E 122; 1832 Anderson.

JOHN HENDRICK WHITLOCK, Instructor in Pathology (1934, 1935).

D. V. M., Iowa State College, 1934; M. S., K. S. C., 1935.

V 36; 1429 Laramie.

CARRELL HENRY WHITNAH, Assistant Professor of Chemistry (1929); Dairy Chemist, Agricultural Experiment Station (1929, 1937).

A. B., University of Nebraska, 1913; M. S., University of Chicago, 1917; Ph. D., University of Nebraska, 1925.

W. Ag 42; 1307 Poyntz.

DENNIS EMERSON WIAINT, Graduate Research Assistant in Agricultural Engineering (Sept. 1, 1937).

B. S. in A. E., Iowa State College, 1924.

E 217; 1507 Poyntz.

HENRY EVERT WICHERS, Associate Professor of Rural Architecture (1924, 1934).

B. S. in Arch., K. S. C., 1924; M. S., *ibid.*, 1925; Architect, *ibid.*, 1930.

E 224; R. F. D. 1.

HAROLD WIERENGA, (Temporary) Instructor in Mathematics (Sept. 18, 1937).

B. S., K. S. C., 1935.

S 52; 1331 Poyntz.

1. In coöperation with the U. S. Department of Agriculture.

MARY CHRISTINE WIGGINS, Instructor in Clothing and Textiles, Division of College Extension (1931, 1934); on sabbatic leave Oct. 6, 1937 to July 31, 1938.

B. S., K. S. C., 1929.

A 62A; 1508 Humboldt.

DONALD ALDEN WILBUR, Assistant Professor of Entomology (1928).

B. S., Oregon State College, 1925; A. M., Ohio State University, 1927.

F 83; 1100 Kearney.

ELEANOR M. WILKINSON, Viota Fellow in Food Economics and Nutrition (Sept. 1, 1937).

B. S., K. S. C., 1936.

303 N. 16th.

JULIUS TERRASS WILLARD, College Historian (1883, 1936); Vice-president, 1918-Dec. 31, 1935; Dean, Division of General Science, 1909-1930; Professor of Chemistry, 1901-1918.

B. S., K. S. C., 1883; M. S., *ibid.*, 1886; Sc. D., *ibid.*, 1908.

A 32; 1207 Houston.

CYRUS VANCE WILLIAMS, Professor of Vocational Education (1920).

B. Ed., (Peru) Nebraska State Teachers College, 1909; A. M., University of Nebraska, 1910; B. S. in Agr. *ibid.*, 1919; Ph. D., *ibid.*, 1925.

G 28; 1735 Fairview.

DWIGHT WILLIAMS, Associate Professor of History and Government (1926).

A. B., University of Minnesota, 1916; LL. B., *ibid.*, 1918; A. M., *ibid.*, 1926.

F 60; 930 Bertrand.

HARVEY O. WILLIAMS, Staff Sergt., D. E. M. L., U. S. A., Instructor in Military Science and Tactics (1932).

N 27; 721 Osage.

JENNIE WILLIAMS, Assistant Professor of Child Welfare and Euthenics (1932; Sept. 1, 1937).

B. S., K. S. C., 1910; R. N., University of Michigan Hospital, 1924; M. S., K. S. C., 1933.

L 63; 511 N. 14th.

LOUIS COLEMAN WILLIAMS, Professor of Horticulture (1915, 1926); Assistant Dean and Assistant Director, Division of College Extension (July 1, 1937).

B. S., K. S. C., 1912; B. S., *ibid.*, 1922.

A 4; 1855 Anderson.

STANLEY L. WILLIAMSON, Assistant Professor of Physical Education (1935; Oct. 1, 1937).

B. S. in Ed., University of Southern California, 1932.

N 35; 1617 Leavenworth.

LUTHER EARL WILLOUGHBY,¹ Associate Professor of Farm Crops, Division of College Extension (1917, 1926).

B. S., K. S. C., 1912; B. S., in Agr., *ibid.*, 1916.

E. Ag 250; 918 Thurston.

MANNIE RAY WILSON, Associate Professor of Shop Practice (1936).

B. S. in E. E., K. S. C., 1925.

S 37; 1109 Thurston.

ROY ELMER WILSON, Staff Sergt., D. E. M. L., U. S. A., Instructor in Military Science and Tactics (1921).

N 27; 909 Leavenworth.

EDWARD JOSEPH WIMMER, Associate Professor of Zoölogy (1928; July 1, 1937).

A. B., University of Wisconsin, 1925; A. M., *ibid.*, 1927; Ph. D., *ibid.*, 1928.

F 38; 814 Bluemont.

JOE NATE WOOD, Instructor in Machine Design (1936)

B. S. in E. E., State University of Iowa, 1936.

E 209; 1116 Bluemont.

LEVELLE WOOD, Assistant Professor of Institutional Economics (1928); on sabbatic leave 1937-1938.

B. S., Oregon State College, 1921; M. S., Columbia University, 1928.

VZ; Van Zile Hall.

1. In coöperation with the U. S. Department of Agriculture.

EARL BOOTH WORKING, Associate Professor of Milling Industry (1923).

A. B., University of Denver, 1917; A. M., *ibid.*, 1919; Ph. D., University of Arizona, 1922.
E. Ag 111; 918 N. 10th.

BERNIE WILLIAM WRIGHT, Assistant Professor of Agricultural Economics, Division of College Extension (1929, 1934).

B. S., K. S. C., 1924.

A 3; 1030 Pierre.

GLADYS WYCKOFF,⁴ Instructor in Education (1935).

B. S., Central Missouri State Teachers College, 1920; M. A., University of Missouri, 1928.
Capitol, Topeka, Kan.

EVERETT MARION YON, Maj., Inf., U. S. A.; Associate Professor Military Science and Tactics (1936).

Graduate, Infantry School, Company Officers Course, 1923; Advanced Course, 1930.
N 26; 916 Leavenworth.

FLORENCE E. YOUNG, Instructor in Physical Education for Women (Sept. 1, 1937).

B. S., University of Wisconsin, 1937.

N 4; 1704 Fairview.

HARRY DASHIELL YOUNG,³ Associate Chemist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator in Grain and Flour Fumigation (1934).

B. S., University of Nebraska, 1908.

U. S. Lab., 1204 Fremont; 628 Houston.

JAMES WALTER ZAHNLEY, Associate Professor of Farm Crops (1915, 1921).

B. S., K. S. C., 1909; M. S., *ibid.*, 1926.

E. Ag 308; R. F. D. 1.

MYRTLE EVELYN ZENER, Secretary to the Vice-president (1918).

A 46; 1104 Vattier.

COUNTY AGRICULTURAL AGENTS¹

HENRY JOSEPH ADAMS, Republic County Agricultural Agent, Division of College Extension (1934).

B. S., K. S. C., 1917.

Belleville, Kan.

DALE ALLEN, Assistant County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1922.

Council Grove, Kan.

SAMUEL EDWARD ALSOP, Haskell County Agricultural Agent, Division of College Extension (1937; Feb. 1, 1938).

B. S., K. S. C., 1935.

Sublette, Kan.

GEORGE SMITH ATWOOD, Hodgeman County Agricultural Agent, Division of College Extension (1926); resigned Jan. 31, 1938.

B. S., K. S. C., 1924.

Jetmore, Kan.

MILBURNE CLINTON AXELTON, Jackson County Agricultural Agent, Division of College Extension (1929, 1935).

B. S., K. S. C., 1928.

Holton, Kan.

WALTER W. BABBIT, Assistant County Agricultural Agent, Division of College Extension (1935); resigned Sept. 30, 1937.

Salina, Kan.

KIMBALL LINCOLN BACKUS, Wyandotte County Agricultural Agent, Division of College Extension (1932).

B. S., K. S. C., 1931.

Kansas City, Kan.

1. In coöperation with the U. S. Department of Agriculture.

3. In coöperation with the Kansas Agricultural Experiment station.

4. In coöperation with the State Board for Vocational Education.

- CLARENCE E. BARTLETT, Jewell County Agricultural Agent, Division of College Extension (April 26, 1937).
B. S., University of Nebraska, 1929. Mankato, Kan.
- R. E. BAUSMAN, Assistant County Agricultural Agent, Division of College Extension (1935).
Parsons, Kan.
- JOHN GREGORY BELL, Norton County Agricultural Agent, Division of College Extension (1933, 1935); resigned Aug. 15, 1937.
B. S., K. S. C., 1932. Norton, Kan.
- HERMAN ALBERT BISKIE, Franklin County Agricultural Agent, Division of College Extension (1928).
B. S., University of Nebraska, 1917. Ottawa, Kan.
- ARTHUR A. BOEKA, Morton County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Richfield, Kan.
- HAROLD ANDREW BORGELT, Edwards County Agricultural Agent, Division of College Extension (1937; Sept. 16, 1937).
B. S., K. S. C., 1937. Kinsley, Kan.
- LEE JUSTIN BREWER, Greeley County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1935. Tribune, Kan.
- ALBERT BROWN, Bourbon County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1929. Fort Scott, Kan.
- GERALD JAMES BROWN, Hamilton County Agricultural Agent, Division of College Extension (1936; March 10, 1937).
B. S., K. S. C., 1936. Syracuse, Kan.
- FRANK SHERMAN BURSON, Chase County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1934. Cottonwood Falls, Kan.
- RICHARD HENRY CAMPBELL, Assistant County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1935. Oskaloosa, Kan.
- SYLVESTER ULRIC CASE, Crawford County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1923. Girard, Kan.
- FRANCIS WILLARD CASTELLO, Ellsworth County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1933. Ellsworth, Kan.
- HERBERT WILLIAM CLUTTER, Finney County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1933. Garden City, Kan.
- EUGENE FREDERICK COLLINS, Assistant County Agricultural Agent, Division of College Extension (1935); resigned Dec. 15, 1937.
B. S., K. S. C., 1934. Manhattan, Kan.
- CARL CLARENCE CONGER, Assistant County Agricultural Agent, Division of College Extension (1934; Feb. 1, 1938).
B. S., K. S. C., 1933. Manhattan, Kan.

- RALPH A. COOLEY, Assistant County Agricultural Agent, Division of College Extension (Oct. 1, 1937).
B. S., K. S. C., 1912. Abilene, Kan.
- LAWRENCE EDWARD CRAWFORD, Pratt County Agricultural Agent, Division of College Extension (1937; May 18, 1937).
B. S., K. S. C., 1928. Pratt, Kan.
- VERNON SIMPSON CRIPPEN, Logan County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1920. Oakley, Kan.
- FRED B. CROMER, Kingman County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1916. Kingman, Kan.
- HAROLD AMOS DAILY, Stafford County Agricultural Agent, Division of College Extension (1935; Feb. 1, 1938).
B. S., K. S. C., 1933. St. John, Kan.
- WALTER JONES DALY, Cowley County Agricultural Agent, Division of College Extension (1925; Aug. 1, 1937).
B. S., K. S. C., 1925. Winfield, Kan.
- LAURENCE ROBERT DANIELS, Rooks County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1933. Stockton, Kan.
- IVOR HAROLD DAVIES, Wyandotte County Club Agent, Division of College Extension (1937; Jan. 1, 1938).
B. S., K. S. C., 1937. Kansas City, Kan.
- JOHN WILLIAM DECKER, Wabaunsee County Agricultural Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1930. Alma, Kan.
- MARION MAXWELL DICKERSON, Stevens County Agricultural Agent, Division of College Extension (1937; Jan. 17, 1938).
B. S., K. S. C., 1937. Hugoton, Kan.
- CARL EMMERT ELLING, Scott County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1932. Scott City, Kan.
- CARL MUDGE ELLING, Hodgeman County Agricultural Agent, Division of College Extension (1938; Feb. 10, 1938).
B. S., K. S. C., 1937. Jetmore, Kan.
- KERMIT VERNON ENGLE, Kearny County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1931. Lakin, Kan.
- ELBERT LEE ESHBAUGH, Assistant County Agricultural Agent, Division of College Extension (1936); resigned Aug. 31, 1937.
B. S., K. S. C., 1936. Troy, Kan.
- WAYNE EWING, Sedgwick County Club Agent, Division of College Extension (1936; Nov. 18, 1937).
B. S., K. S. C., 1932. Wichita, Kan.
- JUNIUS WARREN FARMER, Greenwood County Agricultural Agent, Division of College Extension (1923).
B. S., K. S. C., 1923. Eureka, Kan.

- RALEIGH BORDNER FLANDERS, Rawlins County Agricultural Agent, Division of College Extension (1936).
B. S., Colorado Agricultural College, 1928. Atwood, Kan.
- ROBERT WHITSEL FORT, Saline County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1926. Salina, Kan.
- GEORGE WILLIS GERBER, Osage County Agricultural Agent, Division of College Extension (1936; Sept. 1, 1937).
B. S., K. S. C., 1936. Lyndon, Kan.
- RALPH FRIEDLY GERMANN, Russell County Agricultural Agent, Division of College Extension (1935; March 10, 1937).
B. S., K. S. C., 1931. Russell, Kan.
- HARVEY EDWIN GOERTZ, Assistant County Agricultural Agent, Division of College Extension (July 1, 1937); resigned Dec. 31, 1937).
B. S., K. S. C., 1937. Manhattan, Kan.
- JOE MYRON GOODWIN, Linn County Agricultural Agent, Division of College Extension (1919; Aug. 1, 1937).
Mound City, Kan.
- ELMER OSCAR GRAPER, Smith County Agricultural Agent, Division of College Extension (1929).
B. S., K. S. C., 1913. Smith Center, Kan.
- WILLIAM ELLSWORTH GREGORY, Harper County Agricultural Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1929. Anthony, Kan.
- PAUL WILSON GRIFFITH, Decatur County Agricultural Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1934. Oberlin, Kan.
- PAUL BERNARD GWIN, Geary County Agricultural Agent, Division of College Extension (1921, 1925).
B. S., K. S. C., 1916. Junction City, Kan.
- ROY ELMER GWIN, Wichita County Agricultural Agent, Division of College Extension (1921, 1934).
B. S., K. S. C., 1914. Leoti, Kan.
- FRANK ALEXANDER HAGANS, Marion County Agricultural Agent, Division of College Extension (1930).
B. S., K. S. C., 1925. Marion, Kan.
- CHARLES ADRIAN HAGEMAN, Assistant County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1936. Marysville, Kan.
- DALE EVART HALBERT, Assistant County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1933. Hutchinson, Kan.
- PRESTON ORIN HALE, Shawnee County Agricultural Agent, Division of College Extension (1929, 1934).
B. S., K. S. C., 1916. Topeka, Kan.
- CHARLES TOMAS HALL, Jefferson County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1932. Oskaloosa, Kan.

- THOMAS ELLIOTT HALL, Assistant County Agricultural Agent, Division of College Extension (1934; Sept. 1, 1937); resigned Oct. 18, 1937.
B. S., K. S. C., 1932; M. S., *ibid.*, 1937. Manhattan, Kan.
- JOHN HAMON, Wilson County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1933. Fredonia, Kan.
- JOHN BONAR HANNA, Elk County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1932. Howard, Kan.
- LEONARD BEATH HARDEN, Johnson County Agricultural Agent, Division of College Extension (1928, 1934).
B. S., K. S. C., 1926. Olathe, Kan.
- HAROLD BYRON HARPER, Harvey County Agricultural Agent, Division of College Extension (1932, 1933).
B. S., K. S. C., 1933. Newton, Kan.
- EDWIN HEDSTROM, Clay County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1924. Clay Center, Kan.
- JOHN ALBERT HENDRICKS, Anderson County Agricultural Agent, Division of College Extension (1920, 1924).
B. S. A., Iowa State College, 1913. Garnett, Kan.
- HARVEY J. HENSLEY, Cloud County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Concordia, Kan.
- SHERMAN STANLEY HOAR, Barton County Agricultural Agent, Division of College Extension (1929).
B. S., K. S. C., 1928. Great Bend, Kan.
- HILTON DELOS HOLLEMBEAK, Assistant County Agricultural Agent, Division of College Extension (1936; July 1, 1937); resigned Dec. 14, 1937.
B. S., K. S. C., 1937. Manhattan, Kan.
- CLARENCE ATHEL HOLLINGSWORTH, Assistant County Agricultural Agent, Division of College Extension (March 19, 1937).
B. S., K. S. C., 1931. Kingman, Kan.
- RAY MITCHELL HOSS, Woodson County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1930. Yates Center, Kan.
- DONALD WALTER INGLE, Reno County Agricultural Agent, Division of College Extension (1930, 1934).
B. S., University of Missouri, 1929. Hutchinson, Kan.
- GLENN CHARLES ISAAC, Miami County Agricultural Agent, Division of College Extension (1930).
B. S., K. S. C., 1930. Paola, Kan.
- OLIVER WILLARD KERSHAW, Washington County Club Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1935. Washington, Kan.
- CLAUDE LEWIS KING, Shawnee County Club Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1932. Topeka, Kan.

- ARTHUR WILLIAM KNOTT, Montgomery County Agricultural Agent, Division of College Extension (1927).
B. S., University of Wisconsin, 1917. Independence, Kan.
- BEN C. KOHRS, Gray County Agricultural Agent, Division of College Extension (1935; Feb. 1, 1937).
B. S., K. S. C., 1935. Cimarron, Kan.
- REUBEN CARL LIND, Lincoln County Agricultural Agent, Division of College Extension (1933).
B. S., K. S. C., 1923. Lincoln, Kan.
- PHILIP WARNER LJUNGDAHL, Seward County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1936. Liberal, Kan.
- CHARLES ENOCH LYNESS, Doniphan County Agricultural Agent, Division of College Extension (1923).
B. S., K. S. C., 1912. Troy, Kan.
- LAWRENCE R. MACKEY, Assistant County Agricultural Agent, Division of College Extension (Jan. 10, 1938).
Manhattan, Kan.
- GORDON EARL MAHONEY, Assistant County Agricultural Agent, Division of College Extension (1936; July 1, 1937); resigned July 31, 1937.
B. S. A., Ontario Agricultural College, 1923. Manhattan, Kan.
- VERL EPHRIAM McADAMS, Barber County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1928. Medicine Lodge, Kan.
- RALPH WALDO McBURNEY, Mitchell County Agricultural Agent, Division of College Extension (1930).
B. S., K. S. C., 1927. Beloit, Kan.
- FRANCES DEAN McCAMMON, Ford County Agricultural Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1932. Dodge City, Kan.
- EVERETT LYNN McCLELLAND, Sheridan County Agricultural Agent, Division of College Extension (1936; Feb. 15, 1937).
B. S., K. S. C., 1928. Hoxie, Kan.
- JOHN EDWIN McCOLM, Meade County Agricultural Agent, Division of College Extension (1936; Jan. 10, 1938).
B. S., K. S. C., 1936. Meade, Kan.
- DEWEY ZOLLIE McCORMICK, Morris County Agricultural Agent, Division of College Extension (1925).
B. S., K. S. C., 1921. Council Grove, Kan.
- ERNEST LEE McINTOSH, Lyon County Agricultural Agent, Division of College Extension (1920; Sept. 1, 1937).
B. S., K. S. C., 1920. Emporia, Kan.
- ROBERT FRED McNITT, Pottawatomie County Agricultural Agent, Division of College Extension (1934, 1935).
B. S., K. S. C., 1933. Westmoreland, Kan.
- EARL THOMAS MEANS, Allen County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1922. Iola, Kan.

- WILLIAM HENRY MEISSINGER, Pawnee County Agricultural Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1931. Larned, Kan.
- WILMER ABELE MEYLE, Atchison County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1931. Effingham, Kan.
- KENNETH W. MILLER, Assistant County Agricultural Agent, Division of College Extension (1936); resigned July 31, 1937.
B. S., K. S. C., 1936. Manhattan, Kan.
- JOHN DELMONT MONTAGUE, Sedgwick County Agricultural Agent, Division of College Extension (1926, 1930).
B. S., K. S. C., 1920. Wichita, Kan.
- LAWRENCE DALE MORGAN, Sherman County Agricultural Agent, Division of College Extension (1933).
B. S., K. S. C., 1935. Wichita, Kan.
- HAROLD LEWIS MURPHY, Comanche County Agricultural Agent, Division of College Extension (1930, 1936).
B. S., K. S. C., 1928. Coldwater, Kan.
- LEONARD NEFF, Washington County Agricultural Agent, Division of College Extension (1925, 1930).
B. S. A., Purdue University, 1922. Washington, Kan.
- PAUL HAROLD NELSON, Phillips County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Phillipsburg, Kan.
- RUSSELL C. NELSON, Assistant County Agricultural Agent, Division of College Extension (1936).
Hiawatha, Kan.
- MARION BURNS NOLAND, Sedgwick County Club Agent, Division of College Extension (1935, 1937); resigned Oct. 15, 1937.
B. S., K. S. C., 1935. Wichita, Kan.
- WILLIAM O'CONNELL, Marshall County Agricultural Agent, Division of College Extension (1924).
B. S., K. S. C., 1916. Marysville, Kan.
- MERTON LOUIS OTTO, Leavenworth County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1921. Leavenworth, Kan.
- CARMY GROSS PAGE, Meade County Agricultural Agent, Division of College Extension (1936; July 1, 1937); resigned Dec. 31, 1937.
B. S., K. S. C., 1933. Meade, Kan.
- ROBERT THOMAS PATTERSON, Cherokee County Agricultural Agent, Division of College Extension (1928).
B. S., K. S. C., 1924. Columbus, Kan.
- LEONARD WILLIAM PATTON, Graham County Agricultural Agent, Division of College Extension (1933; June 4, 1937).
B. S., K. S. C., 1933. Hill City, Kan.
- ALBERT ARNOLD PEASE, Rice County Club Agent, Division of College Extension (1935; Nov. 1, 1937).
B. S., K. S. C., 1932. Lyons, Kan.
- ALLISON GLEN PICKETT, Kiowa County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1935. Greensburg, Kan.

- WILLIAM HAROLD POLHAMUS, Assistant County Agricultural Agent, Division of College Extension (Jan. 10, 1938).
B. S., K. S. C., 1929. Manhattan, Kan.
- CLARE ROBERT PORTER, Stevens County Agricultural Agent, Division of College Extension (1937; Aug. 16, 1937); resigned Jan. 15, 1938.
B. S., K. S. C., 1937. Hugoton, Kan.
- ROBERT LOUIS RAWLINS, Nemaha County Agricultural Agent, Division of College Extension (1931).
B. S., K. S. C., 1929. Seneca, Kan.
- OSCAR EARL REECE, Rice County Agricultural Agent, Division of College Extension (1935); resigned July 31, 1937.
B. S., K. S. C., 1931. Lyons, Kan.
- LEONARD ABBOTT REES, Riley County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1932. Manhattan, Kan.
- CECIL E. RICHARDS, Assistant County Agricultural Agent, Division of College Extension (1935).
Iola, Kan.
- ARTHUR EUGENE SCHAFER, Norton County Agricultural Agent, Division of College Extension (1937; Oct. 17, 1937).
B. S., K. S. C., 1937. Norton, Kan.
- LESTER SHEPARD, Neosho County Agricultural Agent, Division of College Extension (1928).
A. B., University of Iowa, 1913; B. S., Iowa State College, 1916. Erie, Kan.
- KARL GARDNER SHOEMAKER, Ellis County Agricultural Agent, Division of College Extension (1936; April 15, 1937).
B. S., K. S. C., 1936. Hays, Kan.
- GEORGE W. SIDWELL, Rice County Agricultural Agent, Division of College Extension (1913; Sept. 16, 1937).
A. B., Fairmount College, 1915. Lyons, Kan.
- DEAL D. SIX, Douglas County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1922. Lawrence, Kan.
- JOSEPH DANIEL SMERCHEK, Sumner County Agricultural Agent, Division of College Extension (1933; May 17, 1937).
B. S., K. S. C., 1932. Wellington, Kan.
- ALVIN HOWARD STEPHENSON, Dickinson County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1932. Abilene, Kan.
- HAROLD CALVIN STEVENS, Assistant County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1930. Burlington, Kan.
- HARVEY J. STEWART, Cheyenne County Agricultural Agent, Division of College Extension (1929).
B. S., K. S. C., 1928. St. Francis, Kan.
- RAYMOND LUTHER STOVER, Brown County Agricultural Agent, Division of College Extension (1927, 1930).
B. S., K. S. C., 1924; M. S., Oregon Agricultural College, 1927. Hiawatha, Kan.

FRANK B. STUCKEY, Assistant County Agricultural Agent, Division of College Extension (1936).

Leavenworth, Kan.

VICTOR FRED STUEWE, Ottawa County Agricultural Agent, Division of College Extension (1934; April 16, 1937).

B. S., K. S. C., 1915.

Minneapolis, Kan.

BYRON J. TAYLOR, Assistant County Agricultural Agent, Division of College Extension (Oct. 18, 1937).

B. S., K. S. C., 1916.

Manhattan, Kan.

JOHN EDWARD TAYLOR, Grant County Agricultural Agent, Division of College Extension (1930).

B. S., K. S. C., 1930.

Ulysses, Kan.

LOT FORMAN TAYLOR, Chautauqua County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1931.

Sedan, Kan.

MERRILL MEDSGAR TAYLOR, Thomas County Agricultural Agent, Division of College Extension (1931, 1935).

B. S., K. S. C., 1930.

Colby, Kan.

CHESTER GORDON THOMPSON, Assistant County Agricultural Agent, Division of College Extension (1936).

B. S., K. S. C., 1932.

Elbing, Kan.

NED O'DELL THOMPSON, Stevens County Agricultural Agent, Division of College Extension (1936); resigned Aug. 15, 1937.

B. S., K. S. C., 1936.

Hugoton, Kan.

MERLE BARTON THOMPSON, Assistant County Agricultural Agent, Division of College Extension (Feb. 1, 1937).

Topeka, Kan.

ABRAM B. THUT, Assistant County Agricultural Agent, Division of College Extension (1936).

Anthony, Kan.

WAYNE TJADEN, Assistant County Agricultural Agent, Division of College Extension (Feb. 1, 1938).

B. S., K. S. C., 1938.

Manhattan, Kan.

OBED LEE TOADVINE, JR., Ness County Agricultural Agent, Division of College Extension (1934).

B. S., K. S. C., 1932.

Ness City, Kan.

JAMES FREDERICK TRUE, JR., Coffey County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1929.

Burlington, Kan.

FRANCIS JOHN TURNER, Assistant County Agricultural Agent, Division of College Extension (1936).

Manhattan, Kan.

HOWARD VICTOR VERNON, Osborne County Agricultural Agent, Division of College Extension (1934; Nov. 29, 1937).

B. S., K. S. C., 1928.

Osborne, Kan.

HAROLD OSMOND WALES, Stanton County Agricultural Agent, Division of College Extension (1936; April 15, 1937).

B. S., North Dakota Agricultural College, 1934; M. S., K. S. C., 1936.

Johnson, Kan.

HERMAN W. WESTMEYER, Lane County Agricultural Agent, Division of College Extension (1936).

B. S., University of Missouri, 1936.

Dighton, Kan.

RAY H. WHITENACK, Assistant County Agricultural Agent, Division of College Extension (June 8, 1937).

B. S., K. S. C., 1916.

Olathe, Kan.

EARL LAVERNE WIER, McPherson County Agricultural Agent, Division of College Extension (1934).

B. S., K. S. C., 1931.

McPherson, Kan.

CARL WILLIAMS, Clark County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1932.

Ashland, Kan.

CHARLES PEAIRS WILSON, Assistant County Agricultural Agent, Division of College Extension (Feb. 1, 1938).

B. S., K. S. C., 1938.

Manhattan, Kan.

RICHARD GORDON WILTSE, Assistant County Agricultural Agent, Division of College Extension (Feb. 1, 1938).

B. S., K. S. C., 1938.

Manhattan, Kan.

WILLIAM ALEXANDER WISHART, Assistant County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1935.

Fredonia, Kan.

MAURICE IVAN WYCKOFF, Labette County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1935.

Altamont, Kan.

WALTER WILLIAM ZECKER, Butler County Agricultural Agent, Division of College Extension (1935).

B. S., K. S. C., 1933.

El Dorado, Kan.

LESTER ALLEN ZERBE, Assistant County Agricultural Agent, Division of College Extension (1937).

B. S., K. S. C., 1936.

Lyons, Kan.

FRANK ZITNIK, Rush County Agricultural Agent, Division of College Extension (1931, 1934).

B. S., K. S. C., 1931.

La Crosse, Kan.

JOSEPH ZITNIK, Wallace County Agricultural Agent, Division of College Extension (1936; March 15, 1937).

B. S., K. S. C., 1936.

Sharon Springs, Kan.

HOME DEMONSTRATION AGENTS ¹

MARIE ANTRIM, Wyandotte County Home Demonstration Agent, Division of College Extension (1935).

B. S., K. S. C., 1934.

Kansas City, Kan.

DOROTHY BACON, Smith County Home Demonstration Agent, Division of College Extension (1936).

B. S., K. S. C., 1936.

Smith Center, Kan.

NORA ELIZABETH BARE, Butler County Home Demonstration Agent, Division of College Extension (1927); on indefinite leave Sept. 10, 1937.

B. S., K. S. C., 1925.

El Dorado, Kan.

MILDRED BEIL, Cloud County Home Demonstration Agent, Division of College Extension (1936; April 3, 1937)

B. S., K. S. C., 1932.

Concordia, Kan.

1. In coöperation with the U. S. Department of Agriculture.

- ELLEN BLAIR, Lyon County Home Demonstration Agent, Division of College Extension (1935; March 8, 1937).
B. S., K. S. C., 1934. Emporia, Kan.
- GRACE DOROTHY BRILL, Bourbon County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1931; M. S., K. S. C., 1932. Fort Scott, Kan.
- VIRA BROWN, Washington County Home Demonstration Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1925. Washington, Kan.
- DORIS COMPTON, Assistant Home Demonstration Agent, Division of College Extension (Sept. 10, 1937).
B. S., Northwestern University, 1937. Manhattan, Kan.
- RUTH ESTHER CRAWFORD, Harper County Home Demonstration Agent, Division of College Extension (1934).
B. S., K. S. C., 1932. Anthony, Kan.
- ETHYL ADELINE DANIELSON, Barton County Home Demonstration Agent, Division of College Extension (1931, 1934).
B. S., K. S. C., 1925. Great Bend, Kan.
- VERNETTA FAIRBAIRN, Montgomery County Home Demonstration Agent, Division of College Extension (1928).
A. B., University of Kansas, 1927. Independence, Kan.
- MARY FLETCHER, Osborne County Home Demonstration Agent, Division of College Extension (1936, 1937); resigned Sept. 17, 1937.
B. S., K. S. C., 1928; M. S., K. S. C., 1934. Osborne, Kan.
- EMMA FREEHLING, Osborne County Home Demonstration Agent, Division of College Extension (1937; Sept. 20, 1937).
B. S., University of Nebraska, 1933. Osborne, Kan.
- BEULAH FREY, Neosho County Home Demonstration Agent, Division of College Extension (1936).
B. S., K. S. C., 1933. Erie, Kan.
- ISABEL GALLEMORE, Franklin County Home Demonstration Agent, Division of College Extension (June 1, 1937).
B. S., K. S. C., 1928; M. S., *ibid.*, 1932. Ottawa, Kan.
- MAE GORDON, McPherson County Home Demonstration Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1934. McPherson, Kan.
- GERTRUDE GREENWOOD, Atchison County Home Demonstration Agent, Division of College Extension (1936; March 10, 1937).
B. S., K. S. C., 1936. Effingham, Kan.
- GERSILDA GUTHRIE, Wilson County Home Demonstration Agent, Division of College Extension (1937; Jan. 1, 1938).
B. S., K. S. C., 1936. Fredonia, Kan.
- MAXINE HOFMANN, Ellsworth County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Ellsworth, Kan.
- IYA LUELLA HOLLADAY, Leavenworth County Home Demonstration Agent, Division of College Extension (1929).
B. S., K. S. C., 1929. Leavenworth, Kan.

- MARY ALICE HOWARD, Cherokee County Home Demonstration Agent, Division of College Extension (1937; Jan. 15, 1938).
B. S., K. S. C., 1937. Columbus, Kan.
- RUTH KATHRINA HUFF, Pratt County Home Demonstration Agent, Division of College Extension (1931).
B. S., K. S. C., 1924. Pratt, Kan.
- VELMA GOOD HUSTON, Harvey County Home Demonstration Agent, Division of College Extension (1935; Oct. 1, 1937).
B. S., K. S. C., 1931. Newton, Kan.
- AGNES JENKINS, Comanche County Home Demonstration Agent, Division of College Extension (Jan. 19, 1938).
B. S., K. S. C., 1938. Coldwater, Kan.
- ALICE JENNINGS, Greenwood County Home Demonstration Agent, Division of College Extension (1937; Dec. 1, 1937).
B. S., K. S. C., 1923; M. S., *ibid.*, 1936. Eureka, Kan.
- ALICE LINN, Assistant Home Demonstration Agent, Division of College Extension (Aug. 19, 1937); resigned Oct. 5, 1937.
B. S., K. S. C., 1931. Manhattan, Kan.
- ESTHER EMMA LOBENSTEIN, Comanche County Home Demonstration Agent, Division of College Extension (1934); resigned Dec. 18, 1937.
B. S., K. S. C., 1931. Coldwater, Kan.
- MILDRED MCBRIDE, Labette County Home Demonstration Agent, Division of College Extension (1936; April 1, 1937).
B. S., K. S. C., 1933. Altamont, Kan.
- MARY MCCROSKEY, Miami County Home Demonstration Agent, Division of College Extension (1937; Feb. 1, 1938).
B. S., K. S. C., 1931. Paola, Kan.
- ELLA MABEL MEYER, Rice County Home Demonstration Agent, Division of College Extension (1932).
B. S., K. S. C., 1907. Lyons, Kan.
- IRENE MORRIS, Morris County Home Demonstration Agent, Division of College Extension (1937; Jan. 1, 1938).
B. S., K. S. C., 1934. Council Grove, Kan.
- GLADYS MYERS, Reno County Home Demonstration Agent, Division of College Extension (1930).
B. S., K. S. C., 1930. Hutchinson, Kan.
- EULA MAY NEAL, Johnson County Home Demonstration Agent, Division of College Extension (1930, 1936).
B. S., State Teachers College, Kirksville, Mo., 1927. Olathe, Kan.
- LOIS MARIE OBERHELMAN, Harvey County Home Demonstration Agent, Division of College Extension (1934); on leave Sept. 16, 1937 to Jan. 31, 1938; resigned Jan. 31, 1938.
B. S., K. S. C., 1930. Newton, Kan.
- EDITH ALICE PAINTER, Greenwood County Home Demonstration Agent, Division of College Extension (1933, 1936); resigned Nov. 30, 1937.
B. S., K. S. C., 1931. Eureka, Kan.
- EDYTHE LAVERNE PARROTT, Crawford County Home Demonstration Agent, Division of College Extension (1936; March 18, 1937).
B. S., K. S. C., 1929. Girard, Kan.

MINNIE BELLE PEEBLER, Sumner County Home Demonstration Agent, Division of College Extension (1932; Nov. 1, 1937).

B. S., University of Oklahoma, 1924; M. S., University of Colorado, 1929.
Wellington, Kan.

KATHRYN PETERMAN, Ford County Home Demonstration Agent, Division of College Extension (1937; Nov. 1, 1937).

B. S., K. S. C., 1936. Dodge City, Kan.

FLORENCE PHILLIPS, Rawlins County Home Demonstration Agent, Division of College Extension (1936; March 17, 1937).

B. S., K. S. C., 1936. Atwood, Kan.

ELIZABETH RONIGER, Allen County Home Demonstration Agent, Division of College Extension (1936).

B. S., K. S. C., 1933. Iola, Kan.

ANNA RUESCHHOFF, Dickinson County Home Demonstration Agent, Division of College Extension (1936; June 15, 1937).

B. S., K. S. C., 1936. Abilene, Kan.

CHRISTIANA MARIE SHIELDS, Lyon County Home Demonstration Agent, Division of College Extension (1931, 1936); on leave Feb. 1, 1937 to Jan. 31, 1938.

B. S., K. S. C., 1929. Emporia, Kan.

BERNIECE ETHEL SLOAN, Pawnee County Home Demonstration Agent, Division of College Extension (1935).

B. S., K. S. C., 1928. Larned, Kan.

LEONA ZOE TIBBETTS, Chase County Home Demonstration Agent, Division of College Extension (Feb. 1, 1938).

B. S., K. S. C., 1938. Cottonwood Falls, Kan.

LAURA B. WILLISON, Butler County Home Demonstration Agent, Division of College Extension (1937; Sept. 10, 1937).

B. S., K. S. C., 1911. El Dorado, Kan.

ANNA MARIAN WILSON, Doniphan County Home Demonstration Agent, Division of College Extension (1936; Feb. 1, 1938).

B. S., K. S. C., 1931. Troy, Kan.

LAURA WINTER, Sedgwick County Home Demonstration Agent, Division of College Extension (1925).

Cornell University, 1916. Wichita, Kan.

MARY DUNLAP ZIEGLER, Shawnee County Home Demonstration Agent, Division of College Extension (1928, 1930).

B. S., K. S. C., 1916. Topeka, Kan.

Standing Committees of the Faculty

ADMISSION: Jessie McD Machir, E. L. Barger, Ina Holroyd, A. B. Cardwell, H. L. Ibsen, George A. Dean, W. T. Stratton, S. A. Nock.

ADVANCED CREDIT: S. A. Nock, L. D. Bushnell, W. L. Faith, H. H. King, H. W. Davis, R. R. Dykstra, L. F. Payne, M. A. Durland, Myrtle Gunselman.

ASSEMBLY: S. A. Nock, H. W. Davis, E. L. Holton, William Lindquist, V. D. Foltz, C. H. Scholer.

ASSIGNMENT: Jessie McD. Machir, A. E. White, C. H. Scholer, W. E. Grimes, J. H. Robert, C. V. Williams, S. A. Nock, Eva McMillan.

ATHLETIC COUNCIL: H. H. King, F. D. Farrell, M. F. Ahearn, E. L. Holton, R. A. Seaton, R. I. Throckmorton, G. A. Dean, R. W. Babcock.

CALENDAR: Mary P. Van Zile, J. C. Peterson, M. F. Ahearn, H. T. Hill, S. A. Nock, William Lindquist, John A. Bird.

CATALOGUE: I. V. Iles, J. O. Faulkner, S. A. Nock.

COMMUNITY CHEST EXECUTIVE: F. L. Parrish, H. T. Hill, Mary P. Van Zile, F. D. Farrell, A. A. Holtz, Jessie McD. Machir, Ruth Haines.

CONTROL: I. V. Iles, Margaret M. Justin, R. A. Seaton, R. R. Dykstra, Mary P. Van Zile, R. J. Barnett.

EXAMINATIONS: A. E. White, C. W. Colver, B. B. Brainard.

FACULTY COUNCIL ON STUDENT AFFAIRS: Mary P. Van Zile, A. A. Holtz, L. E. Conrad, R. I. Throckmorton, Grace E. Derby, Harold Howe, F. P. Root, Helen Saum.

FACULTY LOAN FUND: R. R. Dykstra, Mary P. Van Zile, L. E. Call, R. A. Seaton, Jessie McD. Machir.

FRESHMAN INDUCTION: S. A. Nock, C. H. Scholer, C. V. Williams, Harold Howe, Barbara Lautz, W. M. McLeod.

GRADUATE COUNCIL: J. E. Ackert, L. E. Conrad, L. E. Call, H. H. King, L. D. Bushnell, J. H. Burt, Margaret M. Justin, R. C. Langford.

HONORARY DEGREES: R. W. Babcock, Margaret M. Justin, L. E. Call.

MAJOR MUSICAL AND DRAMATIC ENTERTAINMENTS: S. A. Nock, William Lindquist, H. T. Hill, H. W. Bouck, R. H. Brown, W. E. Sheffer, Mrs. J. D. Colt, Sr.

REINSTATEMENT: R. I. Throckmorton, W. M. McLeod, J. H. Robert, E. C. Miller, Bessie B. West.

RELATIONS WITH JUNIOR COLLEGES AND ARTS COLLEGES: George Gemmell, R. R. Dykstra, M. A. Durland, F. L. Parrish, G. A. Filinger, Eva McMillan.

RESIDENCE STATUS: S. A. Nock, W. F. Pickett, R. M. Kerchner, Martha S. Pittman, R. R. Dykstra, Chas. W. Matthews.

SCHEDULE OF CLASSES: A. E. White, W. T. Stratton, L. E. Conrad, W. E. Grimes, Martha S. Pittman, R. W. Babcock.

SCHOLASTIC ELIGIBILITY: Mary P. Van Zile, W. H. Riddell, Emma Hyde, R. M. Kerchner, Gladys E. Vail, W. M. McLeod.

SELECTION OF VETERINARY STUDENTS: R. R. Dykstra, S. A. Nock, J. H. Burt, H. F. Lienhardt, E. J. Frick.

STUDENT HEALTH: L. E. Conrad, L. D. Bushnell, Mary P. Van Zile, M. F. Ahearn, M. W. Husband.

STUDENT HONORS: J. O. Hamilton, R. W. Conover, B. L. Remick, M. W. Furr, R. F. Morse.

USE OF ROOMS: R. A. Seaton, R. I. Throckmorton, Margaret M. Justin, A. E. White, S. A. Nock.

VOCATIONAL GUIDANCE: Mary P. Van Zile, R. A. Seaton, R. R. Dykstra, E. L. Holton, Margaret M. Justin, L. E. Call, R. W. Babcock.

Kansas State College of Agriculture and Applied Science

HISTORY AND LOCATION

Kansas State Agricultural College was established under the authorization of an act of congress, approved by Abraham Lincoln, July 2, 1862, the provisions of which were accepted by the state February 3, 1863. By act of the legislature, effective March 9, 1931, the name was changed to Kansas State College of Agriculture and Applied Science.

Under the enabling act the College received an endowment of 90,000 acres of land, and its leading object as stated by law is—

“Without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.”

The College was located at Manhattan February 16, 1863, partly in order to receive as a gift the land, building, library and equipment of Bluemont Central College, an institution chartered by a group of pioneers on February 9, 1858. The Bluemont College building was erected in 1859.

The Agricultural College opened September 1, 1863, in the Bluemont College building. Most of the work of the College was moved to the present site in 1875. The fertile valleys of the Kansas and the Blue rivers meet here, and these, with their borders of hilly upland drained by many small wooded streams, create a natural environment which is unusually attractive.

Manhattan is on the Union Pacific and Rock Island railways, U.S. highways 40 and 24, and state highways 13 and 29.

The residents of Manhattan give most cordial support to the College and do all that could be desired to make students feel welcome.

AIMS AND PURPOSES

Kansas State College has three purposes: To give to the young men and women of Kansas undergraduate and graduate training in agriculture, engineering, home economics, general science, and veterinary medicine; to investigate, through its experiment stations, the agricultural and industrial problems of Kansas; and by means of its extension division to carry the full benefits of the College to all parts of the state.

In all curriculums the college takes pains to give each student, in connection with the scientific and technical instruction necessary to his vocation, thorough training in other subjects which promote sound thinking and good citizenship. The College tries to develop the intelligent citizen who is a leader in some field of human activity.

The second purpose of Kansas State College is to investigate scientifically the state's problems in agriculture and the industries. This work is done through the agricultural and engineering experiment stations, and is directly connected with the educational work of the College, so that the students are benefited directly by scientific investigation. Many opportunities in the United States Department of Agriculture and in the various experiment stations of the country are open to such students as show interest and skill in investigational work.

In addition to the regular instructional work conducted on the campus, the College serves, also, through the Division of College Extension, a highly organized system of agricultural education carried directly to the homes of the farmers. The work has been so well developed that the College has come to look upon the whole state as its campus. In addition to the regular staff of the Division of College Extension, many members of the College faculty and the staff of the experiment stations give several weeks of each year to this work.

Buildings and Grounds

The College campus adjoins the western limits of the city of Manhattan. The grounds, laid out by a landscape architect, are planted with a variety of trees and shrubbery, interspersed with lawns and gardens.

Including the campus of 155 acres, the College owns 1,428.7 acres of land at Manhattan, valued at \$415,093. Outside the campus proper, all the land is devoted to educational and experimental work in agriculture.

The College buildings are constructed of native limestone obtained in part from the College quarries. These buildings are listed below.

Anderson Hall. Named in honor of John Alexander Anderson (1834-1891), second president of the College, 1873-1879. Erected, 1879, 1883, and 1885. Cost, \$79,000. Administration, College post office, student health, alumni office, 4-H office, Division of General Science, and Division of College Extension.

Animal Husbandry Barn. Erected, 1914. Cost, \$25,000.

Auditorium. Erected, 1904. Cost, \$40,000.

Calvin Hall. Named in honor of Frances Henrietta Willard Calvin (1865—), librarian of the College, 1901-1903; professor of domestic science, 1903-1908. Erected, 1908. Cost, \$70,000. Division of Home Economics.

Chemistry Annex No. 1. Erected, 1876. Cost, \$8,000.

Chemistry Annex No. 2. Erected, 1904. Cost, \$15,000.

Dairy Barn. Erected, 1933. Cost, \$45,000.

Dickens Hall. Named in honor of Albert Dickens (1867-1930), assistant in horticulture, 1899-1901; professor of horticulture, 1901-1930. Erected, 1907. Cost, \$50,000.

Education Hall. Erected, 1900. Cost, \$25,000.

Engineering Hall. Erected, 1909, 1921. Cost, \$270,000. Division of Engineering.

Engineering Shops. Erected, 1875, 1890, 1900, and 1905. Cost, \$35,000.

Fairchild Hall. Named in honor of George Thompson Fairchild (1838-1901), third president of the College, 1879-1897. Erected, 1894, 1903, and 1927. Cost, \$91,750. Division of Graduate Study.

Farm Machinery Hall. Erected, 1873. Cost, \$11,250.

Heat, Power, and Service Building. Erected, 1928. Cost, with plant equipment, \$375,000.

Horticulture Barn. Erected, 1917. Cost, \$1,500.

Illustrations Hall. Erected, 1876. Cost, \$4,000.

Infirmary. Erected before 1871; enlarged, 1919. Cost, \$6,500.

Kedzie Hall. Named in honor of Nellie Sawyer Kedzie Jones (1858—), teacher of household economy and hygiene, superintendent of sewing, 1882-1884; teacher of household economy and hygiene, 1884-1885; instructor in household economy and hygiene, 1885-1887; professor of household economy and hygiene, 1887-1897. Erected, 1898. Cost, \$16,000.

Library. Erected, 1927. Cost, \$250,000.

Memorial Stadium. Erected, 1922, 1924. Cost, \$260,000.

Nichols Gymnasium. Named in honor of Ernest Reuben Nichols (1858—), instructor in physics, 1890-1891; professor of physics, 1891-1900; acting president, 1899-1900; fifth president of the College, 1900-1909. Erected, 1911. Cost, \$122,000.

Nurses' Quarters. Erected, 1888. Cost, \$5,000.

President's House. Erected, 1923. Cost, \$31,000.

Thompson Hall. Named in honor of Helen Bishop Thompson (1875—), assistant in preparatory department, 1903-1907; professor of nutrition and dietetics, 1918-1922; professor of food economics and nutrition, 1922-1923; dean of the Division of Home Economics, 1918-1923. Erected, 1922. Cost, \$125,000.

Van Zile Hall. Named in honor of Mary Pierce Van Zile (1874—), professor of domestic science, 1908-1918; dean of the Division of Home Economics, 1912-1918; dean of women, 1908—. Erected, 1927. Cost, \$175,000.

Veterinary Hall. Erected, 1908. Cost, \$70,000. Division of Veterinary Medicine.

Veterinary Hospital. Erected, 1923. Cost, \$118,000.

Waters Hall. Named in honor of Henry Jackson Waters (1865-1925), sixth president of the College, 1909-1917. Erected: East wing, 1913; West wing, 1923. Cost, \$500,000. Division of Agriculture.

Experiment Station Building. Erected, 1918.

General-Purpose Building. Erected, 1918.

Greenhouses. Erected, 1910, 1927. Cost, \$20,000.

Plant Museum. Erected, 1907. Cost, \$2,500.

Pump House.

Sheep Barn. Erected, 1927. Cost, \$10,000.

Shop Warehouse. Erected, 1918.

Tractor Laboratories. Erected, 1918.

Veterinary Research Laboratory Buildings. Erected, 1914. Cost, \$10,000.

Admission

Correspondence about the admission of undergraduate students should be addressed to the vice-president of the College.

REQUIREMENTS FOR ADMISSION

The entrance requirements of the College are broad and flexible, only fundamental subjects being required. These requirements are made upon the supposition that high schools are local institutions in which the courses should be adapted to the needs of the individual localities.

Any person who has completed a four-year course of study in any high school or academy accredited by the State Board of Education will be admitted to the freshman class, except in the Division of Veterinary Medicine.

As enrollment in the curriculum in Veterinary Medicine is limited, persons desiring admission to that curriculum should read the statement entitled, "Veterinary Enrollment Limited," in connection with the Division of Veterinary Medicine.

In order to carry the several curriculums successfully the following subjects must have been completed:

ENGLISH, 3 UNITS; ALGEBRA, 1 UNIT; GEOMETRY, 1 UNIT; SCIENCE, PHYSICAL OR BIOLOGICAL, 1 UNIT

- Agriculture (4 years)
- Agricultural Administration (4 years)
- Applied Music (4 years)
- Home Economics (4 years)
- Home Economics with special training in Art (4 years)
- Home Economics with special training in Institutional Management and Dietetics (4 years)
- Home Economics and Nursing (5½ years)
- Industrial Journalism (4 years)
- Music Education (4 years)
- Physical Education for Men (4 years)
- Physical Education for Women (4 years)
- Pre-Veterinary (1 year)

ENGLISH, 3 UNITS; ALGEBRA, 1½ UNITS; GEOMETRY, 1 UNIT; SCIENCE, PHYSICAL OR BIOLOGICAL, 1 UNIT

- Commerce (4 years)
- Commerce with special training in Accounting (4 years)
- General Science (4 years)
- Pre-Medical and Pre-Pharmaceutical (2 years)
- Milling Industry (4 years)
- Specialized Horticulture (4 years)

ENGLISH, 3 UNITS; ALGEBRA, 1½ UNITS; GEOMETRY, 1½ UNITS; SCIENCE, PHYSICAL OR BIOLOGICAL, 1 UNIT

- Agricultural Engineering (4 years)
- Architecture (4 years)
- Architectural Engineering (4 years)
- Chemical Engineering (4 years)
- Civil Engineering (4 years)
- Electrical Engineering (4 years)
- Industrial Arts (4 years)
- Industrial Chemistry (4 years)
- Mechanical Engineering (4 years)

The above curriculums were formulated on the assumption that high-school subjects named will be offered for admission. A graduate of an accredited high school who in accordance with a state law is admitted as a freshman without all the high-school subjects that are prerequisite to carry the curriculum chosen, will be assigned, if necessary, to a five-hour course in college algebra instead of the regular three-hour course, and to a two-hour course in solid geometry, and may be allowed college credit toward graduation for the extra hours, except in the curriculums in the Division of Engineering and Architecture. A student lacking the required unit of high-school science is held for four hours of college

physical or biological science in addition to any science required by his college curriculum, but may be allowed elective credit toward graduation on such science.

A student without high-school credit in one unit of algebra and one unit of geometry is not permitted to register for an engineering curriculum, the curriculum in industrial chemistry, or the curriculum in milling industry, until those fixed requirements are completed. Geometry, one unit, is offered each semester in classes provided by the Department of Home Study. A student without high-school credit in one unit of algebra is required to enroll in algebra by correspondence study, during his first semester of attendance. A student with one unit of algebra, but without one unit of geometry, should enroll in the geometry class during his first semester of attendance; such a student must complete this requirement in geometry by the close of his third semester of attendance. *A student will not be advanced in classification until these required units are completed.*

A person who is not a graduate of an accredited high school or academy will be admitted to the freshman class if he has completed fifteen acceptable units of high-school work, including the fixed requirements. (A unit is defined as the work in an accredited high school or academy in five recitation periods a week for one school year.) One who offers fourteen such units will be admitted as a freshman, but will be conditioned in one unit. Such deficiency (whether fixed or optional requirement) must be made up during the first year that the student is in attendance. If the optional requirement is not made up within that time, College credits are taken in its place.

Subjects acceptable for entrance, arranged in eight groups, together with the number of units that may be offered, are shown as follows:

GROUP I	English, three to four units
ENGLISH	Journalism, one half or one unit
	Public speaking, one half or one unit
GROUP II	French, one to four units
FOREIGN	German, one to four units
LANGUAGES	Greek, one to four units
	Latin, one to four units
	Spanish, one to four units
GROUP III	Elementary algebra, one or one and one half units
MATHEMATICS	Plane geometry, one unit
	Advanced algebra, one half unit
	Solid geometry, one half unit
	Plane trigonometry, one half unit
GROUP IV	*Botany, one half or one unit
NATURAL	*Chemistry, one unit
SCIENCES	*General biology, one half or one unit
	*General science, one half or one unit
	Physical geography, one half or one unit
	*Physics, one unit
	*Physiology, one half or one unit
	*Zoölogy, one half or one unit
GROUP V	American history, one unit
HISTORY AND	Civics, one half or one unit
SOCIAL SCIENCES	Constitution, one half unit
	Economics, one half or one unit
	English history, one unit
	Greek and Roman history, one unit
	Medieval and modern history, one unit
	Sociology, one half unit
	International relations, one half unit
GROUP VI	Higher arithmetic, one half unit
NORMAL TRAINING	Methods and management, one half unit
SUBJECTS	*Music, one unit
	Psychology, one half unit
	Reviews
	Grammar, geography, and reading
	twelve weeks each, or
	two of these, eighteen weeks each
	} 1 unit

* In courses consisting of laboratory work, wholly or in part, two periods of laboratory work are to be considered the equivalent of one recitation period.

GROUP VII	*Agriculture, one half to four units
INDUSTRIAL	*Domestic art, one half, one, or two units
SUBJECTS	*Domestic science, one half, one, or two units
	*Drawing, one half or one unit
	*Forging, one half or one unit
	*Printing, one half, one, or two units
	*Woodwork, one half, one, or two units
GROUP VIII	Bookkeeping, one half or one unit
COMMERCIAL	Commercial geography, one half unit
SUBJECTS	Commercial law, one half unit
	Salesmanship, one half unit
	*Shorthand and typewriting, one half or one unit each

METHODS OF ADMISSION

Admission by certificate. The applicant must apply to the vice-president of the College for a blank, "Vital Statistics," to be properly filled out and returned to the vice-president; **on it he must indicate the curriculum in which he wishes to enroll.** The vice-president will then send to the applicant's high-school principal for an official transcript of record. The registrar will send the student a permit to register shortly before the opening of the semester. **The permit cannot be sent unless the prospective student chooses a curriculum.** The students who present permits at the registration room in Nichols Gymnasium will not have to meet the Committee on Admission, as must those not holding permits. High-school transcripts received later than one week before enrollment cannot be acted upon before the opening of College.

Admission by examination. Examinations for admission will be held at the College on the dates stated in the College calendar (see page 7 of this catalogue). These examinations are given for the benefit of students who need some additional high-school credits to qualify them for admission to the freshman class. Applications for these examinations should be made in advance to the registrar.

Admission as special students. In recognition of the fact that experience and maturity often compensate for lack of scholastic attainment, the College admits as special students persons over twenty-one years of age who cannot meet the regular entrance requirements. For admission as special students in Veterinary Medicine, applicants must have completed at least fifteen units of high-school work. The age limit does not apply to special students in music.

Students who meet the regular entrance requirements may also register as special students for specific work not provided for in the regular curriculums. This classification does not, however, include students who merely fulfill curricular requirements irregularly or who take approved courses in addition to those provided for in their curriculums.

An applicant for admission as a special student must secure a permit from the dean of the division in which his major work is to be done, and the dean must approve each assignment. Such a permit is good for one semester only, but may be renewed in succeeding semesters.

Special students must present certificates of their preliminary training, and must give evidence of satisfactory preparation for the courses they wish to pursue. They are subject to all the general regulations and requirements of regular students, such as assignment to physical education and military training, payment of fees, regular attendance at classes, and maintenance of satisfactory scholastic standing.

Admission with advanced credit. The applicant must apply to the vice-president of the College for a blank, "Vital Statistics of Students with Advanced Credit," to be properly filled out and returned to the vice-president; **on it he must indicate the curriculum in which he wishes to enroll.** The vice-president will then send to the student's former institution for an official transcript of record. **A college catalogue covering the period of attendance at the former institution should be furnished with the "Vital Statistics."**

Students whose transcripts show credits for college work done in other acceptable institutions are allowed hour-for-hour credit on courses in this College insofar as the credits may be directly applied or can be accepted as substitutes or electives. A student who cannot furnish an acceptable certificate of work for which he wishes advanced credit, may be examined in subjects studied under competent instructors.

Persons entering with advanced credit should correspond with the vice-president as early as possible in the summer. Transcripts received later than one week before enrollment cannot be acted upon before the opening of College.

Matriculated students may secure advanced credit in certain subjects of freshman rank by examination, on account of surplus high-school units over and above the fifteen acceptable units required for admission. On request, the registrar will furnish to the Committee on Advanced Credit a statement of such surplus units, and that committee will conduct the examination within the first thirty days of the semester or summer school. Examinations, however, which affect the assignment of a semester or summer school will be given on the first Saturday of that semester or summer school. After the expiration of the thirty-day period such examinations may be authorized by the student's dean.

If the work of the student shows that advanced credits have been wrongly allowed, such credits will be revoked.

FRESHMAN DAYS

Freshmen enrolling for the first time in Kansas State College must be on the campus at 7:30 a.m. on the Friday before the Monday on which upper-class registration begins. Because these freshmen are separately assigned before the other classes, they receive the entire attention of the assigners, and have every opportunity to get desirable class schedules. Furthermore, their deans and faculty advisers meet them in small groups to discuss with them their work and their ambitions, to take them on tours of the campus, and to introduce them to other members of the faculty. During the week-end, the freshmen may meet the clergymen of Manhattan's churches, and get acquainted with the officials of the Y. M. C. A. and the Y. W. C. A., the Student Governing Association, and the Collegiate 4-H Club. Before the first classes meet on the following Wednesday, the freshmen will have had their aptitude tests and the benefit of other freshmen-induction activities, and will be ready to begin their classwork with some understanding of the College and its methods, and some acquaintance with faculty, students, and townspeople.

JUNIOR COLLEGES

Every junior college student who expects to continue his education at this College should arrange his course in junior college to meet the requirements of the curriculum which he expects to pursue here. Different curriculums have different prerequisites; but admission to advanced standing in the College is reasonably flexible, hour-for-hour credit being given for two years' work wherever the work done in an accredited junior college can be directly applied or can be accepted as substitutes or electives in the curriculum chosen. If his course in junior college has been arranged to meet the requirements of the curriculum to be pursued here, a junior college graduate carrying the maximum assignment can usually complete the requirements for the degree of Bachelor of Science in two years.

Detailed statements as to the requirements for graduation in each of the several curriculums at the College are printed in other sections of this catalogue.

KANSAS JUNIOR COLLEGES IN FULLY ACCREDITED RELATIONS WITH
THE COLLEGE

PUBLIC

Arkansas City Municipal Junior College, Arkansas City.
Coffeyville Junior College, Coffeyville.
Dodge City Junior College, Dodge City.
El Dorado Junior College, El Dorado.
Fort Scott Junior College, Fort Scott.
Garden City Junior College, Garden City.
Hutchinson Junior College, Hutchinson.
Independence Junior College, Independence.
Iola Junior College, Iola.
Kansas City Junior College, Kansas City.
Parsons Junior College, Parsons.

PRIVATE

Central Academy and College, McPherson.
College of Paola, Paola.
Highland College, Highland.
Sacred Heart College, Wichita.
St. John's College, Winfield.
St. Joseph's College, Hays.
Tabor College, Hillsboro.
Western University, Kansas City.

LATE ADMISSION

A student is not admitted to the College later than ten days after the opening of a semester, except by special permission of his dean; and a fee of **\$2.50** is charged any one assigned after the time set for the close of registration (see the College calendar). **There is no exception to this rule.**

Undergraduate Degrees

To be graduated, a student must complete a prescribed curriculum. Under special conditions such substitutions are allowed as the interests of the student demand. The total requirement, including military science or physical training, or both, is about 120 to 140 semester hours, according to the curriculum taken. (A semester hour is one hour of recitation or lecture work, or three hours of laboratory a week, for one semester of eighteen weeks. When no ambiguity is involved, the term "hour" is used for "semester hour" in this catalogue.)

To be considered as a candidate for an undergraduate degree, a student must have completed in residence twenty of his last thirty undergraduate hours with not less than thirty hours of undergraduate work at this institution. Resident work is interpreted to include all regularly scheduled class or laboratory instruction given by the regular College faculty, exclusive of Extension courses. In special cases candidates will be considered who have completed three full years of work in this institution and have taken their last year of work in an institution approved by the faculty.

Seniors meeting the graduation requirement in hours but failing to meet it in points must take further courses designated by the dean of the division in which their major work lies, until the requirement in points is met.

No student is considered a candidate for graduation in the spring who, at the beginning of the first semester, is deficient more than nine hours in addition to his regular assignment for the year. Candidates desiring to be graduated must make application to the registrar at least thirty days before the date of graduation. The candidate is responsible for complying with all requirements.

A candidate for graduation must be present in person, unless he has arranged in advance to receive his degree *in absentia*. The candidate must apply for this privilege to his dean. Degrees are conferred at mid-year, in the spring, and in the summer. Candidates must be present at the Baccalaureate Exercises, unless excused by the Council of Deans.

DEGREES

The following degrees are conferred on completion of four-year curriculums:

Bachelor of Science.

Bachelor of Science in Agriculture (Agriculture; Agricultural Administration; Specialized Horticulture)

Bachelor of Science in Agricultural Engineering

Bachelor of Science in Architecture

Bachelor of Science in Architectural Engineering

Bachelor of Science in Chemical Engineering

Bachelor of Science in Civil Engineering

Bachelor of Science in Commerce (Commerce; Commerce and Accounting)

Bachelor of Science in Electrical Engineering

Bachelor of Science in Home Economics (Home Economics; Home Economics and Art; Home Economics and Institutional Management and Dietetics)

Bachelor of Science in Industrial Arts

Bachelor of Science in Industrial Chemistry

Bachelor of Science in Industrial Journalism

Bachelor of Science in Mechanical Engineering

Bachelor of Science in Milling Industry
Bachelor of Music
Bachelor of Science in Music Education
Bachelor of Science in Physical Education
Doctor of Veterinary Medicine

The degree of Bachelor of Science in Home Economics and Nursing is conferred upon those who complete the five-and-one-half-year curriculum in Home Economics and Nursing.

For a second bachelor's degree an additional year of not fewer than thirty semester hours is required. This work is in charge of the dean who administers the curriculum chosen.

General Information

DUTIES AND PRIVILEGES

In the informal and democratic life of the College, every student is very largely his own preceptor. In his classroom contacts, in his conversations with other students and with faculty members, he makes himself welcome without ceremony. He is a part of the community life, and as such a responsible member of College society.

College discipline is usually limited to dismissing from College those whose further attendance is unprofitable or inadvisable.

A student must account to the instructor concerned for absences from class. Only the dean of the division in which the student is enrolled can give permission for an absence from College of one or more days. Except by previous arrangement with his dean, a student must not leave College before the close of a semester.

Various societies and clubs give opportunities, in addition to College courses, for literary, scientific, musical, and forensic activity. At various times during the year students present dramatic and musical entertainments under the direction of the Manhattan Theater and the Department of Music, and also participate in social activities of different kinds.

FEES

FEES SUBJECT TO CHANGE. All fees are subject to change at any time by the State Board of Regents.

PAYMENT OF FEES. The matriculation fee is paid upon admission to the College. The incidental fee, the student health fee, the student-activity fee, and laboratory fees are payable at the beginning of each semester.

Students must be prepared to pay these fees in full at the time of registration; assignments cannot be completed without the payment. Checks on out-of-town banks or on local banks are accepted to the amount of the fees.

TUITION. There is no charge for tuition. Class instruction in music is free, but fees are charged for individual instruction. (See Department of Music for statement of fees for music.)

MATRICULATION FEE. A matriculation or entrance fee of \$10 for residents of Kansas, or \$20 for nonresidents, is charged all students in College curriculums, but it is not paid by students who enroll in the summer school only, unless they are candidates for a degree at the end of the session. Special students must pay this fee.

INCIDENTAL FEE. An incidental fee of \$25 a semester, or \$20 for the nine-week summer school, is charged residents of Kansas; nonresidents pay \$75 a semester, or \$50 for the nine-week summer school. The incidental fee for the four-week summer school is \$10 for residents of Kansas, or \$20 for nonresidents.

STUDENT-HEALTH FEES. Undergraduate students pay a student-health fee of \$5 a semester, or \$2 for the nine-week summer school, for which they receive the services of the Department of Student Health. Graduate students do not pay this fee, or receive the services of the Department of Student Health.

STUDENT-ACTIVITY FEE. In accordance with a vote by the student body, each undergraduate student pays a student-activity fee of \$7.50 a semester, collected by the College with the fees levied by the state. Payment of the student-activity fee admits one to athletic contests and plays presented by the Manhattan Theater. It gives one membership in the Student Governing Association, and entitles one to get the student newspaper and the College yearbook.

Members of the faculty, employees of the College, and graduate students have the privilege of paying the fee and receiving its benefits.

RECAPITULATION. To make clear the amount of fees due at the opening of each semester of the College year, **exclusive of laboratory fees**, the following tabular statement is given:

FOR RESIDENTS OF KANSAS

	<i>New students</i>	<i>Old students</i>
Matriculation (paid only once).....	\$10.00	None
Incidental (one semester).....	25.00	\$25.00
Student-health (one semester).....	5.00	5.00
Student-activity (one semester).....	7.50	7.50
Totals	\$46.50	\$36.50

FOR NONRESIDENTS OF KANSAS

	<i>New students</i>	<i>Old students</i>
Matriculation (paid only once).....	\$20.00	None
Incidental (one semester).....	75.00	\$75.00
Student-health (one semester).....	5.00	5.00
Student-activity (one semester).....	7.50	7.50
Totals	\$106.50	\$86.50

LABORATORY FEES. In all laboratories students pay for supplies used and for apparatus broken or lost. Charges are noted under the descriptions of the several courses; changes in charges are effective June 1. The following tabulation shows the laboratory charges for each semester of the freshman year in the several curriculums. In a few instances these are approximate, since options exist in some curriculums and charges are affected by the subjects chosen.

<i>Curriculum</i>	<i>First semester</i>	<i>Second semester</i>
Agricultural Administration	\$18.50	\$22.00
Agricultural Engineering	12.75	14.75
Agriculture	18.50	22.00
Applied Music (not incl. sheet music and private lessons)	2.50	2.50
Architectural Engineering	12.75	14.25
Architecture	5.25	6.75
Chemical Engineering	14.25	14.25
Civil Engineering	12.75	12.75
Commerce	8.50*	8.50*
Commerce and Accounting.....	8.50*	8.50*
Electrical Engineering	15.25	14.75
General Science	17.25	17.25
General Science Pre-Medical and Pre-Pharmaceutical Adap.	13.50	13.50
General Science Pre-Veterinary.....	14.75	16.75
Home Economics	19.25	14.00
Home Economics and Art.....	19.25	14.00
Home Economics and Inst. Mgmt. and Dietetics....	19.25	14.00
Home Economics and Nursing.....	18.50	13.20
Industrial Arts	14.25	16.25
Industrial Chemistry	15.00	13.50
Industrial Journalism	16.50*	8.00*
Mechanical Engineering	14.25	12.75
Milling Industry	16.25	16.25
Music Education (not incl. sheet music and private lessons)	2.50	7.50*
Physical Education for Men.....	13.50	14.00
Physical Education for Women.....	12.50	13.00
Specialized Horticulture	13.50	13.50
Veterinary Medicine	21.50	19.50

LATE ASSIGNMENT FEES. For assignment after the close of the regular registration period the fee is \$2.50. **There is no exception to this rule.**

AUDITION FEE. To persons not enrolled in or employed by the College, the fee for auditing classes is one dollar per semester hour of the course audited.

* Approximate figures.

COMMENCEMENT FEE. On graduation and on receiving an advanced degree, students pay a commencement fee of \$7.50 to cover the cost of the diploma and other commencement expenses.

TRANSCRIPT FEE. Rules governing issuance of transcripts of record:

1. Students are furnished one transcript and one carbon copy without charge.
2. Each additional transcript with one carbon copy is charged for at the rate of 25¢ for each year's record.

REFUND OF FEES. **No refund is made on the matriculation fee.** Certain refunds are made on other fees, as shown below, and **no exceptions are made to these rules.**

Refunds are given **only** on the presentation of the fee receipts for various fees paid. Refunds are authorized at the office of the registrar. **The student must keep fee receipts.** To be accepted, claims for fee refunds must be presented at the office of the registrar not later than the end of the semester or summer school for which the fees were paid.

A student permitted to withdraw before the end of the first week of the semester or summer school may receive a refund of all the fees paid for that semester or summer school. The first week ends at 5 p. m., Saturday, following the first day of enrollment.

A student permitted to withdraw after remaining the first week and less than one third of a semester or summer school may receive a refund of one half of the fees paid for that semester or summer school.

The unused portion of laboratory fees is refunded. All claims for refunds on laboratory deposits must be made within fifteen days of the close of the semester or summer school.

A student dropping music before the end of a semester or summer school may receive a refund of fees paid, proportional to the remainder of the first three fourths of the semester or summer school; that is, the fees for at least the last fourth of a semester or summer school are retained.

OTHER EXPENSES

TEXTBOOKS. The cost of textbooks varies considerably from semester to semester and according to the curriculum pursued. The following tabulation shows the approximate cost of books required during the freshman year:

<i>Curriculum</i>	<i>First semester</i>	<i>Second semester</i>
Agricultural Administration	\$19.60	\$12.10
Agricultural Engineering	24.10	7.75
Agriculture	19.60	12.10
Applied Music (not incl. sheet music and private lessons)	14.25*	.....
Architectural Engineering	24.10	6.25
Architecture	32.35	4.75
Chemical Engineering	23.65	5.50
Civil Engineering	23.75	13.10
Commerce	18.85*	4.75*
Commerce and Accounting.....	18.85*	4.75*
Electrical Engineering	21.35	13.75
General Science	20.95	4.00
General Science Pre-Medical, Pre-Pharmacal, and Pre-Veterinary Adap.	18.70*	4.00
Home Economics	16.35	9.60
Home Economics and Art.....	16.35	9.60
Home Economics and Inst. Mgmt. and Dietetics....	16.35	9.60
Home Economics and Nursing.....	15.85	6.60
Industrial Arts	17.05	11.00
Industrial Chemistry	22.45	9.75
Industrial Journalism	18.60*	9.25*
Mechanical Engineering	24.60	11.50
Milling Industry	15.95	8.35
Music Education (not incl. sheet music and private lessons)	15.00	5.00*
Physical Education for Men.....	13.85	7.10
Physical Education for Women.....	15.85	6.50
Specialized Horticulture	20.85	9.60
Veterinary Medicine	22.60	5.50

* Approximate figures.

DRAWING INSTRUMENTS. In several curriculums, especially in architecture and engineering, drawing instruments are necessary. These range in price from \$7.50 to \$25 a set.

GYMNASIUM SUITS. Each young woman taking physical training must have an approved gymnasium suit costing about \$2.75. In the major course the cost of a suit is \$6.75.

The gymnasium suit for a young man costs about \$3.50. In the major course for men the suit costs \$9.

MILITARY UNIFORM. Each student who takes military training must have a uniform. For the basic courses the uniform, except shoes, is furnished by the war department. For the advanced courses an allowance is made toward the cost of the uniform used.

ROOMS. Van Zile Hall is a residence for 125 women; other rooms are not furnished by the College, but many rooms are available in the city. A room for two persons costs each occupant from \$7 to \$9 a month.

BOARD. In clubs and private boarding houses the cost of board is \$4 a week and upward, but students may board themselves for less. The College operates a cafeteria where all meals may be obtained, except on Saturday evenings and on Sundays, at moderate prices. Food is furnished at cost. The expense to the student depends upon his judgment. A limited number of students may exchange services for a portion of their board.

Board and room may be obtained at a minimum cost of about \$5.50 a week.

LAUNDRY. The expense for laundry may be estimated at 40 cents to 70 cents a week.

BOARDING AND ROOMING HOUSES

Students who are not residents of Manhattan live in rooming houses approved by the College administration. The Faculty Council on Student Affairs inspects the rooms and issues certificates of approval for those that are satisfactory. Young women should address correspondence about rooms and board to the dean of women, and upon arriving in Manhattan should visit her office or that of the secretary of the Y. W. C. A. Young men should address such correspondence to the adviser to men, and visit his office upon arriving in Manhattan.

Van Zile Hall, a residence hall which accommodates 125 women students, is located on the campus. It is a beautifully furnished, well-equipped, fire-proof building of stone. Applications for rooms are considered in the order in which they are received. To validate an application for residence in the Hall a deposit of \$10 is required. This amount will be refunded in case of a change in plans, provided request is made to the dean of women by August 25. The contract for room and board in Van Zile Hall is for a full semester (eighteen weeks) and the obligation is canceled only for reasons satisfactory to the dean of women. All correspondence in regard to the residence hall should be addressed to the dean of women.

SELF-SUPPORT

Students of limited means are encouraged and aided in every possible way; but unless they are exceptionally strong, such students should take lighter work by extending their courses, if they are obliged to give any considerable time to self-support. As a rule, a student should have means for at least a semester, as some time is required to make acquaintances and to find suitable work.

The College employs student labor to the extent of about \$6,000 a month, at rates varying from 25 to 40 cents an hour, according to the nature of the employment and the experience of the employee. Most of this labor is on the College farm, in the orchards and gardens, in the shops and the printing office, and for the janitor. Students of exceptional ability are sometimes employed in special duties about the College. Many students secure employment

in town, and there is some opportunity for obtaining board in exchange for work with families either in town or in the neighboring country.

About a third of the students support themselves wholly, while another third support themselves in part.

LOAN FUNDS

All student loan activities are coördinated in the office of the executive secretary of the Kansas State College Alumni Association, located in Anderson Hall. Any student desiring to apply for a loan from any fund listed below should present his request to Kenney L. Ford, secretary of the K. S. C. Alumni Association.

The State Board of Regents has established the following rules covering the administration of student loan funds:

1. The development of sound character in student borrowers as well as the furnishing of financial aid to deserving students shall be regarded as a major purpose in administering student loan funds. Prompt payment of interest and of principal and other essential features of good business procedure shall be required to the fullest practical extent.

2. When not inconsistent with the terms of the bequest or gift providing a student loan fund, not less than 10 percent of the annual income from the fund shall be set up as a reserve to cover possible losses of principal, until the total reserve for that fund equals 10 percent of the amount of the fund.

3. When not inconsistent with the terms of the bequest or gift providing a student loan fund, as much as necessary (but not exceeding 90 percent) of the annual income from the fund may be used to defray expenses for clerical help, supplies, postage, etc., necessary in administering the fund, but this expense shall not include the services of faculty members, these services being contributed without extra compensation.

4. When not inconsistent with the terms of the bequest or gift providing the loan fund involved, a student loan is to be made only when a note or notes are signed by the borrower and one other responsible person, preferably the borrower's parent or guardian, and this endorser must be recommended by his bank as of good financial standing and as otherwise satisfactory as an endorser.

5. As a general policy, loans will be made only to juniors, seniors and graduate students who have attended Kansas State College for at least one semester and preferably for one year, and who have a scholarship average of at least C. Departures from this policy will be permissible only in highly exceptional and strictly meritorious individual instances.

The College has established the following rules, among others, as to procedure with reference to all student loan funds:

1. The office of the Executive Secretary of Kansas State College Alumni Association is to be the central office through which all student loan activities are coördinated.

2. To apply for a loan from any of the loan funds, a student must present his request to the Alumni office. The Alumni office will give each such student a card designating the Loan Fund Committee to which he should apply for a loan. Decision concerning the Loan Fund Committee to which application should be made is to be based upon the qualifications of the student for a loan; the loans, if any, previously obtained by the student; the amount available to lend in each fund, and such other matters as may be mutually agreed upon by the chairmen of the committees concerned. The student must present the card from the Alumni office to the chairman or other designated representative of the committee named on the card. The Alumni office will keep a duplicate of every such card issued to students. The committee will retain the card presented by the student and furnish the student with the necessary application blanks, provided it appears worth while for the student to make formal application for a loan.

3. A student who has borrowed from one loan fund shall receive a loan from another fund only after those in charge of the fund from which the first loan was made have had an opportunity to extend an additional loan to the

student. If the second loan is made from a fund other than the one from which the first loan was secured, then the first loan shall have priority of payment.

4. The maximum total amount loaned from all loan funds to one individual, under usual circumstances, shall not exceed \$250.

ALUMNI LOAN FUNDS

The Alumni Association of Kansas State College has created a loan fund, chiefly from payments for life memberships in the association. Members pay the association \$3 a year; but on payment of \$50 in one sum they are relieved from further dues. If husband and wife are both eligible to membership, joint membership may be obtained by payment of \$75. The fund so created, now amounting to about \$64,765, is administered by a committee appointed by the directors of the Alumni Association. The committee announces no specific rules governing the granting of loans, but in general gives preference to junior and senior students, and to loans of smaller amounts on short time over larger amounts which cannot be paid for several years. Interest is charged at the rate of six percent a year. Alumni are urged to take life memberships and thus add to the funds available to worthy students.

Acknowledgment of additions to the life membership fund is made in this place from year to year. Since the last report, up to and including October 16, 1937, the following named persons have completed payments for life membership: Erwin Abmeyer, Frances Aicher, Rhoda Austin, Dorothy Bacon, Mary Blackman, Paul Blackwood, Douglas A. Bly, Marjorie Call, F. W. Castello, N. G. Chilcott, Mary H. Clark, Roy D. Crist, Robert J. Danford, Ruth Linscott Daulton, Louise Davis, Maude Deely, Orville F. Denton, Wendell P. Dubbs, W. L. Enfield, Mary G. Fletcher, Rex L. Fossnight, Philip Fox, Sidney L. Franz, Ervil S. Fry, James R. Garver, W. E. Gregory, Paul W. Griffith, Howard J. Haas, W. W. and Mabel Ruggels Haggard, Edith Haines, Carl and Dorothy Wescott Hartman, Earl H. Herrick, Floyd Higbee, Hazel Hotchkiss, J. S. and Elizabeth Mudge Houser, L. A. Jacobson, George Jelinek, Minnie Johnson, Helen Reid King, P. Merville Larson, Mary A. Mason, J. Warren Mather, Arthur E. Mize, Harold Nellans, W. Newell Page, F. Tom Parks, Frank G. Parsons, Ellen Pennel, Harold Pennington, Kenneth O. Peters, A. A. and Eva Burtner Potter, E. G. Rader, Glen Railsback, Mary Frances Reed, Ross E. Rogers, Phoebe Smith Romick, Nellie Jorns Rossel, Paul W. Russell, Sophia Shirley, Mildred L. Skinner, Lolie Smith, J. R. Stoker, Elmer A. Taylor, Mabel Roepke Trekell, C. I. and Laura Lyman Weaver and Lelia F. Whearty. This list brings the total paid-up life members to 836.

GIFTS, MEMORIALS, AND BEQUESTS

The Alumni Association of Kansas State College is incorporated under the laws of Kansas to administer gifts and bequests made in behalf of the college. Any person wishing information regarding the making of gifts or bequests to Kansas State College may communicate with Kenney L. Ford, secretary of the K. S. C. Alumni Association. The following gifts and bequests are now administered by the Alumni Association as units in the Alumni Loan Fund:

The E. A. Allen, '87, gift of \$100 was made as an expression of his desire to be present in spirit on the fiftieth anniversary of his graduation.

The Frances M. Allen Memorial, \$1,000, was established by E. A. Allen, '87, as a memorial to his wife.

The J. Chester Allen, '82, Memorial, \$1,000, was established by E. A. Allen, '87, as a memorial to his brother who died while the donor was a student at Kansas State College.

The Ethel Arnold, '18, Memorial, \$26, was established by a few grateful students who wished to honor the memory of a young and inspiring teacher.

The Clara F. Castle, '94, Memorial, \$100, is a gift made to aid worthy students at Kansas State College.

The Vilona Cutler, '17, endowment membership, \$1,000, was given by Miss Cutler, the fund to be loaned to certain relatives of the donor, and upon repayment to any deserving student at Kansas State College.

The Kary C. Davis, '91, Memorial, \$500, was established by his widow, Fanny Waugh Davis, '91, in memory of a renowned scientist, author, and teacher.

The Albert Dickens, '93, Memorial, \$1,912.70. This fund is made up of many small gifts from friends, alumni, and faculty members to honor a beloved faculty member who served Kansas State College from 1899 to 1930.

The Albert Dietz, '85, gift of \$117.97 was made to help deserving students.

The J. U. Higinbotham, '86, and Mrs. Higinbotham gift of \$1,000 was made to satisfy a life-long ambition of the donors "to help deserving students when the climb upward is beginning."

The Nellie Sawyer Kedzie, '76, Unit of \$801.60 is made up of many small gifts from a host of loving friends and former students who wish to honor the one who first gave Kansas State College prominence in the field of Home Economics.

The Jacob Lund, '83, Memorial, \$70, represents several small gifts from Mr. Lund during his lifetime to help students who need financial assistance.

The Samuel and Eleanor Thackrey Memorial, \$696.75, was established by their descendants. Members of this family, in continuous succession, have been in attendance at Kansas State College for more than fifty consecutive years.

The E. C. Trembly, '95, Memorial, \$50, is a gift made in grateful appreciation of the College.

The J. M. Westgate, '97, Memorial, \$1,000, was loaned by the donor, a noted scientist and teacher, to be used to aid deserving students and became a permanent gift to the Alumni Loan Fund at the time of the donor's death.

The Lydia Gardiner Willard Fund of \$500 was established by J. T. Willard, '83, in recognition of Mrs. Willard's services to the College.

The Venus Kimble Wilson, '08, Memorial, \$400, was established as a token of appreciation by her husband, Bruce Wilson, '08, former faculty member of Kansas State College.

OTHER UNITS IN THE ALUMNI LOAN FUND

THE 4-H CLUB LOAN FUND. The Collegiate 4-H Club of the College has created a loan fund of approximately \$1,500 to be loaned to deserving students who were former successful 4-H Club members. This fund is loaned in units of \$50, drawing interest at 6 percent per annum. The fund has been created by the efforts of the members of the Collegiate 4-H Club in editing and publishing the "Who's Whoot," the annual 4-H Club Book of Kansas. It is hoped that the fund will increase in size from year to year and that it will prove helpful to deserving 4-H Club members attending college.

THE COSMOPOLITAN CLUB LOAN FUND. The Kansas State College Chapter of The Cosmopolitan Club has established a loan fund for men and women students who come from foreign countries and are members of the Cosmopolitan Club.

THE SIGMA DELTA CHI LOAN FUND. The Kansas State College Chapter of Sigma Delta Chi maintains a unit in the Alumni Loan Fund for students enrolled in Industrial Journalism.

The Ag Fair Unit, \$850, is a temporary loan from the Ag Fair Board, the money to be used to aid deserving students in the Division of Agriculture.

The Future Farmers Unit, \$180, is a gift from high-school vocational agriculture students and teachers for the purpose of aiding high-school graduates in vocational agriculture who are enrolled at Kansas State College.

The Klod and Kernel Klub Unit, \$200, is available for students enrolled in the Department of Agronomy.

The Phi Kappa Phi Unit, \$150, is available to students who have been pledged or are members of that scholastic organization.

The Manhattan Chamber of Commerce Unit, \$3,023.72, formerly adminis-

tered by the Chamber of Commerce, given to the Alumni Association to be used to aid deserving students at Kansas State College.

Several graduating classes have turned over to the Alumni Association their class funds as gifts to the Alumni Loan Fund. The following gifts were made to aid deserving students: Class of 1916, \$100; Class of 1919, \$622.47; Class of 1922, \$106.39; Class of 1923, \$76.16; Class of 1926, \$9.13; Class of 1927, \$3.10.

The following contributions to the Chimes Fund are for the present used in the Alumni Loan Fund: Class of 1929, \$674.12; Class of 1930, \$647.30; Class of 1931, \$592.38; Class of 1932, \$647.37; Class of 1935, \$57.50; Class of 1936, \$111.50; the Architectural Unit, \$20.

LOAN FUNDS ADMINISTERED BY THE COLLEGE*

THE LOCKHART LOAN FUND. The Lockhart Loan Fund is the result of a bequest to the College by the late George N. Lockhart. The bequest originally consisted of a one-sixth interest in the Lockhart ranch in Wabaunsee county. This interest has been sold and the proceeds are available to use under the terms of the bequest "to form a fund to assist male students through college by means of loans at a reasonable rate of interest." The fund now amounts to approximately \$28,000. (This fund is managed by a special committee, Dr. W. E. Grimes, chairman.)

THE HENRY JACKSON WATERS LOAN FUND. The Henry Jackson Waters Loan Fund consists of the royalties received from the Kansas sales of Ex-President Waters' textbook, *The Essentials of Agriculture*, for the first five years. The royalties amounted to approximately \$2,000, which sum has been augmented by gifts of \$100 each from Senator Capper and L. R. Eakin, and by smaller amounts received from some others. The entire amount, now over \$5,000, is in constant use. The fund is administered by a committee appointed by the president of the College and approved by the Board of Regents. The rules for the loans are likewise approved by the board. The rules allow emergency loans of \$50 to any student who has completed one semester of work in this College. Juniors may borrow \$100 and seniors may borrow \$150.

THE BELLE SELBY CURTICE LOAN FUND. Mrs. Belle Selby Curtice, a graduate of the class of 1882, established a loan fund of \$1,000 in memory of the influence and inspiration the College has given her life. This fund is available to young women in the curriculum in Home Economics.

THE SOCIAL CLUB LOAN FUND. This is a fund loaned by the K. S. C. Social Club and amounts at the present time to over \$3,000.

THE D. A. R. LOAN FUND. The D. A. R. Loan Fund, about \$750, is a fund available to both men and women students.

THE WOMAN'S CLUB LOAN FUND. This is a fund established by the Woman's Club of Manhattan, and is available to both men and women students.

THE FRANKLIN LITERARY SOCIETY LOAN FUND. The Franklin Literary Society established a loan fund which at present amounts to more than \$300.

THE STUDENT EMERGENCY LOAN FUND. In February, 1932, the Campus Chest Fund Committee decided to use the proceeds of the annual contributions made by members of the College faculty and students to establish an emergency loan fund. The loans are extended to any student temporarily embarrassed for funds to meet current bills, but loans are not made in excess of \$15 to one student, and they are made for a short time only. During a period of less than five years the original working capital of \$540 has been loaned and repaid about eight times. On August 31, 1936, the total amount loaned from the time of the establishment of the fund was \$4,326.29.

THE HOUSEMOTHERS' CLUB LOAN FUND. This fund is available to men or women undergraduate students.

* These funds are managed by the Waters Loan Fund Committee, Prof. J. O. Hamilton, chairman.

LOAN FUNDS NOT ADMINISTERED BY THE COLLEGE†

THE REBECCA DUBBS, '28, MEMORIAL FUND was established by members of her family to assist students enrolled in any college in Kansas, who are graduates from any high school located in Ness, Lane, Scott, Wichita, Greeley or Gove counties. Any one wishing to apply for a loan from this fund should write to Mr. G. G. Hays, Ransom, Kansas.

THE STATE FEDERATION OF WOMEN'S CLUBS LOAN FUND. Each year several of the young women students of Kansas State College are beneficiaries of the State Federation of Women's Clubs through the administration of its liberal Young Women's Student Loan Fund.

THE P. E. O. LOAN FUND. The P. E. O., a national organization of women, maintains a fund to be loaned to girls to help defray college expenses.

THE WOMEN'S PAN-HELLENIC LOAN FUND. The Alumnae Pan-Hellenic Fund is loaned to women students.

THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN LOAN FUND. The Manhattan branch of the American Association of University Women maintains a small loan fund which is available to a graduate woman student enrolled in any department of the College recognized by the Graduate Council.

THE MASONIC LOAN FUND. The Knights Templar Commandery has established a loan fund that is available for junior and senior men and women who have given evidence of scholarship and worth. Applicants should seek recommendations from the commandery with whose members they may be acquainted.

THE ORDER OF THE EASTERN STAR LOAN FUND. This fund is open to members of the Order of the Eastern Star and to sons and daughters of members of that organization. Loans are made from this fund to College juniors and seniors. Applications for loans are passed upon in August for the first semester and in January for the second semester. Applications should be filed well in advance of these months. Information may be obtained through the Grand Secretary, The Order of the Eastern Star, National Reserve Building, Topeka.

PRIZES AND MEDALS

STOCK JUDGING. The Block and Bridle Club offers four medals, one gold, one silver, and two bronze, to students obtaining the highest four places in the club's stock-judging contest.

DAIRY JUDGING. The Student Dairy Club each year holds a dairy-judging contest, and offers a gold, a silver, and a bronze medal to students obtaining the highest three places.

POULTRY JUDGING. The Department of Poultry Husbandry offers prizes to the value of \$100 to students in poultry-judging contests.

GRAIN JUDGING. The Klod and Kernel Klub holds an annual grain-judging contest. Cash prizes, trophies, merchandise, and subscriptions to farm papers are given to the highest ranking students.

ARCHITECTURE. The American Institute of Architects offers a medal to the senior architect showing the highest degree of general excellence. The faculty of the Department of Architecture offers prizes of books to those freshmen, sophomores, and juniors who do the best work.

Alpha Rho Chi, national social fraternity of architecture, awards a medal to the graduating senior of the Department of Architecture who has shown through his attitude and personality the greatest ability for leadership, service for his school and department, and real professional merit.

CHEMICAL ENGINEERING. Each year the American Institute of Chemical Engineers awards a certificate of merit to the sophomore who achieved the highest rank in scholarship during his freshman year in chemical engineering.

† The Alumni Office will furnish specific information as to the administration of these funds.

CIVIL ENGINEERING. The Kansas section of the American Society of Civil Engineers offers payment of the initiation fee into the American Society of Civil Engineers to the senior civil engineer making the highest grades during his senior year.

ELECTRICAL ENGINEERING. Two medals, first (gold) and second (silver), are awarded those seniors who have made the best records in twenty semester hours of certain fundamental, required electrical engineering subjects. Also two medals, first (gold) and second (silver), are awarded to the ranking juniors who have completed not fewer than eighty semester hours of the required electrical engineering curriculum.

MARGARET RUSSEL SCHOLARSHIP AWARD. Phi Alpha Mu, the honor society for women taking work offered in the curriculum in general science, awards \$50 each year to the junior young woman enrolled in the curriculum in general science who had the highest scholastic standing at the close of the second semester of the previous college year. To be eligible for this award the student must have done her sophomore work in the Division of General Science at Kansas State College.

OMICRON NU SCHOLARSHIP AWARD. Omicron Nu, the honor society of the Division of Home Economics, grants annually a prize of \$10 to the young woman achieving highest rank in scholarship among the freshmen of that division.

SIGMA TAU SCHOLARSHIP AWARD. Sigma Tau, the honor society in the Division of Engineering, awards annually medals to the three sophomore engineering students making the highest scholastic records in their freshman year.

COMMERCE. The Alpha Omega chapter of Alpha Kappa Psi, professional commerce fraternity, offers a scholarship medallion annually to the student who makes the highest scholastic record among all junior men enrolled in the curriculum in commerce.

SHORT-STORY WRITING. The Quill Club offers annually \$10 to the student of Kansas State College writing the best short story in a contest held by this organization.

JOURNALISM. The outstanding student in Agricultural Journalism each year is honored by having his name engraved upon one of the several small shields surrounding a larger shield which bears these words: "Recognition for superior attainments in Agricultural Journalism. Presented by Arthur Capper to students in the Department of Industrial Journalism and Printing, Kansas State College."

ORATORY. The literary societies through the Inter-Society Council offer each year in the Inter-Society Oratorical Contest three substantial cash and medal prizes.

The College is a member of the Missouri Valley Oratorical Association and is represented in its annual contest in which valuable cash and medal awards are offered.

Other contest opportunities of an intercollegiate character and carrying substantial awards are available from time to time.

SOCIOLOGY. The Kappa Alpha Chapter of Chi Omega Sorority offers a prize of \$25 to the woman student who holds the highest grade in sociology at the end of the first semester each year, the standing of the student to be determined by the instructor.

VETERINARY MEDICINE. Within the Division of Veterinary Medicine awards are made as indicated below:

Harwood prizes in physiology—donated by Dr. N. D. Harwood, K. S. C., '18—consist of a first prize of \$10 and a second prize of \$5. Sophomore students are eligible.

Salsbery prizes in therapeutics—donated by Dr. C. E. Salsbery, representing the alumni of the suspended Kansas City Veterinary College—consist of a first prize of \$10 and a second prize of \$5. Junior students are eligible.

Franklin prizes in pathology—donated by Dr. O. M. Franklin, K. S. C., '12—consist of a first prize of \$10 and a second prize of \$5. Senior students are eligible.

Alumni prizes in general efficiency—donated by Dr. Benjamin F. Pfister, '21 and Dr. Earl F. Hoover, '24—consist of a first prize of \$15 and a second prize of \$10. Senior students are eligible.

Bower prizes in small-animal clinic—donated by Dr. C. W. Bower, '18—consist of a first prize of \$10 and a second prize of \$5. Senior students are eligible.

SCHOLARSHIPS

For 4-H CLUB MEMBERS. Senator Arthur Capper, of Topeka, Kan., offers \$300 annually for the purpose of providing two 4-H Club scholarships of \$150 each for any full-year course at Kansas State College. One of these scholarships goes each year to the boy standing highest and the other to the girl standing highest in the 4-H leadership project in Kansas.

For 4-H CLUB AND VOCATIONAL AGRICULTURE STUDENTS. The Union Pacific Railroad Company offers \$100 scholarships to winners in 4-H Club work and in the study of vocational agriculture in thirty-six counties named, the money to be used to enroll for a full-year course in agriculture or home economics.

For 4-H CLUB AND VOCATIONAL AGRICULTURE STUDENTS. Sears, Roebuck and Company offers annually fifteen \$150 scholarships to outstanding high-school graduates who have done significant work in 4-H Clubs or in vocational agriculture and whose attendance at college will be dependent upon such an award. At the end of the freshman year a student is selected from among the holders of the scholarships to receive an award of \$200, to be applied on the expenses of his sophomore year.

For WORLD WAR VETERANS AND THEIR DESCENDANTS. The trustees of the estate of La Verne Noyes award to Kansas State College annually \$1,000 for scholarships which cover part or all of the matriculation, incidental, and laboratory fees. These scholarships are available, with certain reservations, to deserving students who need this assistance and who served in the army or navy of the United States between April 6, 1917, and September 11, 1918, or are descended by blood from some one who so served. Enlistments must have been previous to May 11, 1918, unless active oversea, prearmistice service was rendered. Applications for these scholarships should be made through the student's dean not later than August 1 preceding the academic year in which the scholarship is desired.

GRADUATE ASSISTANTSHIPS

Graduate assistantships and graduate research assistantships have been established for some years by action of the Board of Regents, and are available in several departments of the College. See Division of Graduate Study.

BUSINESS DIRECTIONS

General information concerning the College may be obtained from the president or the vice-president. Financial matters are handled through the office of the business manager, State Board of Regents, Topeka, Kan.

Prospective students who desire information or catalogues should communicate with the vice-president.

Scientific and practical questions and requests for special advice in subjects in which the College and the Experiment Stations are prepared to give information, should be addressed to the heads of the departments concerned with the work regarding which information is sought.

Applications for farmers' institutes should be made as early in the season as possible, to the Division of Extension. Requests for the publications of the Agricultural Experiment Station or of the Engineering Experiment Station should be made to the director of the station concerned.

Donations to the Library should be addressed to the librarian, and donations to the Museum to the curator of the Museum.

COLLEGE PUBLICATIONS

The official organ of the College is *The Kansas Industrialist*, published weekly and printed at the College by the Department of Industrial Journalism and Printing. It discusses the work of the College, investigations of the Experiment Stations, and local and alumni news. *The Kansas Industrialist* will be sent to any address for \$3 a year. Alumni having active membership in the Alumni Association receive *The Kansas Industrialist* free of charge.

The Kansas State Collegian, a semiweekly newspaper, and *Royal Purple*, the College year book, are published by the Board of Student Publications.

The Kansas Agricultural Student is issued quarterly by the Agricultural Association of the Division of Agriculture, and *The Kansas State Engineer* is published by students in the Division of Engineering.

PARKING REGULATIONS

PUBLIC PARKS. There are two public automobile parks for general use by students, faculty members, employees, and visitors. One of these is northwest of Engineering Hall and the other is north of Waters Hall. No permits are required for the use of these parks.

RESTRICTED PARKS. To accommodate crippled students and others having special need for parking spaces, a few small parks have been provided; permits for the exclusive use of these parks are issued when necessary. Each stall is assigned to a certain car and may be used by that car only.

PARKING ON DRIVEWAYS. No parking is permitted on driveways except during public exercises, and for a short time before and after them.

COLLEGE ASSEMBLY

The College Assembly is held one hour fortnightly. The library, offices, classrooms, and laboratories are closed and the students and the faculty gather in the College auditorium. The Assembly exercises consist of devotional services, usually conducted by a Manhattan minister; music by soloists, ensembles, or the College orchestra; and an address by a prominent visitor or a member of the College faculty. Attendance is not compulsory, but the auditorium is usually filled during Assembly exercises.

COLLEGE POST OFFICE

The College operates an office for the reception and delivery of mail. This is not a part of the United States postal service, but students and College officers may have their mail delivered there. Mail arrives from the Manhattan post office twice a day. Stamps may be bought there and mail insured or registered, but money orders are not sold. The chief purpose of this office is to facilitate intercommunication of College departments and communication of faculty with students. All students are expected to call for their mail at least once every two days and preferably every day.

APTITUDE TESTS FOR FRESHMEN

Aptitude tests of all freshmen have been conducted here since 1919. These tests are designed to ascertain what features of the students' mental endowment and attainment are strongest. The results are very helpful to deans and advisers in judging the intellectual progress of students, and in giving them counsel concerning occupational aptitudes. They are also of assistance in placing students or graduates in positions.

ASSIGNMENTS

The student is responsible for seeing that he conforms to the requirements of the curriculum in which he is enrolled. His assigner and his dean will assist him in planning his work, but are not responsible for his errors. The catalogue is the authentic source of information. The student should read all catalogue statements concerning assignments and curriculum.

No student may be enrolled in classes or for private lessons in music or

other subjects before receiving an assignment, and no assignment is completed until after the incidental fee and any special fees or charges are paid.

Assignments on the dates shown in the College calendar are made in Nichols Gymnasium, where detailed directions are announced by placards. Later assignments are made by the student's assigner during regular office hours, but are subject to checking by the registrar in respect to availability of classes. Classes are closed when the limits as to numbers are reached. A student is not admitted later than ten days after the opening of the semester except by special permission of his dean. An extra fee of \$2.50 is charged for assignments secured after the last period provided for assignment of students at the opening of each semester as announced in the College calendar.

A student desiring to take work at any other than the regular time must obtain the written consent of his dean, the head of the department in which the work is to be done, and the dean of the division to which the department belongs.

Each student must take full work unless excused by his dean. No student may take more than regular work except by permission of his dean, and under no circumstances may a student do so who failed or was conditioned or deficient in any subject the preceding semester, or whose average grade was below B.

A student must not carry work by correspondence while enrolled here, except by permission of his dean.

Special requests concerning assignments, and permission to make up deficiencies by outside study under an approved tutor, are acted upon by the student's dean in conference with the heads of the departments involved.

CHANGES IN ASSIGNMENTS

Deans do not alter assignments within two weeks of the end of a period covered by midsemester or final scholarship-deficiency reports.

No student may drop a study or modify his assignment except by a re-assignment; any student desiring a change in his assignment must apply to his dean, who is the only person who can make such change. Instructors desiring changes of assignment send requests to the proper dean. Notices of changes are sent to the registrar, the student, and the student's assigner. The registrar, through the heads of departments, sends notices or enrollment cards to the instructors concerned. Changes are effective immediately.

A student receiving a notice of reassignment must at once report to classes in accordance therewith. If not content with the revised assignment, he may confer with his dean about it. The instructor reports as unexcused absences all those caused by a student's dropping out of class without a proper re-assignment.

AUDITING CLASS

Auditing a class consists in attending it regularly without other participation, and without credit. Only persons having written permits may audit classes. Permission to audit is issued to (a) any person who is enrolled for credit, by the dean in charge of his assignment; (b) any employee of the College not enrolled for credit, by the dean of the division in which the person is employed, with approval of the head of the department in which the course is offered; (c) any other person, on payment of a fee of one dollar a credit hour, by the dean of the division in which the course is offered, with the approval of the head of the department. Laboratory courses may not be audited.

SCHOLARSHIP DEFICIENCIES

Probation

Any freshman student who receives at the end of a semester deficiencies (grades of F or Con) in one third of the work to which he is assigned, or any other student who receives at the end of a semester deficiencies in one fourth of his work, is automatically placed on probation for one semester, and his parent or guardian is informed of the fact. A third such probation automatically involves dismissal from College.

Dismissal

Any freshman who receives at the end of a semester deficiencies in one half of his work, or any other student who receives at the end of a semester deficiencies in two fifths of his work is automatically dismissed from the College. The deans notify parents and guardians when students are dismissed or put on probation on account of scholarship deficiencies.

Reinstatement

Students dismissed at the end of the first semester are excluded until the beginning of the next summer session. Those dismissed at the end of the second semester are excluded until the end of the next fall semester. During this period of dismissal the student must not habitually appear upon the campus or enter any classes. Any student dismissed for scholarship deficiencies may petition in writing, on a form provided by the College, for immediate reinstatement. The Committee on Reinstatement considers such petitions, granting reinstatement in exceptional cases only.

ABSENCE AND TARDINESS

Each student must appear at the first exercise of his classes after he is assigned. Students must be present on the first day of each semester or render a reasonable excuse. All absences are reported from the first day of the semester, even though the student enrolled late. Failure to take out an assignment is not accepted as an excuse for absence from classes. A student is not admitted later than ten days after the opening of the semester except by special permission of his dean.

Each undergraduate, except seniors, must attend every exercise of a class to which he is assigned, unless exempted under the provision that a junior student has the privilege of optional attendance if, during the last two semesters he attended this College, he made not fewer than thirty points each semester, with an average record of not fewer than two points per credit hour each semester and no grades below passing.

All absences and all cases of tardiness must be promptly reported on the "absence blanks." Permission for necessary absences from College for a day or more must, in all cases, be previously obtained from the dean. Any student desiring to be excused for the day from certain classes must apply in advance to the instructors in those subjects.

At the beginning of each class period the instructor takes the attendance. A late comer may have his record of absence changed to one of tardiness if at the end of the class he gives his instructor, on the absence blank, a written statement of his presence.

Any class is excused if for any reason the instructor fails to report at the end of ten minutes after the beginning of the recitation period, unless the instructor sends word that he will be there later.

Before 5 p. m., instructors send signed reports of absences for the day to the deans. Excuses submitted by students are transmitted with a recommendation concerning the absence, which only the dean can excuse. Excuse for an absence does not relieve the student of responsibility for lecture, recitation, or laboratory work lost by absence.

If, after due warning, a student is persistently inattentive to his work, his dean will report him to the president for suspension.

EXAMINATIONS

Final examinations are held during the last four days of each semester, according to a definite schedule; students who are to be graduated at the close of the semester take their examinations earlier, usually at the regular hours for the respective courses.

No regular examination may be given at a date earlier than the one scheduled except that, at the discretion of the head of the department, a stu-

dent may take his examination with another class in the same subject instead of with his own class; in cases of extreme importance the student's dean may authorize an earlier examination.

Any student who receives a grade of A for the semester, in any subject, and whose absences for all causes from the class in that subject do not exceed one tenth of the number of times the class is scheduled to meet during the semester, may be excused from the final examination in that subject, at the discretion of the instructor; provided, however, that instructors are to announce such exemption lists in their respective subjects not earlier than the last session of the class preceding the final examination.

Examinations to remove conditions are held on the fourth Saturday of each semester. A student who has received the grade of Con may take such conditional examination, if he applies for permission to his instructor or department head not later than the Tuesday evening preceding the Saturday set for the examination. If a student does not at the first opportunity pass an examination in a subject in which he is conditioned, his grade is changed from Con to F, except that in individual instances the student's dean may authorize such examination at a special date.

Permission for examination in subjects not taken in class or to make up failures by special examination must be obtained, on recommendation of the professor in charge, from the dean of the division in which the student is assigned. Permission to take such examination is not granted unless the preparation for it is made under an approved tutor. All such examinations are under the immediate supervision of the professor in whose department the subject is.

Examinations in high-school subjects for admission to the College are held at the beginning of each semester and of the summer school. Students desiring such examinations should consult the registrar in advance.

GRADES

Grades are A, B, C, D, Con, and F, having the following significance:

A, distinguished achievement; only five to ten percent of the students in a course are apt to get A.

B, superior achievement; about twenty-five percent of the students in a course are apt to get A or B.

C, average achievement; about half the students in a course are apt to get C.

D, passed; below average; about twenty-five percent of the students in a course are apt to get D, Con, or F.

Con, conditioned, for unsatisfactory work. The result of examinations to remove conditions is reported simply as D (passed) or F (failed). If such examinations are not taken at the first opportunity, the grade Con automatically becomes F, unless in the meantime the student has reënrolled in the course; then Con shall not become F if the student completes the course satisfactorily.

F, failed; the work must be repeated in class or under an approved tutor.

Inc, meaning incomplete, is reported when, in the judgment of the instructor, the student deserves further time to complete work which has been excusably interfered with. This is only a temporary report and in no way prejudices the student's final grade in a course. Students in laboratory and industrial work must put in at least four fifths of the required time in order to get a passing grade in the subject. Should the required time minimum not be reached, a mark of Inc is reported if the quality of the work done is satisfactory and F if it is unsatisfactory. Incomplete work for which a mark of Inc has been reported, if not made up within the first subsequent semester the student is in attendance, automatically becomes an F. The dean concerned may, however, extend the time in meritorious cases, if he sends the registrar notice of such extension within the "first semester" time limit.

The distribution of grades indicated above applies to large numbers, and is not necessarily true of small numbers. It is not a foregone conclusion, for example, that one in a class of twenty must fail or even that one in the class must get an A. In a small group the chances are great of a departure from the normal. Such a departure should of course be recognized in the grades issued. In the long run the accumulated grades for a series of small classes should, however, approach the normal distribution.

REPORT OF GRADES

(1) On the fifth and the ninth Saturday of each semester; (2) not later than 6 p. m. on the last day of the first semester; (3) and not later than 6 p. m. on the day after the close of the second semester, reports of all grades below passing on those dates are sent to the students concerned and the deans. The dates appear in the College calendar; these reports are an imperative duty of all instructors. The first two reports are made in percentages on a scale of seventy for passing. The reports at the end of the semester are on the letter system.

Students desiring reports of intrasemester grades must supply their instructors with properly filled official cards after the fifth or the ninth Saturday of the semester. Instructors will make reports so requested to the students or send them to the student organizations.

The instructor prepares for each student a semester grade based on the examination and classwork, and must report this to the registrar for record within one week after the close of the semester.

If a student drops a subject before midsemester a mark of Wd (withdrawn) is reported. Subjects may not be dropped from assignments within the last two weeks of a period covered by midsemester or final scholarship-deficiency reports.

If a student withdraws from College before midsemester a mark of Wd is reported for each subject, irrespective of the standing of the student in the subject. Regardless of the time of withdrawal, however, a final grade shall be reported, if all the required work of a course has been completed. If a student goes through the first half of the semester, but not the second half, a half-semester grade is reported for record, and designated as such; but a subject dropped at any time after midsemester on account of failure is given a semester grade of F.

In case of absence from a final examination, no semester grade is reported until the reason for such absence has been learned; within the week after the end of the semester, however, the instructor reports to the registrar a mark of Inc. If the student's absence is inexcusable a semester grade is reported on the basis of zero for the final examination; but if the absence is excused or excusable, a reasonable time, usually not over one month, is allowed within which the examination may be taken.

The result of an examination to remove a condition is reported in quadruplicate to the dean of the student, who transmits copies to the registrar, the student, and the student's assigner. The same procedure is followed in reporting a grade to replace Inc and in reporting corrections of grades.

Instructors are to leave all class books on file in the proper department or with the president of the College when severing their connection with the institution.

THE POINT SYSTEM

For each hour of work assigned, the student receives points, according to the grade attained, as follows: Grade A, 3 points; B, 2 points; C, 1 point; and D (or lower), no points. For graduation the total requirement in points is the same as in hours. Above the freshman year classification is based on the same requirement in points as in hours.

Seniors meeting the graduation requirement in hours but failing to meet it in points must take further courses designated by the dean of the division in which their major work lies, until the requirement in points is met.

CLASSIFICATION OF STUDENTS

The Committee on Admission classifies new students. To be classified as a freshman on entrance a student must be a graduate of an accredited high school, or offer fifteen units of acceptable high-school work. A student offering fourteen acceptable high-school units is classified as a conditioned freshman. A student is not advanced in classification until the required entrance units are completed. A student is classified as a sophomore, junior, or senior when he has credit in a number of hours and also of points nine less than the full number of hours required in one, two, or three years, respectively, of the curriculum in which he is enrolled. The registrar reclassifies students each academic year before the opening of the first semester.

CREDITS FOR EXTRACURRICULAR WORK

Students may earn credit towards graduation by satisfactorily participating in certain extracurricular activities. These activities, and the maximum of semester hours of credit allowed, are as follows:

<i>Subject</i>	<i>Per semester</i>	<i>Total</i>
Orchestra	$\frac{1}{2}$	4
Band	$\frac{1}{2}$	4
Choral Ensemble	$\frac{1}{2}$	4
Debate	2	4
Oratorical Contest	2	4
<i>Kansas State Collegian</i> journalism.....	1	4
<i>Agricultural Student</i> journalism.....	1	4
<i>Kansas State Engineer</i> journalism.....	1	4

To obtain credit on one of these subjects, the student must be regularly assigned to it in accordance with the general rules governing assignments, but may be assigned only upon the written recommendation of the instructor in charge of the work. This recommendation is filed in the office of the student's dean, and is effective until revoked.

Credits obtained in the above-named subjects may be counted as electives in the student's curriculum, or may be formally substituted for required subjects if the curriculum does not offer sufficient elective opportunity. Approval as electives or substitutions is obtained only through the regular procedures. A total of not more than eight semester hours may be allowed a student for these subjects, and not more than two of these may be obtained in any one semester.

BIBLE STUDY

Bible study is an elective. Two semester hours are granted for each completed one-year course. A student may get credit for not more than two courses. Instructors must have College approval as tutors; the Department of Education supervises the work and conducts the examination for credit.

COURSE NUMBERS

Each course offered bears a number indicating in a general way the classification of students for whom it is given. Courses for undergraduates bear numbers 101 to 199, courses for undergraduates and graduates bear numbers 201 to 299, and courses for graduates only bear numbers 301 to 399. Each department numbers its courses independently.

CLASSES

The minimum numbers for which classes are organized are as follows:

Freshmen	15
Sophomores, juniors, or seniors.....	7

This rule is varied only by special permission of the Board of Regents.

THE STUDENT GOVERNING ASSOCIATION

The governing association of the student body was organized in the spring of 1919, as the Student Self-governing Association, and reorganized in the spring of 1926 as the Student Governing Association.

The executive council of the association consists of seven members, elected by the student body each spring for the following school year. The council discharges all executive functions of the association, and sits as a court in disciplinary cases. Actions of the council are subject to approval by the faculty council. In cases of disagreement which are not compromised successfully, the decision of the president of the College is final.

Officers of the association are president, vice-president, secretary, and treasurer, elected by the council. Though the council sits as a committee of the whole in all its affairs, certain members are put in charge of certain activities, such as discipline, social affairs, etc. Membership in the student association is contingent upon payment of the student activity fee.

THE CHRISTIAN ASSOCIATIONS

The Young Men's Christian Association and the Young Women's Christian Association are organizations of great value to the College community. They stimulate religious development among the young men and women, and support all activities, academic, social, or athletic, which make the life of the student more delightful and more comprehensive.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

All men students are welcome as members of the College Y. M. C. A. There is no fixed fee, but each member gives what he can afford. The work of the organization is carried on by a student cabinet, composed of the officers and the chairmen of the standing committees. Each year a freshman commission is organized for the benefit of the new men, especially those who have had Hi-Y experience. The Y. M. C. A. maintains an employment bureau for men students, and has a complete list of rooms and boarding places for men. The permanent secretary is glad to correspond with prospective students and to receive them for interviews.

THE YOUNG WOMEN'S CHRISTIAN ASSOCIATION

The College Y. W. C. A. maintains an office and a reading room. The full-time secretary has the assistance of the student leaders of the association and of a group of local women. Through its college sister work the association endeavors to reach every new woman student. Any young woman who expects to enter College may write to the secretary of the association for assignment to a college sister who will help her to make campus adjustments during the opening weeks of the College year. Coöperating with the dean of women, the association helps women students to find satisfactory rooms and boarding places, and maintains an employment bureau for them.

THE NEWMAN CLUB

On alternate Sundays, the Newman Club, an organization of Catholic students, holds meetings devoted to religious study supervised by the local pastor. The College authorities recognize this Bible study by allowing a two-hour credit for it when duly certified. There are social as well as religious meetings. The club is affiliated with the national organization of Newman clubs of the state universities and colleges. Its aim is to foster sound morality, to develop character, and to promote the knowledge and practice of their faith among Catholic students.

LITERARY SOCIETIES

The literary societies of the College, four in number, are wholly student organizations, holding weekly meetings in the College buildings. The Ionian and Browning societies admit only women to membership; the Hamilton and the Athenian societies admit only men. These societies jointly maintain an oratorical board which arranges for the intersociety oratorical contest.

COSMOPOLITAN CLUB

A chapter of The Association of Cosmopolitan Clubs in Universities and Colleges of America is maintained at Kansas State College. The active membership consists of foreign and American students in equal numbers, and is open to both men and women. A limited number of faculty members is admitted to associate membership. The objective of the club is the promotion of international understanding through friendship among the nationalities represented on the campus. Motto: "Above All Nations Is Humanity."

SCIENCE CLUB

The Science Club, meeting monthly, is an organization of instructors, students, and others interested in science. Its programs include popular lectures by prominent men of science, papers giving the results of research work at the College, and discussions.

AGRICULTURAL SOCIETIES

The Agricultural Association meets during regular agricultural seminar periods. Special meetings are held at the call of the president of the association. All resident students enrolled in the Division of Agriculture are members. The objectives of the association are to encourage and support divisional activities; to correlate the work of various clubs and other organizations of students within the division; and, in general, to have leaders elected and authorized to speak for the student body of the division at all times.

The Agricultural Economics Club meets on the first and third Tuesdays of each month. Membership is open to students enrolled in the curriculum in agricultural administration, to majors in agricultural economics, to graduate students majoring or minoring in agricultural economics, and to members of the faculty whose work lies within the field of agricultural economics. The objectives of the club are to promote interest in agricultural economic topics and to further the acquaintanceship of faculty and students. Faculty members and outside speakers are usually secured for programs. Some social meetings are held each year.

The Alpha Mu Club meets on the second Monday of each month during the college year. Its object is to promote interest in milling and its closely associated fields. Membership is open to those taking the milling industry curriculum, the milling faculty, and others associated with the milling industry. Outside speakers are frequently secured for programs.

The Block and Bridle Club meets on the first and third Tuesdays of each month. Membership is open to students majoring in animal husbandry and to students signifying their intention of majoring in animal husbandry. The object of the club is to promote the interests of animal husbandry in the College and in the state. Livestock problems of all kinds are discussed, and members of the faculty and outside speakers are secured for addresses on special topics.

The Dairy Club meets on the first and third Tuesdays of each month. Membership is open to anyone who is taking any four-year curriculum in the Division of Agriculture and also to anyone actively engaged in dairy work at the College. The object of the organization is the furtherance of dairying in Kansas. Current topics and records of the dairy breeds are read and lectures on special subjects are given by faculty and outside speakers.

The Horticultural Club meets the first and third Mondays of each month during the College year. Its object is to promote the horticultural interests of the state and to afford opportunity for students to improve their knowledge of horticulture. Faculty members and students of the college interested in horticulture are eligible for membership. Students present the majority of the programs.

The Klod and Kernel Club meets on the second and fourth Tuesdays of each month. Membership is open to junior and senior agronomy students and members of the agronomy faculty. The object of the society is to arouse more interest in agronomic work and to help students and faculty members of the Department of Agronomy to become better acquainted. Faculty and outside speakers appear on the programs.

ENGINEERING SOCIETIES

All the students enrolled in the Division of Engineering and Architecture are members of the Engineering Association, which meets usually once each month. In addition, the students in agricultural, chemical, civil, electrical, and mechanical engineering are organized as student branches of the American Society of Agricultural Engineers, the American Institute of Chemical Engineers, the American Society of Civil Engineers, the American Institute of Electrical Engineers, and the American Society of Mechanical Engineers, respectively. The Gargoyle Club conducts the meetings of the students in architecture. The Kansas State Glider Club is an organization open to all students interested in glider flying; meetings are held weekly, and flying operations are supervised by experienced glider pilots.

The purpose of these various societies is to acquaint the students with the latest developments in engineering and architecture, to give them more definite ideas as to the opportunities and the requirements for success in their professions, to promote acquaintance and fellowship among the students, and to further the interests of the Division of Engineering and Architecture in the College and in the state.

GENERAL SCIENCE SOCIETY

The Popenoe Entomological Club meets twice a month. The object of the club is to promote interest in entomological work at the College. Membership is open to students and faculty members interested in insects. Entomological topics are discussed by members of the club and outside speakers. The club sponsors occasional field trips.

HOME ECONOMICS SOCIETY

The Margaret Justin Home Economics Club includes all students in the Division of Home Economics. Its purpose is to promote professional interest by means of social contacts and talks by leaders in home economics. It is affiliated with the American Home Economics Association and leads to continued membership in that organization after graduation.

VETERINARY SOCIETY

The Junior Chapter of the American Veterinary Medical Association is a student organization in affiliation with the American Veterinary Medical Association. The object of the chapter is to promote interest and knowledge in veterinary science. The organization meets on the second and fourth Thursdays of each month; students present papers, and members of the faculty and outside speakers also appear on the program.

EXTENSION SERVICE SOCIETY

The Collegiate 4-H Club is composed of former 4-H Club members among the College students. Its purpose is to maintain the interest of its members in extension and 4-H Club work, to develop more effective leadership in such work, to maintain and increase a loan fund for 4-H Club members in college, and in general to aid and promote the well-being of former 4-H Club members at Kansas State College. It participates actively in many campus activities and lends its aid to the various extension activities conducted on the campus or in connection with the College. The club publishes each year the yearbook of 4-H Club work in Kansas known as the "Who's Whoot." Outside speakers are frequently secured, and the organization sends representatives to various national or interstate student conventions or meetings.

HONORS

In each of the divisions of the College, "sophomore honors" are awarded at Commencement to not more than five percent of the sophomore class having the highest standing up to the close of the sophomore year.

In a similar manner "senior honors" are awarded to not more than ten percent of the senior class having the highest standing during their junior and senior years.

For honors, the grades for each semester hour have the following values: A, 3; B, 2; C, 1; D, 0; Con. minus 1; and F, minus 2. The honor grade is found by dividing the sum of the honor points by the number of semester hours of work taken. To receive honors, the student must have an average of B or higher.

The diplomas of the highest three percent of the senior class are inscribed "with high honor" and of the remainder of the highest ten percent "with honor."

HONOR SOCIETIES

A chapter of Phi Kappa Phi, membership in which is open to honor students in all departments of American universities and colleges, was installed at Kansas State College on November 15, 1915. Scholarship determines the eligibility of undergraduates for membership.

A chapter of Sigma Xi was installed at Kansas State College in March, 1928. Members of the faculty and graduate students who have shown noteworthy achievement in original investigation are eligible for election to active membership; seniors who have shown marked excellence in two or more departments of pure or applied science are eligible for election to associate membership.

A chapter of Gamma Sigma Delta, national honor society of agriculture, was established at Kansas State College in May, 1914. Its object is the encouragement of scholarship in agricultural science and education, and of excellence in the practice of agricultural pursuits. Seniors in the upper one fourth of their class are eligible for election by the faculty members of the local chapter.

A chapter of Omicron Nu was established at Kansas State College in 1915. Its object is the recognition and promotion of scholarship, leadership, and research in home economics. From the upper one fourth of their class fifteen percent of the seniors, and from the upper one fifth of their class five percent of the second semester juniors may be elected by the active faculty and student members of the local chapter.

HONORARY AND PROFESSIONAL ORGANIZATIONS

There are a number of honorary and professional fraternities, sororities, and societies in the College, membership in which is based on scholarship and achievement. They seek to promote the interests of the various divisions or departments which they serve or represent. The list of organizations follows:

<i>Organization</i>	<i>Division or department</i>
Alpha Kappa Psi.....	Commerce
Alpha Zeta	Agriculture
Blue Key	Senior Men
K Fraternity	Athletics
Kappa Eta Kappa.....	Electrical Engineering
Mortar and Ball.....	Military
Mortar Board	Senior Women
Mu Phi Epsilon.....	Music
Phi Delta Kappa.....	Education
Phi Epsilon Kappa.....	Physical Education
Phi Lambda Upsilon.....	Chemistry
Pi Kappa Delta.....	Debating
Pi Mu Epsilon.....	Mathematics
Quill Club	College Writers
Scabbard and Blade.....	Military
Sigma Delta Chi.....	Industrial Journalism
Sigma Tau	Engineering
Tau Epsilon Kappa.....	Architecture
Theta Sigma Phi.....	Industrial Journalism

AMERICAN CHEMICAL SOCIETY

The Kansas State College section of the American Chemical Society arranges during the school year for monthly meetings which are usually addressed by eminent chemists from out of town.

THE COLLEGE BAND

The College Band is a military organization, composed chiefly of cadets assigned to this duty for the College year in lieu of drill and technical military instruction. The Band is limited in its membership, and attendance of the members upon its exercises is obligatory.

THE COLLEGE ORCHESTRA

The Orchestra is a student organization connected with the Department of Music, membership in which is voluntary. Its daily training under competent leadership results in the acquisition of a considerable repertory. Among the students at large the orchestra aids in cultivating a taste for good music.

ATHLETIC ORGANIZATIONS

Kansas State College gives complete physical training. In the gymnasium, on the field, and on the track, young men play all kinds of games. In addition to gymnasium classes and the physical training of the military corps of cadets, intramural sports as well as varsity games are popular. Every encouragement is given to a man who wishes to play football, basketball, baseball, or tennis, or to take part in track athletics. Only the most proficient enter intercollegiate contests, but others receive sound instruction and get considerable enjoyment from their athletics. All professionalism is strictly repressed and the athletic rules adopted by the faculty prevent students deficient in their studies from participating in intercollegiate games. Kansas State College is a member in good standing of the Big Six Conference.

Young women as well as young men have opportunity to develop themselves physically. In the part of the gymnasium reserved for their use they not only carry out a program of physical education, but likewise enjoy many intramural sports, such as basketball, tennequoit, dancing, and swimming. Orchesis, a national interpretive dancing organization, the swimmers' Frog Club, and other athletic groups are active at the College. There are also tennis players and archers among the girls. All the work of the Women's Athletic Association, as well as in the required courses, is under the supervision of the professor of physical education for women.

Student Health

Head Physician HUSBAND
Assistant Physician LINS
Assistant Physician LOY
Resident Physician SCHWARTZ
Head Dispensary Nurse UMBERGER

Head Hospital Nurse WHITE
Nurse COLE
Nurse KNEDLIK
Technician BROWN

The Department of Student Health is supported by the student-health fee fund. The College has a hospital with a capacity of fifty beds. There are three full-time physicians in the department. Four nurses and a technician are employed regularly.

The offices of the department are in Anderson Hall and are open to students each school day from 7:45 a.m. to 5 p.m. Students have the privilege of consulting any of the College physicians on any question of personal hygiene. Students who need medical service and are able to walk should go to the department offices, unless there is a possibility that they have a contagious disease. Those who are unable to walk, or who suspect that they have some contagion, should go to the hospital at once. The College maintains no ambulance service. The health department observes the same holidays and vacations as other departments of the College.

The College hospital is ready to receive students at any hour of the day or night. Patients are admitted to the hospital only on the recommendation of staff physicians. Hospital service does not include major surgical cases, such as appendicitis, hernia, etc. If such a case develops while the student is in the hospital, he will be transferred, at his own expense, to a hospital of his choice. The College physicians are not required to treat chronic diseases, but if practicable may handle them as they do acute cases. They do not treat fractures and dislocations of a serious nature, but may handle minor cases at the option of the head physician. Students with fractures are admitted to the hospital.

During a regular semester not to exceed three days, and during the nine-weeks summer school not to exceed two days of hospitalization may be provided for each student without charge; for additional hospitalization, a charge of \$1 a day is made. Students admitted to the hospital or remaining in the hospital, at a time for which the student-health fee has not been paid, or during Christmas holidays, will be charged \$2 a day for hospitalization.

The following charges are made for the indicated special services which are optional with students: (1) for X rays, \$1 for large size films, 50 cents for medium-size films, and 25 cents for small size films; (2) for each basal metabolism test, 75 cents. All ordinary medicines and dressings are furnished free both at the hospital and at the dispensary. The services of the college physicians and standard hospital nursing service are free, but a student may employ, at his own expense, any physician or private nurse he may desire.

The College Library

Librarian SMITH
Associate Librarian DERBY
Loan Librarian CAMP
Reference Librarian DAVIS
Documents Librarian HOFF
Assistant Reference Librarian SWENSON

Assistant Loan Librarian CULLIPHER
Acting Cataloguer GULICK
Classifier BAKER
Continuations Assistant BAXTER
Class Reserves Assistant MULLER

The general College Library consists of all books belonging to the College, including the library of the Agricultural Experiment Station, which is incorporated with it. On June 30, 1937, the Library contained 115,040 bound volumes, besides much unbound material. It receives currently about 1,100 serial publications. As a depository the Library receives the documents and other publications of the United States government. The books are classified according to the Dewey system and are indexed in a dictionary card catalogue. The Library is primarily for free reference, but the privilege of drawing books is accorded to all of those connected with the College as registered students or as members of the faculty. Books not specially reserved may be drawn for home use for two weeks. All books are subject to recall at any time.

General reference books, books reserved for classes, general periodicals, and certain other groups of books are to be consulted only in the reading rooms. They may not be loaned from the Library except when the reading rooms are closed. They must be returned to the Library by the time it next reopens. Any violation of the regulations of the Library subjects the offender to a fine or to a withdrawal of library privileges, or to both, according to the gravity of the offense. More serious offenses, such as mutilation or theft of books or periodicals, are considered just causes for suspension or expulsion of the offender, who is also required to make good the loss incurred.

READING ROOMS. Three reading rooms are maintained in connection with the Library: the general reference room, containing encyclopedias, dictionaries, atlases, bibliographies, and general reference books; the special reference room, containing books reserved for classes; and the periodical room, containing current magazines and the important daily and weekly Kansas newspapers. These rooms are freely open to the student and to the public for purposes of reading and study.

DIVISIONAL LIBRARIES. Divisional and departmental collections are deposited in certain College buildings apart from the main Library. These collections are for the special convenience of the instructors and students of the departments concerned. They are under the direction of the librarian and are accessible to all students at regular hours.

The Division of Graduate Study

JAMES EDWARD ACKERT, *Dean*

Facilities for advanced degrees were offered at Kansas State College as early as 1866. Opportunities for investigation and research were afforded originally in 1877, when the Master of Science degree first was authorized. The graduate work was administered by various faculty groups until 1919 when it was placed under the supervision of a Graduate Council which selected a graduate faculty. In 1931, a Division of Graduate Study was formed and a dean of the Division appointed. Authorization for the conferring of the degree Doctor of Philosophy was made effective September 1, 1932.

The Graduate Council, which is continued, consists of eight members selected from the following fields: agriculture, veterinary medicine, engineering, home economics, biological sciences, physical sciences, and social sciences. The dean of the Division of Graduate Study is chairman of the Graduate Council. The graduate faculty offers all graduate courses and considers for adoption general rules of procedure in the administration of the graduate work.

ADMISSION

Correspondence regarding admission to graduate study should be addressed to the dean of the Division of Graduate Study, who will on request supply the required application blanks. Each applicant who is not a graduate of this College must submit with his application an official transcript of his college record.

Admission to graduate study is granted to graduates of institutions whose requirements for the bachelor's degree are substantially equivalent to those of Kansas State College. Admission to graduate study, however, may not be construed to imply admission to candidacy for an advanced degree. Such candidacy is determined after the student has demonstrated by his work for a period of two months or longer (M.S.), or approximately two years (Ph.D.), that he has the ability to do graduate work of major rank.

REGISTRATION

Students who have been admitted to graduate study are required to register, to obtain their assignments from the dean of the division, and to pay their fees during the regular registration periods.

FEES*

Graduate students are subject to the same fees as other students except that (1) they are exempt from the student-health fee; (2) they pay the student-activity fee in summer school, only; and (3) the fee for problem or research work pursued *in absentia* is \$2.50 a semester hour.

ASSIGNMENTS

Not more than sixteen hours, including research, may be assigned in a single semester, nor more than eight hours during the nine-week summer school, nor more than four hours during the four-week summer school. Students holding graduate assistantships may not be assigned to more than twelve hours, including thesis, in one semester.

* See section headed Fees, under General Information.

GRADES†

An advanced degree will not be conferred on any student who does not make a grade of B or higher in three fourths of the hours taken for the degree, including research. A failure or absence from examination in any course may prevent the conferring of the degree, and failure in any course in the major field precludes conferring the degree in the same year.

DEGREES

Of the advanced academic degrees, the degrees Master of Science and Doctor of Philosophy are conferred. The following professional degrees are conferred: Agricultural Engineer, Architect, Architectural Engineer, Chemical Engineer, Civil Engineer, Electrical Engineer, Flour Mill Engineer, and Mechanical Engineer.

CONFERRING OF DEGREES. Candidates for advanced academic degrees at the end of the second semester and summer school are required to be present in the academic costume and hood appropriate for the degree, unless arrangements have been made in advance for the conferring of the degree *in absentia*. Application for this privilege should be made to the dean of the Division of Graduate Study. Degrees are conferred at the end of the first and second semesters and summer school. Candidates receiving their degrees at the close of the first semester receive their diplomas from the registrar without commencement exercises. Candidates for degrees, except professional degrees, at the end of the second semester are required to be present at the exercises of Baccalaureate Sunday also, unless excused by the Council of Deans.

GENERAL REQUIREMENTS FOR THE DEGREES MASTER OF SCIENCE AND DOCTOR OF PHILOSOPHY

Candidates for the degrees Master of Science and Doctor of Philosophy are expected to assume the initiative and the responsibility. It is important to recognize that graduate work does not consist in the fulfillment of routine requirements alone. The various courses as well as the assistance and advice of the instructors are to be regarded simply as aids in acquiring the methods, discipline, and spirit of independent research.

Each candidate for a degree is expected to have a wide knowledge of his subject and of related lines of work. This usually is obtained only by a wide range of private reading and study outside of the immediate field covered by the formal courses to which he may be assigned.

The branch of knowledge to which the student expects to devote the larger part of his time is termed his major subject. The other fields of study selected, which necessarily will be more restricted in scope, are termed minor subjects. The latter should be so chosen as to make the candidate proficient in a second field.

Approximately two thirds of the student's time is devoted to his major subject and one third to one or more minor subjects. The word subject is used to designate a recognized field of study, and is not defined by the limits of a department. The nature and distribution of the majors and minors (program of study) are approved by the Graduate Council, upon the recommendation of the major instructor and the head of the department (M.S.), or of the supervisory committee (Ph.D.).

The approved program of study is made the basis of the formal assignment to courses at the beginning of each semester and of the summer sessions.

Courses numbered in the two hundreds are open to both graduate and undergraduate students. For graduate credit in such courses, the student must do extra work, the nature and amount of which is determined by the instructor.

† See section headed Grades, under General Information.

REQUIREMENTS FOR THE DEGREE MASTER OF SCIENCE

Major work leading to the degree Master of Science is offered in the following departments:

DIVISION OF AGRICULTURE

Agronomy
Animal Husbandry
Dairy Husbandry
Economics and Sociology
Horticulture
Milling Industry
Poultry Husbandry

DIVISION OF ENGINEERING

Agricultural Engineering
Applied Mechanics
Architecture
Civil Engineering
Electrical Engineering
Machine Design
Mechanical Engineering
Shop Practice and Industrial Arts

DIVISION OF GENERAL SCIENCE

Bacteriology
Botany and Plant Pathology
Chemistry
Economics and Sociology

Education*

English
Entomology
Geology
History and Government
Industrial Journalism and Printing
Mathematics
Physics
Public Speaking
Zoölogy

DIVISION OF HOME ECONOMICS

Art
Child Welfare and Euthenics
Clothing and Textiles
Food Economics and Nutrition
General Home Economics
Household Economics
Institutional Management

DIVISION OF VETERINARY MEDICINE

Anatomy and Physiology
Pathology

Minor graduate work is offered in each of the above departments and in the departments of Modern Languages, Physical Education, and Surgery and Medicine.

RESIDENCE REQUIREMENTS. Candidates for the degree Master of Science (M.S.) are required to spend one collegiate year in residence, except under certain special conditions when the residence may be reduced to one and one half semesters, or three nine-week summer schools. The equivalent of thirty semester hours, including a thesis, must be satisfactorily completed.

LANGUAGE REQUIREMENTS. A reading knowledge of two modern foreign languages is highly desirable.

MASTER'S THESIS. Each candidate for a master's degree is required to present a thesis on some subject approved by the major instructor, the head of the department, and the Graduate Council. (See general requirements for the master's and doctor's degrees.)

The thesis ordinarily demands one fourth of the student's time and may not exceed one third of it. The thesis and special reports upon it must be prepared in accordance with specifications to be obtained from the office of the dean of the Division of Graduate Study. (See College calendar for dates.)

A candidate for the master's degree is subject to a rigid oral examination covering the major and minor subjects and thesis by a committee consisting of instructors with whom the major and minor work was taken, the head of the major department, and a member of the Graduate Council as chairman. The dean of the division in which the major work is offered is a member *ex officio*.

REQUIREMENTS FOR THE DEGREE DOCTOR OF PHILOSOPHY

DEPARTMENTS OFFERING MAJOR WORK. Major work leading to the degree Doctor of Philosophy is offered in the following fields: Bacteriology, Chemistry, Entomology, Plant Genetics, Poultry Genetics, Genetics, and Milling Industry. Minor work for this degree may be chosen in the departments offering major work for the degree and in supporting fields in other departments offering graduate work.

RESIDENCE AND CREDIT REQUIREMENTS. At least three years (of nine months each) of graduate study beyond the bachelor's degree, equivalent to 90 semes-

* In graduate work in education, major emphasis is placed upon rural and vocational education.

ter hours, including a thesis, are required of candidates for the degree Doctor of Philosophy. At least one year of this time must be spent in residence at this College.

LANGUAGE REQUIREMENTS. Each candidate for the degree Doctor of Philosophy must demonstrate to the head of the Department of Modern Languages, or to members of his staff designated by him, ability to read the literature of the major field in two modern foreign languages, to be designated by the supervisory committee. The language requirements shall be fulfilled before the preliminary examinations are taken.

SUPERVISORY COMMITTEE. For each student who contemplates working for the degree Doctor of Philosophy, a supervisory committee is chosen by the dean of the Division of Graduate Study. This committee, consisting of not fewer than five members representing the major and minor fields, aids the student in the preparation of the program of study, which must be approved by the Graduate Council, and has charge of all examinations except the language examinations. The chairman of the preliminary and final examinations is a member of the Graduate Council.

MAJORS AND MINORS. Approximately two thirds of the graduate work (program of study) shall be in a major field and the remainder devoted to one or two minors. In exceptional cases, all of the graduate work may be chosen in one field. The work in the major field may be taken wholly within a department or it may include closely related courses and problems in other departments or divisions of the College. The same principle applies to the minor or minors. (See general requirements for the degrees Master of Science and Doctor of Philosophy.)

PROGRAM OF STUDY AND EXAMINATIONS. Students enrolling in graduate study leading to the degree Doctor of Philosophy work on a tentative program of study until approximately two thirds of the program, including a substantial portion of the thesis, has been completed. Ordinarily at the close of the second year of graduate study and not later than the beginning of the year in which the student contemplates receiving the degree, the candidate must pass oral and written preliminary examinations over the entire field of study. When the student has passed the language examinations and the preliminary oral and written examinations, he is recommended by the supervisory committee to the Graduate Council for admission to candidacy for the degree Doctor of Philosophy. The program of study leading to the degree accompanies the recommendation.

On completion of three years of graduate study as prescribed in the program of study and on submission of a thesis satisfactory to the supervisory committee, at least one month before commencement, the candidate is given the final examination.

DOCTOR'S THESIS. Early in the graduate work a thesis subject is chosen in the major field and approved by the supervisory committee. The finished thesis must constitute a contribution to knowledge, either presenting conclusions from new material, or reinterpreting previous knowledge. Two complete typewritten copies of the thesis approved by the supervisory committee shall be submitted to the dean of the Division of Graduate Study at least one month before commencement. On the completion of all requirements for the degree, one copy shall be placed in the College library and the other filed with the head of the department in which the major work is taken.

Before the degree is conferred the candidate shall guarantee the printing of the doctor's thesis (wholly or in part as determined by the supervisory committee) within three years after the date of the conferring of the degree. This guarantee shall be either a statement from the editor of an appropriate technical serial or publishing company that the thesis has been accepted for publication or shall be in the form of a cash deposit of \$100 or a bond acceptable to the Graduate Council. If the thesis is not published in accept-

able form within three years, the deposit or the bond shall be forfeited unless an extension of time is granted by the Graduate Council for delayed publication after acceptance. When the thesis has been published, 125 copies shall be consigned to the College library.

REQUIREMENTS FOR PROFESSIONAL DEGREES IN ENGINEERING AND ARCHITECTURE

A graduate in engineering or in architecture from this College will be granted the professional degree of Mechanical Engineer, Civil Engineer, Chemical Engineer, Electrical Engineer, Agricultural Engineer, Flour Mill Engineer, Architect, or Architectural Engineer, under the following conditions:

The candidate must submit a statement of his experience and a thesis covering some phase of his practice. The thesis and experience must be approved by the head of the department in which the degree is requested by the dean of the Division of Engineering, and by the Graduate Council, before the granting of such a degree will be recommended to the College Faculty and to the State Board of Regents.

The candidate must declare his candidacy and file with the dean of the Division of Engineering a detailed statement of his professional study and experience, and an outline of his proposed thesis, not later than the November 15 next preceding the commencement at which the degree is to be conferred.

A preliminary copy of the completed thesis must be submitted for criticism not later than April 1, and the final copy in duplicate must be submitted not later than May 15.

The candidate for a professional degree shall present himself at the commencement exercises in academic costume in order that the degree may be conferred.

He shall pay a commencement fee of \$7.50 to the business office not later than May 15.

VACATION CREDIT

Upon the recommendation of his major instructor a student may earn two hours of graduate credit in problem or research work during the period between the close of the summer school and the beginning of the next succeeding semester under the following provisions: (1) The approval of the major instructor and of the dean of the Division of Graduate Study must be secured in advance. (2) The work must be done under the supervision of a member of the graduate faculty.

On completion the credit so earned will be included on the student's next regular assignment marked "vacation credit," and will be in addition to the regularly allowed number of hours assigned. Such credits will be forwarded to the registrar by the instructor as soon as the latter receives the class cards.

GRADUATE WORK *IN ABSENTIA*

Graduates may be enrolled for a limited amount of research or problem work *in absentia* on the recommendation of the head of the department and with the approval of the dean of the Division of Graduate Study.

GRADUATE ASSISTANTS

To facilitate research work, laboratory teaching and the acquisition of advanced degrees, the College has established graduate assistantships in several departments. Part-time positions with the United States Department of Agriculture and fellowships with commercial concerns are sometimes available. These assistantships, which may be graduate assistantships, or graduate research assistantships, are part-time appointments which demand approximately one half of the time of the student for laboratory or research assistance in the field of his major work during the regular collegiate year. The remainder of

his time is given to advanced study. No graduate assistant or graduate research assistant may receive more than twelve hours of credit per semester nor satisfy the residence requirements for the Master's degree in less than two semesters and one nine-week summer school.

Graduate assistantships, paying a salary fixed each year by the State Board of Regents, have been established as follows:

<i>Subject</i>	<i>Number</i>
Agronomy	1
Applied Mechanics	1
Bacteriology	1
Botany	2
Chemistry	5
Child Welfare	2
Dairy Husbandry	1
Economics and Sociology	1
Entomology	1
Food Economics and Nutrition.....	1
Geology	1
Horticulture	2
Institutional Management	3
Poultry Husbandry	1
Zoölogy	2

Graduate research assistantships, as listed below, usually are maintained in the departments named. Holders of these positions assist in the conduct of regular research work in the institution.

<i>Subject</i>	<i>Number</i>
Agricultural Engineering	1
Agronomy	5
Animal Husbandry	1
Botany	1
Household Economics	1
Shop Practice	1
Zoölogy	4

By satisfactorily completing six hours of graduate work in the nine-week summer school, graduate assistants and graduate research assistants may meet the requirements for a master's degree within one year.

Applications for all assistantships should be made annually by April 1 for the following academic year. Students desiring such appointments may obtain application blanks from the dean of the Division of Graduate Study.

GRADUATE LOAN

The Manhattan Branch of the American Association of University Women maintains a loan fund which is available to graduate women students enrolled in any department of the Kansas State College that offers graduate work. Application for this loan shall be made to the chairman of the Graduate Loan Fund Committee of the Manhattan Branch of the American Association of University Women.

SENIORS AND GRADUATE STUDY

A senior who has completed so much of his work for the bachelor's degree that his program for the year is not full may, with the consent of his dean and of the dean of the Division of Graduate Study, be assigned to one or more courses for graduate credit. In no case shall such combination of courses exceed seventeen hours.

GRADUATE WORK IN THE SUMMER SCHOOL

Graduate students desiring to do a part or all of the work for the master's degree in the summer may complete the requirements, in certain fields only, by pursuing graduate work for four nine-week summer schools. Persons interested should correspond with the dean of the Division of Graduate Study

in advance. In special cases it may be possible to complete the residence requirements for the master's degree in three nine-week summer schools.

Full information concerning the courses offered is contained in the Summer School number of the Kansas State College *Bulletin*, which may be obtained upon application to the vice-president of the College.

THE GRADUATE CLUB

The Graduate Club is an organization composed of graduate students and members of the graduate faculty. Its purpose is to promote sociability and wide acquaintance among its members.

GRADUATE CALENDAR

SUMMER SCHOOL, 1938

June 1, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.*

June 11, Saturday.—Preliminary reports on masters' theses are due.

July 8, Friday.—Abstracts of masters' theses are due.

July 23, Saturday.—Masters' theses are due.

July 29, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.

FIRST SEMESTER, 1938-1939

Sept. 12 and 13, Monday and Tuesday.—Registration and assignment of graduate students.*

Nov. 17, Thursday.—Preliminary reports on masters' theses are due.

Dec. 10, Saturday.—Programs of study are due from candidates for the master's degree in 1939.

Jan. 9, Monday.—Abstracts of masters' theses are due.

Jan. 20, Friday.—Masters' theses are due.

SECOND SEMESTER, 1938-1939

Jan. 31 and Feb. 1, Tuesday and Wednesday.—Registration and assignment of graduate students.*

Mar. 17, Friday.—Preliminary reports on masters' theses are due.

April 29, Saturday.—Doctors' theses are due.

May 22, Monday.—Masters' theses are due.

May 28, Sunday.—Baccalaureate services at 7:30 p. m.

May 29, Monday.—Seventy-sixth annual Commencement at 7:30 p. m.

* See general calendar for vacation, holiday, and other special dates.

The Division of Agriculture

LELAND EVERETT CALL, *Dean*

The successful farmer must have scientific and economic knowledge and training. They are quite as essential as practical knowledge of agriculture in the development of an agricultural state such as Kansas, which prospers in direct proportion to the productivity of her soil. Soil is most effectively utilized by those who have knowledge of how soils have been formed, how fertility has been stored in them, and how the resources of the soil can be maintained.

The successful farmer also knows what kind of plants to grow and how to improve them. He understands the principles of selection, breeding, and feeding of livestock. He knows how to maintain orchards, gardens, and attractive surroundings. He has an appreciation for good and adequate farm buildings and a farm home equipped with such modern conveniences as circumstances will justify. He is familiar with the best methods of marketing the products of the farm.

Kansas State College gives systematic training in agriculture which fits young men for the farm.

The College also prepares students for the scientific investigation of agricultural problems in state and national institutions, for agricultural extension work, for the teaching of agriculture, for service in industries closely related to agriculture, and for a variety of other public and private services of an agricultural nature.

The College owns 1,428 acres of land, which are used for experimental work and instruction, and maintains large and well-equipped laboratories for soil and crop work. There is ample greenhouse space for problems and research work in crops and soils.

The College herds and flocks contain high-class representatives of the important breeds of dairy and beef cattle, poultry, hogs, horses, and sheep. The student becomes familiar with types and breeds by actual work with the stock.

Three of the four-year curriculums offered in this Division lead to the degree of Bachelor of Science in Agriculture. The four-year curriculum in milling industry leads to the degree of Bachelor of Science in Milling Industry.

The curriculums in agriculture and agricultural administration have a common freshman year, toward the end of which students decide which curriculum they will pursue.

CURRICULUM IN AGRICULTURE

Students choosing the curriculum in agriculture need not name the department in which they will major before the second semester of the sophomore year. They have their choice of numerous electives in soils, crops, agricultural economics, animal husbandry, dairy husbandry, horticulture, milling, and poultry husbandry.

All electives in any of the departments must be officially approved by the dean of the Division of Agriculture and the head of the department in which the student majors.

A student may major not only in any department in the Division of Agriculture but also in the departments of Botany, Entomology, Zoölogy, Bacteriology, Chemistry, or Agricultural Engineering. Substitutions may be made to meet definite objectives. See "Substitutions to Meet Certain Objectives," following the outline of "Curriculum in Agriculture."

Any candidate for such a degree must have had at least six months' farm experience approved by the dean of the Division of Agriculture. Students in dairy manufacturing, milling industry, or specialized horticulture may substi-

tute practical experience in their respective industries for farm experience. A formal statement outlining farm experience or substitutions therefor must be filed in the dean's office during the last semester of the senior year.

The student who completes the freshman and sophomore years will have had basic studies in soils, farm crops, livestock, dairying, poultry husbandry, horticulture, and agricultural economics, giving him a general knowledge of the whole range of agriculture. More than one third of his time will have been devoted to strictly agricultural courses.

During his junior and senior years, the student continues his studies of fundamental science and begins to learn to apply science to agriculture.

CURRICULUM IN AGRICULTURAL ADMINISTRATION

The curriculum in agricultural administration is planned to meet the needs of students preparing for industries closely related to farming, which require training in both agriculture and business principles. Among such industries and occupations are: rural banking, development and sale of lands, processing and marketing of grains, agricultural journalism, and the teaching of agriculture in high schools and elsewhere.

There is ample opportunity to elect business subjects such as accounting, business organization, credit and finance, business law, and marketing.

STATE TEACHER'S CERTIFICATE

By selection of proper electives in the Department of Education, the four-year curriculum in either agriculture or agricultural administration may lead to the degree of Bachelor of Science in Agriculture and also qualify the graduate for the three-year Kansas state teacher's certificate, valid in any high school or other public school in the state, and renewable for life.

A student in the curriculum in agriculture desiring to qualify for teaching, should elect General Psychology in the first semester of his junior year. (This course is required in the second semester of the sophomore year in the curriculum in agricultural administration.) A total of 18 hours in the Department of Education is required for this certificate, as follows: General Psychology, Principles of Secondary Education, Educational Psychology, Methods of Teaching Agriculture, Teaching Participation in Agriculture, and Vocational Education.

STATE CERTIFICATE FOR TEACHERS OF VOCATIONAL AGRICULTURE

Electives in the field of agricultural education may be so chosen as to meet requirements for the state certificate for teaching vocational agriculture in Kansas high schools participating in federal Smith-Hughes funds. The group of minor electives in related nonagricultural subjects must complete the candidate's professional preparation in education, and the group of general electives must include the mechanical training necessary for the handling of farm shop problems. Therefore these groups must include the following courses or their equivalents:

Minor electives	15
Principles of Secondary Education, Educ. 236.....	3
Educational Psychology, Educ. 109.....	3
Methods of Teaching Agriculture, Educ. 136.....	3
Teaching Participation in Agriculture, Educ. 161.....	3
Vocational Education, Educ. 241.....	3
General electives	17
Gas Engines and Tractors, Agr. Engr. 130.....	3
Farm Buildings, Agr. Engr. 101.....	3
Farm Machinery, Agr. Engr. 108.....	3
Farm Carpentry I, Shop 147.....	3
Farm Blacksmithing I, Shop 157.....	1
Farm Blacksmithing II, Shop 158.....	1
Farm Shop Methods, Shop 175.....	3
Total	32

CURRICULUM IN SPECIALIZED HORTICULTURE

The curriculum in specialized horticulture is planned for students who wish to prepare for one of the highly specialized subdivisions of horticulture such as landscape gardening and floriculture. It gives such students opportunity to elect a larger number of courses in artistic and technical branches of horticulture.

CURRICULUM IN MILLING INDUSTRY

The curriculum in milling industry is planned to meet the needs of students in three major fields: (1) milling administration, (2) milling technology, (3) milling chemistry.

Major electives in each of the three fields are listed following the curriculum in milling industry. Minor electives which are not listed are selected to meet the needs of the individual student.

Students choosing the field of milling chemistry must so indicate at time of assignment in the first semester of their freshman year in order to be assigned to proper chemistry courses.

MILLING ENROLLMENT LIMITED*

By authority of the State Board of Regents, the number of students enrolled in the four-year curriculum in milling industry is limited to 65. Students having their residence in Kansas have first preference. Out-of-state students who have had practical milling experience are given second preference. Selections from either group are further based on scholarship and other evidence of fitness.

Persons wishing to be selected for this curriculum must apply several weeks before the beginning of the academic year. The latest date for application is August 15. Application blanks may be obtained from the dean of the Division of Agriculture.

AGRICULTURE IN THE SUMMER SCHOOL

All departments of this Division usually offer courses in the Summer School. Some of these are basic college courses, but graduate work particularly suited to high-school teachers of vocational agriculture is emphasized. The Summer School number of the Kansas State College Bulletin may be obtained upon application to the vice-president of the College.

HOME STUDY IN AGRICULTURE

The home study department of the Division of College Extension offers a number of college courses in agriculture which can be taken by correspondence. Such courses carry the same credit as resident college courses having the same description. These courses will be found especially advantageous to college students who desire to make up deficiencies or to gain certain credits during the summer vacation season. All courses given by correspondence are listed in the latter part of this catalogue under the title "Home Study" in the Division of College Extension.

Curriculum in Agriculture

FRESHMAN

FIRST SEMESTER

College Rhetoric I, Engl. 101.....	*3(3-0)
Gen. Botany I, Bot. 101.....	3(1-6)
Chemistry I, Chem. 101.....	5(3-6)
El. of An. Husb., An. Husb. 125..	3(2-4) or
El. of Dairying, Dairy Husb. 101..	3(2-3)
Freshman Lect., Gen. Agr. 102....	1(2-0)
Infantry I, Mil. Sc. 101A.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)
Agr. Seminar, ¹ Gen. Agr. 103.....	R

SECOND SEMESTER

College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Geology, Geol. 103.....	3(3-0)
Gen. Botany II, Bot. 105.....	3(1-6)
Chemistry II Rec., Chem. 103.....	3(3-0)
El. of Dairying, Dairy Husb. 101..	3(2-3) or
El. of An. Husb., An. Husb. 125..	3(2-4)
Library Methods, Lib. Ec. 101....	1(1-0)
Infantry II, Mil. Sc. 102A.....	1(1-2)
Phys. Education M, Phys. Ed. 104,	R(0-2)
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

Total 17

* Effective Sept. 1, 1938.

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
El. of Horticulture, Hort. 107.....	3(2-3)	Prin. of Feeding, An. Husb. 152 ² ..	3(3-0)
Organic Chemistry, Chem. 124....	3(2-3)	Economics I, Econ. 101.....	3(3-0)
Anat. and Physiol., Anat. 131.....	3(2-3) <i>or</i>	Farm Crops, Agron. 101.....	4(2-6) <i>or</i>
Plant Physiology I, ³ Bot. 208.....	3(3-0)	Soils, Agron. 130.....	4(3-3)
Soils, Agron. 130.....	4(3-3) <i>or</i>	General Zoölogy Zoöl. 105.....	5(3-6)
Farm Crops, Agron. 101.....	4(2-6)	Infantry IV, Mil. Sc. 104A.....	1(1-2)
Farm Poult. Pro., Poult. Husb. 101,	2(1-2, 1)	Phys. Education M, Phys. Ed. 106,	R(0-2)
Infantry III, Mil. Sc. 103A.....	1(1-2)	Agr. Seminar, ¹ Gen. Agr. 103.....	R
Phys. Education M, Phys. Ed. 105,	R(0-2)		
Agr. Seminar, ¹ Gen. Agr. 103.....	R		
Total	16	Total	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Genetics, An. Husb. 221.....	3(3-0)	Gen. Econ. Entomology, Ent. 203..	3(2-3)
Plant Pathology I, Bot. 205.....	3(2-3)	Gen. Microbiology, Bact. 101.....	3(1-6)
Farm Organization, Agr. Ec. 106..	3(2-3)	Agr. Journalism, Ind. Jour. 160...	3(2-3)
Elective	7	Elective	7
Agr. Seminar, ¹ Gen. Agr. 103.....	R	Agr. Seminar, ¹ Gen. Agr. 103.....	R
Total	16	Total	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Elective	16	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Agr. Seminar, ¹ Gen. Agr. 103.....	R	Elective	16
		Agr. Seminar, ¹ Gen. Agr. 103.....	R
Total	16	Total	16

Number of hours required for graduation, 129.‡

Electives

The electives in the curriculum in agriculture are grouped as follows:

	<i>Semester hours</i>
MAJOR ELECTIVES	12
These electives may be taken in any one of the departments of the Division of Agriculture. In certain cases also a science department outside of the division may be selected for a major department; <i>e. g.</i> , Chemistry, Entomology, Bacteriology.	
MINOR AGRICULTURAL ELECTIVES	9
These electives may be taken from one or more departments but must directly strengthen the student's preparation in agriculture.	
MINOR NONAGRICULTURAL ELECTIVES.....	6
These electives must be chosen from one or more of the following departments: English, Education, Economics and Sociology, History and Government, Mathematics, Modern Languages.	
GENERAL ELECTIVES	19
These electives should be chosen to meet individual needs and to round out the preparation provided by the rest of the student's curriculum. All students not offering one unit of high-school physics for entrance must include three hours of general physics in their electives.	

All electives must be officially approved before assignment, by both the dean of the Division of Agriculture and the head of the department in which the student majors.

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week.

1. Four meetings each semester.

2. Some time during the second semester of the sophomore year each student is required to file a written statement in the office of the dean of the Division of Agriculture, designating the department of the division in which he will major.

3. Students who do not expect to major in animal husbandry, dairy husbandry, or poultry husbandry may, with the approval of the head of the department in which they expect to major, take Plant Physiology I (Bot. 208) instead of Anatomy and Physiology.

‡ Seniors must meet the graduation requirement in points as well as in hours. See section headed: The Point System.

SUBSTITUTIONS TO MEET CERTAIN OBJECTIVES

Students desiring to prepare themselves for scientific or special work in the field of agriculture may, with the approval of the dean of the Division of Agriculture and the head of the department in which they expect to major, substitute courses in the departments of Mathematics, Physics, Chemistry, Bacteriology, Entomology, Zoölogy, Botany and Plant Pathology, Education, Agricultural Engineering, Modern Languages, and other approved departments, for twenty-five hours in the curriculum in agriculture; provided, that no student may receive a degree in agriculture who does not have at least twenty-five hours in technical agriculture in not fewer than three departments.

Curriculum in Agricultural Administration

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Gen. Botany I, Bot. 101.....	3(1-6)	Gen. Geology, Geol. 103.....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)	Gen. Botany II, Bot. 105.....	3(1-6)
El. of An. Husb., An. Husb. 125..	3(2-4) <i>or</i>	Chemistry II Rec., Chem. 103....	3(3-0)
El. of Dairying, Dairy Husb. 101..	3(2-3)	El. of Dairying, Dairy Husb. 101..	3(2-3) <i>or</i>
Freshman Lect., Gen. Agr. 102....	1(2-0)	El. of An. Husb., An. Husb. 125..	3(2-4)
Infantry I, Mil. Sc. 101A.....	1(1-2)	Library Methods, Lib. Ec. 101....	1(1-0)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Infantry II, Mil. Sci. 102A.....	1(1-2)
Agr. Seminar,* Gen. Agr. 103.....	R	Phys. Education M, Phys. Ed. 104,	R(0-2)
		Agr. Seminar,* Gen. Agr. 103.....	R
Total	16	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Organic Chemistry, Chem. 124....	3(2-3)	El. of Hort., Hort. 107.....	3(2-3)
Economics I, Econ. 101.....	3(3-0)	Feeding L. S., An. Husb. 172....	3(3-0)
College Algebra A, Math. 107....	5(5-0)	General Psychology, Educ. 184....	3(3-0)
Soils, Agron. 130.....	4(3-3) <i>or</i>	Soils, Agron. 130.....	4(3-3) <i>or</i>
Farm Crops, Agron. 101.....	4(2-6)	Farm Crops, Agron. 101.....	4(2-6)
Infantry III, Mil. Sci. 103A.....	1(1-2)	Farm Poul. Pro., Poul. Husb. 101,	2(1-2, 1)
Phys. Education M, Phys. Ed. 105,	R(0-2)	Infantry IV, Mil. Sci. 104A.....	1(1-2)
Agr. Seminar,* Gen. Agr. 103.....	R	Phys. Education M, Phys. Ed. 106,	R(0-2)
		Agr. Seminar,* Gen. Agr. 103.....	R
Total	16	Total	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Agr. Journalism, Ind. Jour. 160...	3(2-3)	Agr. Seminar,* Gen. Agr. 103.....	R
Agr. Seminar,* Gen. Agr. 103.....	R	Elective	16
Elective	13		
Total	16	Total	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Agr. Seminar,* Gen. Agr. 103.....	R	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Elective	16	Agr. Seminar,* Gen. Agr. 103.....	R
		Elective	16
Total	16	Total	16

Number of hours required for graduation, 129.

Electives

The electives in the curriculum in agricultural administration are grouped as indicated below in the following fields: (1) rural banking, (2) land economics, (3) grain industries, (4) agricultural journalism, (5) agricultural engineering, and (6) agricultural education.

* Four meetings each semester.

SEMESTER HOURS OF ELECTIVES REQUIRED FOR VARIOUS FIELDS

GROUP	Hours in fields 1, 2, 3, 4, 5	Hours in field 6
Major electives in agricultural economics.	15	10
Minor agricultural electives (not more than nine semester hours from one department)	15	17
Minor electives in related nonagricultural subjects.....	15	15
General electives	16	19
Total	61	61

NOTE.—All students not offering one unit of high-school physics for entrance must include three hours of general physics in their electives.

All electives must be officially approved before assignment by both the dean of the Division of Agriculture and the head of the Department of Economics and Sociology.

Curriculum in Specialized Horticulture

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Gen. Botany I, Bot. 101.....	3(1-6)	Gen. Botany II, Bot. 105.....	3(1-6)
Gen. Chemistry, Chem. 110.....	5(3-6)	Chemistry II Rec., Chem. 103....	3(3-0)
Library Methods, Lib. Ec. 101....	1(1-0)	Gen. Geology, Geol. 103.....	3(3-0)
Freshman Lect., Gen. Agr. 102....	1(2-0)	Infantry II, Mil. Sc. 102A (men)..	1(1-2)
Infantry I, Mil. Sc. 101A (men)...	1(1-2)	Phys. Education M, Phys. Ed. 104, R(0-2)or	
Phys. Education M, Phys. Ed. 103, R(0-2)or		Phys. Education W, Phys. Ed. 152A, R(0-3)	
Phys. Education W, Phys. Ed. 151A, R(0-3)		Elective	4
Elective ¹	2	Agr. Seminar, Gen. Agr. 103 ²	R
Agr. Seminar, Gen. Agr. 103 ²	R		
Total	15 or 16	Total	16 or 17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Economics I, Econ. 101.....	3(3-0)	Plane Trigonometry, Math. 101....	3(3-0)
Soils, Agron. 130.....	4(3-3)	El. of Horticulture, Hort. 107.....	3(2-3)
Tax. Bot. Flrg. Plnts., Bot. 225....	3(1-6)	Agr. Journalism, Ind. Jour. 160....	3(2-3)
Infantry III, Mil. Sc. 103A (men)...	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Education M, Phys. Ed. 103, R(0-2)or		Phys. Education M, Phys. Ed. 106, R(0-2)or	
Phys. Education W, Phys. Ed. 153, R(0-3)		Phys. Education W, Phys. Ed. 154, R(0-3)	
Elective	5	Elective	6
Agr. Seminar, Gen. Agr. 103 ²	R	Agr. Seminar, Gen. Agr. 103 ²	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Plant Materials I, Hort. 224.....	3(2-3)	Plant Materials II, Hort. 226.....	3(2-3)
Plant Physiology I, Bot. 208.....	3(3-0)	Gen. Entomology, Ent. 101.....	4(3-3)
Elective	10	Elective	9
Agr. Seminar, Gen. Agr. 103 ²	R	Agr. Seminar, Gen. Agr. 103 ²	R
Total	16	Total	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Plant Pathology I, Bot. 205.....	3(1-6)	Agr. Relationships, Gen. Agr. 105..	R(1-0)
Elective	13	Plant Ecology, Bot. 228.....	2(2-0)
Agr. Seminar, Gen. Agr. 103 ²	R	Spraying, Hort. 207.....	3(2-3)
		Elective	11
		Agr. Seminar, Gen. Agr. 103 ²	R
Total	16	Total	16

Number of hours required for graduation: Men, 129; women, 125.³

1. All students not offering one unit of high-school physics for entrance must include three hours of general physics in their electives.
2. Four meetings each semester.
3. Seniors must meet the graduation requirement in points as well as in hours. See section headed: The Point System.

Electives in Landscape Gardening

Engr. Drawing, Mach. Des. 101...	2(0-6)	Domestic Arch., Arch. 124.....	2(2-0)
Free-hand Draw. I, Arch. 111....	2(0-6)	Free-hand Draw. II, Arch. 114....	2(0-6)
Silviculture, Hort. 119.....	3(2-3)	Ext. Speech I, Pub. Spk. 106....	2(2-0)
Forest Nursery Prac., Hort. 120...	3(2-3)	Physiographic Geol., Geol. 110....	3(3-0)
Landscape Gardening I, Hort. 125,	3(3-0)	Water Color I, Arch. 118.....	2(0-6)
Pencil Rend. and Sketch., Arch. 116,	2(0-6)	Surveying III, Civ. Engr. 151, 155,	3(2-3)
Surveying I, Civ. Engr. 102.....	2(0-6)	Appreciation of Arch., Arch. 244..	3(3-0)
Theory of Lands. Design, Hort. 243,	3(3-0)	Landscape Gardening III, Hort. 246,	3(2-3)
El. of Floriculture, Hort. 127.....	3(3-0)	Applied Floriculture, Hort. 212...	3(2-3)
Landscape Gardening II, Hort. 238,	3(1-6)	Plant Ecology, Bot. 228.....	2(2-0)
Landscape Constr., Hort. 227.....	3(2-3)	Horticultural Probs., Hort. 244....	2 to 8
Civic Art, Hort. 223.....	3(1-6)		

From this group of courses, together with other courses, the student will elect fifty-eight credit hours to be approved in advance of assignment by the head of the Department of Horticulture and the dean of the Division of Agriculture.

Electives in Floriculture

El. of Floriculture, Hort. 127.....	3(3-0)	Gen. Org. Chemistry, Chem. 122,	5(3-6)
Floral Arrangement, Hort. 129....	2(1-3)	Business Management, Econ. 126..	2(2-0)
Landscape Gardening I, Hort. 125,	3(3-0)	Applied Floriculture, Hort. 212....	3(2-3)
Genetics, An. Husb. 221.....	3(3-0)	Plant Physiology III, Bot. 211....	3(3-0)
Forest Nursery Prac., Hort. 120....	3(2-3)	Credits and Collections, Econ. 223,	2(2-0)
Plant Genetics, Agron. 208.....	3(3-0)	Ext. Speech I, Pub. Spk. 106.....	2(2-0)
Accounting I, Econ. 133.....	3(2-3)	Horticulture Seminar, Hort. 235....	1(1-0)
Engr. Draw., Mach. Des. 101.....	2(0-6)	El. of Vegetable Gard., Hort. 133,	3(2-3)
Modern Language	3(3-0)	Literature of Hort., Hort. 208....	2(2-0)
Meteorology, Phys. 133.....	3(3-0)	Modern Language	3(3-0)
Botanical Microtechnic, Bot. 217..	3(1-6)	Horticultural Probs., Hort. 244....	2 to 8

From this group of courses, together with other courses, the student will elect fifty-eight credit hours to be approved in advance of assignment by the head of the Department of Horticulture and the dean of the Division of Agriculture.

Curriculum in Milling Industry**FRESHMAN**

FIRST SEMESTER		SECOND SEMESTER	
El. of Milling, Mill. Ind. 101.....	2(1-3)	College Rhetoric II, Engl. 104....	3(3-0)
College Rhetoric I, Engl. 101....	3(3-0)	Plane Trigonometry, Math. 101...	3(3-0)
College Algebra, Math. 104.....	3(3-0)	Chemistry II Rec., Chem. 103....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)	Milling Entomology, Ent. 117....	2(2-0)
Freshman Lect., Gen. Agr. 102....	1(2-0)	Engr. Drawing, Mach. Des. 101...	2(0-6)
Library Methods, Lib. Ec. 101....	1(1-0)	Flow Sheets, Mill. Ind. 103.....	2(0-6)
Infantry I, Mil. Sc. 101A.....	1(1-2)	Infantry II, Mil. Sc. 102A.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Phys. Education M, Phys. Ed. 104,	R(0-2)
Milling Seminar ¹	R	Milling Seminar ¹	R
Total	16	Total	16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Milling Practice I, Mill. Ind. 109..	3(1-6)	Gen. Physics II, Phys. 103.....	4(3-3)
Gen. Physics I, Phys. 102.....	4(3-3)	Gen. Botany II, Bot. 105.....	3(1-6)
Gen. Botany I, Bot. 101.....	3(1-6)	Current History, Hist. 126.....	1(1-0)
Infantry III, Mil. Sc. 103A.....	1(1-2)	Infantry IV, Mil. Sc. 104A.....	1(1-2)
Phys. Education M, Phys. Ed. 105,	R(0-2)	Phys. Education M, Phys. Ed. 106,	R(0-2)
Milling Seminar ¹	R	Milling Seminar ¹	R
Elective ²	5	Elective ²	7
Total	16	Total	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Mkt. Grading Cereals, Agron. 115,	3(1-6)	Mill. Qual. of Wheat, Mill. Ind. 212,	3(3-0)
Economics I, Econ. 101.....	3(3-0)	Milling Seminar ¹	R
Milling Seminar ¹	R	Elective ²	13
Elective ²	10		
Total	16	Total	16

SENIOR

FIRST SEMESTER

Milling Seminar ¹	R
Elective ²	16

SECOND SEMESTER

Milling Seminar ¹	R
Agr. Relationships, Gen. Agr. 105..	R
Elective ²	16

Total 16

Total 16

Number of hours required for graduation: 128—basic courses, 61 hours;
elective courses, 67 hours.

Electives for Students in Milling Administration

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122.....	5(3-6)	Corp. Org. & Fin., Econ. 219.. ..	2(2-0)
General Psychology, Educ. 184....	3(3-0)	Grain Marketing, Econ. 203.. ..	3(3-0)
Extempore Speech I, Pub. Spk. 106,	2(2-0)	Money and Banking, Econ. 116... ..	3(3-0)
Extempore Speech II, Pub. Spk. 108,	2(2-0)	Business Law I, Hist. 163.....	3(3-0)
Coml. Correspondence, Engl. 122..	3(3-0)	Business Law II, Hist. 164.....	3(3-0)
Writ. and Oral Salesmanship, Engl.		Prin. of Advertising, Ind. Jour. 178,	4(4-0)
123	3(3-0)	Business Finance, Econ. 217.....	3(3-0)
Accounting I, Econ. 133.....	3(2-3)		
Accounting II, Econ. 134.....	3(2-3)		
Mktg. of Farm Prod., Econ. 202,	3(3-0)	Total	48

MINOR ELECTIVES: A total of 19 hours of minor electives completes the work of the curriculum.

Electives for Students in Milling Technology

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122.....	5(3-6)	Mill. Prac. II, Mill. Ind. 111.....	3(1-6)
Plane Anal. Geometry, Math. 110,	4(4-0)	Str. of Material E, Ap. Mech. 216,	3(3-0)
Calculus I, Math. 114.....	4(4-0)	Flour Mill. Constr., Mill. Ind. 203,	3(0-9)
Calculus II, Math. 115.....	4(4-0)	Steam and Gas Engineering C,	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Mech. Engr. 120, 125.....	3(2-3)
Des. Geom., Mach. Des. 106....	2(0-6)	Elec. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Mechanism, Mach. Des. 121.....	3(3-0)	Engr. Woodwork, Shop 101.....	1(0-3)
Mach. Drawing I, Mach. Des. 111,	2(0-6)		
Mill. Tech. I, Mill. Ind. 201.....	2(0-6)	Total	48
Mill. Tech. II, Mill. Ind. 202.....	2(0-6)		

MINOR ELECTIVES: A total of 19 hours of minor electives completes the work of the curriculum.

Electives for Students in Milling Chemistry

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122.....	5(3-6)	Mill. Ind. Probs., Mill. Ind. 214..	3(0-9)
Chemistry II Lab., Chem. 104....	2(0-6)	Chemistry of Proteins, Chem. 236A,	3(2-3)
Plane Anal. Geometry, Math. 110,	4(4-0)	Experimental Baking, Mill. Ind.	
Calculus I, Math. 114.....	4(4-0)	207	4(2-6)
Physiological Chemistry, Chem. 231,	5(3-6)	Colloidal Chemistry, Chem. 213...	2(2-0)
Quan. Analysis A, Chem. 250.....	3(1-6)	Adv. Wheat and Flour Testing,	
Quan. Analysis B, Chem. 251.....	3(1-6)	Mill. Ind. 210.....	2(0-6)
Gen. Microbiology, Bact. 101.....	3(1-6)	Chemical Microscopy, Chem. 245,	1(0-3)
Wheat, Flour Test, Mill. Ind. 205,	3(0-9)		
Physical Chemistry I, Chem. 206..	5(3-6)	Total	52

MINOR ELECTIVES: A total of 15 hours of minor electives completes the work of the curriculum.

Electives in Industrial Journalism

Students who wish to prepare for agricultural journalism may major in industrial journalism, thus combining training in agriculture or agricultural administration with the fundamentals of journalism. The electives provided for students selecting such a field for major work are as follows:

1. Two meetings each month.
2. Major electives may be in milling administration, milling technology,³ or milling chemistry. These groups of electives are listed below. Minor electives are flexible to adapt the curriculum to individual needs. Minor electives must be officially approved before assignment by the dean of the Division of Agriculture and the head of the Department of Milling Industry.
3. Students majoring in milling technology must include solid geometry in their minor electives unless this subject was included in their entrance requirements.

Electives for Students of Agriculture Majoring in Industrial Journalism

Industrial Writing, Ind. Jour. 161,	2(2-0)	Copy Reading, Ind. Jour. 254....	2(0-6)
Editorial Practice, Ind. Jour. 257	2(2-0)	History and Ethics of Journalism,	
Ind. Feature Writing, Ind. Jour. 167,	2(2-0)	Ind. Jour. 273.....	3(3-0)
The Rural Press, Ind. Jour. 181..	2(2-0)	Journalism Surveys, Ind. Jour. 278,	2(0-6)
Prim. of Advertising, Ind. Jour. 178,	4(4-0)		

Agricultural Economics

SECTION OF

ECONOMICS AND SOCIOLOGY

Professor GRIMES	Assistant Professor PARSONS
Professor HOWE	Instructor PINE
Professor HILL	Instructor FOX
Associate Professor HODGES	Instructor DOLL
Assistant Professor HENNEY	Instructor MILLER
Assistant Professor MONTGOMERY	

Work in economics and sociology is offered in the divisions of Agriculture and General Science. The more general courses are listed in the general science section of the catalogue. The courses listed here are those having a direct bearing on agriculture.

The investigational work in agricultural economics and rural sociology brings together the latest information concerning the business problems of agriculture and the problems of rural life. These data are used in the instructional work of the department. The student has an opportunity to learn of the factors and economic forces involved in farm management, marketing, taxation, land utilization, agricultural finance, rural life and other closely related subjects.

COURSES IN AGRICULTURAL ECONOMICS

FOR UNDERGRADUATE CREDIT

106. FARM ORGANIZATION. 3(2-3)*; I and II. Prerequisite: Econ. 101, Agron. 130, and An. Husb. 152. Hodges and staff.

Economic forces affecting the organization and operation of the farm business. Charge, \$1.

112. FARM COST ACCOUNTING. 3(2-3); I and II. Prerequisite: Econ. 101. Staff.

Systems of farm records and accounts. Analysis and utilization of cost of production data. Charge, \$1.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. MARKETING OF FARM PRODUCTS. 3(3-0); I and II. Prerequisite: Econ. 101. Staff.

Marketing services and functions and price-making forces.

203. GRAIN MARKETING. 3(3-0); I. Prerequisite: Econ. 202. Montgomery, Fox.

Price influences and relationships, buying and selling problems, domestic and export trade; grain trade organization and regulation.

206A. ADVANCED FARM ORGANIZATION. 3(2-3); II. Prerequisite: Econ. 106. Hodges, Pine.

Advanced studies of factors affecting the successful organization and operation of farms.

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week. I, II, and SS indicate that the course is given the first semester, second semester, and summer school respectively.

212. CONSERVATION OF AGRICULTURAL RESOURCES. 2(2-0); II. Prerequisite: Econ. 101; junior standing. Howe.

Agricultural resources and their utilization to promote human welfare.

218. AGRICULTURAL LAND PROBLEMS. 3(3-0); I. Prerequisite: Econ. 101. Howe, Miller.

Relation of population to land supply; land tenure, ownership, and valuation.

220. TAXATION AND LAND OWNERSHIP. 3(3-0); II. Prerequisite: Econ. 101. Not open to students having credit in Econ. 214. Howe.

Public expenditures and revenues, public credit, and fiscal administration.

LAND LAW. See Hist. 276.

225. AGRICULTURAL FINANCE. 3(3-0); II. Prerequisite: Econ. 101. Parsons.

Sources and use of credit for purchase of farm land and to finance farm operations.

227. FARMER MOVEMENTS. 3(3-0); I. Prerequisite: Econ. 101. Hodges. Principles underlying successful organization of farmers.

231. AGRICULTURAL ECONOMICS SEMINAR. 1(1-0); II. Prerequisite: Econ. 101. Staff.

Current questions in agricultural economics.

235. LIVESTOCK MARKETING. 3(3-0); II. Prerequisite: Econ. 202. Henney, Fox.

Livestock marketing services, functions, and prices.

240. PRINCIPLES OF COÖPERATION. 3(3-0); II. Prerequisite: Econ. 101. Montgomery.

Principles underlying successful coöperative activities.

251. MARKETING OF DAIRY PRODUCTS. 3(3-0); I. Prerequisite: Econ. 202. Parsons.

Factors affecting prices and dairy marketing organizations.

270. AGRICULTURAL ECONOMIC PROBLEMS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

271. ECONOMIC ANALYSIS AND INTERPRETATION. 3(3-0); I. Prerequisite: Econ. 101. Hodges.

The analysis and interpretation of economic data.

FOR GRADUATE CREDIT

301. RESEARCH IN AGRICULTURAL ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which may be used for a master's thesis.

COURSES IN RURAL SOCIOLOGY

FOR UNDERGRADUATE CREDIT

156. RURAL SOCIOLOGY. 3(3-0); I. Preferably preceded by a course in sociology. Hill.

Principles of sociology applied to rural society.

FOR GRADUATE AND UNDERGRADUATE CREDIT

256. ADVANCED RURAL SOCIOLOGY. 3(3-0); II. Prerequisite: Econ. 156. Hill. A continuation of Econ. 156.

FOR GRADUATE CREDIT

350. RESEARCH IN RURAL SOCIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Econ. 156.

Individual research problems in rural sociology.

Agronomy

Professor THROCKMORTON
 Professor PARKER
 Professor ALDOUS
 Professor LAUDE
 Associate Professor ZAHNLEY
 Associate Professor CLAPP
 Associate Professor METZGER

Associate Professor MYERS
 Assistant Professor DAVIS
 Assistant Professor HIDE
 Assistant HOLLEMBECK
 Seed Analyst HARLING
 Graduate Assistant FRASER

The farm used by the Department of Agronomy comprises 320 acres of medium rolling upland soil, suited to experimental and demonstration work. The general fields and experimental plots used for the breeding and testing of farm crops, and for conducting experiments in soil fertility and methods of culture, afford the student excellent opportunities for study and investigation.

Laboratories for soil and crop work are maintained for the regular use of students. Material is provided for the study of the grain and forage crops best adapted to different purposes and most suitable for growing in the state. Greenhouse space is provided for problems and research work in crops and soils.

COURSES IN FARM CROPS

FOR UNDERGRADUATE CREDIT

101. FARM CROPS. 4(2-6); I and II. Prerequisite: Bot. 101. Davis.
 Economic significance of important grain and forage crops. Deposit, \$3.50.

105. SEED IDENTIFICATION AND WEED CONTROL. 2(1-3); I. Prerequisite: Agron. 101. Zahnley, Harling.

Laboratory.—Identification; germination and purity testing; field trips. Charge, \$1.

108. GRAIN GRADING AND JUDGING. 2(0-6); II. Prerequisite: Agron. 101. Zahnley.

Practice with cereals, grain sorghums, legumes, and other seed crops. Charge, \$3.

114. ADVANCED GRAIN JUDGING. 2(0-6); I. Prerequisite: Agron. 108. Zahnley.

Commercial grading and judging. Charge, \$3.

115. MARKET GRADING OF CEREALS. 3(1-6); I. Prerequisite: Mill. Ind. 101. Offered in 1938-'39 and alternate years thereafter. Zahnley. Charge, \$3.50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. CROP IMPROVEMENT. 3(2-3); or 4(2-6); II. Prerequisite: Agron. 101 and An. Husb. 221. Parker.

Principles of breeding field crops; selection, hybridization, and breeding for special qualities.

Laboratory.—Laboratory, greenhouse, and field methods of plant breeding. Charge, \$1.

205. PRINCIPLES OF AGRONOMIC EXPERIMENTATION. 3(2-3); I. Prerequisite: Agron. 101 and 130. Laude.

The principles of experimentation in general, and their application to agronomic problems. Charge, \$1.

207. PASTURE IMPROVEMENT I. 3(2-3); II. Prerequisite: Bot. 105 and Agron. 101. Aldous.

Grazing management of tame and native pastures, poisonous plants and methods to eliminate losses. Charge, \$1.

208. PLANT GENETICS. 3(3-0); I. Prerequisite: An. Husb. 221. Parker.

An advanced course. Offered in 1938-'39 and alternate years thereafter.

209. GENETIC SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructors. Nabours, Parker, Warren, Ibsen, Brunson.

Study and criticism of genetic experiments in plants and animals, and of the biological and mathematical methods employed.

210. CROP PROBLEMS. Credit to be arranged; I, II and SS. Prerequisite: Agron. 101 and 130. Staff.

Special problems assigned; written reports thereon. Deposit, \$4.

211. CROP ECOLOGY. 2(2-0); II. Prerequisite: Agron. 101 and 130. Laude.

A study of the environmental conditions that influence growth of crops; natural and economic factors primarily responsible for the concentration of crop production in different regions and countries.

214. ADVANCED CROPS. 3(2-3); I. Prerequisite: Agron. 101. Offered in 1937-'38 and alternate years thereafter. Zahnley.

Recent investigations in production and handling of forage, fiber, sugar, root, and other crops not considered in previous courses.

Laboratory.—Growth habits, classification, preparation for market, and grading of crops studied. Charge, \$1.

215. PASTURE IMPROVEMENT II. 2(2-0); II. Prerequisite: Agron. 207 and 208. Offered in 1938-'39 and alternate years thereafter. Aldous.

Experimental methods; selection, and breeding of pasture plants.

216. AGRONOMIC LITERATURE. 2(2-0); I Prerequisite: Senior standing. Staff.

A survey of important literature in agronomy.

FOR GRADUATE CREDIT

301. RESEARCH IN CROPS. Credit to be arranged; I, II, and SS. Prerequisite depends on the problem selected. Staff.

Special problems chosen or assigned, resulting data being available for master's thesis. Deposit, \$4.

COURSES IN SOILS

FOR UNDERGRADUATE CREDIT

130. SOILS. 4(3-3); I and II. Prerequisite: Chem. 101 and Geol. 103. Throckmorton, Myers, Hide.

Fundamental principles underlying the management of soils. Charge, \$3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

231. DRY-LAND FARMING. 2(2-0); I. Prerequisite: Agron. 130. Myers. Principles of soil management under light rainfall conditions.

235. DEVELOPMENT AND CLASSIFICATION OF SOILS. 3(2-3); II. Prerequisite: Agron. 130. Metzger.

Influence of soil-forming agencies on soil characteristics.

236. SOIL PROBLEMS. Credit to be arranged; I, II, and SS. Prerequisite depends on problem assigned. Staff. Deposit, \$4.

244. SOIL MANAGEMENT. 3(2-3); II. Prerequisite: Agron. 101 and 130. Myers.

Tillage, erosion control, nitrogen maintenance, crop rotations; use of lime, manure, and commercial fertilizers.

248. SOIL FERTILITY. 3(3-0); I. Prerequisite: Agron. 130 and Bot. 208. Hide.

Chemistry of soils and related physical and biological factors. Major emphasis on fundamental soil fertility problems.

249. SOIL FERTILITY LABORATORY. 2(0-6); I. Prerequisite: Agron. 130 and Chem. 102. Metzger.

Chemical and physical laboratory studies of soils. Charge, \$4.

FOR GRADUATE CREDIT

331. RESEARCH IN SOILS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Special problems, which may extend throughout the year and furnish data for a master's thesis. Deposit, \$4.

Animal Husbandry

Professor McCAMPBELL
Professor WEBER
Professor BELL
Professor IBSEN
Associate Professor AUBEL

Associate Professor MACKINTOSH
Associate Professor COX
Assistant Professor CATHCART
Assistant MITCHELL

The courses in this department give the student special instruction in the selection, breeding, feeding, marketing, and management of all classes of live-stock.

The department devotes 624 acres of land to the maintenance of herds and flocks of purebred horses, cattle, sheep, and hogs, and feeds experimentally from 750 to 1,000 animals each year, giving excellent opportunity to study problems in feeding.

The laboratory of the animal husbandry student is the feed lot and the judging pavilion, where the animal can be studied from the standpoint of the breeder and the feeder.

COURSES IN ANIMAL HUSBANDRY

FOR UNDERGRADUATE CREDIT

125. ELEMENTS OF ANIMAL HUSBANDRY. 3(2-4); I and II. Staff.

Survey of the field of animal husbandry, special emphasis on the importance of livestock as a major phase of agriculture. Type, conformation, quality, character, and breed characteristics are studied in the laboratory. Charge, 50 cents.

140. ADVANCED STOCK JUDGING I. 2(0-6); I. Prerequisite: An. Husb. 125. Bell.

Judging market animals and different breeds of livestock. One field trip. Charge, 50 cents.

143. ADVANCED STOCK JUDGING II. 2(0-6); II. Prerequisite: An. Husb. 140. Bell.

Continuation of An. Husb. 140; occasional trips to the best livestock farms to study management of herds and flocks. Charge, 50 cents.

146. FORM AND FUNCTION IN LIVESTOCK. 2(0-6); I. Prerequisite: An. Husb. 143. Bell.

A detailed study of animal form and type; influence of type upon function; special training in presenting orally the relative merits of animals of all breeds. Charge, 50 cents.

152. PRINCIPLES OF FEEDING. 3(3-0); II. Prerequisite: Anat. 131 and Chem. 124. Open only to students in the curriculum of agriculture. Cox.

The digestive system and processes of nutrition; origin, chemical analysis, and feeding values of different feeds; nutritive requirements for maintenance and fattening of farm animals.

156. BEEF-CATTLE PRODUCTION. 2(2-0); II. Prerequisite: An. Husb. 152 or 172. Weber. One field trip.

159. SWINE PRODUCTION. 2(2-0); II. Prerequisite: An. Husb. 152 or 172. Aubel. One field trip.

162. SHEEP PRODUCTION. 2(2-0); I. Prerequisite: An. Husb. 152 or 172. Cox. One field trip.

165. HORSE PRODUCTION. 2(2-0); I. Prerequisite: An. Husb. 152 or 172. Cathcart. One field trip.

168. MEATS. 3(2-3); I and II. Prerequisite: An. Husb. 125. Mackintosh. Killing, dressing, cutting, curing, judging, selecting, and grading meats. Charge, \$1.

171. LIVESTOCK PRODUCTION. 3(3-0); I. Prerequisite: An. Husb. 152 or 172. Open only to juniors and seniors not majoring in animal husbandry. Cox. Practical insight into the production of beef cattle, horses, swine, and sheep.

172. FEEDING LIVESTOCK. 3(3-0); II and SS. Prerequisite: Chem. 124 or its equivalent. Open only to students not enrolled in the curriculum in agriculture. Bell.

Processes of digestion and assimilation, feed requirements, feed values, calculating rations.

176. MEATS HE. 1(0-3); I and II. Prerequisite: Food and Nutr. 106. For juniors and seniors in home economics. Mackintosh.

Selecting, cutting, and curing meats; grading carcasses, uses of the various cuts. At least one field trip. Charge, \$1.

184. BREED STUDIES. 2(2-0); I. Prerequisite: An. Husb. 125. Mackintosh. Origin, development, adaptability, families, strains, noted sires, and noted breeders of the leading breeds of farm livestock other than dairy cattle.

187. ANIMAL HUSBANDRY PRACTICUMS. 3(1-6); II. Staff. Manual phases of livestock management.

189. FEEDS AND FEEDING. 3(3-0); II. Prerequisite: Chem. 124 and Anat. 222. Open only to students in the curriculum in veterinary medicine. Weber. A résumé of digestion and nutrition dealing primarily with practical feeding.

FOR GRADUATE AND UNDERGRADUATE CREDIT

221. GENETICS. 3(3-0); I, II, and SS. Prerequisite: Zoöl. 105 and Bot. 105. Ibsen.

Variation, Mendelian inheritance, and related subjects.

224. ANIMAL BREEDING. 2(2-0); I. Prerequisite: An. Husb. 221. Aubel. Physiology of reproduction; heredity; variation; systems of mating; pedigrees and herdbook standards; practices of leading breeders.

225. ADVANCED GENETICS. 4(3-3); II. Prerequisite: An. Husb. 221. Ibsen. Particular attention to the relation of chromosomes to heredity.

227. GENETICS SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructors. Nabours, Ibsen, Parker, Warren.

Genetic experiments in plants and animals, the biological and mathematical methods employed, and the validity of conclusions drawn.

229. RESEARCH IN GENETICS. Credit to be arranged; I and II. Prerequisite: An. Husb. 225. Ibsen.

Problems in which small mammals are used as the experimental animals.

231. ADVANCED STUDIES IN PEDIGREES. 3(1-6); II. Prerequisite: An. Husb. 184. Mackintosh.

Pedigrees and performances of outstanding individuals. Important strains and families of beef cattle, horses, sheep, and swine.

233. **ADVANCED FEEDING.** 2(2-0); I. Prerequisite: An. Husb. 152 or 172. Weber.

Application of the principles of nutrition in the feeding of farm animals.

244. **ANIMAL HUSBANDRY SEMINAR.** 1(1-0); II. Prerequisite: An. Husb. 152. Open only to senior and graduate students majoring in animal husbandry. Weber.

245. **ANIMAL HUSBANDRY PROBLEMS.** Credit to be arranged; I, II, and SS. Prerequisite: An. Husb. 152 and other courses; consult instructor. McCampbell.

250. **PUREBRED LIVESTOCK PRODUCTION.** 2(2-0); II. Prerequisite: An. Husb. 184 and 224; senior or graduate standing. McCampbell.

The function of purebred livestock; successful production; possibilities in purebred livestock production. One field trip.

260. **LIVESTOCK AND MEAT INDUSTRY.** 3(3-0); II. Prerequisite: An. Husb. 125 and 152. McCampbell.

The livestock and meat industry; its organization, operation, and development; relation to the public. Lectures, assigned readings, and reports.

268. **PRINCIPLES OF ANIMAL HUSBANDRY EXPERIMENTATION.** 2(2-0); II. Prerequisite: An. Husb. 152 and 221. McCampbell, Ibsen, Weber.

Conducting and interpreting experiments involving the use of animals.

274. **ADVANCED MEATS.** 1 to 4 hours; I. Prerequisite: An. Husb. 168. Mackintosh.

Grading; nutritive values; factors influencing quality; dressing percentages; identification of meats from different animals.

290. **PROBLEMS IN TRAINING AGRICULTURAL JUDGING TEAMS.** 2(10-0); four-week SS. Prerequisite: An. Husb. 125, Agron. 101, Poult. 101, Dairy Husb. 101, and one year's teaching experience. Cox, Zahnley, Scott, Cave, Davidson.

A seminar course in training agricultural judging teams.

FOR GRADUATE CREDIT

301. **RESEARCH IN ANIMAL HUSBANDRY.** Credit to be arranged; I and II. Prerequisite: Consult instructor. Staff.

Special problems in genetics and in the production of all kinds of livestock except dairy cattle.

305. **ANIMAL NUTRITION SEMINAR.** 1(1-0); I and II. Prerequisite: Senior or graduate standing. McCampbell.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of the validity of conclusions drawn.

311. **THE WOOL INDUSTRY.** 3(2-3); II. Prerequisite: An. Husb. 162. Cox. Supply and demand, production, marketing, manufacturing.

Dairy Husbandry

Professor ATKESON
Professor CAVE
Professor MARTIN
Associate Professor RIDDELL

Assistant Professor CAULFIELD
Instructor BECK
Graduate Assistant MURRAY

The activities of the Department of Dairy Husbandry may be divided into two groups: those that deal with the production of milk, and those that deal with the manufacturing of the several dairy products. The animals in the dairy herd are used by judging classes and in experiments in the feeding, care, and management of dairy animals. They are purebred cattle of the four dairy breeds: Jersey, Guernsey, Ayrshire, and Holstein. The department operates a farm of 120 acres.

In the creamery up-to-date equipment is available for giving instruction in

the handling of butter, cheese, milk, ice cream, and condensed milk. The dairy industry is expanding in Kansas, and demands more men with experience and knowledge of dairying.

Instruction in the Department of Dairy Husbandry includes study of the selection and breeding of dairy animals; and the production of milk, its manufacture into butter, cheese, and other dairy products, and its sale on the market.

COURSES IN DAIRY HUSBANDRY

FOR UNDERGRADUATE CREDIT

101. ELEMENTS OF DAIRYING. 3(2-3); I and II. Staff.

Problems of the milk producer and manufacturer; feeding, handling, breeding, and selecting of dairy cattle; composition and properties of milk; manufacture of dairy products.

Laboratory.—Selection of dairy cattle, production, manufacture, and common tests of dairy products. Charge, \$1.50.

104. DAIRY CATTLE JUDGING FOR VETERINARY STUDENTS. 1(0-3); I. Riddell, Cave.

105. DAIRY CATTLE JUDGING. 2(0-6); II. Prerequisite: Dairy Husb. 101. Cave.

106. DAIRY INSPECTION. 2(1-3); I. Prerequisite: Dairy Husb. 101. Caulfield.

Advanced work in testing dairy products and testing for adulterations; practice in use of dairy and creamery score cards; state and city ordinances; duties of city, state, and government inspectors. Charge, \$3.

108. MILK PRODUCTION. 3(3-0); II. Prerequisite: Dairy Husb. 101 and An. Husb. 152 or 172. Atkeson.

Handling the dairy herd; construction of dairy barns and buildings; other subjects concerning the dairy farmer.

110. BUTTER MAKING. 3(2-3); I. Prerequisite: Dairy Husb. 101 and Bact. 211. To be taught concurrently with Bact. 235. Martin.

The butter industry; cream production and care on the farm and in the plant; manufacturing, marketing, and food value of butter.

Laboratory.—Sampling and grading cream, butter analysis and tests, preparation of cream for churning, manufacture of butter. Charge, \$3.

116. MARKET MILK. 3(2-3); II. Prerequisite: Dairy Husb. 101 and Bact. 211. Martin.

Classes of market milk; clean milk production; relation of clean milk to producer, dealer, and consumer; milk inspection, score cards, and milk and cream contests; milk plants.

Laboratory.—Actual production of market milk and cream. Charge, \$3.

119. DAIRY INSPECTION FOR VETERINARY STUDENTS. 2(1-3); II. Caulfield. Composition and properties of milk; clean milk production; study of state and city ordinances affecting milk and dairy products.

Laboratory.—Testing of milk and dairy products; preparation and testing chemical disinfectants; scoring of dairy farms and milk plants. Charge, \$3.

120. ADVANCED DAIRY CATTLE JUDGING. 1(0-3); I. Cave.

Continuation of Dairy Husb. 105; visits to some of the best farms in the state.

128. CONDENSED AND POWDERED MILK. 3(2-3); I. Prerequisite: Dairy Husb. 116 and Bact. 211. Offered in 1937-'38 and alternate years thereafter. Martin, Caulfield.

History, methods, condensing machinery, and powdered-milk industry.

Laboratory.—Condensing milk in the College plant. Charge, \$3.

130. ICE CREAM MAKING. 3(2-3); II. Prerequisite: Dairy Husb. 106 and 116. Offered in 1938-'39 and alternate years thereafter. Martin, Caulfield.

Laboratory.—Practice in the manufacture of ice cream and ices. Charge, \$3.

135. CHEESE MAKING. 3(2-3); II. Prerequisite: Dairy Husb. 106 and Bact. 211. Offered in 1937-'38 and alternate years thereafter. Caulfield.

Laboratory.—Actual manufacture of the various types of cheese. Charge, \$3.

140. DAIRY PRODUCTS JUDGING. 1(0-3); II. Prerequisite: Dairy Husb. 101. Martin. Charge, \$2.

141. ADVANCED DAIRY PRODUCTS JUDGING. 1(0-3); I. Martin. Continuation of Dairy Husb. 140. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. DAIRY SEMINAR. 1(1-0); II. Prerequisite: Dairy Husb. 101, 106, and 108. Atkeson.

Study of dairy periodicals, bulletins, books, other dairy literature.

207. FEEDING AND MANAGEMENT OF DAIRY CATTLE. 3(2-3); II. Prerequisite: Dairy Husb. 108 and An. Husb. 152. Offered in 1938-'39 and alternate years thereafter. Cave.

Laboratory.—Includes fitting of animals for show and sale. Charge, \$1.

214. DAIRY CATTLE BREEDING AND SELECTION. 3(2-3); II. Prerequisite: Dairy Husb. 108. Offered in 1937-'38 and alternate years thereafter. Riddell.

History of breeds and families; inheritance of milk secretion; bull indexes; selection of herd sire; systems of breeding.

Laboratory.—Herdbook studies; pedigree writing and analysis.

216. DAIRY PRODUCTION PROBLEMS. Credit to be arranged; I and II. Prerequisite: Dairy Husb. 101, 104, and 108, and An. Husb. 152. Atkeson, Cave, Riddell.

Dairy production problems that may be continued for more than one semester.

221. DAIRY MANUFACTURING PROBLEMS. Credit to be arranged; I and II. Prerequisite: Dairy Husb. 101, 106, 108, and 110. Martin, Caulfield. Dairy manufacturing problems that may be continued for more than one semester.

226. CREAMERY MANAGEMENT. 2(2-0); II. Prerequisite: Dairy Husb. 111. Offered in 1938-'39 and alternate years thereafter. Martin.

An advanced course for students specializing in dairy manufacturing.

FOR GRADUATE CREDIT

301. RESEARCH IN DAIRY HUSBANDRY. Credit to be arranged; I and II. Prerequisite: Dairy Husb. 108, 110, 116, and 226. Consult instructors. Staff.

Special investigation in dairy production or dairy manufactures which may form the basis of a master's thesis.

305. ANIMAL NUTRITION SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructors. Atkeson, Cave, Riddell.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of the validity of conclusions drawn.

DAIRY REFRIGERATION. See Mech. Engr. 170 and 175.

DAIRY BACTERIOLOGY. See Bact. 211.

BACTERIOLOGY OF BUTTER CULTURES. See Bact. 235.

DAIRY CHEMISTRY. See Chem. 254.

MARKETING OF DAIRY PRODUCTS. See Econ. 251.

General Agriculture

Dean CALL
Associate Professor MULLEN

102. FRESHMAN LECTURES. 1(2-0); I. Call, Mullen, Peterson, various faculty members.

Guidance in learning to study; information regarding opportunities for graduates in various fields.

103. AGRICULTURAL SEMINAR. R; I and II. Four meetings each semester.

Programs presented by students, members of faculty, invited speakers. Charge, 75 cents.

105. AGRICULTURAL RELATIONSHIPS. R(1-0); II. Call.

Responsibilities and opportunities for agricultural graduates as citizens and as specialists in various phases of agricultural activity.

Horticulture

Professor BARNETT
Professor QUINLAN
Professor PICKETT
Associate Professor SMITH
Associate Professor FILINGER

Associate Professor DECKER
Assistant Professor ABMEYER
Graduate Assistant KENWORTHY
Graduate Assistant SCHROEDER

Instruction offered in the Department of Horticulture includes general horticulture, forestry, landscape gardening, pomology, vegetable gardening, floriculture, and greenhouse practices.

The horticultural farm, the campus, and the college greenhouses provide adequate materials for instructional use. There are ornamental plantings of many species, and vegetable and flower gardens on the campus. Field work in pomology and forestry is provided for on the horticultural farm.

In general, the basic curriculum in horticulture is the same as that followed by other departments in the Division of Agriculture. Students who desire to prepare for specialized work in horticulture, such as landscape gardening and floriculture, may arrange electives adapted to their objective throughout the four years of the curriculum. Each student should make provision for these electives with the head of the department before taking out his first freshman assignment.

COURSES IN GENERAL HORTICULTURE

FOR UNDERGRADUATE CREDIT

107. ELEMENTS OF HORTICULTURE. 3(2-3); I and II. Prerequisite: Bot. 105. Barnett and staff.

Principles and practices of successful orcharding and gardening.

Laboratory.—Study of fruit-bearing habits, propagation, pruning, spraying, transplanting, cover crops, fruit varieties, etc. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

207. SPRAYING. 3(2-3); II. Prerequisite: Chem. 110. Pickett.

Spray machinery; chemical properties; insecticides, fungicides; spray dates.

Laboratory.—Spray materials; special study of spray machinery and accessories. Charge, \$2.

208. LITERATURE OF HORTICULTURE. 2(2-0); II. Prerequisite: Hort. 111. Offered in 1938-'39 and alternate years thereafter. Filinger.

Books and publications are reviewed and bibliographies prepared.

235. HORTICULTURE SEMINAR. 1(1-0); I and II. Prerequisite: Hort. 111, 133, or 127. Barnett.

Critical discussion of horticultural publications and of experimental and research projects under way at this and other experiment stations.

244. HORTICULTURAL PROBLEMS. Credit to be arranged; I and II, and SS. Prerequisite: Consult instructor. Barnett and staff.

Investigations and reports in pomology, olericulture, floriculture, forestry, or landscape gardening.

FOR GRADUATE CREDIT

301. RESEARCH IN HORTICULTURE. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Barnett and staff.

Problems in pomology, olericulture, floriculture, or landscape gardening. Data collected may form basis for a master's thesis.

COURSES IN FORESTRY

FOR UNDERGRADUATE CREDIT

114. FARM FORESTRY. 3(2-3); I. Prerequisite: Bot. 105. Smith. Management and utilization of woodlots and tree belts. Charge, \$2.

119. SILVICULTURE. 3(2-3); I. Prerequisite: Bot. 105. Smith. Ecology of the forest; regions, types. Charge, \$2.

120. FOREST NURSERY PRACTICE. 3(2-3); I. Prerequisite: Bot. 105. Smith. Tree seed; planting practice; regeneration. Charge, \$2.

COURSES IN LANDSCAPE GARDENING

FOR UNDERGRADUATE CREDIT

125. LANDSCAPE GARDENING I. 3(3-0); I and SS. Quinlan. An introductory course in the fundamental principles of landscape gardening.

FOR GRADUATE AND UNDERGRADUATE CREDIT

223. CIVIC ART. 3(1-6); II. Prerequisite: Hort. 243. Offered in 1937-'38 and alternate years thereafter. Quinlan.

Growth and development of cities and towns; land subdivision.

224. PLANT MATERIALS I. 3(2-3); I. Prerequisite: Bot. 105. Quinlan. Perennials and annuals for general ornamental planting; planting plans.

226. PLANT MATERIALS II. 3(2-3); II. Prerequisite: Hort. 224. Quinlan. Trees, shrubs, vines for ornamental planting; planting plans and reports.

227. LANDSCAPE CONSTRUCTION. 3(2-3); I. Prerequisite: Civ. Engr. 151, 155. Offered in 1938-'39 and alternate years thereafter. Quinlan.

Topographic maps; grading plans; structures, sewage, water supply, lighting, and drainage on the private estate. Charge, \$1.

238. LANDSCAPE GARDENING II. 3(1-6); I. Prerequisite: Hort. 125 and 226. Quinlan.

Elementary designing of the home grounds, country estates, special gardens; sketch problems. Charge, \$1.

243. THEORY OF LANDSCAPE DESIGN. 2(2-0); I. Prerequisite: Hort. 125. Offered in 1937-'38 and alternate years thereafter. Quinlan.

The economic and esthetic theory of design; taste, character, historic styles, and composition; natural elements in design; planting design.

246. LANDSCAPE GARDENING III. 3(1-6); II. Prerequisite: Hort. 226, 243, and 238. Quinlan.

Advanced course in designing of large parks, cemeteries, golf courses, educational groups, and high-class land subdivisions. Sketch problems. Charge, \$1.

COURSES IN POMOLOGY**FOR UNDERGRADUATE CREDIT**

110. **SMALL FRUITS.** 2(2-0); II and SS. Prerequisite: Bot. 105. Filing. Growing, harvesting, and marketing small fruits.

111. **SYSTEMATIC POMOLOGY.** 3(2-3); I. Prerequisite: Hort. 107. Filing. Technical study of fruit varieties, varietal relationships; pomological nomenclature, variety description, artificial and natural systems of variety classification.

Laboratory.—Description, identification, judging, and preparation of displays. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. **PRACTICAL POMOLOGY.** 3(2-3); II. Prerequisite: Hort. 111. Filing. Applied orcharding; manufactured products; finances; marketing.

Laboratory.—Grading and packing fruits; identification of fruit plant varieties; propagation and advanced pruning. Charge, \$2.

202. **SUBTROPICAL POMOLOGY.** 2(2-0); II. Prerequisite: Hort. 111. Offered in 1939-'40 and alternate years thereafter. Barnett.

Geography and culture of subtropical fruits.

205. **ADVANCED POMOLOGY.** 3(2-3); I. Prerequisite: Hort. 111. Pickett.

A course in the fundamentals of orcharding.

Laboratory.—Advanced apple judging; production and marketing studies. Charge, \$2.

COURSES IN VEGETABLE GARDENING AND FLORICULTURE**FOR UNDERGRADUATE CREDIT**

127. **ELEMENTS OF FLORICULTURE.** 3(3-0); I. Decker.

Greenhouse construction, management; principal greenhouse crops.

129. **FLORAL ARRANGEMENT.** 2(1-3); I. Decker.

The commercial flower shop, source of supplies, sales.

Laboratory.—Arrangement of flowers. Charge, \$2.

130. **SCHOOL GARDENING.** 2(2-0); SS. Decker.

Soils, pests, and machinery as related to vegetable culture.

133. **ELEMENTS OF VEGETABLE GARDENING.** 3(2-3); II. Decker. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

210. **MARKET GARDENING.** 3(2-3); II. Prerequisite: Agron. 130 and Hort. 133. Decker.

Preparation of seed orders; cost estimates; harvesting, storing, and marketing vegetables.

Laboratory.—Students are assigned plots of ground to plant and care for. Records are kept of cultural operations and yields; disease and insect control. Charge, \$2.

212. **APPLIED FLORICULTURE.** 3(2-3); II. Prerequisite: Hort. 127. Decker. Science and practice of producing plants in greenhouse and conservatory.

Laboratory.—Practice in the various phases of floriculture. Charge, \$2.

Milling Industry

Professor SWANSON
Associate Professor CLARK
Associate Professor WORKING

Assistant Professor PENCE
Instructor ANDERSON

The Department of Milling Industry offers courses to prepare students for work in flour-milling operation, products control, or administration.

The department has a flour mill of 65 barrels daily capacity, equipped as a commercial plant and also with many features designed for research and instruction. For the study of elementary principles in milling and special problems in milling technology there are several units of nonautomatic mills.

The baking laboratory has dough mixers, proofing cabinets, ovens and other apparatus needed for baking tests in elementary and advanced work. The chemical laboratory has the usual chemical apparatus for wheat and flour testing, and special equipment for work on advanced problems.

COURSES IN MILLING INDUSTRY

FOR UNDERGRADUATE CREDIT

101. ELEMENTS OF MILLING. 2(1-3); I. Clark, Anderson.

A survey of the field; basic work on experimental mills. Charge, \$2.

103. FLOW SHEETS. 2(0-6); II. Prerequisite: Mill. Ind. 101. Pence.

The construction and assembling of a flow sheet. Charge, \$2.

105. PRINCIPLES OF BAKING.* 4(2-6); II. Clark.

Baking procedures and interpretation of qualities in baked products. Not open for credit to students who major in milling chemistry. Charge, \$5.

109. MILLING PRACTICE I. 3(1-6); I. Prerequisite: Mill. Ind. 103. Pence.

A study of milling machinery and methods of checking flour mill operations. Charge, \$2.

111. MILLING PRACTICE II. 3(1-6); II. Prerequisite: Mill. Ind. 109. Pence.

A study of roll and bolting surfaces, power transmission, lubrication, millwright work, and controls for flour mill operation. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. MILLING TECHNOLOGY I. 2(0-6); I. Prerequisite: Mill. Ind. 111. Anderson.

Technical study of special phases of wheat conditioning and flour milling. Charge, \$2.

202. MILLING TECHNOLOGY II. 2(0-6); II. Prerequisite: Mill. Ind. 201. Anderson.

A study of the physical, chemical, and engineering principles used in the control of flour mill operations. Charge, \$2.

203. FLOUR MILL CONSTRUCTION. (0-8-1); I. Prerequisite: Mach. Des. 111 and 121; prerequisite or concurrent, Ap. Mech. 216. Pence.

205. WHEAT AND FLOUR TESTING. 3(0-9); I. Prerequisite: Mill. Ind. 212 and Chem. 122 or 123, and 251. Working.

Special quantitative tests of cereals and their products; methods of analysis and interpretation of results. Deposit \$7.50.

207. EXPERIMENT BAKING.* 4(2-6); II. Prerequisite: Chem. 122. Clark.

Practice in baking tests; comparison of methods, formulas, and flours; interpretation of results. Charge, \$5.

210. ADVANCED WHEAT AND FLOUR TESTING. 1 to 5 semester hours; I and II. Prerequisite: Mill. Ind. 205 and other courses; consult instructor. Working.

* Effective Jan. 31, 1938.

Physiochemical and other methods used in testing wheat and flour. Deposit, \$2.50 per hour.

212. MILLING QUALITIES OF WHEAT. 3(3-0); II. Prerequisite: Chem. 122. Swanson.

The qualities of wheat and flour as affected by growth, storage, physical, chemical, and biological factors.

214. MILLING INDUSTRY PROBLEMS. Credit to be arranged; I, II, and SS. Prerequisite: Mill. Ind. 212, or such other courses as are necessary for the problem selected. Staff. Charge, \$2.50 per hour.

218. MILLING INDUSTRY SEMINAR. R($\frac{1}{2}$ -0); I and II.

Discussion of problems of general interest to all students in milling industry. Fee, 75 cents.

FOR GRADUATE CREDIT

301. RESEARCH IN MILLING INDUSTRY. Credit to be arranged; I, II, and SS. Prerequisite: Consult staff.

Meritorious research may be used as basis for a thesis in partial fulfillment of the requirements for the degree of master of science.

Poultry Husbandry

Professor PAYNE
Professor WARREN
Associate Professor SCOTT

Instructor AVERY
Graduate Assistant SCHNEPEL
Farm Superintendent GISH

The poultry plant, occupying twenty-four acres and situated just north of the northeast corner of the College campus, is devoted to the breeding and rearing of the stock used for class and experimental work.

In government and state experiment stations and in schools and colleges there is an increasing demand for men with experience and systematic training in handling poultry. There is likewise a growing demand for men to enter poultry-packing houses, and for men capable of managing poultry-farming enterprises.

COURSES IN POULTRY HUSBANDRY

FOR UNDERGRADUATE CREDIT

101. FARM POULTRY PRODUCTION. 2(1-3); I and II. Payne, Avery, Schnepel. Charge, \$2.

104. PRACTICE IN POULTRY FEEDING. 1(3 times a day, 7 days a week, for 3 weeks, at hours outside the regular schedule); II. Prerequisite: Poult. Husb. 101. Offered in 1937-'38 and alternate years thereafter. Avery. Charge, \$2.

109. POULTRY JUDGING. 3(1-6); I. Prerequisite: Poult. Husb. 101. Avery. Production characteristics and evolution of present breed types.

Laboratory.—Judging the standard breeds and varieties by comparison; judging hens for egg production on the basis of their trap-nest records. Charge, \$2.

116. MARKET POULTRY AND EGGS. 4(2-6); I. Prerequisite: Poult. Husb. 101. Offered in 1937-'38 and alternate years thereafter. Payne.

Methods of handling market eggs and live and dressed poultry.

Laboratory.—Candling and grading eggs; crate-feeding, killing, dressing, grading, and packing market poultry. Charge, \$2.

120. ARTIFICIAL INCUBATION AND BROODING. 3(1-6); (laboratory 3 times a day, 7 days a week, for not less than 8 weeks, at hours outside the regular schedule); II. Prerequisite: Poult. Husb. 101 and Zoöl. 105. Avery.

Development of the chick; metabolism; survey of the literature on incubation and brooding; actual care of an incubator; bringing off the hatch; care of chicks in brooder for 3 weeks. Charge, \$2.

125. ADVANCED INCUBATION. 1(0-3); (laboratory 3 times a day, 7 days a week, for not less than 3 weeks, at hours outside the regular schedule); II. Prerequisite: Poult. Husb. 101 and 120. Offered 1937-'38 and alternate years thereafter. Avery.

Study of the baby chick industry; operation of a Mammoth incubator; packing and shipping of baby chicks. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

204. POULTRY GENETICS. 3(3-0); II. Prerequisite: An. Husb. 221. Warren. Special reference to bearing of genetics on practical breeding problems.

POULTRY FARM ORGANIZATION. See Ag. Ec. 206A.

POULTRY SANITATION. See Bact. 216.

POULTRY ANATOMY. See Anat. 202.

206. POULTRY PROBLEMS. Credit to be arranged; I, II, and SS. Prerequisite: Poult. Husb. 101 and 104; consult instructors. Payne, Warren, Avery. Investigations which may be continued into the next semester if necessary.

210. GENETICS SEMINAR. 1(1-0); I and II. Prerequisite: Consult Warren. Genetics experiments in plants and animals; the biological and mathematical methods employed; and the validity of conclusions drawn.

216. POULTRY MANAGEMENT. 3(3-0); II. Prerequisite: Poult. Husb. 101; senior or graduate standing. Payne.

A detailed study of all phases of farm and commercial flocks, including cost of production.

220. POULTRY SEMINAR. 1(1-0); I. Prerequisite: Poult. Husb. 101. Required of all graduate students and of both juniors and seniors majoring in poultry husbandry. Warren.

FOR GRADUATE CREDIT

301. RESEARCH IN POULTRY HUSBANDRY. Credit to be arranged; I, II, and SS. Prerequisite: Poult. Husb. 101, 104, 109, 116, and 120; consult instructors. Warren, Payne.

Investigations which may form the basis of a master's thesis.

305. ANIMAL NUTRITION SEMINAR. 1(1-0); I and II. Prerequisite: Consult Payne.

Study and criticism of experimental work in animal nutrition.

The Agricultural Experiment Station

The Kansas Agricultural Experiment Station was organized under the provisions of an act of congress, approved March 2, 1887, which is commonly known as the Hatch act.

Two days later, March 4, 1887, the legislature of Kansas adopted a resolution accepting the conditions of the Hatch act, and vesting the responsibility of carrying out its provisions in the Board of Regents of Kansas State College.

The Hatch act carried an annual congressional appropriation of \$15,000. No further addition to this amount was made until the passage of the Adams act, approved March 16, 1906, which provided a sum beginning with \$5,000, and increasing each year by \$2,000 over the preceding year for five years. Since this time the annual appropriation has been \$15,000. Under the Adams act, experiments entered upon must be approved by the Office of Experiment Stations of the United States Department of Agriculture.

The Purnell act, approved February 24, 1925, authorized an appropriation of \$20,000 for the fiscal year beginning July 1, 1925, with allotments increasing annually by \$10,000 until a total of \$60,000 was reached for the fiscal year beginning July 1, 1929. The Purnell act is broad in scope and provides specifically for scientific research in agricultural economics, home economics, and rural sociology, in addition to providing more liberal support for the older established work of the Agricultural Experiment Station.

A fourth act authorizing support for the agricultural experiment stations is the Bankhead-Jones act, approved June 29, 1935. This act authorizes appropriations to the land-grant colleges for research, based upon the rural population of the various states. The amount available to Kansas was approximately \$12,000 for the first fiscal year, and will amount to approximately \$60,000 annually when the act is in full force. The Bankhead-Jones act states specifically that the research authorized shall be in addition to research provided for under existing laws and that no allotment of funds shall be made to a state for any fiscal year in excess of the amount which the state makes available for such fiscal year out of its own funds for research.

The Agricultural Experiment Station is, then, a research agency organized to ascertain facts of value to agriculture. It devotes its attention solely to the solution of problems of the farm and the farm home.

Farms, livestock, laboratories, and general equipment of the college are all directly available for the use of the station.

More than one hundred projects covering practically all phases of agricultural investigation are being studied by the members of the experiment station staff. Results of this work are published in the form of scientific papers and bulletins and circulars intended primarily for the general reader.

All bulletins and other publications from the Agricultural Experiment Station are sent without charge to citizens of the state. Any person in the state may have his name placed on the permanent mailing list of the station.

Letters of inquiry and general correspondence should be addressed to Agricultural Experiment Station, Manhattan, Kan. Special inquiries should be directed, as far as possible, to the head of the department having charge of the matter concerning which information is desired.

Branch Agricultural Experiment Stations

FORT HAYS BRANCH STATION

Land occupied by this station is a part of what was originally the Fort Hays military reservation. A bill was approved by congress March 28, 1901, setting aside this reservation for experimental and educational purposes. By act of the state legislature, approved February 7, 1901, the act of congress donating this land and imposing the support of these institutions was accepted. The same session of the legislature passed an act providing for the organization of a branch experiment station and appropriating a small fund for preliminary work. In the division of this land, the college received 3,560 acres.

The work of this station may be divided into two divisions: (a) experimental projects; (b) general farm and livestock work. Investigations are confined primarily to the study of problems peculiar to the western half of the state where rainfall is limited. Facilities of the station are also being used for the growing of large quantities of pure seed of the strains and varieties which have proved in actual test to be most productive in the western part of the state.

GARDEN CITY BRANCH STATION

In 1906, the county commissioners of Finney county purchased for purposes of agricultural experimentation a tract of land amounting to 320 acres, situated four and one half miles from Garden City in western Kansas. The land has been leased for a term of ninety-nine years to the Kansas Agricultural Experiment Station as an experimental and demonstration farm. Investigations in irrigation are conducted at this station.

COLBY BRANCH STATION

The legislature of 1913 provided for the establishment of a branch experiment station near Colby, in northwestern Kansas. It is located on a tract of 314 acres. The land was purchased by the county and deeded to the state. Operations were begun in March, 1914. Cropping experiments are being conducted under dry-land conditions and under irrigation. The primary purpose of the Colby station is to determine the best methods of developing the agriculture of northwestern Kansas and to make it a still more desirable place to live.

TRIBUNE BRANCH STATION

At the Tribune station experimental and demonstration work is conducted for the benefit of the surrounding western territory. Special attention is paid to the problems of producing crops under conditions of limited rainfall.

The Division of Engineering and Architecture*

ROY ANDREW SEATON, *Dean*

The Division of Engineering and Architecture offers curriculums in agricultural engineering, architectural engineering, architecture, chemical engineering, civil engineering, electrical engineering, industrial arts, and mechanical engineering, each leading to the degree of Bachelor of Science in the particular branch of the profession selected.

The curriculums as tabulated give fundamental preparation for entering upon work in the several branches of the professions, with some opportunity for specialization through options and electives. To a limited extent substitutions may be made for certain of the courses listed as required when there appears to be good reason for doing so, but each such substitution must have the approval of the head of the department in which the curriculum is administered, the head of department giving the course which is displaced, and the dean of the division. In no case will the substitution of an additional amount of technical work for any of the cultural work be permitted.

CURRICULUM IN AGRICULTURAL ENGINEERING

The curriculum in agricultural engineering is designed to qualify men for engineering work in agriculture. The field of the agricultural engineer includes: research, sales, or advertising in the farm-machinery and farm-motor industry; farm structure design, or promotional work with the building materials industry; soil erosion prevention with the federal and state agencies; rural electric service with electric power companies; management of farms where drainage, irrigation, or power-farming methods are of major importance; and engineering in agricultural development.

The curriculum in agricultural engineering includes all of the basic courses which are common to the other engineering curriculums such as mathematics, physics, and mechanics. Courses in agriculture are also included in order to familiarize the student with the modern methods of agriculture. Training along engineering lines includes farm machinery, farm power, farm structures, highway engineering, drainage, irrigation, soil-erosion control, and modern farm and home equipment.

CURRICULUM IN ARCHITECTURAL ENGINEERING

The curriculum in architectural engineering emphasizes the structural and mechanical phases of architecture. The field of the architectural engineer comprises the superintending of building construction, general contracting, structural design, estimating construction costs, and specification writing.

Students pursuing the curriculum in architectural engineering are urged to devote a fifth year to the work. By so doing a student can combine the curriculums in architecture and architectural engineering and receive the bachelor of science degree in both. Students intending to receive both degrees should consult with the head of the department at the beginning of the sophomore year.

It is also recommended that students obtain practical experience during the summer vacations in the building industry, either on construction projects or in the office of an architect, construction engineer, or contractor.

* Name changed from "The Division of Engineering," effective July 1, 1938.

CURRICULUM IN ARCHITECTURE

The curriculum in architecture, while stressing particularly architectural design, includes also training in building construction, properties and uses of building materials, professional practice, and other phases important to the architectural profession. The aim is to train students for efficient service as draftsmen and designers in an architectural organization and provide them with the necessary foundation for future independent practice.

It is recommended that students obtain practical experience during the summer vacations in the building industry, either on construction projects or in the office of an architect.

CURRICULUM IN CHEMICAL ENGINEERING

The aim of the curriculum in chemical engineering is to prepare the student for work in the design, construction, and operation of chemical plants. The scope of chemical engineering includes the strictly chemical industries, such as those manufacturing acids, alkalis, lacquer solvents, dyes, explosives, metals and like materials, and also the process industries, such as those processing petroleum, rubber, foods, leather, and those manufacturing cement, glass, soap, paints and varnishes, pulp and paper.

CURRICULUM IN CIVIL ENGINEERING

The aim of the curriculum in civil engineering is to give preparation for entering upon the active practice of the profession under present conditions. The first and second years are devoted largely to general cultural studies and the sciences, including mathematics. An introduction to the technical work is given in these years through courses in drawing, surveying, and the elementary phases of engineering.

The last two years are devoted largely to technical work. In recognition of the mechanical trend of the age, provision is made for class and laboratory work in mechanical and electrical engineering. In view of the growing importance of municipal problems, such as paving, sewerage, and water supply, the curriculum in civil engineering includes required courses in these subjects.

Advanced elective courses in railway, highway, and irrigation and drainage engineering are offered in the second semester of the senior year.

CURRICULUM IN ELECTRICAL ENGINEERING

The curriculum in electrical engineering aims to prepare the student for leadership in his chosen profession. The graduate may enter either the power or the communication field of electrical engineering, and he may engage in such lines as research, design, application, business management, or plant operation.

In order to qualify for the various divisions of the profession, the student should have a thorough grounding in mathematics and the sciences; practice and theoretical training in drawing, surveying, and shop practice; and a liberal training in the cultural subjects, English, history, and economics. Such a broad foundation serves as the basis for the more technical training in electrical engineering. This technical training begins with a course in the first year in College, is followed by another course in the second year, and is completed by several courses extending through the junior and senior years. The curriculum provides, in addition, elective work, giving the student opportunity for the selection of extra work along cultural, economic, or technical lines.

CURRICULUM IN INDUSTRIAL ARTS

The curriculum in industrial arts is designed to prepare students for positions as supervisors and directors of training schools in industry, or as teachers in colleges, high schools, and trade schools; also to give some technical train-

ing and experience in shop work and drafting, preparatory to entering industrial shops.

The required subject matter has been so selected as to give a well-balanced training in the essentials for successful work in the field of industrial arts. The electives, which begin in the junior year, permit the student to select lines of work of greatest interest.

CURRICULUM IN MECHANICAL ENGINEERING

The curriculum in mechanical engineering has been laid out with the aim of securing a judicious mixture of theory and practice, such as will not only give the student the technical skill required for engineering operations, but will also endow him with an understanding of the scientific and economic principles necessary for the solution of engineering and industrial problems.

Throughout the four years the theoretical studies in the classroom are supplemented by practical work in the laboratories in such a manner as very materially to strengthen both. In the testing laboratories the work does not end when the test is completed, but the entire problem must be written up in such a manner as would be approved in the best commercial testing laboratories. The laboratory work in the shops not only gives the student practice in operating the machinery and performing the various mechanical operations, but includes a scientific study of the factors of production, so that the loss of material and expenditure of human effort will be a minimum.

Optional and elective courses are available in the senior year and give the student an opportunity for instruction in the more specialized branches of mechanical engineering, including factory engineering, power production, and aëronautical engineering.

Students pursuing a mechanical engineering curriculum are urged to spend at least two summers in some shop or commercial plant in order to broaden their training.

ENGINEERING AND ARCHITECTURE IN THE SUMMER SCHOOL

The division offers summer courses in free-hand and mechanical drawing, water-color and oil painting, manual training, and shop practice for high-school and grade-school teachers. In addition, various courses required in the several curriculums are offered in the Summer School. This enables teachers who wish to take an engineering or architectural curriculum to get a considerable start on the work during their summer vacations, and also enables College students who are irregular to make up courses.

Full information concerning the courses offered is contained in the Summer School number of the Kansas State College *Bulletin* which may be obtained upon application to the vice-president of the College.

Curriculum in Agricultural Engineering

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Algebra, *Math. 104.....	3(3-0)	Plane Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101...	3(3-0)	Chemistry E-I, Chem. 107.....	4(3-3)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Extem. Speech I, Pub. Spk. 106...	2(2-0)	El. An. Husbandry, An. Husb. 125,	3(2-4)
Agr. Mach. and Con., Agr. Engr.		Desc. Geometry, Mach. Des. 106..	2(0-6)
122	2(1-3)	Artillery II, Mil. Sc. 114A.....	1(1-2)
Engr. Drawing, Mach. Des. 101...	2(0-6)	Engr. Lectures, Gen. Engr. 101...	R
Forging, Shop 150.....	1(0-3)	Phys. Educ. M, Phys. Ed. 104....	R(0-2)
Artillery I, Mil. Sc. 113A.....	1(1-2)		
Engr. Lectures, Gen. Engr. 101....	R		
Phys. Educ. M, Phys. Ed. 103...	R(0-2)		
Total	17	Total	17

SOPHOMORE

FIRST SEMESTER

Engr. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
Chemistry E-II, Chem. 108.....	4(3-3)
Mach. Drawing I, Mach. Des. 111,	2(0-6)
Surveying I, Civ. Engr. 102.....	2(0-6)
Artillery III, Mil. Sc. 115A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2)
Total	18

SECOND SEMESTER

Engr. Physics II, Phys. 106.....	5(4-3)
Calculus II, Math. 115.....	4(4-0)
Mechanism, Mach. Des. 121.....	3(3-0)
Metallurgy, Shop 165.....	2(2-0)
Surveying II, Civil Engr. 111.....	2(0-6)
Foundry Prod., Shop 161.....	1(0-3)
Artillery IV, Mil. Sc. 116A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105..	R
Phys. Educ. M, Phys. Ed. 106....	R(0-2)
Total	18

JUNIOR

FIRST SEMESTER

Engr. Thermodynamics A, Mech.	
Engr. 201A.....	3(3-0)
Applied Mechanics, Ap. Mech. 202,	4(4-0)
Fld. and Power Mach., Agr. Engr.	
111	4(2-6)
General Geology, Geol. 103.....	3(3-0)
Machine Tool Work I, Shop 170...	2(0-6)
Highway Engr. I, Civil Eng. 231..	2(2-0)
Engr. Assembly, Gen. Engr. 105...	R
Total	18

SECOND SEMESTER

Str. of Mat., Ap. Mech. 211, 220..	6(5-3)
Farm Motors, Agr. Engr. 225.....	4(2-6)
Farm Crops, Agron. 101.....	4(2-6)
Amer. Ind. History, Hist. 105.....	3(3-0)
Engr. Assembly, Gen. Engr. 105..	R
Total	17

SENIOR

FIRST SEMESTER

Hydraulics, Ap. Mech. 230, 235...	4(3-3)
Farm Structures, Agr. Engr. 203...	4(2-6)
Soils, Agron. 130.....	4(3-3)
Economics I, Econ. 101.....	3(3-0)
Electives†	2(-)
Engr. Assembly, Gen. Engr. 105...	R
Inspection Trip, Agr. Engr. 140...	R
Total	17

SECOND SEMESTER

Heat. and Ventil. A, Mech. Engr.	
135	3(3-0)
Land Reclamation, Agr. Engr. 250,	3(2-3)
Mod. Farm and Home Equipment,	
Agr. Engr. 210.....	3(2-3)
Farm Organization, Agr. Ec. 106..	3(2-3)
Elect. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Elective†	2(-)
Engr. Assembly, Gen. Engr. 105..	R
Total	17

Number of hours required for graduation, 139.

Curriculum in Architectural Engineering

FRESHMAN

FIRST SEMESTER

College Algebra,* Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Desc. Geometry A, Mach. Des. 107,	3(0-9)
Extm. Speech I, Pub. Spk. 106..	2(2-0)
Surveying I, Civil Engr. 102.....	2(0-6)
Artillery I, Mil. Sc. 113A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101....	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Total	17

SECOND SEMESTER

Plane Analytical Geom., Math. 110,	4(4-0)
Chemistry E-1, Chem. 107.....	4(3-3)
College Rhetoric II, Engl. 104....	3(3-0)
Shades and Shadows, and Perspec-	
tive, Mach. Des. 108.....	3(0-9)
Freehand Drawing I, Arch. 112...	2(0-6)
Artillery II, Mil. Sc. 114A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101....	R
Phys. Educ. M, Phys. Ed. 104....	R(0-2)
Total	17

SOPHOMORE

FIRST SEMESTER

Engr. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
Chemistry E-II, Chem. 108.....	4(3-3)
El. of Arch. I, Arch. 106A.....	3(0-9)
Artillery III, Mil. Sc. 115A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2)
Total	17

SECOND SEMESTER

Engr. Physics II, Phys. 106.....	5(4-3)
Calculus II, Math. 115.....	4(4-0)
Economics I, Econ. 101.....	3(3-0)
El. of Arch. II, Arch. 107A.....	3(0-9)
Freehand Drawing II, Arch. 113..	2(0-6)
Artillery IV, Mil. Sc. 116A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 106....	R(0-2)
Total	18

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202, Bldg. Materials and Construction, Arch. 187A	4(4-0)	Str. of Mat., Ap. Mech. 211, 220, Working Draw. and Spec., Arch. 191	6(5-3)
Architectural Design I, Arch. 142..	3(3-0)	Architectural Design II, Arch. 144, Hist. of Arch. II, Arch. 157A....	3(0-9)
Pencil Rend. and Sketch., Arch. 116,	3(0-9)	Water Color I, Arch. 118.....	3(0-9)
Hist. of Arch. I, Arch. 154A.....	2(0-6)	Illumination A, Elec. Engr. 116...	2(2-0)
Foundations, Civil Engr. 121.....	2(2-0)	Engr. Assembly, Gen. Engr. 105...	2(0-6)
Law for Engineers, Hist. 167.....	2(2-0)		2(2-0)
Engr. Assembly, Gen. Engr. 105...	R		R
Total	18	Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Architectural Design III, Arch. 145, Stres. in Fmd. Struc., Civ. Engr. 201	5(0-15)	Reinforced Conc. Design, Civ. Engr. 250, 255.....	3(2-3)
Hist. of Arch. III, Arch. 158A....	4(4-0)	Des. of Fmd. Struc., Civ. Engr. 246	3(0-9)
Civil Engr. Draw. II, Civ. Engr. 205	2(2-0)	Heating and Ventilation A, Mech. Engr. 135	3(0-9)
Soil Mechanics, Ap. Mech. 290....	2(0-6)	Hist. of Arch. IV, Arch. 160A....	2(2-0)
Electives†	2(-)	Building Equipment, Arch. 188...	2(2-0)
Engr. Assembly, Gen. Engr. 105...	R	Elective†	4(-)
Inspection Trip, Arch. 199.....	R	Engr. Assembly, Gen. Engr. 105...	R
Total	17	Total	17

Number of hours required for graduation, 139.

Curriculum in Architecture

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Algebra,* Math. 104.....	3(3-0)	Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Desc. Geometry A, Mach. Des. 107,	3(0-9)	Shades and Shadows and Perspective, Mach. Des. 108.....	3(0-9)
El. of Arch. I, Arch. 106A.....	3(0-9)	El. of Arch. II, Arch. 107A.....	3(0-9)
History of Arch. I, Arch. 154A....	2(2-0)	History of Arch. II, Arch. 157A..	2(2-0)
Freehand Drawing I, Arch. 112...	2(0-6)	Freehand Drawing II, Arch. 113...	2(0-6)
Artillery I, Mil. Sc. 113A (men)...	1(1-2)	Artillery II, Mil. Sc. 114A (men)...	1(1-2)
Engr. Lectures, Gen. Engr. 101....	R	Engr. Lectures, Gen. Engr. 101....	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2) or	Phys. Educ. M, Phys. Ed. 104....	R(0-2) or
Phys. Educ. W, Phys. Ed. 151A....	R(0-3)	Phys. Educ. W, Phys. Ed. 152A..	R(0-3)
Total, men	17	Total, men	17
Total women	16	Total, women	16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
General Physics I, Phys. 102.....	4(3-3)	General Physics II, Phys. 103.....	4(3-3)
Economics I, Econ. 101.....	3(3-0)	Applied Mech. A, Ap. Mech. 102..	3(3-0)
Architectural Design I, Arch. 142..	3(0-9)	Architectural Design II, Arch. 144,	3(0-9)
Building Mat. and Con., Arch. 187A	3(3-0)	Work. Drawing and Spec., Arch. 191	3(0-9)
History of Arch. III, Arch. 158A..	2(2-0)	History of Arch. IV, Arch. 160A....	2(2-0)
Pencil Rend. and Sketch., Arch. 116,	2(0-6)	Water Color I, Arch. 118.....	2(0-6)
Artillery III, Mil. Sc. 115A (men),	1(1-2)	Artillery IV, Mil. Sc. 116A (men)...	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R	Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2) or	Phys. Educ. M, Phys. Ed. 106....	R(0-2) or
Phys. Educ. W, Phys. Ed. 153....	R(0-3)	Phys. Educ. W, Phys. Ed. 154....	R(0-3)
Total, men	18	Total, men	18
Total, women	17	Total, women	17

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

JUNIOR

FIRST SEMESTER

Architectural Design III, Arch. 145,	5(0-15)
Str. of Mat. A, Ap. Mech. 116, 121,	4(3-3)
Hist. of Paint. and Sculp., Arch. 179	3(3-0)
French I, Mod. Lang. 151.....	3(3-0)
Life Drawing I, Arch. 121.....	2(0-6)
Engr. Assembly, Gen. Engr. 105...	R

Total 17

SECOND SEMESTER

Architectural Design IV, Arch. 147,	5(0-15)
Theory of Structures I, Arch. 192,	4(2-6)
French II, Mod. Lang. 152.....	3(3-0)
Building Equipment, Arch. 188...	2(2-0)
Life Drawing II, Arch. 123.....	2(0-6)
Extm. Speech I, Pub. Spk. 106...	2(2-0)
Engr. Assembly, Gen. Engr. 105...	R

Total 18

SENIOR

FIRST SEMESTER

Architectural Design V, Arch. 254,	7(0-21)
Theory of Strs. II, Arch. 194A....	5(3-6)
Law for Engineers, Hist. 167.....	2(2-0)
Elective†	3(-)
Engr. Assembly, Gen. Engr. 105...	R
Inspection Trip, Arch. 199.....	R

Total 17

SECOND SEMESTER

Architectural Design VI, Arch. 257,	7(0-21)
Theory of Structures III, Arch. 196,	4(2-6)
Professional Practice, Arch. 195...	2(0-6)
Elective†	4(-)
Engr. Assembly, Gen. Engr. 105...	R

Total 17

Number of hours required for graduation: Men, 139; women, 135.

Curriculum in Chemical Engineering

FRESHMAN

FIRST SEMESTER

Chemistry I, Chem. 101.....	5(3-6)
College Algebra,* Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Engr. Drawing, Mach. Des. 101...	2(0-6)
Artillery I, Mil. Sc. 113A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101...	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total 17

SECOND SEMESTER

Chemistry II Rec., Chem. 103....	3(3-0)
Chemistry II Lab., Chem. 104.....	2(0-6)
Plane Analytical Geom., Math. 110,	4(4-0)
College Rhetoric II, Engl. 104....	3(3-0)
Desc. Geometry, Mach. Des. 106...	2(0-6)
Mach. Drawing I, Mach. Des. 111	2(0-6)
Artillery II, Mil. Sc. 114A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101...	R
Phys. Educ. M, Phys. Ed. 104....	R(0-2)

Total 17

SOPHOMORE

FIRST SEMESTER

Engr. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
Adv. Inorganic Chem., Chem. 207,	3(3-0)
German I, Mod. Lang. 101.....	3(3-0)
Chem. Engr. Materials, Chem. 280,	2(2-0)
Artillery III, Mil. Sc. 115A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2)

Total 18

SECOND SEMESTER

Engr. Physics II, Phys. 106.....	5(4-3)
Quan. Analysis, Chem. 241.....	5(1-12)
Calculus II, Math. 115.....	4(4-0)
German II, Mod. Lang. 102.....	3(3-0)
Artillery IV, Mil. Sc. 116A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2)

Total 18

JUNIOR

FIRST SEMESTER

Phys. Chemistry I, Chem. 206....	5(3-6)
Org. Chemistry I, Chem. 218.....	4(2-6)
Applied Mechanics, Ap. Mech. 202,	4(4-0)
Mechanism, Mach. Des. 121.....	3(3-0)
Elective†	2(2-0)
Engr. Assembly, Gen. Engr. 105...	R

Total 18

SECOND SEMESTER

Str. of Mat. E, Ap. Mech. 216, 220,	4(3-3)
Org. Chem. II, Chem. 219.....	4(2-6)
El. of Chem. Engr. I, Chem. 278...	4(3-3)
Phys. Chemistry II, Chem. 272....	3(3-0)
Economics I, Econ. 101.....	3(3-0)
Engr. Assembly, Gen. Engr. 105...	R

Total 18

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Inorg. Chem. Technology, Chem. 203	5(3-6)	Chem. Engr. Principles, Chem. 282, 4(3-3)	
Heat Power Engr. B, Mech. Engr. 211.....	5(4-3)	Org. Chem. Technology, Chem. 212	3(3-0)
El. of Chem. Engr. II, Chem. 279, 4(3-3)		Elec. Engr. C, Elec. Engr. 102, 106, 3(2-2, 1)	
Chem. Engr. Calculations, Chem. 273,	3(3-0)	Elective†	6(-)
Engr. Assembly, Gen. Engr. 105... R		Engr. Assembly, Gen. Engr. 105... R	
Inspection Trip, Chem. 130..... R			
Total	17	Total	16

Number of hours required for graduation, 139.

Curriculum in Civil Engineering

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Algebra,* Math. 104.....	3(3-0)	Plane Analytical Geom., Math. 110, 4(4-0)	
Plane Trigonometry, Math. 101...	3(3-0)	Chemistry E-I, Chem. 107.....	4(3-3)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Amer. Ind. History, Hist. 105.....	3(3-0)	Extm. Speech, Pub. Spk. 106....	2(2-0)
Surveying I, Civ. Engr. 102.....	2(0-6)	Surveying II, Civ. Engr. 111.....	2(0-6)
Engr. Drawing, Mach. Des. 101...	2(0-6)	Desc. Geometry, Mach. Des. 106..	2(0-6)
Artillery I, Mil. Sc. 113A.....	1(1-2)	Artillery II, Mil. Sc. 114A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101... R		Engr. Lectures, Gen. Engr. 101... R	
Phys. Educ. M, Phys. Ed. 103.... R(0-2)		Phys. Educ. M, Phys. Ed. 104.... R(0-2)	
Total	17	Total	18

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engr. Physics I, Phys. 105.....	5(4-3)	Engr. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Chemistry E-II, Chem. 108.....	4(3-3)	Surveying III, Civ. Engr. 151, 155, 3(2-3)	
Metallurgy, Shop 165.....	2(2-0)	Economics I, Econ. 101.....	3(3-0)
Mach. Drawing I, Mach. Des. 111, 2(0-6)		C. E. Drawing I, Civ. Engr. 125..	2(0-6)
Artillery III, Mil. Sc. 115A.....	1(1-2)	Artillery IV, Mil. Sc. 116A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105... R		Engr. Assembly, Gen. Engr. 105.. R	
Phys. Educ. M, Phys. Ed. 105.... R(0-2)		Phys. Educ. M, Phys. Ed. 104.... R(0-2)	
Total	18	Total	18

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Ap. Mechanics, Ap. Mech. 202....	4(4-0)	Str. of Mat., Ap. Mech. 211, 220, 6(5-3)	
Engr. Geology, Geol. 102.....	4(3-3)	Hydraulics, Ap. Mech. 230, 235... 4(3-3)	
Surveying IV, Civ. Engr. 156, 157, 3(2-3)		Steam and Gas Engr. C, Mech. Engr. 120, 125.....	3(2-3)
Highway Engr. I, Civ. Engr. 231.. 2(2-0)		Drain. and Irrig. I, Civ. Engr. 161, 2(2-0)	
Foundations, Civ. Engr. 121..... 2(2-0)		Railway Engr. I, Civ. Engr. 145.. 2(2-0)	
Water and Sewage Bact., Bact. 125, 2(0-6)		Engr. Assembly, Gen. Engr. 105.. R	
Engr. Assembly, Gen. Engr. 105... R			
Total	17	Total	17

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Stres. in Fmd. Struc., Civ. Engr. 201	4(4-0)	Reinforced Concrete Design, Civ. Engr. 250, 255.....	3(2-3)
Astr. and Geod., Civ. Engr. 211, 216	4(2-6)	Elec. Engr. C, Elec. Engr. 102, 106, 3(2-2, 1)	
Water Supply, Civ. Engr. 220.... 2(2-0)		Design of Fmd. Struc., Civ. Engr. 246	3(0-9)
Sewerage, Civ. Engr. 225..... 2(2-0)		Law for Engineers, Hist. 167..... 2(2-0)	
C. E. Drawing II, Civ. Engr. 205, 2(0-6)		Elective†	6(-)
Soil Mechanics, Ap. Mech. 290... 2(0-6)		Engr. Assembly, Gen. Engr. 105.. R	
Highway Mat. Lab., Ap. Mech. 250, 1(0-3)			
Engr. Assembly, Gen. Engr. 105... R			
Inspection Trip, Civ. Engr. 180... R			
Total	17	Total	17

Number of hours required for graduation, 139.

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

Curriculum in Electrical Engineering

FRESHMAN

FIRST SEMESTER

College Algebra,* Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Extens. Speech I, Pub. Spk. 106...	2(2-0)
Elec. Mach. and Construction, Elec. Engr. 112	2(0-6)
Engr. Drawing, Mach. Des. 101...	2(0-6)
Forging I, Shop 150.....	1(0-3)
Artillery I, Mil. Sc. 113A.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

SECOND SEMESTER

Plane Analytical Geom., Math. 110,	4(4-0)
Chemistry E-I, Chem. 107.....	4(3-3)
College Rhetoric II, Engl. 104....	3(3-0)
Amer. Ind. History, Hist. 105.....	3(3-0)
Desc. Geometry, Mach. Des. 106..	2(0-6)
Artillery II, Mil. Sc. 114A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101...	R
Phys. Educ. M, Phys. Ed. 104....	R(0-2)

Total 17

Total 17

SOPHOMORE

FIRST SEMESTER

Engr. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
Chemistry E-II, Chem. 108.....	4(3-3)
Mechanism, Mach. Des. 121.....	3(3-0)
Foundry Prod., Shop 161.....	1(0-3)
Artillery III, Mil. Sc. 115A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2)

SECOND SEMESTER

Engr. Physics II, Phys. 106.....	5(4-3)
Calculus IIA, Math. 116.....	5(5-0)
Prin. of Electronics, Elec. Engr. 120,	2(2-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)
Surveying I, Civ. Engr. 102.....	2(0-6)
Artillery IV, Mil. Sc. 116A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 106....	R(0-2)

Total 18

Total 17

JUNIOR

FIRST SEMESTER

Applied Mechanics, Ap. Mech. 202,	4(4-0)
Elec. Meas., Elec. Engr. 227, 229..	4(2-4, 2)
D. C. Mach. I, Elec. Engr. 203...	3(3-0)
Economics, Econ. 101.....	3(3-0)
Metallurgy, Shop 165.....	2(2-0)
Mach. Drawing II, Mach. Des. 118,	2(0-6)
Engr. Assembly, Gen. Engr. 105...	R

SECOND SEMESTER

Str. of Mat. E, Ap. Mech. 216, 220,	4(3-3)
D. C. Mach. II, Elec. Engr. 206,	
208	4(2-4, 2)
A. C. Circuits, Elec. Engr. 209....	4(4-0)
Corp. Org. and Fin., Econ. 219...	2(2-0)
Machine Tool I, Shop 170.....	2(0-6)
Elec. Mach. Des., Elec. Engr. 270,	1(0-3)
Engr. Assembly, Gen. Engr. 105...	R

Total 18

Total 17

SENIOR

FIRST SEMESTER

A. C. Mach. I, Elec. Engr. 210, 211,	5(3-4, 2)
Engr. Thermo. A, Mech. Engr. 203,	4(3-3)
Pub. Util. Managt., Elec. Engr. 290,	3(3-0) or
Wire Commun. I, Elec. Engr. 246,	
247	3(2-2, 1)
Hydraulics, Ap. Mech. 230.....	3(3-0)
Elective†	3(-)
Engr. Assembly, Gen. Engr. 105...	R
Inspection Trip, Elec. Engr. 190...	R

SECOND SEMESTER

A. C. Mach. II, Elec. Engr. 212,	
213	5(3-4, 2)
Heat Power Engr. A, Mech. Engr.	
204	4(3-3)
Business Engl. and Sales, Engl. 125,	3(3-0)
Elective†	5(-)
Engr. Assembly, Gen. Engr. 105...	R

Total 18

Total 17

Number of hours required for graduation, 139.

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

Curriculum in Industrial Arts

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Chemistry E-I, Chem. 107.....	4(3-3)	Chemistry E-II, Chem. 108.....	4(3-3)
College Algebra,* Math. 104.....	3(3-0)	Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104.....	3(3-0)
Engr. Drawing, Mach. Des. 101...	2(0-6)	Desc. Geometry, Mach. Des. 106..	2(0-6)
Sheet Metal Work, Shop 173.....	2(0-6)	Surveying I, Civ. Engr. 102.....	2(0-6)
Wood Turning, Shop 135.....	2(0-6)	Foundry Production, Shop 161....	1(0-3)
Artillery I, Mil. Sc. 113A.....	1(1-2)	Farm Blacksmithing I, Shop 157..	1(0-3)
Engr. Lectures, Gen. Engr. 101...	R	Artillery II, Mil. Sc. 114A.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Engr. Lectures, Gen. Engr. 101...	R
		Phys. Education M, Phys. Ed. 104,	R(0-2)
Total		Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
General Physics I, Phys. 102.....	4(3-3)	General Physics II, Phys. 103.....	4(3-3)
Mechanism, Mach. Des. 121.....	3(3-0)	Educ. Psychology, Educ. 109.....	3(3-0)
Gen. Psychology, Educ. 184.....	3(3-0)	Farm Carpentry, Shop 147.....	3(1-6)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	Mach. Drawing II, Mach. Des. 118,	2(0-6)
Elec. Mach. & Const., Elec. Engr.		Metallurgy, Shop 165.....	2(2-0)
112	2(0-6)	Wood & Metal Finishing, Shop 121,	2(0-6)
Woodwork I, Shop 120.....	2(0-6)	Artillery IV, Mil. Sc. 116A.....	1(1-2)
Arc Welding, Shop 172.....	1(0-3)	Engr. Assembly, Gen. Engr. 105...	R
Artillery III, Mil. Sc. 115A.....	1(1-2)	Phys. Education M, Phys. Ed. 106,	R(0-2)
Engr. Assembly, Gen. Engr. 105...	R		
Phys. Education M, Phys. Ed. 105,	R(0-2)		
Total		Total	17

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Amer. Ind. History, Hist. 105.....	3(3-0)	Str. of Mat. A, Ap. Mech. 116, 121,	4(3-3)
Educ. Admin., Educ. 210.....	3(3-0)	Economics I, Econ. 101.....	3(3-0)
Applied Mechanics A, Ap. Mech.		Bus. Engl. & Sales, Engl. 125....	3(3-0)
102	3(3-0)	Gas Engines & Tractors, Agr. Engr.	
Extemp. Speech I, Pub. Spk. 106..	2(2-0)	130	3(2-3)
Machine Tool Work I, Shop 170..	2(0-6)	Oxyacetylene Welding, Shop 171...	1(0-3)
Farm Blacksmithing II, Shop 158,	1(0-3)	Metallography I, Shop 167.....	1(0-3)
Elective†	3(-)	Elective†	3(-)
Engr. Assembly, Gen. Engr. 105...	R	Engr. Assembly, Gen. Engr. 105...	R
Total		Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Business Law I, Hist. 163.....	3(3-0)	Educ. Sociology, Educ. 239.....	3(3-0)
Teaching Part. in H. S., Educ. 163,	3(3-0)	Elective, (Dept. of Educ.)†.....	6(-)
Elective†	12(-)	Elective†	8(-)
Engr. Assembly, Gen. Engr. 105...	R	Engr. Assembly, Gen. Engr. 105...	R
Inspection Trip, Shop 194.....	R(-)		
Total		Total	17

Number of hours required for graduation, 139.

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.
† Electives are to be chosen with the advice and approval of the head of the department of shop practice and the dean.

Curriculum in Mechanical Engineering

FRESHMAN

FIRST SEMESTER

College Algebra,* Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Extern. Speech I, Pub. Spk. 106...	2(2-0)
Engr. Drawing, Mach. Des. 101...	2(0-6)
Surveying I, Civ. Engr. 102.....	2(0-6)
Oxyacetylene Welding, Shop 171...	1(0-3) or
Arc Welding, Shop 172.....	1(0-3)
Artillery I, Mil. Sc. 113A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101...	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

 Total 17

SECOND SEMESTER

Plane Analytical Geom., Math. 110,	4(4-0)
Chemistry E-I, Chem. 107.....	4(3-3)
College Rhetoric II, Engl. 104....	3(3-0)
Amer. Ind. History, Hist. 105....	3(3-0)
Desc. Geometry, Mach. Des. 106..	2(0-6)
Forging, Shop 150.....	1(0-3)
Artillery II, Mil. Sc. 114A.....	1(1-2)
Engr. Lectures, Gen. Engr. 101...	R
Phys. Educ. M, Phys. Ed. 104....	R(0-2)

 Total 18

SOPHOMORE

FIRST SEMESTER

Engr. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
Chemistry E-II, Chem. 108.....	4(3-3)
Mach. Drawing I, Mach. Des. 111,	2(0-6)
Metallurgy, Shop 165	2(2-0)
Artillery III, Mil. Sc. 115A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 105....	R(0-2)

 Total 18

SECOND SEMESTER

Engr. Physics II, Phys. 106.....	5(4-3)
Calculus II, Math. 115.....	4(4-0)
Mechanism, Mach. Des. 121.....	3(3-0)
El. Heat Power, Mech. Engr. 131,	2(2-0)
Mach. Drawing II, Mach. Des. 118,	2(0-6)
Foundry Prod., Shop 161.....	1(0-3)
Artillery IV, Mil. Sc. 116A.....	1(1-2)
Engr. Assembly, Gen. Engr. 105...	R
Phys. Educ. M, Phys. Ed. 106....	R(0-2)

 Total 18

JUNIOR

FIRST SEMESTER

Applied Mechanics, Ap. Mech. 202,	4(4-0)
Engr. Thermodynamics, Mech.	
Engr. 208	4(4-0)
Economics I, Econ. 101.....	3(3-0)
Machine Drawing III, Mach. Des.	
119	2(0-6)
Machine Tool Work I, Shop 170..	2(0-6)
Metallography I, Shop 167.....	1(0-3)
Heat Power Lab. I, Mech. Engr.	
209	1(0-3)
Engr. Assembly, Gen. Engr. 105...	R

 Total 17

SECOND SEMESTER

Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Heat Power Engr., Mech. Engr.	
212	3(3-0)
Hydraulics, Ap. Mech. 230.....	3(3-0) or
Fluid Mechanics, Ap. Mech. 231..	3(3-0)
Heat Transfer and Fluid Flow,	
Mech. Engr. 251.....	4(3-3) or
Metallography II, Shop 265....	2(0-6) and
Elective†	2(-)
Heat Power Lab. II, Mech. Engr.	
213	1(0-3)
Engr. Assembly, Gen. Engr. 105...	R

 Total 17

SENIOR

FIRST SEMESTER

Mach. Design I, Mach. Des. 204,	
205	5(3-6)
Elec. Engr. M-I, Elec. Engr. 237,	
238	5(4-3)
Industrial Option:	
Ind. Management, Shop 246...	3(3-0)
Mach. Tool Work II, Shop 192,	2(0-6)
Elective†	2(-)
Power Option:	
Pr. Plant Engr., Mech. Engr.	
217	3(2-3)
Adv. Thermo., Mech. Engr. 230,	2(2-0)
Elective†	2(-)
Engr. Assembly, Gen. Engr. 105...	R
Inspection Trip, Mech. Engr. 180,	R

 Total 17

SECOND SEMESTER

Elec. Engr. M-II, Elec. Engr. 242,	
243	4(3-2, 1)
Heating and Air Cond., Mech. Engr.	
227	4(2-6)
Graphic Statics, Ap. Mech. 225...	1(0-3)
Hydr. Lab., Ap. Mech. 235.....	1(0-3)
Industrial Option:	
Factory Design, Shop 255....	2(0-6)
Machine Tool Work III, Shop	
193	1(0-3)
Elective†	4(-)
Power Option:	
Ht. Pr. Lab. III, Mech. Engr.	
219	1(0-3)
Elective†	6(-)
Engr. Assembly, Gen. Engr. 105...	R

 Total 17

Number of hours required for graduation, 139.

* Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

Agricultural Engineering

Professor FENTON
 Assistant Professor BARGER
 Instructor ROBERTS

Instructor OTIS
 Graduate Assistant WIAINT

This department gives instruction in the branches of engineering which are closely related to agriculture. These include farm power and machinery, farm structures, farm land drainage, irrigation, soil and water conservation, and the equipment of the home and farmstead.

Laboratory equipment is ample. Especial attention is given to the solution of farm problems and to research.

COURSES IN AGRICULTURAL ENGINEERING**FOR UNDERGRADUATE CREDIT**

101. FARM BUILDINGS. 3(2-3)*; II. Fenton, Barger.

Requirements, details of arrangements, and materials of construction for farm buildings; preparation of plans, bills of material, and estimates of costs; water supply, sewage disposal, lighting, and other modern equipment for the farmstead.

108. FARM MACHINERY. 3(2-3); I and II. Roberts, assistants.

Construction, operation, adjustment, power requirements, use, service and repair of farm machinery. (For agricultural students.) Charge, \$2.

111. FIELD AND POWER MACHINERY. 4(2-6); I. Prerequisite: Mach. Des. 121 and Phys. 106. Roberts, assistants.

A comprehensive study of the development, design, construction, economics, power requirements, use and servicing of farm machinery. Charge, \$2.

122. AGRICULTURAL MACHINES AND CONSTRUCTION. 2(1-3); I. Barger, assistants.

Review of introductory principles of mechanics and physics as applied to the construction and operation of farm machinery; practice in identification of structural parts, construction methods, and servicing of farm machinery. (For freshman agricultural engineers.) Charge, \$1.

130. GAS ENGINES AND TRACTORS. 3(2-3); I, II, and SS. Barger, assistants.

Principles of the internal combustion engine; carburetion, valve timing, ignition, cooling, lubrication, and fuels; the servicing and repair of farm engines and the selection of power for agriculture. (For agricultural students.) Charge, \$2.

140. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Fenton, assistants.

A trip of three to five days for the purpose of studying farm machinery production and other projects of special interest to agricultural engineers.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. POWER AND MACHINERY IN AGRICULTURE. 2(2-0); I and II. Prerequisite: Junior or senior classification. Fenton.

History and development of machinery in agriculture; the application, selection, management, and cost of machines; future development; a survey course dealing with the mechanization of agriculture. Open to all students who have not taken Agr. Engr. 108 or 130.

* The number before the parentheses indicates the number of semester hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory required each week. I, II, and SS indicate that the course is given the first semester, second semester, and summer session, respectively.

203. FARM STRUCTURES. 4(2-6); I. Prerequisite: Ap. Mech. 202. Fenton, assistants.

Design of farm structures; details and materials of construction; specifications and estimates.

205. AGRICULTURAL ENGINEERING PROBLEMS. Credit to be arranged; I, II, and SS. Prerequisite: Permission of instructors. Fenton, Barger.

Problems in the design, construction or application of machinery or power in agriculture, structures, modern conveniences, rural electrification.

210. MODERN FARM AND HOME EQUIPMENT. 3(2-3); II. Prerequisite: Ap. Mech. 230 and 235. Roberts.

Water supply, sewage disposal, lighting, heating, and ventilation of farm buildings; refrigeration; rural electrification. Charge, \$1.

215. TRACTOR RESEARCH. Credit to be arranged; I. Prerequisite: Agr. Engr. 225 or equivalent. Barger, Roberts.

Research studies relating to tractor construction and operation.

225. FARM MOTORS. 4(2-6); II. Prerequisite: Phys. 106 and Math. 114. Barger, assistants.

Theory, design, operation and adjustment of the internal combustion engine and a comprehensive study of power and its application to agriculture. Charge, \$3.

240. DRAINAGE, EROSION CONTROL, AND IRRIGATION. 3(2-3); I and II. Prerequisite: Agron. 130. Otis.

Principles and practices of land improvement by terracing and other methods of erosion control; drainage, irrigation, and land clearing; use of explosives in agriculture. (For agricultural students.) Charge, \$1.

250. LAND RECLAMATION. 3(2-3); II. Prerequisite: Ap. Mech. 230 and Agron. 130. Fenton, Otis.

Principles and methods of land drainage, soil and water conservation, and irrigation. Charge, \$1.

FOR GRADUATE CREDIT

301. RESEARCH IN AGRICULTURAL ENGINEERING. Credit to be arranged; I, II, and SS. Prerequisite: Agron. 130 and Phys. 106 or equivalent. Fenton, Barger.

The laboratories of the College are available for research in the design, use, and application of machinery and equipment in the development of agriculture. The results of such investigation, if suitable, may be incorporated in bulletins of the Engineering Experiment Station, or the work may furnish material for the master's thesis.

Applied Mechanics

Professor SCHOLER
Professor ROBERT
Professor DAWLEY
Assistant Professor KOENITZER
Assistant Professor PICKETT
Assistant Professor McCAULLEY

Instructor TAYLOR
Instructor GROVER
Instructor THOMSON
Graduate Research Assistant O'NEAL
Graduate Research Assistant ———

The aim of the courses in applied mechanics is to give to the engineering student a practical working knowledge of those fundamental principles of mechanics upon which his future work in structural and machine design may be based.

The materials-testing laboratory is equipped with machines and apparatus for making physical tests of materials of construction, such as tension, com-

pression, flexure, shear, torsion, hardness, and impact tests, and tests under repeated load. Facilities are provided for making, curing, and testing concrete and reinforced concrete test specimens.

The materials-testing laboratory also has complete equipment for the testing of highway materials, and has been designated as the official laboratory of the Kansas Highway Department.

The hydraulics laboratory has facilities for furnishing water under a considerable range of pressures and volumes. It contains devices for measuring and recording the flow of water, including measuring pits, water meters, weirs, nozzles, pitometer, and Venturi meters. It is also provided with pumps, water motors, and a supply of other auxiliary apparatus.

COURSES IN APPLIED MECHANICS

FOR UNDERGRADUATE CREDIT

102. APPLIED MECHANICS A. 3(3-0); I. Prerequisite: Math. 101 and Phys. 102. McCaulley.

A study of statics, with applications to stress in structures; center of gravity; moment of inertia.

116. STRENGTH OF MATERIALS A RECITATION. 3(3-0); II. Prerequisite: Ap. Mech. 102. McCaulley.

Behavior of materials subjected to tension, compression, shear, and bending; designs of beams of wood, steel, and reinforced concrete; design and investigation of columns; practice in the use of a handbook.

121. STRENGTH OF MATERIALS A LABORATORY. 1(0-3); II. Prerequisite: Ap. Mech. 102. McCaulley.

A study of various testing machines; tension, compression, shear, and bending tests on iron, steel, wood, and concrete; tests on cement and on the fine and coarse aggregates for concrete. Charge, \$2.

150. THESIS. Credit to be arranged; I and II. Scholer, Robert.

Subject of investigation to be selected in consultation with the head of the department at the beginning of the senior year.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. APPLIED MECHANICS. 4(4-0); I, II, and SS. Prerequisite: Math. 115 or 116 and Phys. 105. Staff.

Composition, resolution, and conditions of equilibrium of concurrent and nonconcurrent forces; center of gravity; friction; laws of rectilinear and curvilinear motion of material points; moments of inertia; relations between forces acting on rigid bodies and the resulting motions; work, energy, and power.

211. STRENGTH OF MATERIALS RECITATION. 5(5-0); I, II, and SS. Prerequisite: Ap. Mech. 202. Staff.

Behavior of materials subject to tension, compression, and shear; riveted joints; torsion; shafts, and the transmission of power; strength and stiffness of simple and continuous beams, bending moments and shear forces in beams; design of beams; stresses in columns and hooks; design of columns; the mechanics of reinforced concrete.

216. STRENGTH OF MATERIALS E RECITATION. 3(3-0); I, II, and SS. Prerequisite: Ap. Mech. 202. Staff.

Similar to Ap. Mech. 211, but much less time given to study of continuous girders and of reinforced concrete.

220. STRENGTH OF MATERIALS LABORATORY. 1(0-3); I, II, and SS. Must accompany or follow Ap. Mech. 211 or 216. Staff.

Tension, compression, shear, and bending tests on specimens of iron, steel, wood, and concrete; torsion tests on steel shafting; standard tests on fine and coarse aggregates for concrete. Charge, \$2.

225. GRAPHIC STATICS. 1(0-3); II. Must accompany or follow Ap. Mech. 102 or 202. Robert.

Graphical solutions of the stresses existing in a number of typical trusses, under a variety of loadings.

230. HYDRAULICS RECITATION. 3(3-0); I, II, and SS. Prerequisite: Ap. Mech. 202. Staff.

Fluid pressures, center of pressure, immersion and flotation; Bernoulli's theorem; orifices, weirs, short and long pipes, flow of water in open channels, and its measurement; elements of water power, impulse wheels, reaction turbines, and centrifugal pumps.

231. FLUID MECHANICS. 3(3-0); II. Prerequisite: Ap. Mech. 202 and Mech. Engr. 208. Robert, Pickett.

An optional course to hydraulics, for mechanical engineering students, in which both gaseous and liquid fluids are treated. (Not open to students with credit in Ap. Mech. 230.)

235. HYDRAULICS LABORATORY. 1(0-3); I, II, and SS. Prerequisite: Ap. Mech. 202; must accompany or follow Ap. Mech. 230 or 231. Staff.

Tests to determine the coefficients of weirs and orifices, loss and head in pipes, water wheels, water turbines, rams and pumps, also use and calibration of water meter. Charge, \$1.

250. HIGHWAY MATERIALS LABORATORY. 1(0-3); I. Prerequisite: Ap. Mech. 220. Koenitzer, Taylor.

A comprehensive course in the examination and testing of road materials. Charge, \$1.50.

265. ADVANCED MECHANICS OF MATERIALS. 2(2-0); I. Prerequisite: Ap. Mech. 211 or 216. Scholer.

Theory of elasticity and its applications; advanced problems in continuous girders involving general three-moment equations.

268. ELASTIC ENERGY THEORY. 3(3-0); I. Prerequisite: Ap. Mech. 211 or 216. Scholer, Pickett.

The elastic energy theory applied to trusses, frames, beams, and curved beams.

269. APPLIED ELASTICITY. 3(3-0); I, II. Prerequisite: Ap. Mech. 211 or 216; Math. 201. Pickett.

Theory of elasticity with its application to stress analysis.

270. HYDRAULIC MACHINERY. 2(2-0); I. Prerequisite: Ap. Mech. 230. Robert.

Characteristics and applications of water wheels, turbines, pumps, and other hydraulic machinery.

275. ADVANCED HIGHWAY MATERIALS. 2(1-3); II. Prerequisite: Ap. Mech. 250. Scholer.

An advanced course in the properties and testing of the various materials used in road construction.

276. DESIGN OF CONCRETE MIXTURES. 3(1-6); II. Prerequisite: Ap. Mech. 220. Dawley.

Practical applications of the fundamental principles of concrete making, using various kinds of cement and placing special emphasis on the proper designing, mixing and placing of concrete mixtures to meet certain strength and durability requirements. Charge, \$2.50.

280. MECHANICS OF REINFORCED CONCRETE. 2(2-0); I. No credit for students who have had Ap. Mech. 211. Prerequisite: Ap. Mech. 216. Scholer, Robert.

The behavior of reinforced concrete structural elements, including slabs, rectangular beams, T-beams, columns, and special floor systems under load.

290. SOIL MECHANICS. 2(0-6); I. Prerequisite: Ap. Mech. 250. Scholer, Koenitzer.

The physical properties of soil which govern its behavior as a material for highway surfaces or foundations; the behavior of soil when used as a material of construction in fills and dams. Charge, \$1.50.

FOR GRADUATE CREDIT

301. RESEARCH IN MATERIALS OF CONSTRUCTION. Credit to be arranged; I, II, and SS. For prerequisites, consult instructors. Scholer, Robert, Dawley.

Many problems related to materials used in engineering construction offer attractive fields for research. A number of special pieces of apparatus in addition to the usual equipment of strength-of-materials laboratory are available for this work. The results of such investigations, if suitable, may be incorporated in bulletins of the Engineering Experiment Station; this work may furnish materials for the master's thesis.

Architecture

Professor WEIGEL
Associate Professor HELM
Associate Professor WICHERS

Assistant Professor WARE
Assistant Professor McCULLLEY
Instructor MACKEY

The courses in architecture are offered, not only to provide for the fundamental training necessary for the practice of architecture, but also to give the student a facility and working knowledge which will be of immediate value to him upon graduation. The foundation which the student acquires in college should be supplemented by continual professional study, especially during those years immediately following graduation, when it is desirable that he acquire practical experience in the employ and under the guidance of capable and experienced members of the profession.

Throughout the course the instruction by lectures, recitations, and drafting-room practice is amplified and expanded by a free use of the equipment of the Department of Architecture. A good working library of the standard architectural works and professional magazines, together with collections of lantern slides and photographs, is open to students.

During the senior year, under the direction of and in company with a member of the department faculty, each student is expected to make a visit to one or more of the neighboring cities, thus enabling him to acquaint himself with the representative work of the profession as well as with the operations and processes involved in the conduct of allied professions and industries.

All drawings or designs made by the student during the course become the property of the department, to be used or returned at the discretion of the faculty.

COURSES IN ARCHITECTURE

FOR UNDERGRADUATE CREDIT

106A. ELEMENTS OF ARCHITECTURE I. 3(0-9); I and II. Mackey.

A study of the fundamentals of architectural design by their application in the original solution and presentation of simple architectural problems. Charge, \$1.

107A. ELEMENTS OF ARCHITECTURE II. 3(0-9); I and II. Prerequisite: Arch. 106A. Mackey.

A continuation of Arch. 106A. Charge, \$1.

112. FREEHAND DRAWING I. 2(0-6); I, II, and SS. Helm, Wichers.

A basic course in the fundamentals of freehand drawing.

113. FREEHAND DRAWING II. 2(0-6); I, II, and SS. Prerequisite: Arch. 112. Helm, Wichers.

A continuation and expansion of the principles taught in Freehand Drawing I.

116. PENCIL RENDERING AND SKETCHING. 2(0-6); I, II, and SS. Prerequisite: Arch. 112. Mackey.

A study of pencil as a medium for sketching and rendering.

117. STILL-LIFE DRAWING. 2(0-6); I and SS. Prerequisite: Arch. 112. Helm.

Sketches in various media of still-life groups in the studio and out-of-doors.

118. WATER COLOR I. 2(0-6); I, II, and SS. Prerequisite: Arch. 116 or approval of instructor. Helm.

Rudiments of water color painting; translation and theory of color. Sketching of simple objects and groups of objects; includes both studio and outdoor sketching.

119. WATER COLOR II. 2(0-6); I, II, and SS. Prerequisite: Arch. 118. Helm.

Advanced study in the technique of the medium. Includes both studio work and outdoor sketching.

120. INTERIOR DESIGN. 2(0-6); I and SS. Prerequisite: Arch. 118, 125, and 145. Helm.

A study of the principles of interior architecture. Deposit, \$1

121. LIFE DRAWING I. 2(0-6); I, II, and SS. Prerequisite: Arch. 118. Helm.

Drawing and painting from the living model. Various media are employed. Charge, \$3.

123. LIFE DRAWING II. 2(0-6); I, II, and SS. Prerequisite: Arch. 121. Helm.

A continuation of Arch. 121. Charge, \$3.

124. DOMESTIC ARCHITECTURE. 2(2-0); II. Wichers.

An elective course intended for students not enrolled in the department of architecture. A study of the design and planning problems of the small home.

125. APPRECIATION OF ARCHITECTURE. 3(3-0); II. Ware.

A survey of the history of architecture. An elective, nontechnical course intended for students not enrolled in the department of architecture. The course provides a background for judging and appreciating architecture.

133. CLAY MODELING. 2(0-6); I and SS. Prerequisite: Arch. 117. Helm, Mackey.

The making of clay models, plaster casts of simple decorative fragments and anatomical forms; and construction of relief maps. Charge, \$1.

134. PEN AND INK DRAWING. 2(0-6); I, II, and SS. Prerequisite: Approval of instructor. Mackey.

A study of pen and ink drawing as a medium for sketching and rendering.

137. BLOCK PRINTS. 2(0-6); I and SS. Prerequisite: Arch. 113 or approval of instructor. Helm.

The carving of original compositions in linoleum and wood blocks. Charge, \$1.

142, 144. ARCHITECTURAL DESIGN I and II. 3(0-9) each; I and II each. Prerequisite: For I, Arch. 107A; for II, Arch. 142. Mackey.

A continuation of Arch. 107A. Charge, \$1 for each course.

145, 147. ARCHITECTURAL DESIGN III and IV. 5(0-15) each; I and II each. Prerequisite: For III, Arch. 144; for IV, Arch. 145. Ware.

Continuation of Arch. 144; time problems and rapid design sketches required at frequent intervals. Charge, \$1 for each course.

153. RURAL ARCHITECTURE. 2(0-6); I. Prerequisite: Arch. 144 and 191. Wichers.

A study of the architectural needs of rural communities, with special emphasis on the small home, using architectural models as a medium.

158A, 160A. HISTORY OF ARCHITECTURE III and IV. 2(2-0) each; I and II, respectively. Ware.

I, the history of architecture from the dawn of civilization to the end of the Roman Empire; II, the Gothic period to 1400.

158A, 157A. HISTORY OF ARCHITECTURE III and IV. 2(2-0) each; I and II, respectively. Prerequisite: For III, Arch. 157A; for IV, Arch. 158A. Ware.

Continuation of Arch. 157A; the history of architecture to modern times.

165, 170. COMMERCIAL ILLUSTRATION I and II. 2(0-6) each; I, II, and SS, each. Helm.

The principles of advertising arrangements; making various types of advertising design, such as newspaper advertisements, lettering, and posters; making cover designs for magazines, books, and trade catalogues; for headings, tail pieces, and decorative page arrangements; drawings carried out in black and white and in one or more colors.

179. HISTORY OF PAINTING AND SCULPTURE. 3(3-0); I. Helm.

The appreciation and development of painting and sculpture. An elective course intended to give a background for judging and appreciating the arts.

187A. BUILDING MATERIALS AND CONSTRUCTION. 3(3-0); I. McCaulley.

An introduction to the properties and uses of the materials of construction; construction methods; occasional visits to buildings under construction.

188. BUILDING EQUIPMENT. 2(2-0); II. Prerequisite: Arch. 187A. McCaulley.

A study of plumbing, sanitation systems, and mechanical equipment of buildings.

191. WORKING DRAWINGS AND SPECIFICATIONS. 3(0-9); II. Prerequisite: Arch. 142 and 187A. Wichers.

Preparing working drawings and specifications for a residence.

192. THEORY OF STRUCTURES I. 4(2-6); II. Prerequisite: Arch. 191, Ap. Mech. 102, 116, and 121. McCaulley.

Mathematical and graphical solutions of stresses in framed structures under static loading; practical problems in the design of wood construction; occasional inspection trips to buildings under construction.

194A. THEORY OF STRUCTURES II. 5(3-6); I. Prerequisite: Arch. 192. McCaulley.

A continuation of Theory of Structures I applied to steel and masonry structures.

195. PROFESSIONAL PRACTICE. 2(0-6); II. Prerequisite: Arch. 147. Weigel.

The preparation of building documents; interpretation of building codes and analysis of documents of the American Institute of Architects; office organization; client and contractor relationships.

196. THEORY OF STRUCTURES III. 4(2-6); II. Prerequisite: Arch. 194A. McCaulley.

A continuation of Theory of Structures II, including design of reinforced concrete building frames; footings, columns, and floor systems, attention being given to costs and economical design.

199. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Weigel.

An inspection trip is made to one of the larger cities of the Middle West by the senior students in Architectural Engineering and Architecture. The inspec-

tion party is under the charge of one or more faculty members of the Department of Architecture. Time allotted to the trip is from three days to one week. Cost to each student for trip, including meals, lodging and transportation, approximately \$50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. **ADVANCED FREEHAND DRAWING.** Credit to be arranged. I, II, and SS. Prerequisite: Arch. 117 and 118. Helm.

Advanced studies of original compositions in various media.

217. **ETCHING.** 2(0-6); I, II, and SS. Prerequisite: Arch. 117 and 134. Helm.

Instruction is given in the technical principles of etching on copper and zinc plate. Charge, \$1.

221. **PROBLEMS IN ARCHITECTURAL DEVELOPMENT.** Credit to be arranged; I, II, and SS. Weigel.

Under direct supervision of some member of the departmental staff, study of specific architectural problems. Deposit, \$1.

230. **OIL PAINTINGS.** Credit to be arranged. I, II, and SS. Prerequisite: Arch. 118 or approval of instructor. Helm.

Rudiments of painting in oil; sketching of simple objects, drapes, still-life groups, and outdoor sketching.

249. **CITY PLANNING.** 3(0-9); II. Prerequisite: Arch. 144. Weigel.

A detailed study of city planning, including transportation and street systems, parks and recreation facilities, public buildings and civic centers, subdivisions of land, restrictions and zoning.

254, 257. **ARCHITECTURAL DESIGN V and VI.** 7(0-21) each; I and II each. Prerequisite: For V, Arch. 147; for VI, Arch. 254. Weigel.

Continuation of Arch. 147. Charge, \$1 for each course.

FOR GRADUATE CREDIT

301, 304. **ADVANCED ARCHITECTURAL DESIGN I AND II.** Credit to be arranged. I, II, and SS, each. Weigel.

A study of the planning of important buildings and groups of buildings. II, a continuation of I, may furnish material for the master's thesis. Deposit, \$1 each.

Civil Engineering

Professor CONRAD
Professor FRAZIER
Professor FURR
Associate Professor WHITE

Assistant Professor CRAWFORD
Assistant Professor MORSE
Instructor SUGGS

The purpose of the instruction in the Department of Civil Engineering is to give the student a thorough knowledge of the fundamental principles of engineering and to develop his ability to analyze engineering problems, and thus prepare the graduate to enter any one of the many special fields which are usually included under the title of civil engineering.

In addition to the laboratory equipment of the other engineering departments, which is available to civil-engineering students, the Department of Civil Engineering possesses a good assortment of transits, levels, plane tables, compasses, tapes and chains. It also owns a precise level, a direction theodolite, a repeating theodolite, four different kinds of solar attachments, and a base-line outfit. A Beggs deformeter set has been added to the equipment of the department.

Approximately 90 percent of the graduates of this department are now engaged in engineering work in cities, in the oil fields, in the government reclamation and valuation service, in consulting engineering, in highway work, in construction work, and in other work in which a knowledge of civil engineering is a prerequisite.

COURSES IN CIVIL ENGINEERING

FOR UNDERGRADUATE CREDIT

102. SURVEYING I. 2(0-6); I and II. Prerequisite or parallel: Math. 101. Staff.

The use and care of engineer's surveying instruments, and plane surveying practice. Charge, \$1.

111. SURVEYING II. 2(0-6); I and II. Prerequisite: Civ. Engr. 102. White, Morse, Suggs.

Land surveying, the U. S. system of public land surveys, route surveying, the legal survey, the stadia survey, and calculations of areas and boundaries. Charge, \$1.

121. FOUNDATIONS. 2(2-0); I. Prerequisite or parallel; Ap. Mech. 202. Frazier.

Design and construction of foundations.

125. CIVIL ENGINEERING DRAWING I. 2(0-6); II. Prerequisite: Mach. Des. 111. White.

Stereotomy, shades and shadows, isometric and perspective drawing; copying working drawings of engineering structures.

145. RAILWAY ENGINEERING I. 2(2-0); II. Prerequisite: Civ. Engr. 156 and 157. Frazier.

Railway engineering based on Wellington's economic theory; study of track construction and maintenance; design of yards and terminals.

151, 155.* SURVEYING III. 3(2-3); I and II. Prerequisite: Civ. Engr. 111. White, Crawford, Suggs.

Topographic, municipal and underground surveying; the celestial sphere; elements of horizontal and vertical curves and earthwork.

Laboratory.—Topographic surveying and topographic mapping. Charge, \$1.

156, 157. SURVEYING IV. 3(2-3); I and II. Prerequisite: Civ. Engr. 151 and 155. Furr.

Field engineering; various problems in curve selection and location; including pertinent curve, spiral and earthwork computations; railway track and cross-over exercises. Charge, \$1.

161. DRAINAGE AND IRRIGATION I. 2(2-0); II. Prerequisite or parallel: Ap. Mech. 230 and 235. Furr, White.

Design and construction of drainage and irrigation works.

170. THESIS. Credit to be arranged; I and II. Conrad.

180. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Conrad, assistants.

A trip of three to four days to Kansas City and other near-by industrial centers for the purpose of inspecting industrial plants and projects of special interest to civil engineers. The plants inspected are carefully selected to exemplify various engineering applications in practice.

* In the case of many of the engineering courses, one course number is used for the recitation and another for the laboratory part of the course.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. STRESSES IN FRAMED STRUCTURES. 4(4-0); I, II, and SS. Prerequisite: Ap. Mech. 211. Conrad, Morse.

Computation of stresses in bridges and buildings.

205. CIVIL ENGINEERING DRAWING II. 2(0-6); I and SS. Prerequisite or parallel: Civ. Engr. 201. Conrad, Morse.

Graphic statics and design of simple roof trusses in timber and steel.

207. ADVANCED BRIDGE STRESSES. 3(3-0); I. Prerequisite: Civ. Engr. 201. Conrad.

A study of deflections; stresses in continuous, movable, cantilever, suspension, and steel-arch bridges; and secondary stresses.

211, 216. ASTRONOMY AND GEODESY. 4(2-6); I. Prerequisite: Civ. Engr. 151 and 155 and Math. 115. Frazier.

The elements of practical astronomy; precise methods of surveying and leveling.

Laboratory.—Astronomical observations, principally for determining true meridian and latitude; base-line measurements and triangulation work.

220. WATER SUPPLY. 2(2-0); I and SS. Prerequisite: Ap. Mech. 230 and 235 and Bact. 125. Frazier.

Water supply from the standpoint of consumption, collection, storage, distribution, and purification.

225. SEWERAGE. 2(2-0); I and SS. Prerequisite: Ap. Mech. 230 and Bact. 125. Crawford.

A study of sewer systems and sewage treatment.

228. SANITARY ENGINEERING DESIGN. 2(0-6); II. Prerequisite: Civ. Engr. 220 and 225. Frazier.

Design of water purification plants, sewage treatment plants, water distribution systems, and sewage collecting systems. Estimates of cost and methods of financing.

231. HIGHWAY ENGINEERING I. 2(2-0); I and SS. Prerequisite: Civ. Engr. 111. Furr.

Fundamental principles, location, design, construction, and maintenance of roads and pavements.

246. DESIGN OF FRAMED STRUCTURES. 3(0-9); II and SS. Prerequisite: Civ. Engr. 201. Conrad.

The making of general drawings for a highway truss bridge, a railroad truss bridge, and a railroad deck-plate girder.

247. ECONOMICS OF DESIGN AND CONSTRUCTION. 4(4-0); II. Prerequisite: Civ. Engr. 201 and 231. Conrad.

Primarily a study of methods, equipment, construction costs, and economy in design.

250, 255. REINFORCED CONCRETE DESIGN. 3(2-3); II and SS. Prerequisite: Ap. Mech. 211. Frazier, Morse.

Design of reinforced concrete retaining walls, dams, slab bridges, and girder bridges.

Laboratory.—Drawing reinforced concrete retaining walls, dams, slab bridges, and girder bridges.

256. REINFORCED CONCRETE ARCHES. 3(3-0); II. Prerequisite: Civ. Engr. 250 and 255. Conrad.

Various types of reinforced concrete arches adapted for use in bridges, buildings, and dams; computation of stresses; arrangement of details.

266. RAILROAD TRANSPORTATION. 3(3-0); II. Prerequisite: Civ. Engr. 145. Frazier.

A study of the function of the railway system; its relation to industrial development, and its correlation with other methods of transportation.

270, 275. HIGHWAY ENGINEERING II. 4(2-6); II. Prerequisite: Civ. Engr. 230. Furr.

Highway laws, highway administration, and highway economics.

Laboratory.—A reconnoissance and survey for a highway a few miles long; making maps, profiles, and estimates from the survey. Charge, \$2.

276. HIGHWAY ECONOMICS. 3(3-0); I. Prerequisite: Civ. Engr. 231. Furr. Economic concepts, highway transport, design, and construction problems as affected by recent findings of research agencies.

FOR GRADUATE CREDIT

304. RESEARCH IN CIVIL ENGINEERING. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Conrad, Frazier, Furr.

Original investigation or advanced study in some field relating to the practice of civil engineering.

Electrical Engineering

Professor KLOEFFLER
Professor BRENNEMAN
Professor KERCHNER
Associate Professor HUNT
Associate Professor JORGENSEN

Assistant Professor SITZ
Assistant Professor SELVIDGE
Instructor HORRELL
Instructor BAKER

Instruction in the Department of Electrical Engineering is planned to give the student a thorough training in the underlying principles of electrical phenomena, direct and alternating current, and in the application of electrical theory to the solution of the practical problems in the many fields of the industry.

The main dynamo laboratory contains examples of many types of electrical machinery and control apparatus, including more than fifty direct- and alternating-current generators and motors, ranging from one to fifteen kilowatts capacity. The instrument room in connection contains more than 140 instruments for the measurement of current, voltage, power, frequency, and other electrical quantities.

An electrical measurement laboratory is equipped with standards of resistance, electromotive force, self-induction, and capacity, and many types of bridges and apparatus for the measurement of magnetic and electric quantities. The main electrical measurement laboratory is supplemented by a standardizing laboratory which contains all the necessary precision instruments, sine wave generating equipment and control apparatus for calibrating voltmeters, ammeters, wattmeters, instrument transformers, watt-hour meters, and rotating standards.

There are two communication laboratories: The wire communication laboratory contains several demonstration panels and switchboards for magneto, common battery (manual) and automatic telephone systems and oscillators, bridges, and artificial telephone lines for making measurements at the various frequencies encountered in telephone practice. The radio communication laboratory is supplied with equipment for high frequency measurements and the study of radio phenomena.

An illumination laboratory is equipped with bar, spherical, and portable photometers and accessory equipment such as lamps, reflectors, and luminaires.

Two special laboratories are provided for the research conducted by the electrical engineering staff and for television and other special investigations made by graduate students. One of the laboratories contains the television broadcasting station W9XAK of Kansas State College.

COURSES IN ELECTRICAL ENGINEERING

FOR UNDERGRADUATE CREDIT

102, 106. ELECTRICAL ENGINEERING C. 3(2-2, 1); I, II, and SS. Prerequisite: Phys. 106. Jorgenson, Sitz.

The fundamental principles of direct-current and alternating-current circuits. For nonelectrical students.

Laboratory.—The most important commercial tests of direct-current and alternating-current machinery. Charge, \$1.50.

112. ELECTRICAL MACHINERY AND CONSTRUCTION. 2(0-6); I and II. Hunt, Jorgenson.

An introductory course in applied electricity covering various methods of interior wiring, theory of simple electric circuits, and tests of dynamos. Charge, \$3.

116. ILLUMINATION A. 2(2-0); II. Prerequisite: Phys. 106 or 103. Hunt.

The various methods used for interior wiring; methods of calculating the necessary number and size of electric circuits in a building; wiring specifications; and fundamental principles of illumination. For architects and architectural engineers.

120. PRINCIPLES OF ELECTRONICS. 2(2-0); I and II. Prerequisite: Chem. 107 and 108, Math. 101, and Phys. 105. Kloeffer.

The fundamental principles of electronics.

190. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Kloeffer.

A trip of four to six days to Kansas City, St. Louis and other cities for the purpose of making inspections of power plants and various industries illustrating the application of electrical engineering principles.

195. THESIS. Credit to be arranged; I and II. Staff.

Subject for thesis work selected in consultation with the department head at the beginning of the senior year; every opportunity given to work out original ideas as to design and operation of electrical apparatus and machinery.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. DIRECT-CURRENT MACHINES I. 3(3-0); I, II, and SS. Prerequisite: Math. 114 and Phys. 106. Sitz, Baker.

The principles of magnetic and electric circuits and their application to direct-current machines. Graphical treatment of generator characteristics.

206, 208. DIRECT-CURRENT MACHINES II. 4(2-4, 2); I, II, and SS. Prerequisite: Elec. Engr. 203. Jorgenson, Baker.

Direct-current motor characteristics and operation, dynamo efficiency, and commutation.

Laboratory.—A series of experiments to show the fundamental principles, characteristics, and operation of direct-current machines. Charge, \$3.

209. ALTERNATING-CURRENT CIRCUITS. 4(4-0); I, II, and SS. Prerequisite: Math. 116 and Elec. Engr. 203. Kerchner, Hunt, Jorgenson.

A mathematical treatment of alternating-current phenomena in single and polyphase circuits.

210, 211. ALTERNATING-CURRENT MACHINERY I. 5(3-4, 2); I, II, and SS. Prerequisite: Elec. Engr. 209. Kerchner, Hunt, Sitz.

Principles of design, construction, and operation of transformers, alternating-current generators, and polyphase induction motors.

Laboratory.—A series of experiments illustrating the characteristics of alternating-current circuits and transformers. Charge, \$3.

212, 213. ALTERNATING-CURRENT MACHINERY II. 5(3-4, 2); I, II, and SS. Prerequisite: Elec. Engr. 210 and 211. Kerchner, Hunt, Sitz.

Continuation of Elec. Engr. 210, including synchronous motors, parallel operation of alternators, converters, induction and commutator alternating-current motors, rectifiers, alternating-current instruments, and accessory apparatus.

Laboratory.—Continuation of Elec. Engr. 211. Tests on machines listed in Elec. Engr. 212. Charge, \$3.

227, 229. ELECTRICAL MEASUREMENTS. 4(2-4, 2); I and II. Prerequisite: Math. 114, Phys. 106, and Elec. Engr. 120. Selvidge.

Methods for electric and magnetic measurements; resistance, quantity, current, electromotive force, capacity, inductance.

Laboratory.—Characteristics of electron tubes; measurement of resistance, inductance, and capacity. Charge, \$3.

237, 238. ELECTRICAL ENGINEERING M-I. 5(4-3); I. Prerequisite: Math. 114 and Phys. 106. Hunt, Sitz.

Elements of direct-current circuits and machines, magnetic circuits, and alternating-current circuits.

Laboratory.—Experiments on measurement of resistance and study of direct-current machine characteristics. Charge, \$1.50.

242, 243. ELECTRICAL ENGINEERING M-II. 4(3-2, 1); II. Prerequisite: Elec. Engr. 237 and 238. Hunt.

Elements of some special direct-current machines and alternating-current machines.

Laboratory.—Experiments on alternating-current circuits and alternating-current machinery characteristics. Charge, \$1.50.

246, 247. WIRE COMMUNICATION I. 3(2-2, 1); I. Prerequisite: Elec. Engr. 209. Kloeffer, Horrell.

The principles of telephone communications; magneto, common battery (manual), Strowger automatic, and machine switching systems; the use of line loading, repeaters, and carrier currents.

Laboratory.—Study of telephone apparatus and circuits on magneto, common battery, and automatic systems; measurements made on artificial telephone lines. Charge, \$1.50.

248, 249. WIRE COMMUNICATION II. 3(2-3); II. Prerequisite: Elec. Engr. 209. Selvidge.

Transmission problems, telephonic efficiencies, telephone repeaters, wave filters, and carrier currents.

Laboratory.—High frequency measurements as applied to wire communication. Charge, \$1.50.

252, 253. RADIO COMMUNICATION I. 4(3-3); I. Prerequisite: Elec. Engr. 120 and preceded or accompanied by Elec. Engr. 209. Selvidge.

An introduction to radio theory and modern radio practice including operation of electron tubes and a study of tuned circuits.

Laboratory.—The application and operation of electron tubes in radio circuits; audio and radio-frequency measurements as applied to radio receivers. Charge, \$1.50.

254. RADIO COMMUNICATION II. 2(2-0); II. Prerequisite: Elec. Engr. 252, 209. Horrell.

Graphical and analytical study of Class A, B, and C amplification; applications to transmitter circuits; introduction to antennas and wave propagation.

256. INDUSTRIAL ELECTRONICS. 2(2-0); I. Prerequisite: Elec. Engr. 120 and 209. Horrell.

Electronic devices as utilized in industry; control circuits employing amplifier, photo-electric, thyatron, glow, and other types of tubes; rectifiers and inverters.

260, 261. ILLUMINATING ENGINEERING. 3(2-3); I. Prerequisite: Math. 114 and Phys. 106. Hunt.

Photometry, light standards, principles of illumination, and illumination design.

— *Laboratory*.—Photometric measurements of light intensity, luminous flux, brightness, and illumination; the determination of light distribution about various illuminants. Charge, \$1.50.

262. ADVANCED ILLUMINATING ENGINEERING. 3(3-0); II. Prerequisite: Phys. 106 and Math. 116. Hunt.

The various theories on the property of light, the theoretical distribution curves from light sources of various shapes, psychological and physiological phases of lighting, daylight illumination in buildings, and spectrophotometry.

270. ELECTRICAL MACHINE DESIGN. 1(0-3); I and II. Prerequisite: Elec. Engr. 203. Hunt.

The principles of electrical design; each student makes calculation for electromagnets and a direct-current motor.

280. TRANSMISSION AND DISTRIBUTION OF ELECTRICAL ENERGY. 3(3-0); II. Prerequisite: Elec. Engr. 210. Kerchner.

Transmission line design, economic and technical features; and properties of cables and insulators.

284. TRANSIENT ELECTRICAL PHENOMENA. 3(3-0); II. Prerequisite: Elec. Engr. 209, 210, and 211, and Math. 201. Kerchner.

Two phases of electrical phenomena: (a) transients in time, and (b) transients in space.

290. PUBLIC UTILITY MANAGEMENT. 3(3-0); II. Prerequisite: Econ. 101 and 219. Kloeffer.

The problems of depreciation, finance, rates, and public regulation in gas, electric, and telephone properties.

FOR GRADUATE CREDIT

301. ELECTRIC CIRCUITS I. 3(3-0); I. Prerequisite: Elec. Engr. 212. Kerchner.

Short-circuit currents in networks; equivalent impedances of multicircuit transformers; analysis of unbalanced polyphase circuits and analysis of induction motor performance on unbalanced voltages; short transmission lines in steady state.

304. ELECTRIC CIRCUITS II. 3(3-0); II. Prerequisite: Elec. Engr. 301. Kerchner.

Long transmission lines in steady state with various terminal conditions; transmission charts; harmonics in circuits; general circuit constants; transmission problems involving synchronous machines.

313, 314. HIGH-FREQUENCY MEASUREMENTS. 3(2-2, 1); II. Prerequisite: Elec. Engr. 209 and 252. Selvidge.

Theory of measurements at audio and radio frequencies; measurements of amplitude, frequency, phase distortion, and modulation; antenna radiation characteristics.

Laboratory.—Applications of high-frequency measurements. Charge, \$1.50.

316. ADVANCED ELECTRICAL THEORY. Credit to be arranged; I and II. Prerequisite: Elec. Engr. 212. Kloeffer.

An advanced course in electrical theory designed to meet the needs of graduate students.

336. RESEARCH IN ELECTRICAL ENGINEERING. Credit to be arranged: I, II, and SS. Prerequisite: Elec. Engr. 210. Staff.

Special investigations adapted to the needs of individual students; may be used as the basis of a master's thesis. The laboratory work is correlated with the work of the Engineering Experiment Station.

General Engineering

Dean SEATON
Assistant Dean DURLAND

101. ENGINEERING LECTURES. R(1-0); entire freshman year. Dean Seaton, other members of the engineering faculty, and visiting practicing engineers.

Designed to acquaint freshman engineers and architects with fundamental principles of their profession and to give a general survey of the field. Charge, 75 cents.

105. ENGINEERING ASSEMBLY. R(1-0); sophomore, junior, and senior years. Members of the engineering faculty.

Presentation by students of abstracts and reviews of articles appearing in the journals of their respective societies or in the technical press of their profession, and reports of engineering projects, industrial experiences, and original investigations; as far as possible conducted by the student branches of the professional engineering societies. Occasionally two or more of these individual groups unite for lectures by practicing engineers and by members of the engineering and college faculties. Charge, 75 cents.

Machine Design

Professor PEARCE
Professor DURLAND
Professor SMUTZ
Associate Professor GINGRICH

Assistant Professor BRANIGAN
Instructor WOOD
Instructor GRALAK
Instructor SULLIVAN

The courses in drawing deal principally with the training of the freshman and sophomore students in visualization, and the application of graphical language to engineering problems, with particular reference to commercial drafting-room methods.

The courses in machine design deal with mechanical transmission of power, analysis of the action of machine parts, design of machine elements and of complete machines, aerodynamic forces, and airplane structures.

COURSES IN DRAWING AND MACHINE DESIGN

FOR UNDERGRADUATE CREDIT

101. ENGINEERING DRAWING. 2(0-6); I, II, and SS. Staff.

The selection and use of drawing instruments; construction of geometrical figures; lettering; orthographic projections and sections; pictorial methods of representation.

106. DESCRIPTIVE GEOMETRY. 2(0-6); I, II, and SS. Prerequisite: Math. 102 or equivalent and Mach. Des. 101. Staff.

Problems involving the point, line, and plane; the intersection and development of the surfaces of geometric solids; practical applications of the principles involved; emphasis on developing the student's ability to visualize drawings in the third angle.

107. DESCRIPTIVE GEOMETRY A. 3(0-9); I. Prerequisite: Math. 102 or equivalent. Smutz, Gingrich.

This course is similar in content to Machine Design 106, but is primarily for architectural students, and its problems are related to their work.

108. SHADES AND SHADOWS AND PERSPECTIVE. 3(0-9); II. Prerequisite: Mach. Des. 107 and Arch. 106A. Smutz, Gingrich.

Conventional shades and shadows of common geometrical solids and solids of revolution; simple architectural problems; the theory of perspective as applied to the same simple solids and to problems from architectural practice. Charge, \$1.50.

111. MACHINE DRAWING I. 2(0-6); I, II and SS. Prerequisite: Mach. Des. 106. Staff.

Conventional representations; working drawings; dimensioning; the reproduction of drawings; checking for errors; arrangement of titles and notes; simple perspective.

118. MACHINE DRAWING II. 2(0-6); I, II, and SS. Prerequisite: Mach. Des. 111. Staff.

Machine sketching from parts of actual machines; complete working and assembly drawings; tracing and blue printing.

119. MACHINE DRAWING III. 2(0-6); I, II, and SS. Prerequisite: Mach. Des. 121 and Mech. Engr. 131. Staff.

Graphical solutions of problems in belting, cams, linkages, and gears; valve gears and valve diagrams; governors and governor diagrams.

121. MECHANISM. 3(3-0); I, II, and SS. Prerequisite: Math. 101 and Mach. Des. 106. Staff.

A careful study of the fundamental elements of machinery with reference to the transmission of motion and force, and to their forms and arrangements in actual machines.

126. THESIS. Credit to be arranged; I and II. Pearce, Durland.

Excellent material for thesis study is furnished by projects in machine design or aërodynamics; subject of the investigation is selected in consultation with the head of the department at the beginning of the senior year.

FOR GRADUATE AND UNDERGRADUATE CREDIT

204, 205. MACHINE DESIGN I. 5(3-6); I and II. Prerequisite: Ap. Mech. 211, Mach. Des. 119, and Mech. Engr. 204 or 212. Pearce, Durland.

The straining actions in machine elements; friction and lubrication; problems arising in the transmission of power and in the design of high-speed machinery; fastenings.

Laboratory.—Riveted joints designed in conformity to the A. S. M. E. Boiler Code; calculations for a number of simple machines and machine parts, paralleling the recitation class assignments.

210. MACHINE DESIGN II. 2(0-6); I and II. Prerequisite: Mach. Des. 204 and 205. Pearce, Durland.

Complete design of a small power shear with a graphical analysis of the shaft; the rotative effect diagram of an engine.

215. MACHINE VIBRATION. 3(3-0); II. Prerequisite: Ap. Mech. 202 and Math. 121. Pearce, Durland.

A general consideration of free and forced vibration in machines for various degrees of freedom; critical speed; vibration isolation.

220. KINEMATICS AND KINETICS. 2(2-0); II. Prerequisite: Mach. Des. 121 and Ap. Mech. 202. Pearce, Durland.

A study of the velocities and accelerations in mechanisms and machines, and of the forces resulting therefrom.

225. GRAPHICS OF ENGINEERING FORMULAS. 2(2-0); II. Prerequisite: Math. 110. Pearce.

Simple empirical equations; diagramming of formulas; nomographic or alignment charts; special slide rules.

230. PATENTS AND INVENTIONS. 2(2-0); I. Prerequisite: Junior or senior standing. Pearce.

A brief consideration of the fundamental principles of United States patents and their relationship to the engineer; the inception and development of inventions.

250, 251. AÉRODYNAMICS. 4(3-3); I. Prerequisite: Ap. Mach. 202. Pearce, Durland.

A general introduction into aërodynamics, particularly as regards action of air foils, parasite drag, prediction of performance, stability and control.

Laboratory.—Determination of performance curves and the stability of an airplane.

255. AIRPLANE DESIGN. 2(0-6); II. Prerequisite: Mach. Des. 250 and 251 and Ap. Mech. 211 and 220. Pearce, Durland.

A general presentation of the problems involved in the design and stress analysis of an airplane structure, particularly as regards the requirements of the United States Department of Commerce.

FOR GRADUATE CREDIT

301. ADVANCED MACHINE DESIGN. Credit to be arranged; I or II. Prerequisite: Consult instructors. Pearce, Durland.

At the option of the student this course may include a study of some advanced subject related to courses in this department.

310. RESEARCH IN DESIGN. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Pearce, Durland.

Original investigation in some advanced subject related to courses in this department. This work may furnish material for the master's thesis.

Mechanical Engineering

Professor HELANDER
Professor MACK
Associate Professor BRAINARD

Assistant Professor FLINNER
Instructor TRIPP
Instructor PIPPIN

The object of the instruction in this department is to give to the student the fundamental principles underlying the design, construction, selection, operation, and testing of steam boilers; steam engines and steam turbines; internal combustion engines; air compressors; air conditioning equipment; refrigerating machinery; condensers and evaporators. These subjects are developed by courses in engineering thermodynamics and heat power engineering, and are followed in the fourth year by courses in power-plant design, refrigeration, and heating and air conditioning, with electives to take work in petroleum engineering.

The mechanical engineering laboratories are equipped for the testing of boilers, steam engines, internal combustion engines, air conditioning equipment, refrigeration machinery, fuels, lubricants, airplane motors, and other equipment and materials met with in the practice of mechanical engineering. In addition to the equipment installed especially for experimental purposes, all the heating, power, ventilating and pumping equipment of the College subserves the further purposes of experimental work.

COURSES IN MECHANICAL ENGINEERING

FOR UNDERGRADUATE CREDIT

120, 125. STEAM AND GAS ENGINEERING C. 3(2-3); I and II. Prerequisite: Math. 114 and Phys. 105. Staff.

Steam boilers, steam engines, steam turbines, internal combustion engines, including the various auxiliaries.

Laboratory.—Calibration and use of steam gauges, indicators, and planimeters; valve-setting and steam-engine operation; calorimeters; determination of the indicated and brake horsepower of engines; timing and operation of internal combustion engines; and flue gas analyses. Charge, \$1.50.

131. ELEMENTS OF HEAT POWER. 2(2-0); I and II. Prerequisite: Phys. 105. Staff.

Principles and practices underlying the conversion of fuel energy into mechanical or electrical energy, and essential equipment in heat power plants.

135. HEATING AND VENTILATION A. 3(3-0); II. Prerequisite: Phys. 105 or 102. Mack.

Fundamental principles of heating, cooling, and ventilating; heat transmission; equipment used for heating, cooling, and ventilating.

170, 175. DAIRY REFRIGERATION. 2(1-3); I. Mack, Brainard.

Cold storage and the elementary theory and principles of operation of various refrigerating and ice-making machinery, with special reference to the dairy industry.

Laboratory.—Refrigeration systems and their operation; tests of refrigeration machines. Charge, \$1.

180. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Helander

A trip of three to six days to industrial centers for the purpose of inspecting industrial plants of special interest to mechanical engineering students. The plants inspected are carefully selected to exemplify various engineering applications in practice.

195. THESIS. Credit to be arranged; I and II. Helander, Mack.

Subject for investigation to be selected in consultation with the department head at the beginning of the senior year.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201A, 202. ENGINEERING THERMODYNAMICS A. 4(3-3); I and II. Prerequisite: Mach. Des. 121 and Math. 114. Staff.

Similar to Mech. Engr. 208, but designed for nonmechanical engineering students.

Laboratory.—Calibration and use of steam gauges, indicators, and planimeters; valve-setting and steam-engine operation; calorimeters; determination of the indicated and brake horsepower of engines; timing and operation of internal combustion engines; and flue gas analyses. Charge, \$1.50.

204, 205. HEAT POWER ENGINEERING A. 4(3-3); I and II. Prerequisite: Mech. Engr. 201A. Staff.

A detailed study of steam engines, steam boilers, steam turbines, internal-combustion engines, fuels and combustion, and other power-plant equipment.

Laboratory.—Proximate analysis of coal; determination of the calorific values of solid, liquid and gaseous fuels; evaporative tests of steam boilers; tests of internal-combustion engines; test of compressed air and refrigerating machinery. Charge, \$1.50.

208. ENGINEERING THERMODYNAMICS. 4(4-0); I and II. Prerequisite: Math. 115 and Mech. Engr. 131. Staff.

Fundamentals of engineering thermodynamics; laws of the conversion of heat energy into mechanical energy; properties of fluids; gases, vapors, and gas and vapor mixtures; flow of fluids; and power generating cycles.

209. HEAT POWER LABORATORY I. 1(0-3); I and II. Prerequisite: Mech. Engr. 131. Staff.

Calibration and use of steam gauges, indicators, and planimeters; valve-setting and steam-engine operation; calorimeters; determination of indicated and brake horsepower and mechanical efficiency of engines; timing and operation of internal combustion engines; and flue gas analyses. Charges, \$1.50.

211. HEAT POWER ENGINEERING B. 5(4-3); I. Prerequisite: Phys. 106 and Math. 115. Staff.

Same as Mech. Engr. 204, except that some material on Engineering Thermodynamics has been added.

Laboratory.—Calibration and use of steam gauges, indicators, and planimeters; steam-engine and gas-engine operation; calorimeters; determination of mechanical and thermal efficiencies of steam engines and gas engines; flue gas analyses; and tests of lubricating oils. Charge, \$1.50.

212. HEAT POWER ENGINEERING. 3(3-0); I and II. Prerequisite: Mech. Engr. 208. Staff.

Application of thermodynamic principles to power generation, flow of fluids, turbines, engines, compressors and blowers, and a study of prime movers, steam generating equipment, auxiliaries, fuels and combustion, and evaporators.

213. HEAT POWER LABORATORY II. 1(0-3); I and II. Prerequisite: Mech. Engr. 208 and 209. Staff.

Proximate analysis of coal; determination of the calorific value of solid, liquid, and gaseous fuels; tests of steam boilers, internal combustion engines, heat transfer equipment, and compressed air and refrigerating equipment. Charge, \$1.50.

217. POWER-PLANT ENGINEERING. 3(2-3); I. Prerequisite: Mech. Engr. 204 and 205, or 212 and 213. Helander, Flinner.

Industrial and central station power generation practices, means for effecting economics in central station and industrial plants that use process steam; preliminary design of a power plant, selection of pressures, temperatures, and equipment, including an evaluation of economic factors; and a complete determination of the station heat balance.

219. HEAT POWER LABORATORY III. 1(0-3); I. Prerequisite: Mech. Engr. 204 and 205, or 212 and 213. Brainard, Pippin.

Comprehensive over-all tests of power generating equipment, internal combustion engines, steam engines, turbines, and other power plant equipment. Students are required to organize and conduct tests and to submit complete reports. Charge, \$1.50.

221. REFRIGERATION. 2(2-0); I. Prerequisite: Mech. Engr. 201A or 208. Mack, Pippin.

Thermodynamics of refrigeration; systems of refrigeration and their operation; application of refrigeration to ice making, cold storage, and the cooling of gases, liquids, and solids.

227. HEATING AND AIR CONDITIONING. 4(2-6); II. Prerequisite: Mech. Engr. 201A or 208. Mack, Brainard, Flinner.

Principles of air conditioning and ventilating; heat transmission as related to air conditioning; air conditioning equipment and systems.

Laboratory.—Tests of fans, blowers, radiators, house-heating boilers, and automatic ventilators; the design of heating, cooling, and ventilating systems for buildings. Charge, \$1.

230. ADVANCED THERMODYNAMICS. 2(2-0); I. Prerequisite: Mech. Engr. 208. Helander.

235. STEAM TURBINES. 2(2-0); II. Prerequisite: Mech. Engr. 204 or 212. Helander, Flinner.

The theoretical principles, design and operation of commercial types; selection of steam turbines for specified operating conditions; the effect of factors such as superheat, vacuum, and pressure.

240. INTERNAL COMBUSTION ENGINES. 2(2-0); II. Prerequisite: Mech. Engr. 201A or 208. Brainard, Flinner.

General principles of internal combustion engines; types; cycles of operation; fuels; carburetors; ignition systems; performances and reliability.

251. HEAT TRANSFER AND FLUID FLOW. 4(3-3); II. Prerequisite: Mech. Engr. 208. Helander, Tripp.

A study of heat transfer and fluid flow, with particular reference to heat

exchangers, air preheaters, economizers, boilers, condensers, evaporators, and similar equipment.

Laboratory.—Tests to study transfer of heat by radiation, convection, and conduction, and the flow of fluids in pipes and heat exchangers. Charge, \$1.50.

260. ADVANCED POWER-PLANT ENGINEERING. Credit to be arranged. Prerequisite: Mech. Engr. 217. Helander.

An advanced course in the economic problems met with in the design of power plants and in the generation of power. A study is made of the selection of equipment, the choice of station heat balances, the generation of by-product power in industries, and interconnections between utilities and industrial plants for the economical interchange of power.

270. PETROLEUM PRODUCTION I. 3(3-0); I. Prerequisite: Senior standing in Department of Mechanical Engineering or permission of head of department. Brainard.

Properties of petroleum; exploration methods; field development; drilling; oil field hydrology; casing and well completion; and fishing tools and methods.

271. PETROLEUM PRODUCTION II. 3(2-3); II. Prerequisite: Mech. Engr. 270. Brainard.

Prime movers and fuels; production methods; methods for flowing and pumping wells; refining; storage; transportation.

Laboratory.—Construction and study of oil field peg models; tests on oil bearing sands; field trips to study equipment and operations. Charge, \$1.50.

FOR GRADUATE CREDIT

305. RESEARCH IN MECHANICAL ENGINEERING. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Helander, Mack.

The laboratory work is correlated with the work of the Engineering Experiment Station. Investigations of lubricants, fuels, combustion, internal-combustion engines, steam engines, steam turbines, steam boilers, refrigeration, heat-insulating materials, air conditioning, compressed air, and similar subjects are carried on. Data secured in this course may be used as the basis for a master's thesis.

Shop Practice

Professor CARLSON
Professor SELLERS
Associate Professor WILSON
Assistant Professor JONES
Assistant Professor LYNCH
Assistant Professor AIMAN

Assistant Professor STUTZMAN
Instructor GRANT
Instructor MCCOLLUM
Instructor MOORE
Instructor _____
Graduate Assistant _____

The work in the department is planned to meet the needs of two classes of students: (1) those who are preparing for the teaching field and need a general knowledge of the principles of industrial arts work in metal and wood, of the materials and equipment used, including their control and arrangement, and of methods of handling work and students in the laboratory, together with sufficient skill in the performance of the various tool operations to be able to instruct others; and (2) those in the courses in engineering who need to secure a general knowledge of machine operations and methods used in job shops and mass-production factories, and of the economical selection and control of the materials, machinery, buildings, and personnel used in the manufacturing industries.

The shop and laboratory work is supplemented by classroom discussion and lectures, by the study of library references and trade catalogues, and by inspection trips.

COURSES IN SHOP PRACTICE

FOR UNDERGRADUATE CREDIT

101. ENGINEERING WOODWORK. 1(0-3); I and II. Moore.

Importance of the use of methods, machinery, and men in connection with an industrial woodworking plant; forest conditions, wastage, the structural growth of wood, and the kiln drying of lumber. Charge, \$1.25.

118. ELEMENTARY CRAFTS FOR TEACHERS. 2(0-6); I and SS. Aiman.

Exercises and projects suitable for pupils from the primary to eighth grade. Special instruction in methods of teaching, materials, and equipment. Charge, \$2.50.

119. REED FURNITURE CONSTRUCTION. 2(0-6); I and SS. Aiman.

Exercises with reed and art fiber in constructing commercial articles; special instruction in methods of teaching this work. Charge, \$2.50.

121. WOODWORK I. 2(0-6); I and SS. Moore.

Elementary bench work course in tool operations. Charge, \$2.50.

122. WOOD AND METAL FINISHING. 2(0-6); II and SS. Prerequisite: Shop 121. Moore.

A study of materials, processes, methods of applications of finishes for both wood and metal. Brush and spray equipment used. Charge, \$2.50.

126. WOODWORK II. 2(0-6); II and SS. Prerequisite: Shop 121. Moore.

Continuation of Woodwork I, including the use of the power machines. Charge, \$2.50.

131. WOODWORK III. 2(0-6); I and SS. Prerequisite: Shop 126. Moore.

Advanced woodwork and cabinetmaking. Charge, \$2.50.

135. WOOD TURNING. 2(0-6); I and SS. Moore.

Practice in handling the lathe and turning tools. Charge, \$2.50.

139. WOODWORK IV. 2(0-6); II and SS. Prerequisite: Shop 131. Moore.

An opportunity to specialize in wood finishing, carpentry work, cabinet work, or some other work of special interest to the student. Charge, \$2.50.

147. FARM CARPENTRY. 3(1-6); I and SS. Wilson.

Rafter cutting and erection, studding and siding work, making window and door frames, hanging doors, and similar operations on full-size construction work; making out bill of material; care and upkeep of tools; designed for training of teachers who must solve problems in connection with carpentry work on the farm. Charge, \$2.50.

150. FORGING. 1(0-3); I and II. Lynch.

Practice, demonstrations, and discussions covering: (a) forging of iron and steel; (b) production equipment as used in the commercial forge shop; (c) operation of gas, oil, and electric furnaces, and the heat treatment of steel. Charge, \$2.50.

157, 158. FARM BLACKSMITHING I and II. 1(0-3) each; I and SS, and II and SS, respectively. Lynch.

In I, exercises closely related to work on the farm; designed to train teachers for work in rural communities. Charge, \$2.50.

In II, more advanced instruction in the working of iron and steel, and in the annealing, hardening, and tempering of tools. Charge, \$2.50.

161. FOUNDRY PRODUCTION. 1(0-3); I and II. Grant.

(a) Bench, floor, and pit molding, use of molding and core machines, operating nonferrous furnaces and cupola; (b) study of commercial foundry equipment and the operation and control of the foundry. Charge, \$1.

165. METALLURGY. 2(2-0); I and II. Prerequisite: Chem. 107 and 108, or may be taken with Chem. 108. Sellers, Stutzman.

The manufacture and use of iron, steel, copper, and their alloys.

167. METALLOGRAPHY I. 1(0-3); I and II. Prerequisite: Shop 165, or may be taken with Shop 165. Sellers, Stutzman.

The microscopic constituents of the different grades of iron and steel; changes in the structure and properties as produced by heat treatment, mechanical working, and composition. Charge, \$2.50.

170. MACHINE TOOL WORK I. 2(0-6); I, II, and SS. Jones, McCollum.

Practice in chipping, filing, shaper and planer work; drilling and turning on the lathe. Charge, \$5.

171. OXYACETYLENE WELDING. 1(0-3); I and II. Lynch.

The theory and practice of oxyacetylene welding, including a microscopic study of welds. Charge, \$2.50.

172. ARC WELDING. 1(0-3); I and II. Lynch, Moore.

The theory and practice of arc welding, including a microscopic study of welds. Charge, \$2.50.

173. SHEET METAL WORK. 2(0-6); I, II, and SS. Prerequisite: Mach. Des. 101 or equivalent. Moore.

Covers developments, the use of templets, practice in soldering, brazing, folding, wiring, flanging, seaming, rolling, and the more common operations on sheet metal. Charge, \$2.50.

175. FARM SHOP METHODS. 3(1-6); II and SS. Prerequisite: Shop 147 and 157. Wilson.

Babbling, soldering, drilling and drill grinding, thread cutting with dies and taps, tool sharpening, belt lacing, repair of machinery, and other practical operations; designed to train teachers in farm-shop work. Charge, \$2.50.

192, 193. MACHINE TOOL WORK II AND III. 2(0-6) and 1(0-3), respectively; I, II, and SS. Prerequisite: Shop 170. Jones, McCollum.

In II, progressive problems in turning, calipering, boring, reaming, taper turning, threading on the lathe, in chucking, use of forming tools, gear cutting; study of cutting edges and tool adjustments best suited to the different metals, cutting speeds and feeds. Charge, \$5.

In III, work on the turret lathe, boring mill, hand and automatic screw machines, and grinder; practical work with jigs and fixtures and a study of rapid production of duplicate parts. Charge, \$2.50.

194. INSPECTION TRIP. R.; I. Prerequisite: Senior classification. Staff.

A trip of three to six days to industrial centers for inspection of establishments of special interest to industrial arts students.

195. THESIS. Credit to be arranged; I and II. Carlson, Sellers.

FOR GRADUATE AND UNDERGRADUATE CREDIT

246. INDUSTRIAL MANAGEMENT. 3(3-0); I. Prerequisite: Shop 170 and Ap. Mech. 116, 121. Carlson.

Problems of the industrial executive, such as plant location, selection and arrangement of buildings and equipment, production planning and control, simplification and standardization, time and motion study, job and methods standardization, control of inventory and costs.

255. FACTORY DESIGN. 2(0-6); II. Prerequisite: Shop 246. Carlson.

Knowledge gained in shops and laboratories and in Shop 246 is used in the design of a factory.

261. **ADVANCED SHOP PRACTICE.** Credit to be arranged; I, II, and SS. Staff. Continuation of courses Shop 101, 135, 139, 147, 150, 158, 161, 171, 172, 173, 175, 193, 255, or 265. Opportunity is also offered to specialize to a limited degree along certain lines of shop practice, such as heat treatment of steel, oxyacetylene and arc welding, jig fixtures and die work, metallography, pattern making and any shop work that may be of special interest to the student. All assignments must be approved by the head of the Department of Shop Practice. Charge varies with subject matter.

264. **STRUCTURE AND PROPERTIES OF METALS.** 3(2-3); I, II, and SS. Not open to students who have credit in Shop 165 or Shop 167. Prerequisite: Chem. 107 and 108, or equivalent. Sellers.

A study of the structure and properties of the more common metals and alloys. Charge, \$2.50.

265. **METALLOGRAPHY II.** 2(0-6); I and II. Prerequisite: Shop 167. Sellers, Stutzman.

A continuation of Shop 167; nonferrous metals, with special attention to photomicrographic analysis. Charge, \$5.

286. **SHOP PRACTICE TEACHING.** Credit to be arranged; I, II, and SS. For prerequisites, consult instructor. Staff.

Actual laboratory teaching experience under the supervision of an instructor. Work covers the outlining, preparation, and presentation of assignments and the supervision of the work; procurement of materials and equipment, shop layouts and upkeep, and general considerations. In so far as possible the course is adapted to the particular needs of the student. All assignments must be approved by the head of the Department of Shop Practice.

FOR GRADUATE CREDIT

301. **RESEARCH IN SHOP PRACTICE.** Credit to be arranged; I, II, and SS. For prerequisites, consult instructors. Staff.

The problems related to shop practice offer a broad field for research. Authoritative data are needed by industry in many fields dealing with metallurgy, metallography, foundry, blacksmithing, woodworking, machine-shop practice, oxyacetylene welding, arc welding, the farm shop and the automobile. The results of such investigations, if suitable, may be incorporated in bulletins of the Engineering Experiment Station; this work may furnish material for the master's thesis. All assignments must be approved by the head of the Department of Shop Practice.

The Engineering Experiment Station

ROY ANDREW SEATON, *Director*

The Engineering Experiment Station was established for the purpose of carrying on tests and research work of engineering and manufacturing value to the state of Kansas, and of collecting, preparing, and presenting technical information in a form readily available for the use of the industries and the people of the state. All the work of the Experiment Station is intended to be of direct importance to Kansas.

All the equipment of the engineering and scientific laboratories, the shops, and the College power plant are available for the work, while the personnel of the station consists of members of the teaching staff from the departments of the Division of Engineering and Architecture and from other scientific departments whose work is directly related to the work of this Division, and others employed especially for the work of the station.

Among the investigations now being carried on are: Atmospheric resistance of automobiles; farm sewage-disposal systems; *pisé de terre* construction; durability of concrete; school shops for vocational agriculture and industrial arts instruction; processing and handling grain and forage; deterioration of concrete in silos; rural electrification; relation of potential gradient to meteorological elements; air conditioning for residences; use of electricity in hotbeds; cost and depreciation of farm machinery; wind pressures on farm buildings; cutting edges of tillage implements; tractor fuels; television apparatus; electrical grounds; wind-electric plants; low-cost residential construction; residential construction units; ductility of welded joints; cutting tool performance; binders for foundry cores; carburizing properties of gases; rubber tires for tractors and implements; farm fencing; catalytic oxidation of petroleum derivatives; reactions of petroleum below cracking temperatures; planning farm homes; and soil and water conservation.

The testing laboratories of this station have been made available by law† for the use of the State Highway Commission and the state highway engineer, and the road materials for use in state road construction are tested in these laboratories.

Some of the results of the investigations are published as bulletins of the Engineering Experiment Station, which are sent free to any citizen of the state upon request. Thirty-six such bulletins have been published. Besides issuing these bulletins, the station answers yearly many hundreds of requests for information upon matters coming within its field.

Requests for bulletins and general correspondence should be addressed to Engineering Experiment Station, Manhattan, Kan. Requests for information in specific matters should be addressed, as far as possible, to the heads of departments in whose fields the particular matters lie.

† Chapter 281, Laws of 1931.

The Division of General Science

RODNEY WHITEMORE BABCOCK, *Dean*

In the land-grant colleges, of which this institution is one, the classical studies of the older type of college are replaced by work in the sciences and in professional and vocational subjects. Education should also include some preparation for the discharge of one's duties to the state and to the community. It is the province of the departments grouped in this division of the College to give this basic, scientific, and cultural training.

CURRICULUM IN GENERAL SCIENCE

The curriculum in general science includes fundamental training in English, mathematics, science, history, economics, military science, and physical training, which constitute the central educational basis of the institution. Groups of electives meet the needs of several types of students, among whom are: (1) those who have not yet fully decided as to their vocation, but who wish an education that is strong and well balanced; (2) those who are looking forward to teaching in the high schools of the state; (3) those who are fitting themselves for research work in the sciences; (4) those for whom a good general education is required or desirable before studying a profession such as law or medicine.

CURRICULUM IN INDUSTRIAL JOURNALISM

The curriculum presents such subjects as will enable the writer to see his work in proper perspective, to obtain authoritative knowledge of some field of industrial activity, and to write acceptably. It offers fundamental studies of literary, social, and scientific character. The student must select subjects in agriculture, mechanic arts, applied science, or home economics, depending on the portion of the field of industrial journalism which he desires to enter. Theory and practice of journalism are presented in a series of courses extending through the sophomore, junior, and senior years, and students may take additional electives in journalism.

CURRICULUM IN INDUSTRIAL CHEMISTRY

Demand of students for a curriculum planned especially to give chemical training is such that a formulation has been made to meet the needs of those desiring to specialize in industrial chemistry. A curriculum in chemical engineering is also offered in the Division of Engineering and Architecture. The instruction facilities of the Department of Chemistry, reinforced by opportunities for practical work in connection with the researches of the experiment stations, are such as to provide for this specialized training.

CURRICULUMS IN MUSIC

This College throughout its history has maintained a department of music for the purpose of affording culture in this art to any of its students. The excellence of the instruction offered has created a demand for curriculums in music.

A four-year curriculum is offered in applied music, preparing the student with a major in voice, piano, violin, organ, or other instrument, and with a minor in another of these subjects. Students completing this curriculum are awarded the degree Bachelor of Music, and are eligible to receive a three-year special state certificate in music renewable for three-year terms if they have elected the required subjects in education.

A four-year curriculum in music education is also offered, with specialization in voice, instrument, or public-school band or orchestra. Students completing

this curriculum are awarded the degree of Bachelor of Science in Music Education, and are eligible to receive a special state certificate to teach music and permission to teach any nonmusic subject in which they have completed fifteen or more college hours; students completing this curriculum with sufficient extra hours so that not more than forty hours in music are submitted to the State Board of Education, are eligible to receive the state three-year renewable-for-life certificate.

CURRICULUMS IN PHYSICAL EDUCATION

The curriculums offered at this institution are designed to prepare teachers of physical education who are fundamentally trained. The theoretical and practical instruction given in these curriculums prepares students for coaching athletic games. The curriculums are also so planned as to enable the student to elect work in some other subject which one may teach in connection with physical education in the smaller schools.

CURRICULUMS IN COMMERCE

The curriculum in commerce is designed primarily to train men and women for citizenship and business service; the information acquired and the general principles involved are applicable everywhere in all lines of business. The curriculum in commerce, with special training in accounting, furnishes a course of study for those who wish preparation in this important activity of business and government. The basic subjects of the four-year curriculum in commerce are included, and a sequence of courses in accounting extends through the last three years.

Curriculum in General Science

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	*3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)	Chemistry II Rec., Chem. 103....	3(3-0)
College Algebra,† Math. 104.....	3(3-0)	Chemistry II Lab., Chem. 104....	2(0-6)
General Botany I, Bot. 101.....	3(1-6)	Plane Trigonometry, Math. 101...	3(3-0)
Library Methods, Lib. Ec. 101....	1(1-0)	General Botany II, Bot. 105.....	3(1-6)
Infantry I, Mil. Sc. 101A (men)...	1(1-2)	Current History, Hist. 126.....	1(1-0)
Phys. Educ., M or W.....	R	Infantry II, Mil. Sc. 102A (men)...	1(1-2)
		Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
English Literature, Engl. 172.....	3(3-0)	American Literature, Engl. 175....	3(3-0)
English History, Hist. 121.....	3(3-0)	Modern Europe II, Hist. 223....	3(3-0)
General Physics I, Phys. 102.....	4(3-3)	General Physics II, Phys. 103....	4(3-3)
General Zoölogy, Zoöl. 105.....	5(3-6)	General Psychology, Educ. 184....	3(3-0)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Elective‡	2(-)
Phys. Educ., M or W.....	R	Infantry IV, Mil. Sc. 104A (Men),	1(1-2)
		Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Hist. of Engl. Literature, Engl. 181,	3(3-0)	American History I, Hist. 201....	3(3-0)
Amer. Govt., Hist. 151.....	3(3-0)	Economics I, Econ. 101.....	3(3-0)
Current History, Hist. 126.....	1(1-0)	Gen. Microbiology, Bact. 101....	3(1-6)
Extern. Speech I, Pub. Spk. 106...	2(2-0)	Elective‡	6(-)
Elective‡	6(-)		
Total	15	Total	15

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week.

† Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107. The additional hours are applied as electives.

‡ Electives are to be chosen, with the advice and approval of the dean, in groups of not fewer than eight hours, or in courses which extend fields already entered in the required work.

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Elective‡	15(-)	Elective‡	15(-)

Summary.—Men: Physical education, two years required; military science, 4 hours; other prescribed subjects, 76 hours; elective, 44 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Pre-Medical and Pre-Pharmaceutical Adaptation of Curriculum in General Science

The following arrangement is prepared for students who wish to enter medical or pharmaceutical schools at the end of two years. Students preparing to enter a school of medicine may elect French, 9 hours, instead of German, 10 hours. Students preparing to enter a school of pharmacy must substitute General Botany I, General Botany II, and General Microbiology for General Zoölogy, Comparative Anatomy, and English Literature. At least 60 hours must be completed in the two years.

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)	Chemistry II Rec., Chem. 103.....	3(3-0)
College Algebra, Math. 104.....	3(3-0)	Chemistry II Lab., Chem. 104....	2(0-6)
German I, Mod. Lang. 101.....	3(3-0)	Plane Trigonometry, Math. 101...	3(3-0)
Extem. Speech I, Pub. Spk. 106...	2(2-0)	German II, Mod. Lang. 102.....	3(3-0)
Infantry I, Mil. Sc. 101A (men)....	1(1-2)	Elective	2(-)
Phys. Educ., M or W.....	R	Infantry II, Mil. Sc. 102A (men)..	1(1-2)
		Phys. Educ., M or W.....	R
Total	16 or 17	Total	16 or 17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
English Literature, Engl. 172.....	3(3-0)	Organic Chemistry, Chem. 220....	5(3-6)
Scientific German, Mod. Lang. 137,	4(4-0)	General Physics II, Phys. 103.....	4(3-3)
General Physics I, Phys. 102.....	4(3-3)	Comp. Anat. of Vert., Zoöl. 246..	4(2-6)
General Zoölogy, Zoöl. 105.....	5(3-6)	Electives	3(-)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	16 or 17	Total	16 or 17

Pre-Veterinary Adaptation of Curriculum in General Science

The following arrangement is prepared for students who wish to enter the Division of Veterinary Medicine. At least 32 hours must be completed, after which students are eligible for consideration by the Committee on Selection of Veterinary Students for admission to the freshman year of the Curriculum in Veterinary Medicine.

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)	Chemistry II Rec., Chem. 103.....	3(3-0)
Extem. Speech I, Pub. Spk. 106...	2(2-0)	Chemistry II Lab., Chem. 104....	2(0-6)
Elective*	6(-)	General Zoölogy, Zoöl. 105.....	5(3-6)
Infantry I, Mil. Sc. 101A (men)....	1(1-2)	Elective*	3(-)
Phys. Educ., M or W.....	R	Infantry II, Mil. Sc. 102A (men)..	1(1-2)
		Phys. Educ., M or W.....	R
Total	16 or 17	Total	16 or 17

* Electives should be chosen from Modern Language, Descriptive Physics, Mathematics, or Economics I-II.

Curriculum in Industrial Chemistry

FRESHMAN

FIRST SEMESTER

College Rhetoric I, Engl. 101.....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)
College Algebra, Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101...	3(3-0)
Engr. Drawing, Mach. Des. 101...	2(0-6)
Artillery I, Mil. Sc. 113A (men)...	1(1-2)
Phys. Educ., M or W.....	R
Total	16 or 17

SECOND SEMESTER

College Rhetoric II, Engl. 104....	3(3-0)
Chemistry II Rec., Chem. 103....	3(3-0)
Chemistry II Lab., Chem. 104....	2(0-6)
Plane Anal. Geometry, Math. 110,	4(4-0)
Library Methods, Lib. Ec. 101....	1(1-0)
Des. Geometry, Mach. Des. 106...	2(0-6)
Artillery II, Mil. Sc. 114A (men)...	1(1-2)
Phys. Educ., M or W.....	R
Total	15 or 16

SOPHOMORE

FIRST SEMESTER

Inorg. Preparations, Chem. 202....	2(0-6)
Adv. Inorg. Chemistry, Chem. 207,	3(3-0)
Calculus I, Math. 114.....	4(4-0)
Engr. Physics I, Phys. 105.....	5(4-3)
Elective†	2(-)
Artillery III, Mil. Sc. 115A (men),	1(1-2)
Phys. Educ., M or W.....	R
Total	16 or 17

SECOND SEMESTER

Quant. Analysis, Chem. 241.....	5(1-12)
Calculus II, Math. 115.....	4(4-0)
Engr. Physics II, Phys. 106.....	5(4-3)
Elective†	2(-)
Artillery IV, Mil. Sc. 116A (men)...	1(1-2)
Phys. Educ., M or W.....	R
Total	16 or 17

JUNIOR

FIRST SEMESTER

German I, Mod. Lang. 101.....	3(3-0)
Organic Chemistry I, Chem. 218...	4(2-6)
Physical Chemistry I, Chem. 206...	5(3-6)
Elective†	4(-)
Total	16

SECOND SEMESTER

German II, Mod. Lang. 102.....	3(3-0)
Organic Chemistry II, Chem. 219,	4(2-6)
Physical Chemistry II, Chem. 272,	3(3-0)
Economics I, Econ. 101.....	3(3-0)
Elective†	4(-)
Total	17

SENIOR

FIRST SEMESTER

Amer. Govt., Hist. 151.....	3(3-0)
Inorg. Chem. Tech., Chem. 203...	5(3-6)
Scientific German, Mod. Lang. 137,	4(4-0)
Inspection Trip, Chem. 130.....	R
Elective†	5(-)
Total	17

SECOND SEMESTER

Org. Chem. Tech., Chem. 212.....	3(3-0)
Prob. in Chemistry, Chem. 270...	3(0-9)
Hist. of Chemistry, Chem. 208....	1(1-0)
Elective†	9(-)
Total	16

Summary.—Men: Physical education, two years required; military science, 4 hours; chemistry, 48 hours; engineering, 4 hours; other prescribed subjects, 51 hours; electives, 26 hours; total, 133 hours. Women: The same, except no military science; total, 129 hours.

† Electives are to be chosen, with the advice and approval of the dean, in groups of not fewer than eight hours, or in courses which extend fields already entered in the required work.

Curriculum in Industrial Journalism

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
General Chemistry, Chem. 110....	5(3-6)	General Geology, Geol. 103.....	3(3-0)
Modern Language I*.....	3(3-0)	Modern Language II*.....	3(3-0)
Library Methods, Lib. Ec. 101....	1(1-0)	Journalistic Vocations, Ind. Jour.	
General Psychology, Educ. 184....	3(3-0)	140	2(2-0)
Industrial Journalism Lecture.....	R	Option*	4(-)
Infantry I, Mil. Sc. 101A (men)...	1(1-2)	Industrial Journalism Lecture.....	R
Phys. Educ., M or W.....	R	Infantry II, Mil. Sc. 102A (men)..	1(1-2)
		Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Elem. Journalism, Ind. Jour. 152..	3(3-0)	Industrial Writing, Ind. Jour. 164,	3(3-0)
Current History, Hist. 126.....	1(1-0)	Economics I, Econ. 101.....	3(3-0)
Prin. of Typography, Ind. Jour.		Option*	3(-)
101	3(2-3)	English Literature, Engl. 172.....	3(3-0)
Biological Science	5(-)	Extm. Speech I, Pub. Spk. 106..	2(2-0)
Modern Language III*.....	3(3-0)	Current History, Hist. 126.....	1(1-0)
Industrial Journalism Lecture.....	R	Industrial Journalism Lecture.....	R
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Ind. Feature Writing, Ind. Jour.		Jour. for Women, Ind. Jour. 172..	2(2-0)or
167	2(2-0)	The Rural Press, Ind. Jour. 181..	2(2-0)or
Prin. of Adv., Ind. Jour. 178....	4(4-0)	Radio Writing, Ind. Jour. 162.....	2(2-0)
American Literature, Engl. 175....	3(3-0)	Copy Reading, Ind. Jour. 254....	2(0-6)
Option*	6(-)	Hist. of English Lit., Engl. 181...	3(3-0)
Industrial Journalism Lecture.....	R	Elective and Option*.....	8(-)
		Industrial Journalism Lecture.....	R
Total	15	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Editorial Practice, Ind. Jour. 257..	2(2-0)	History and Ethics of Journalism,	
Contem. Thought, Ind. Jour. 255..	3(3-0)	Ind. Jour. 273.....	3(3-0)
Elective and Option*.....	10(-)	American Government, Hist. 151..	3(3-0)
Industrial Journalism Lecture.....	R	Elective and Option*.....	9(-)
		Industrial Journalism Lecture.....	R
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; industrial journalism, 29 hours; restricted options, 25 hours; modern language, 9 hours; other prescribed subjects, 42 hours; general electives, 15 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

* The options and electives are chosen with the advice and approval of the dean. The options are in two general groups: (1) fifteen hours in courses related to an industry or to applied science, and (2) ten hours in courses in political or social science, history, government, economics, or sociology. The options taken in the freshman year, and a large part of those in the sophomore year, must be those related to an industry or applied science. In the tabulated presentation of electives for students in the Division of General Science, groups may be found that will be accepted as the required options and electives. These are printed following the tabulation of the curriculums. The fifteen-hour option related to an industry or to applied science must be selected from one of the following groups: Group 31 (applied science), group 32 (home economics), group 35 (agriculture), group 36 (drawing and art), group 37 (manual and industrial arts), group 38 (printing), and group 39, (radio). The ten-hour option in social science may be selected by any combination formed from the following groups: Group 15 (history, government and law), group 16 (economics and sociology), and group 30 (social science). Proficiency equivalent to nine hours of study in a modern language is required. Each unit of German, French, or Spanish offered for entrance reduces this requirement in that language by three hours, an equal amount of additional electives being chosen. Electives are to be chosen in groups of usually not fewer than eight hours, unless they are selected in subjects which extend fields already entered through the required subjects or the options.

Curriculum in Music Education

Students wishing special training in Band or Orchestra make the following substitution:

Instrument, 16 hours, for Voice, 6 hours, Piano, 2 hours, and Voice or Instrument, 8 hours, and take Chorus, R (1-0), throughout the senior year.

FRESHMAN

FIRST SEMESTER

College Rhetoric I, Engl. 101.....	3(3-0)
Harmony I, Mus. 101.....	2(2-0)
Ear Tr. and St. Sing. I, Mus. 105,	2(1-3)
Piano, Mus. 161.....	2(1-6)
Voice, Mus. 156.....	2(1-6)
Orch. Instruments I, Mus. 151A...	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
General Psychology, Educ. 184....	3(3-0)
Infantry I, Mil. Sc. 101A (men)...	1(1-2)
Phys. Educ., M or W.....	R

Total 15 or 16

SECOND SEMESTER

College Rhetoric II, Engl. 104....	3(3-0)
Harmony II, Mus. 102.....	2(2-0)
Ear Tr. and St. Sing. II, Mus. 106,	2(1-3)
Piano, Mus. 161.....	2(1-6)
Voice, Mus. 156.....	2(1-6)
Orch. Instruments II, Mus. 151B..	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Phys. or Biol. Science.....	3(-)
Infantry II, Mil. Sc. 102A (men)...	1(1-2)
Phys. Educ., M or W.....	R

Total 15 or 16

SOPHOMORE

FIRST SEMESTER

Harmony III, Mus. 103.....	2(2-0)
Ear Tr. and St. Sing. III, Mus. 107,	2(1-3)
Piano, Mus. 161.....	1($\frac{1}{2}$ -6)
Voice, Mus. 156.....	1($\frac{1}{2}$ -6)
Orch. Instr. III, Mus. 151C.....	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
School Music I, Mus. 138.....	2(2-0)
Choral Conducting, Mus. 133.....	1(1-0)
Phys. or Biol. Science.....	5(-)
Infantry III, Mil. Sc. 103A (men),	1(1-2)
Phys. Educ., M or W.....	R

Total 15 or 16

SECOND SEMESTER

Harmony IV, Mus. 104.....	2(2-0)
Ear Tr. and St. Sing. IV, Mus. 108,	2(1-3)
Piano, Mus. 161.....	1($\frac{1}{2}$ -6)
Voice, Mus. 156.....	1($\frac{1}{2}$ -6)
Orch. Instr. IV, Mus. 151D.....	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
School Music II, Mus. 139.....	2(2-0)
English Literature, Engl. 172....	3(3-0)
Nonmusic elective	3(-)
Infantry IV, Mil. Sc. 104A (men)...	1(1-2)
Phys. Educ., M or W.....	R

Total 15 or 16

JUNIOR

FIRST SEMESTER

Counterpoint, Mus. 108A.....	2(2-0)
Voice or Instrument.....	2(1-6)
Hist. and Ap. of Mus. I, Mus. 130,	2(2-0)
Rad. Mus. Ap. Programs, Mus. 115,	1(1-0)
Instrumental Conducting, Mus. 134,	1(1-0)
Orch. Instr. V, Mus. 151E.....	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Educational Psychology, Educ. 109,	3(3-0)
Education Elective	3(3-0)

Total 15

SECOND SEMESTER

Musical Form and Analysis, Mus.	
111	1(1-0)
Voice or Instrument	2(1-6)
Hist. and Ap. of Mus. II, Mus. 131,	2(2-0)
Pub. Spk. for Teachers, Pub. Spk.	
138	1(1-0)
School Music III, Mus. 143.....	2(2-0)
Orch. Instr. VI, Mus. 151F.....	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Educ. Admin., Educ. 210.....	3(3-0)
American Literature, Engl. 175....	3(3-0)

Total 15

SENIOR

FIRST SEMESTER

Voice or Instrument.....	2(1-6)
Orch. Instr. VII, Mus. 151G.....	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Teach. Part. in Grade School, Educ.	
129	3(3-0)
Instr. and Orches., Mus. 136.....	3(3-0)
English elective	3(3-0)
Nonmusic elective	3(-)

Total 15

SECOND SEMESTER

Voice or Instrument.....	2(1-6)
Orch. Instr. VIII, Mus. 151H....	$\frac{1}{2}$ (1-)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Education elective	3(3-0)
Nonmusic elective	9(-)

Total 15

Summary.—Men: Physical education, two years required; military science, 4 hours; theoretical music, 39 hours; applied music, 24 hours; other prescribed subjects, 36 hours; restricted electives, 6 hours; nonmusic electives, 15 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Curriculum in Applied Music

Students majoring in piano or pipe organ are required to take Piano Ensemble, R (1-0), each semester.

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Music Major	4(1-12)	Music Major	4(1-12)
Ear Tr. and St. Sing. I, Mus. 105,	2(1-3)	Ear Tr. and St. Sing. II, Mus. 106,	2(1-3)
Harmony I, Mus. 101.....	2(2-0)	Harmony II, Mus. 102.....	2(2-0)
Modern Language	3(3-0)	Modern Language	3(3-0)
Orch. Instr. I, Mus. 151A.....	$\frac{1}{2}$ (1-)	Orch. Instr. II, Mus. 151B.....	$\frac{1}{2}$ (1-)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)
Infantry I, Mil. Sc. 101A (men)...	1(1-2)	Infantry II, Mil. Sc. 102A (men)...	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Music Major	4(1-12)	Music Major	4(1-12)
Music Minor	2(1-6)	Music Minor	2(1-6)
Harmony III, Mus. 103.....	2(2-0)	Harmony IV, Mus. 104.....	2(2-0)
Orch. Instr. III, Mus. 151C.....	$\frac{1}{2}$ (1-)	Orch. Instr. IV, Mus. 151D.....	$\frac{1}{2}$ (1-)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)
Recital I, Mus. 181A.....	R(-)	Recital II, Mus. 181B.....	R(-)
Hist. and Ap. of Mus. I, Mus. 130,	2(2-0)	Hist. and Ap. of Mus. II, Mus. 131,	2(2-0)
Rad. Mus. Ap. Programs, Mus. 115,	1(1-0)	Pub. Spk. for Teachers, Pub. Spk.	
Modern Language	3(3-0)	138	1(1-0)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Modern Language	3(3-0)
Phys. Educ., M or W.....	R	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
		Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Music Major	4(1-12)	Music Major	4(1-12)
Music Minor	2(1-6)	Music Minor	2(1-6)
Counterpoint, Mus. 108A.....	2(2-0)	Musical Form and Analysis, Mus.	
Orch. Instr. V, Mus. 151E.....	$\frac{1}{2}$ (1-)	111	1(1-0)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Orch. Instr. VI, Mus. 151F.....	$\frac{1}{2}$ (1-)
Recital III, Mus. 181C.....	R(-)	Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)
Choral Conducting, Mus. 133.....	1(1-0)	Recital IV, Mus. 181D.....	R(-)
Physics for Musicians I, Phys. 158,	5(4-3)	General Psychology, Educ. 184....	3(3-0)
		Nonmusic elective	4(-)
Total	15	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Music Major	4(1-12)	Music Major	4(1-12)
Orch. Instr. VII, Mus. 151G.....	$\frac{1}{2}$ (1-)	Orch. Instr. VIII, Mus. 151H....	$\frac{1}{2}$ (1-)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)
Recital V, Mus. 181E.....	R(-)	Recital VI, Mus. 181F.....	R(-)
Methods and Materials for the		Instr. and Orches., Mus. 136.....	3(3-0)
Studio, Mus. 149.....	1(2-0)	Practice Teach. of Music, Mus.	
English Literature, Engl. 172.....	3(3-0)	187	R(1-)
Nonmusic elective	6(-)	American Literature, Engl. 175....	3(3-0)
		Nonmusic elective	4(-)
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; theoretical music, 25 hours; applied music, 48 hours; other prescribed subjects, 33 hours; nonmusic electives, 14 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Curriculum in Physical Education for Men

FRESHMAN

FIRST SEMESTER

Intro. to Phys. Ed., Phys. Ed. 107,	1(1-0)
Phys. Ed. Act. I, Phys. Ed. 137..	1(0-3)
Basketball, Phys. Ed. 130A.....	2(1-3)
College Rhetoric I, Engl. 101....	3(3-0)
Extem. Speech I, Pub. Spk. 106..	2(2-0)
Chemistry I, Chem. 101.....	5(3-6)
Library Methods, Lib. Ec. 101....	1(1-0)
Infantry I, Mil. Sc. 101A.....	1(1-2)
Phys. Educ., M.....	R

 Total 16

SECOND SEMESTER

Phys. Ed. Act. II, Phys. Ed. 138..	2(0-6)
Football, Phys. Ed. 126.....	2(1-3)
General Zoölogy, Zoöl. 105.....	5(3-6)
College Rhetoric II, Engl. 104....	3(3-0)
Chemistry II Rec., Chem. 103....	3(3-0)
Infantry II, Mil. Sc. 102A.....	1(1-2)
Phys. Educ., M.....	R

 Total 16

SOPHOMORE

FIRST SEMESTER

Human Anatomy, Zoöl. 123A.....	5(3-6)
General Psychology, Educ. 184...	3(3-0)
Sports Reptg., Ind. Jour. 165.....	2(2-0)
Phys. Ed. Act. III, Phys. Ed. 139,	2(0-6)
Gen. Microbiology, Bact. 101.....	3(1-6)
Infantry III, Mil. Sc. 103A.....	1(1-2)
Phys. Educ., M.....	R

 Total 16

SECOND SEMESTER

Baseball, Phys. Ed. 133.....	2(1-3)
Swimming M, Phys. Ed. 120.....	1(0-3)
Nat. and Fen. of Play, Phys. Ed.	
145	2(2-0)
Kinesiology M, Phys. Ed. 141B...	3(3-0)
Physiology, Zoöl. 130.....	4(3-3)
History and Principles of Phys.	
Educ., Phys. Ed. 192.....	3(3-0)
Infantry IV, Mil. Sc. 104A.....	1(1-2)
Phys. Educ., M.....	R

 Total 16

JUNIOR

FIRST SEMESTER

Personal Hygiene, Phys. Ed. 119..	2(2-0)
First Aid and Mas., Phys. Ed.	
113A	3(3-0)
Org. and Admin. of Phys. Educ.	
M, Phys. Ed. 146.....	3(3-0)
Sociology, Econ. 151.....	3(3-0)
Phys. Ed. Act. IV, Phys. Ed. 140,	1(0-3)
Psych. Child. and Adol., Ed. 250,	3(3-0)
Practice Teaching in Phys. Educ.	
I, Phys. Ed. 135.....	1(0-3)

 Total 16

SECOND SEMESTER

Track and Field Sports, Phys. Ed.	
140A	2(1-3)
Educ. Admin., Educ. 210.....	3(3-0)
Practice Teaching in Phys. Educ.	
II, Phys. Ed. 136B.....	2(0-6)
Current History, Hist. 126.....	1(1-0)
Teaching Health, Phys. Ed. 149...	2(2-0)
Elective*	6(-)

 Total 16

SENIOR

FIRST SEMESTER

Phys. Diagnosis and Prescrip.,	
Phys. Ed. 124A.....	3(3-0)
Physiol. of Exercise, Phys. Ed. 123,	2(2-0)
Educ. Psychology, Educ. 109.....	3(3-0)
Practice Teaching in Phys. Educ.	
III, Phys. Ed. 136C.....	2(0-6)
Elective*	5(-)

 Total 15

SECOND SEMESTER

Teach. Partic. in H. S., Educ. 163,	3(3-0)
Public-school Program in Physical	
Educ., Phys. Ed. 142.....	2(2-0)
Educ. Sociology, Educ. 239.....	3(3-0)
Community Recreation, Phys. Ed.	
203	2(2-0)
Elective*	5(-)

 Total 15

Summary.—Military science, 4 hours; physical education, 48 hours; professional education, 18 hours; other prescribed subjects, 40 hours; general elective, 16 hours; total, 126 hours.

Curriculum in Physical Education for Women

FRESHMAN

FIRST SEMESTER

College Rhetoric I, Engl. 101.....	3(3-0)
General Chemistry, Chem. 110....	5(3-6)
Music Fundamentals, Mus. 118....	2(3-0)
Fund. Rhythms, Phys. Ed. 155....	1(0-3)
Personal Health, Child Welfare 101,	2(2-0)
Phys. Educ., W.....	R
Gen. Technic I, Phys. Ed. 157A...	2(1-3)

 Total 15

SECOND SEMESTER

College Rhetoric II, Engl. 104....	3(3-0)
Elem. Org. Chemistry, Chem. 123,	3(2-3)
Extem. Speech I, Pub. Spk. 106..	2(2-0)
General Zoölogy, Zoöl. 105.....	5(3-6)
Phys. Educ., W.....	R
Gen. Technic II, Phys. Ed. 157B..	2(1-3)

 Total 15

* Electives are to be chosen with the advice and approval of the dean, in groups of not fewer than eight hours, and from departments other than physical education.

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Human Anatomy, Zoöl. 123A.....	5(3-6)	Kinesiology W, Phys. Ed. 184....	2(2-0)
English Literature, Engl. 172.....	3(3-0)	Physiology, Zoöl. 130.....	4(3-3)
General Psychology, Educ. 184....	3(3-0)	History and Prin. of Phys. Educ.,	
Playground Management and Games		Phys. Ed. 192.....	3(3-0)
W, Phys. Ed. 182A.....	2(1-3)	American Literature, Engl. 175....	3(3-0)
Phys. Educ., W.....	R	Pub. Spk. for Teachers, Pub. Spk.	
Gen. Technic III, Phys. Ed. 157C,	2(1-3)	138	1(1-0)
		Phys. Educ., W.....	R
		Gen. Technic IV, Phys. Ed. 157D,	2(1-3)
Total	15	Total	15

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Prin. Health Educ., Phys. Ed. 163,	3(3-0)	Sociology, Econ. 151.....	3(3-0)
Psych. of Child. and Adol., Educ.		Teach. and Adapt. of Phys. Educ.,	
250	3(3-0)	Phys. Ed. 188.....	3(3-0)
Phys. Educ., W.....	R	Phys. Educ., W.....	R
Gen. Technic V, Phys. Ed. 157E..	2(1-3)	Gen. Technic VI, Phys. Ed. 157F,	2(1-3)
Health Exam. W, Phys. Ed. 171..	2(0-6)	Therap. and Mas., Phys. Ed. 172..	2(0-6)
Elective†	5(-)	Elective†	5(-)
Total	15	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Amer. Hist. Survey, Hist. 104.....	3(3-0)	Educ. Sociology, Educ. 239.....	3(3-0)
Educ. Psychology, Educ. 109.....	3(3-0)	Organization and Administration of	
Ap. Nutr., Food and Nutr. 121....	2(2-0)	Phys. Educ. W, Phys. Ed. 176,	2(2-0)
Teach. Partic. in H. S., Educ. 163,	3(3-0)	Phys. Educ., W.....	R
Phys. Educ., W.....	R	Gen. Technic VIII, Phys. Ed. 157H,	2(1-3)
Gen. Technic VII, Phys. Ed. 157G,	2(1-3)	Educ. Admin., Educ. 210.....	3(3-0)
Elective†	2(-)	Adult Recreation, Phys. Ed. 183...	2(2-0)
		Elective†	3(-)
Total	15	Total	15

Summary.—Physical education, 40 hours; professional education, 18 hours; other prescribed subjects, 47 hours; general electives, 15 hours; total, 120 hours.

Curriculum in Commerce

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Phys. or Biol. Science*.....	3(-)	Phys. or Biol. Science*.....	5(-)
Current History, Hist. 126.....	1(1-0)	Current History, Hist. 126.....	1(1-0)
Extm. Speech I, Pub. Spk. 106...	2(2-0)	American Ind. History, Hist. 105,	3(3-0)or
College Algebra, Math. 104.....	3(3-0)	Hist. of Com. and Ind., Hist. 110,	3(3-0)
Option*	3(-)	Option*	3(-)
Infantry I, Mil. Sc. 101A (men)..	1(1-2)	Infantry II, Mil. Sc. 102A (men)..	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Coml. Correspondence, Engl. 122..	3(3-0)	General Psychology, Educ. 184....	3(3-0)
Accounting I, Econ. 133.....	3(2-3)	Accounting II, Econ. 134.....	3(2-3)
Economics I, Econ. 101.....	3(3-0)	English Literature, Engl. 172.....	3(3-0)
History Elective	3(-)	Economics II, Econ. 104.....	3(3-0)
Option*	3(-)	Amer. Govt., Hist. 151.....	3(3-0)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

† Electives are to be chosen with the advice and approval of the dean, in groups of not fewer than eight hours, and from departments other than physical education.

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Elements of Statistics, Math. 126,	3(3-0)	Investments, Econ. 222.....	3(3-0)
Business Management, Econ. 126..	2(2-0)	Sociology, Econ. 151.....	3(3-0)
Money and Banking, Econ. 116....	3(3-0)	Corp. Org. and Fin., Econ. 219....	2(2-0)
Marketing, Econ. 246.....	3(3-0)	Elective†	7(-)
Elective†	4(-)		
Total	15	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Business Law I, Hist. 163.....	3(3-0)	Business Law II, Hist. 164.....	3(3-0)
Public Finance, Econ. 214.....	3(3-0)	Commerce Seminar, Econ. 249....	1(1-0)
Elective†	9(-)	Elective†	11(-)
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; commerce courses, 44 hours; other prescribed courses, 36 hours; option, special and general electives, 40 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Curriculum in Commerce with Special Training in Accounting

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Phys. or Biol. Science*.....	3(-)	Phys. or Biol. Science*.....	5(-)
Accounting I, Econ. 133.....	3(2-3)	Accounting II, Econ. 134.....	3(2-3)
Current History, Hist. 126.....	1(1-0)	Current History, Hist. 126.....	1(1-0)
College Algebra, Math. 104.....	3(3-0)	American Ind. History, Hist. 105,	3(3-0) or
Extem. Speech I, Pub. Spk. 106...	2(2-0)	Hist. of Com. and Ind., Hist. 110,	3(3-0)
Infantry I, Mil. Sc. 101A (men)...	1(1-2)	Infantry II, Mil. Sc. 102A (men)...	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Economics I, Econ. 101.....	3(3-0)	Economics II, Econ. 104.....	3(3-0)
Coml. Correspondence, Engl. 122..	3(3-0)	English Literature, Engl. 172.....	3(3-0)
General Psychology, Educ. 184....	3(3-0)	Valuation Accounting, Econ. 280..	3(3-0)
Cost Accounting, Econ. 287.....	3(3-0)	Math. of Finance, Math. 150.....	3(3-0)
Options*	3(-)	Options*	3(-)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W.....	R	Phys. Educ., M or W.....	R
Total	15 or 16	Total	15 or 16

* Eight hours of physical or biological science are to be elected in this curriculum, if possible in the freshman year. Subject to any prerequisites, chemistry, physics, botany, zoölogy, entomology, and geology are available.

If Chemistry I, Chem. 101, is taken, Chemistry II Rec., Chem. 103, is required also. The nine-hour option is selected from a modern language, or a single department in a natural science. Students who have had only one year of high-school algebra are assigned to a five-hour course in College Algebra, Math. 107.

† Twelve hours of special electives must be chosen from the following group: Economics 223, Credits and Collections; 230, Principles of Transportation; 234, Labor Problems; 242, Property Insurance; 244, Life Insurance; 248, Problems in Economics; 258, Social Pathology; 280, Valuation Accounting; 281, Advanced Accounting; 284, Institutional Accounting; 286, Tax Accounting; 287, Cost Accounting; 288, Advanced Cost Accounting; 289, Government Accounting; 290, Auditing; Education 265, Psychology of Advertising and Selling; 273, Psychology and Personnel Management; English 123, Written and Oral Salesmanship; 223, Advanced Problems in Commercial Correspondence; History and Government 260, Government Regulation of Business; Industrial Journalism 178, Principles of Advertising; and Mathematics 150, Mathematics of Finance.

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Elements of Statistics, Math. 126,	3(3-0)	Auditing, Econ. 290.....	2(2-0)
Money and Banking, Econ. 116...	3(3-0)	Am. Govt., Hist. 151.....	3(3-0)
Business Management, Econ. 126..	2(2-0)	Corp. Org. and Fin., Econ. 219...	2(2-0)
Adv. Accounting, Econ. 281.....	3(3-0)	Elective†	8(-)
Options*	3(-)		
Elective†	1(-)		
Total	15	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Govt. Accounting, Econ. 289.....	2(2-0)	Business Law II, Hist. 164.....	3(3-0)
Public Finance, Econ. 214.....	3(3-0)	Commerce Seminar, Econ. 249....	1(1-0)
Business Law I, Hist. 163.....	3(3-0)	Adv. Cost. Accounting, Econ. 288..	2(2-0)
Elective†	7(-)	Tax Accounting, Econ. 286.....	3(3-0)
		Elective†	6(-)
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; commerce courses, 56 hours; other prescribed courses, 33 hours; option, 9 hours; electives, 22 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Group of Electives and Options for Students in the Division of General Science

At least eight hours in any new field are usually required, but a smaller number will be accepted in a field already entered upon. In a modern language a student must reach a point equivalent to that obtained by college courses aggregating nine hours. Any student desiring to major in a certain field should confer in the sophomore year with the head of the department in which most of the work is given.

1. English Language

Students majoring in English should elect English 219 and 220, and twelve to twenty additional hours of English language and literature, under the guidance of the head of the department. Twelve hours of a modern foreign language is strongly recommended.

Engineering English, Engl. 110....	2(2-0)	Adv. Composition II, Engl. 220...	3(3-0)
Coml. Correspondence, Engl. 122..	3(3-0)	Adv. Prob. in Coml. Correspondence, Engl. 223.....	3(3-0)
Writ. and Oral Salesmanship, Engl. 123	3(3-0)	The Short Story I, Engl. 228.....	3(3-0)
Agricultural English, Engl. 137....	3(3-0)	The Short Story II, Engl. 230....	3(3-0)
Technical Writing, Engl. 207.....	2(2-0)	Oral English, Engl. 232.....	3(3-0)
Adv. Composition I, Engl. 219....	3(3-0)	Advanced Grammar, Engl. 243....	3(3-0)

2. English Literature

Chaucer, Engl. 260.....	3(3-0)	Milton and the Puritan Revolt, Engl. 262	3(3-0)
The English Bible, Engl. 271.....	3(3-0)	American Survey, Engl. 265.....	2(2-0)
Shakespearean Drama I, Engl. 273,	3(3-0)	Shakespearean Drama II, Engl. 274,	3(3-0)
Wordsworth, Shelley, and Keats, Engl. 278	3(3-0)	English Essayists of the Eighteenth and Nineteenth Cent., Engl. 276,	3(3-0)
World Classics I, Engl. 280.....	3(3-0)	World Classics II, Engl. 281.....	3(3-0)
Contemporary Fiction, Engl. 283..	3(3-0)	Contemporary Drama, Engl. 284..	3(3-0)
The Novel I, Engl. 286.....	3(3-0)	The Novel II, Engl. 287.....	3(3-0)
English Survey I, Engl. 288.....	2(2-0)	English Survey II, Engl. 290.....	2(2-0)
American Literature, Engl. 175....	3(3-0)	Browning and Tennyson, Engl. 293,	3(3-0)
The Literature of the Middle West, Engl. 268	3(3-0)	Contemporary Poetry, Engl. 297...	3(3-0)

* Eight hours of physical or biological science are to be elected in this curriculum, if possible in the freshman year. Subject to any prerequisites, chemistry, physics, botany, zoölogy, entomology, and geology are available.

If Chemistry I, Chem. 101, is taken, Chemistry II Rec., Chem. 103, is required also. The nine-hour option is selected from a modern language, or a single department in a natural science. Students who have had only one year of high-school algebra are assigned to a five-hour course in College Algebra, Math. 107.

† Attention is called to the list of special electives for the curriculum in commerce, *ante*.

3. German

German I, Mod. Lang. 101.....	3(3-0)	Scientific German, Mod. Lang. 137,	4(4-0)
German II, Mod. Lang. 102.....	3(3-0)	Schiller, Mod. Lang. 209.....	3(3-0)
German III, Mod. Lang. 111.....	3(3-0)	Goethe, Mod. Lang. 213.....	3(3-0)
German IV, Mod. Lang. 112.....	3(3-0)	19th Cent. German Drama, Mod.	
		Lang. 215	3(3-0)

4. French and Spanish

Students who wish to major in Romance Languages should take such of the following courses as they have not already pursued: In French, courses 151, 152, 161, 162 and 261; in Spanish, courses 176, 177, 180, 181, 275, and 280. In each group the courses should be taken approximately in the order here shown and always in conformity with requirements as to prerequisites.

French I, Mod. Lang. 151.....	3(3-0)	Spanish I, Mod. Lang. 176.....	3(3-0)
French II, Mod. Lang. 152.....	3(3-0)	Spanish II, Mod. Lang. 177.....	3(3-0)
French III, Mod. Lang. 161.....	3(3-0)	Spanish III, Mod. Lang. 180.....	3(3-0)
French IV, Mod. Lang. 162.....	3(3-0)	Spanish IV, Mod. Lang. 181.....	3(3-0)
French Drama I, Mod. Lang. 257,	3(3-0)	Spanish Novel, Mod. Lang. 275...	3(3-0)
French Drama II, Mod. Lang. 258,	3(3-0)	Spanish Drama, Mod. Lang. 280..	3(3-0)
French Comp. and Conv., Mod.		Spanish Comp. and Conv., Mod.	
Lang. 261	3(3-0)	Lang. 194	3(3-0)

5. Mathematics

Students continuing work in mathematics beyond trigonometry are advised to take courses in the following order: Math. 110, 114, 115, 201, 210, 213, and 216, and in any event strictly in accordance with the stated prerequisites.

Plane Anal. Geometry, Math. 110,	4(4-0)	Theory of Statistics, Math. 203...	3(3-0)
Calculus I, Math. 114.....	4(4-0)	Advanced Calculus I, Math. 210..	3(3-0)
Calculus II, Math. 115.....	4(4-0)	Theory of Equations, Math. 216..	3(3-0)
Differential Equations, Math. 201,	3(3-0)	Modern Plane Geometry, Math. 225,	3(3-0)
Advanced Calculus II, Math. 213..	3(3-0)	Vector Analysis, Math. 230.....	3(3-0)
Higher Algebra, Math. 202.....	3(3-0)	Fourier Series, Math. 223.....	3(3-0)

6. Inorganic and Physical Chemistry

Students desiring extensive training in chemistry are advised to take the curriculum in industrial chemistry, supplementing the required work by electives chosen with the advice of the head of the department. Those who wish to prepare for teaching chemistry in high schools, in addition to Chem. 101, 103, and 104, should elect Chem. 218 and 219, and Chem. 207, 241, and 206. Math. 110, 114, and 115 are very desirable, and Phys. 102 and 103, or 105 and 106, are essential.

Adv. Inorg. Chemistry, Chem. 207,	3(3-0)	Ind. Electrochem, Chem. 205.....	2(2-0)
Inorg. Chem. Tech., Chem. 203...	5(3-6)	Physical Chem. II, Chem. 272....	3(3-0)
Org. Chem. Tech., Chem. 212.....	3(3-0)	Colloidal Chem., Chem. 213.....	2(2-0)
Physical Chemistry I, Chem. 206..	5(3-6)	Chemical Thermodyn., Chem. 215,	3(3-0)
Surf. Tension and Rel. Phenomena,		Theoret. Electrochem., Chem. 216,	3(3-0)
Chem. 209	2(2-0)	Electrochemistry Lab., Chem. 217,	2(0-6)
		Selected Topics in Inorg. Chemis-	
		try, Chem. 271	2(2-0)

7. Organic and Physiological Chemistry

Preparation for work in biological chemistry or nutrition should include courses Chem. 101, 103, 104, 121, 241, 206, 231, 237, and 239; Phys. 102 and 103; Zoöl. 105 and 235; and Bact. 101.

Organic Chemistry I, Chem. 218...	4(2-6)	Organic Chemistry II, Chem. 219..	4(2-6)
		Stereoisomeric and Tautomeric	
		Compounds, Chem. 225.....	2(2-0)
Organic Preparations, Chem. 223..	5(0-15)	Carbocyclic and Heterocyclic	
		Compounds, Chem. 226.....	2(2-0)
Physiological Chem., Chem. 231...	5(3-6)	Qual. Org. Analysis, Chem. 221...	3(1-6)
Pathological Chem., Chem. 235...	2(2-0)	Laboratory Technique in Animal	
Biochemical Analysis, Chem. 237..	2(0-6)	Nutrition, Chem. 239.....	2(0-6)

8. Analytical Chemistry

After completing Chem. 241 or 250 and 251, the student may take one or more courses in several different fields of analysis, such as soils, fertilizers, gases, feeds, foods, dairy products, etc.

Adv. Qual. Analysis, Chem. 240...	3(1-6)	Quan. Analysis, Chem. 241.....	5(1-12)
Quan. Analysis A, Chem. 250.....	3(1-6)	Quan. Analysis B, Chem. 251.....	3(1-6)

9. Physics

Students who expect to teach physics in high schools should complete a course in college physics and at least ten hours additional as advised by the head of the department. Students who wish to major in physics may, with the advice of the major instructor, choose from Phys. 227, 228, 238, 239, 240, 243, 244, 253, 254, and 270. Math. 110, 114, and 115 are desirable or necessary for the advanced courses. Phys. 136, 141, 146, and 151 are available for commerce or journalism students.

Household Physics, Phys. 109.....	4(3-3)	Heat, Phys. 238.....	3(3-0)
Descriptive Physics, Phys. 136....	3(3-0)	Heat Laboratory, Phys. 239.....	1(0-3)
Descriptive Astronomy, Phys. 141,	3(3-0)	Sound, Phys. 240.....	3(3-0)
Meteorology, Phys. 146.....	3(3-0)	Light, Phys. 243.....	3(3-0)
Photography, Phys. 151.....	2(1-3)	Light Laboratory, Phys. 244.....	1(0-3)
Lab. Tech. and App., Phys. 201...	2(0-6)	Elec. and Magnetism, Phys. 253....	2(2-0)
Applied X-rays, Phys. 205.....	3(2-3)	Elec. and Magnetism Lab., Phys.	
Astronomy, Phys. 210.....	3(3-0)	254.....	1(0-3)
Geophysics I, Phys. 217.....	3(3-0)	Elec. Oscill. and Waves, Phys. 265,	3(3-0)
Geophysics II, Phys. 218.....	3(1-6)	Elec. Oscill. and Waves Lab., Phys.	
Applied Spectroscopy, Phys. 220...	3(2-3)	266	2(0-6)
Mechanics, Phys. 227.....	3(3-0)	Electron Optics, Phys. 268.....	2(2-0)
Mechanics Laboratory, Phys. 228.	1(0-3)	Atomic Physics, Phys. 270.....	3(3-0)
		Problems in Physics, Phys. 297....	Cr. Ar.

10. Microbiology

Bact. 101 may be followed in order by 202, 204, 206, 229, 222, and 225.

Gen. Microbiology, Bact. 101.....	3(1-6)	Dairy Bacteriology, Bact. 211....	3(1-6)
Path. Bacteriology I, Bact. 111....	4(2-6)	Poultry Sanitation, Bact. 218....	3(2-3)
Path. Bacteriology II, Bact. 116...	4(2-6)	Physiol. of Microorg., Bact. 222...	3(3-0)
Soil Microbiol., Bact. 202.....	3(3-0)	Bact. Technic, Bact. 225.....	3(0-9)
Soil Microbiol. Lab., Bact. 204....	2(0-6)	Adv. Serology, Bact. 229.....	5(3-6)
Hyg. Bacteriology, Bact. 206.....	4(2-6)		

11. Botany

Bot. 101 and 105 are prerequisite to all other courses, except 110. Students specializing in plant diseases should take, in order, Bot. 205, 202, and 232; those in plant physiology, Bot. 208, 210, and 232; those in taxonomy and ecology, Bot. 225, 228 or 234 and 232. For general training, all are available if the prerequisites have been taken.

General Botany I, Bot. 101.....	3(1-6)	Plant Histology, Bot. 216.....	3(1-6)
General Botany II, Bot. 105.....	3(1-6)	Tax. Bot. of Flowering Plants, Bot.	
Nat. and Dev. of Plants, Bot. 110,	3(3-0)	225	3(1-6)
Fruit Crop Diseases, Bot. 202.....	2(1-3)	Plant Ecology, Bot. 228.....	2(2-0)
Plant Pathology I, Bot. 205.....	3(1-6)	Problems in Botany, Bot. 232.....	Cr. Ar.
Morph. of the Fungi, Bot. 206....	3(1-6)	Field Crop Diseases, Bot. 241.....	3(1-6)
Plant Physiology I, Bot. 208.....	3(3-0)	Literature of Botany, Bot. 266....	2(2-0)
Plant Physiology II, Bot. 210.....	3(1-6)	Plant Cytology, Bot. 268.....	3(1-6)

12. Zoölogy

A student who wishes to major in zoölogy should, in connection with the required work in this field or after completing it, elect from the courses listed below subjects varying with his special interest, such as parasitology, embryology, genetics, etc. Consult the head of the department.

Human Physiology, Zoöl. 235.....	4(3-3)	Comp. Anat. of Vertebs., Zoöl. 246,	4(2-6)
Cytology, Zoöl. 214.....	4(2-6)	Evol. and Heredity, Zoöl.	
Parasitology, Zoöl. 208.....	3(2-3)	217	3(2-3) or 4(2-6)
Comp. and Human Neur., Zoöl.		Embryology B, Zoöl. 219A.....	4(3-3)
250	3(2-3)	Adv. Embryology, Zoöl. 220.....	4(2-6)
Taxonomy of Parasites, Zoöl. 240..	2(1-3)	Human Parasitology, Zoöl. 218....	3(3-0)
Field Zoölogy, Zoöl. 205.....	3(1-6)	Zoölogical Technic, Zoöl. 206....	1 or 2(-)
Heredity and Eugenics, Zoöl. 216..	2(2-0)	Zoöl. and Ent. Seminar, Zoöl. 225,	1(1-0)
Problems in Zoölogy, Zoöl. 203....	Cr. Ar.	Genetics Seminar, Zoöl. 207.....	1(1-0)

13. Geology

The basic courses are Geol. 103, 203, and 209. Students who expect to major in geology should take these three courses as early in their collegiate careers as possible.

Engineering Geology, Geol. 102....	4(3-3)	General Geology, Geol. 103.....	3(3-0)
Economic Geology, Geol. 207.....	4(3-3)	Historical Geology, Geol. 203....	4(3-3)
Crystal. and Mineralogy, Geol. 209,	4(2-6)	Physiographic Geol., Geol. 110....	3(3-0)
Invert. Paleontology, Geol. 220....	4(3-3)	Structural Geology, Geol. 215....	4(3-3)
Prin. of Geography, Geol. 240.....	3(3-0)	Vert. Paleontology, Geol. 255....	3(3-0)
Optical Mineralogy, Geol. 234.....	4(2-6)	Field Meth. in Geology, Geol. 230,	3(1-6)

14. Entomology

Students majoring in entomology, with due regard for prerequisites, should take Ent. 203, 211, 212, 231, 216, 217, 218, 226, 206, 221, and 238, and preferably in this order.

Gen. Entomology, Ent. 101.....	3(3-0)	Prin. of Taxonomy, Ent. 216.....	1(1-0)
Gen. Econ. Entomology, Ent. 203.	3(2-3)	Taxonomy of Insects I, Ent. 217...	2(0-6)
Extl. Insect Morphology, Ent. 211,	3(1-6)	Taxonomy of Insects II, Ent. 218,	3(0-9)
Intl. Insect Morphology, Ent. 212,	3(0-9)	Adv. Gen. Entomology, Ent. 221...	3(3-0)
Ent. and Zoöl. Literature, Ent. 231,	2(2-0)	Staple Crop Entomology, Ent. 206,	3(2-3)
Medical Entomology, Ent. 226.....	3(2-3)	Entom. Problems, Ent. 238.....	2 to 4 hrs.
Advanced Apiculture, Ent. 229....	3(2-3)	General Apiculture, Ent. 208.....	3(2-3)
		Insect Physiology, Ent. 240.....	3(3-0)

15. History, Government, and Law

To prepare for teaching history in high school the student should have at least fifteen hours of college history following two years of history in high school or its equivalent in college. The advice of the head of the department should be followed in each case.

Ancient Civilizations, Hist. 101....	3(3-0)	Medieval Europe, Hist. 102.....	3(3-0)
English History, Hist. 121.....	3(3-0)	Current History, Hist. 126.....	1(1-0)
American History I, Hist. 201....	3(3-0)	Am. Indust. History, Hist. 105....	3(3-0)
American History II, Hist. 202....	3(3-0)	American History III, Hist. 203...	3(3-0)
American Agr'l History, Hist. 204..	3(3-0)	Latin America, Hist. 208.....	3(3-0)
Modern Europe I, Hist. 115.....	3(3-0)	Modern Europe II, Hist. 223.....	3(3-0)
The Far East, Hist. 236.....	3(3-0)	20th Century Europe, Hist. 234...	3(3-0)
Hist. of Com. and Ind., Hist. 110,	3(3-0)	The British Empire, Hist. 226....	2(2-0)
Am. Political Parties, Hist. 206....	2(2-0)	History of the Home, Hist. 225...	3(3-0)
Immig. and Intern'l Rel., Hist. 228,	2(2-0)	International Law, Hist. 256.....	2(2-0)
Am. Government, Hist. 151.....	3(3-0)	Gov't Regulation of Bus., Hist. 260,	2(2-0)
Am. Nat'l Government, Hist. 152...	3(3-0)	Am. State Government, Hist. 153..	3(3-0)
Comp. Government, Hist. 252.....	2(2-0)	History of Religions, Hist. 231....	2(2-0)
Farm Law, Hist. 175.....	2(2-0)	Business Law II, Hist. 164.....	3(3-0)
Business Law I, Hist. 163.....	3(3-0)	International Law, Hist. 256.....	2(2-0)
Land Law, Hist. 276.....	2(2-0)		

16. Economics and Sociology

Some of the subjects in this list are required in the several curriculums of the institution, and the others are available as electives if any prerequisites have been satisfied.

Economics I, Econ. 101.....	3(3-0)	Labor Problems, Econ. 234.....	3(3-0)
Economics II, Econ. 104.....	3(3-0)	Property Insurance, Econ. 242.....	2(2-0)
Money and Banking, Econ. 116....	3(3-0)	Life Insurance, Econ. 244.....	2(2-0)
Business Management, Econ. 126..	2(2-0)	Marketing, Econ. 246.....	3(3-0)
Economic Systems, Econ. 210.....	2(2-0)	Problems in Economics, Econ. 248,	Cr. Ar.
Public Finance, Econ. 214.....	3(3-0)	Sociology, Econ. 151.....	3(3-0)
Business Finance, Econ. 217.....	3(3-0)	Social Pathology, Econ. 258.....	3(3-0)
Corp. Org. and Finance, Econ. 219,	2(2-0)	Com. Org. and Lead., Econ. 267..	3(3-0)
Investments, Econ. 222.....	3(3-0)	Adv. Sociology, Econ. 273.....	3(3-0)
Credits and Collections, Econ. 223,	2(2-0)	Hist. Soc. Thought., Econ. 277....	3(3-0)
International Trade, Econ. 224....	2(2-0)	Problems in Sociology, Econ. 279..	Cr. Ar.
Prin. of Transportation, Econ. 230,	3(3-0)		

17. Accounting

Accounting I, Econ. 133.....	3(2-3)	Tax Accounting, Econ. 286.....	3(3-0)
Accounting II, Econ. 134.....	3(2-3)	Cost Accounting, Econ. 287.....	3(3-0)
Valuation Accounting, Econ. 280...	3(3-0)	Adv. Cost Accounting, Econ. 288..	2(2-0)
Advanced Accounting, Econ. 281...	3(3-0)	Government Accounting, Econ. 289,	2(2-0)
Institutional Accounting, Econ. 284,	2(2-0)	Auditing, Econ. 290.....	2(2-0)

18. Education and Psychology

Students desiring to qualify for the state teacher's certificate based on graduation from a four-year curriculum should take Educ. 184 and Educ. 109, 163, and 210. Advice should be obtained from the head of the Department of Education in respect to additional courses necessary. See, also, "Education" in this catalogue for information concerning certificates.

Gen. Psychology, Educ. 184.....	3(3-0)	Principles of Secondary Education, Educ. 236	3(3-0)
School Management, Educ. 107....	3(3-0)	Educ. Psychology, Educ. 239.....	3(3-0)
Educational Psychology, Educ. 109,	3(3-0)	The Psychology of Childhood and Adolescence, Educ. 250.....	3(3-0)
Methods of Teaching, Educ. 111..	3(3-0)	Abnormal Psychology, Educ. 254..	3(3-0)
Teach. Participation in Grade School, Educ. 129.....	1(1-0) to 4(4-0)	Adv. Gen. Psychology, Educ. 257..	3(3-0)
Meth. of Teaching Home Economics, Educ. 132.....	3(3-0)	Experimental Psychology, Educ. 259	3(3-0)
Meth. of Teach. Agric., Educ. 136,	3(3-0)	Mental Tests, Educ. 260.....	3(3-0)
Teach. Participation in High School, Educ. 163.....	1(1-0) to 4(4-0)	Psyc. of Excep. Children, Educ. 266,	3(3-0)
Rural Life and Educ., Educ. 201..	3(3-0)	Animal Psychology, Educ. 269....	3(3-0)
Extracur. Activities, Educ. 202....	3(3-0)	Social Psychology, Educ. 270.....	3(3-0)
Educ. Admin., Educ. 210.....	3(3-0)	Psychology of Art, Educ. 276....	3(3-0)
Educ. Measurements, Educ. 212....	3(3-0)		
Statist. Meth. Applied to Education, Educ. 223	3(3-0)		

20. Industrial Journalism

While those who wish to give much attention to journalism will choose the curriculum in industrial journalism, many in other curriculums desire some training in this field. Selection from the following list may be made in so far as the prerequisites permit.

Jour. Vocations, Ind. Jour. 140....	2(2-0)	News Bureau Methods, Ind. Jour. 183	2(2-0)
Elem. Journalism, Ind. Jour. 152..	3(3-0)	Contemp. Thought, Ind. Jour. 255,	3(3-0)
Radio Writing, Ind. Jour. 162....	2(2-0)	Materials of Jour., Ind. Jour. 265,	2(2-0)
Industrial Writing, Ind. Jour. 164..	3(3-0)	Magazine Features, Ind. Jour. 270,	2(2-0)
Ind. Feat. Writing, Ind. Jour. 167..	2(2-0)	Jour. Surveys, Ind. Jour. 278.....	2(0-6)
Jour. for Women, Ind. Jour. 172..	2(2-0)	Current Periodicals, Ind. Jour. 287,	3(3-0)
Prin. of Advertising, Ind. Jour. 178,	4(4-0)		
Rural Press, Ind. Jour. 181.....	2(2-0)		

23. Music

Students in the various curriculums are permitted to study theoretical or applied music, but the acceptability for elective credit of work in voice or instrumental music is contingent upon the attainment of an effective degree of proficiency.

APPLIED MUSIC

Instrument, Mus. 153.....	0-4 hours	Double Bass, Mus. 167.....	0-4 hours
Voice, Mus. 156.....	0-4 hours	Organ, Mus. 172.....	0-4 hours
Violin, Mus. 158.....	0-4 hours	Choral Ensemble, Mus. 194.....	½(0-2)
Piano, Mus. 161.....	0-4 hours	Orchestra, Mus. 195.....	½(0-2)
Violoncello, Mus. 163.....	0-4 hours	Band, Mus. 198.....	½(0-2)

THEORETICAL MUSIC

Harmony I, Mus. 101.....	2(2-0)	Harmony II, Mus. 102.....	2(2-0)
Harmony III, Mus. 103.....	2(2-0)	Harmony IV, Mus. 104.....	2(2-0)
Counterpoint, Mus. 108A.....	2(2-0)	Mus. Form and Analysis, Mus. 111,	1(1-0)
Hist. and Apprec. of Music I, Mus. 130	2(2-0)	Hist. and Apprec. of Music II, Mus. 131	2(2-0)
School Music I, Mus. 138.....	2(2-0)	School Music II, Mus. 139.....	2(2-0)
Instrn. and Orchestrn., Mus. 136..	3(3-0)	School Music III, Mus. 143.....	2(2-0)

25. Military Science and Tactics

Men who have completed the basic course in infantry may elect the advanced course if approved by the dean and the head of the Department of Military Science and Tactics.

Infantry V. Mil. Sc. 109.....	3(2-3)	Infantry VII, Mil. Sc. 111.....	3(2-3)
Infantry VI, Mil. Sc. 110.....	3(2-3)	Infantry VIII, Mil. Sc. 112.....	3(2-3)

26. Physical Education and Athletics

In connection with the required work or after its completion, students may elect courses in physical education. The courses listed below, and others on the advice of the head of the department, are available.

FOR MEN

Intro. to Phys. Ed., Phys. Ed. 107,	1(1-0)	Phys. Ed. Act. II, Phys. Ed. 138..	2(0-6)
First Aid and Massage, Phys. Ed.		Phys. Ed. Act. III, Phys. Ed. 139,	2(0-6)
113A	3(3-0)	Phys. Ed. Act. IV, Phys. Ed. 140,	1(0-3)
Personal Hygiene, Phys. Ed. 119..	2(2-0)	Track and Field Spts., Phys. Ed.	
Swimming M, Phys. Ed. 120.....	1(0-3)	140A	2(1-3)
Physiol. of Exercise, Phys. Ed. 123,	2(2-0)	Kinesiology, Phys. Ed. 141B.....	3(3-0)
Phys. Diag. and Pres., Phys. Ed.		Pub. Sch. Prog. in Phys. Ed., Phys.	
124A	3(3-0)	Ed. 142	2(2-0)
Football, Phys. Ed. 126.....	2(1-3)	Nature and Fcn. of Play, Phys. Ed.	
Baseball, Phys. Ed. 133.....	2(1-3)	145	2(2-0)
Phys. Ed. Act. I, Phys. Ed. 137...	1(0-3)	Teaching Health, Phys. Ed. 149...	2(2-0)
		Community Recreation, Phys. Ed.	
		203	2(2-0)

FOR WOMEN

The following courses are available after completing the two years of required work:

Fundamental Rhythms, Phys. Ed.		Gen. Tech. VII, Phys. Ed. 157G..	2(1-3)
155	1(0-3)	Gen. Tech. VIII, Phys. Ed. 157H,	2(1-3)
Gen. Tech. I, Phys. Ed. 157A.....	2(1-3)	Prin. Health Educ., Phys. Ed. 163,	3(3-0)
Gen. Tech. II, Phys. Ed. 157B....	2(1-3)	Playgr. Man. and Games, Phys.	
Gen. Tech. III, Phys. Ed. 157C....	2(1-3)	Ed. 182A	2(1-3)
Gen. Tech. IV, Phys. Ed. 157D....	2(1-3)	Adult Recreation, Phys. Ed. 183..	2(2-0)
Gen. Tech. V, Phys. Ed. 157E....	2(1-3)	Teach. and Adapt. of Phys. Ed.,	
Gen. Tech. VI, Phys. Ed. 157F....	2(1-3)	Phys. Ed. 188	3(3-0)
		Hist. and Prin. of Phys. Ed., Phys.	
		Ed. 192	3(3-0)

27. Public Speaking

Courses covering various aspects of public speech are open after completing any prerequisites. The head of the department should be consulted for advice as to the individual needs.

Extem. Speech I, Pub. Spk. 106...	2(2-0)	Extem. Speech II, Pub. Spk. 108..	2(2-0)
Oral Interpretation, Pub. Spk. 101,	2(2-0)	Dramatic Reading, Pub. Spk. 102,	2(2-0)
Parl. Proceed., Pub. Spk. 126.....	1(1-0)	Dramatic Produc. II, Pub. Spk. 135,	2(2-0)
Dramatic Produc. I, Pub. Spk. 130,	2(2-0)	Advanced Debate, Pub. Spk. 222..	2(2-0)
Argum. and Debate, Pub. Spk. 121,	2(2-0)	The Public Program, Pub. Spk. 225,	2(2-0)

30. Social Science

(Political and Social History, Government, Economics, and Sociology.)

In the curriculum in industrial journalism students are required to elect ten hours in a social science option. The following list includes some subjects, and many more are offered by the several departments. See, also, groups 15 and 16.

American History I, Hist. 201.....	3(3-0)	Am. Hist. II or III, Hist. 202 or	
Am. Pol. Parties, Hist. 206.....	2(2-0)	203	3(3-0)
Am. Natl. Government, Hist. 152,	3(3-0)	Am. State Government, Hist. 153..	3(3-0)
Latin America, Hist. 208.....	3(3-0)	Modern Europe I, Hist. 115.....	3(3-0)
Money and Banking, Econ. 116...	3(3-0)	Modern Europe II, Hist. 223.....	3(3-0)
Business Finance, Econ. 217.....	3(3-0)	English History, Hist. 121.....	3(3-0)
Markt. of Farm Prod., Econ. 202,	3(3-0)	Economics I, Econ. 101.....	3(3-0)
Agric. Land Probs., Econ. 218.....	3(3-0)	Public Finance, Econ. 214.....	3(3-0)
Labor Problems, Econ. 234.....	3(3-0)	Sociology, Econ. 151.....	3(3-0)

31. Applied Science

Students in the curriculum of industrial journalism who do not wish to elect subjects directly related to a single industry are permitted to elect sciences that support industries and subjects that involve applications of the sciences, in so far as they have satisfied requirements as to prerequisites.

General Botany I, Bot. 101.....	3(1-6)	General Botany II, Bot. 105.....	3(1-6)
Plant Pathology I, Bot. 205.....	3(1-6)	Field Crop Diseases, Bot. 241....	3(1-6)
Fruit Crop Diseases, Bot. 202.....	2(1-3)	Plant Ecology, Bot. 228.....	2(2-0)
Farm Forestry, Hort. 114.....	3(2-3)	Nature and Dev. of Plants, Bot. 110,	3(3-0)
Seed Iden. and Weed Cont., Agron.		El. of Horticulture, Hort. 107....	3(2-3)
105	2(1-3)	Small Fruits, Hort. 110.....	2(2-0)
General Zoölogy, Zoöl. 105.....	5(3-6)	General Microbiology, Bact. 101...	3(1-6)
Parasitology, Zoöl. 208.....	3(2-3)	Staple Crop Ent., Ent. 206.....	3(2-3)
Landscape Gardening I, Hort. 125,	3(3-0)	General Apiculture, Ent. 208.....	3(2-3)
Hygienic Bacteriology, Bact. 206...	4(2-6)	Ap. Nutrition, Food and Nutr. 121,	2(2-0)
Gen. Entomology, Ent. 101.....	3(3-0)	General Geology, Geol. 103.....	3(3-0)
Gen. Economic Ent., Ent. 203.....	3(2-3)	Historical Geology, Geol. 203....	4(3-3)
Hort. Entomology, Ent. 201.....	2(2-0)	Household Physics, Phys. 109.....	4(3-3)
Elem. Org. Chemistry, Chem. 123,	3(2-3)	Descriptive Physics, Phys. 136....	3(3-0)
Dairy Chemistry, Chem. 254.....	3(1-6)	Descriptive Astronomy, Phys. 141,	3(3-0)
Economics Geology, Geol. 207.....	4(3-3)	Meteorology, Phys. 146.....	3(3-0)
Human Nutrition, Food and Nutr.		Photography, Phys. 151.....	2(1-3)
112	3(3-0)	Principles of Geography, Geol. 240,	3(3-0)
Physiographic Geol., Geol. 110....	3(3-0)	Vertebrate Paleontology, Geol. 255,	3(3-0)
Crystal. and Mineralogy, Geol. 209,	4(2-6)		

32. Home Economics

This group is suggested for women in the curriculum in industrial journalism. It states the fundamental subjects in the three lines, food, clothing, and applied art. The required option related to an industry may be satisfied by fifteen hours in one or more of these lines. Additional subjects in each line are described in the department sections of the catalogue. Prerequisites count on the group requirement.

Elementary Design I, Art 101A...	2(0-6)	Clothing for the Ind., Clo. and	
Principles of Art I, Art 124.....	3(3-0)	Text. 103	4(1-9)
Principles of Art II, Art 125.....	3(3-0)	Foods I, Food and Nutr. 102.....	5(3-6)
Costume Design I, Art 130.....	2(0-6)	Applied Nutrition, Food and	
Child Guidance, Child Welf. 201..	3(1-6)	Nutr. 121	2(2-0)
The Family, Child Welf. 216.....	2(2-0)	The House, Household Econ. 107,	3(2-3)
		Econ. of Household, Household	
		Econ. 265.....	2(2-0)

35. Agriculture

This group, compiled for the use of young men who elect the agriculture option in connection with their work in industrial journalism, gives the basic subjects in some agricultural lines. Subjects for which these are prerequisite are also acceptable. See the expositions of the work of the several departments in the Division of Agriculture.

General Botany I, Bot. 101.....	3(1-6)	General Botany II, Bot. 105.....	3(1-6)
Plant Pathology I, Bot. 205.....	3(1-6)	El. of Horticulture, Hort. 107....	3(2-3)
Farm Poultry Prod., Poult. Husb.		Dairy Cattle Judging, Dairy Husb.	
101	2(1-3)	104	1(0-3)
El. of An. Husb., An. Husb. 125..	3(2-4)	Prin. of Feeding, An. Husb. 152..	3(3-0)
El. of Dairying, Dairy Husb. 101..	3(2-3)	Field Crop Diseases, Bot. 241....	3(1-6)
Elem. Org. Chemistry, Chem. 123,	3(2-3)	Farm Crops, Agron. 101.....	4(2-6)
Soils, Agron. 130.....	4(3-3)	Genetics, An. Husb. 221.....	3(3-0)

36. Drawing and Art

Students in industrial journalism, with due regard for prerequisites, may elect fifteen hours from this group in order to fulfill the requirement in respect to subjects related to an industry.

Freehand Drawing I, Arch. 112...	2(0-6)	Elementary Design II, Art 101B...	2(0-6)
Freehand Drawing II, Arch. 113..	2(0-6)	Design in Crafts, Art 102.....	2(0-6)
Pen. Rend. and Sketch., Arch. 116,	2(0-6)	Intermediate Design, Art 103.....	2(0-6)
Still-life Drawing, Arch. 117.....	2(0-6)	Advanced Design, Art 105.....	2(0-6)
Water Color I, Arch. 118.....	2(0-6)	Art of Southwest Indians, Art 111,	1(1-0)
Water Color II, Arch. 119.....	2(0-6)	Interior Decoration I, Art 113....	2(0-6)
Life Drawing I, Arch. 121.....	2(0-6)	Interior Decoration II, Art 115...	2(0-6)
Life Drawing II, Arch. 123.....	2(0-6)	Interior Decoration III, Art 117..	2(0-6)
Domestic Architecture, Arch. 124..	2(2-0)	Drawing I, Art 120.....	2(0-6)
Apprec. of Arch., Arch. 125.....	3(3-0)	Principles of Art I, Art 124.....	3(3-0)
Clay Modeling, Arch. 133.....	2(0-6)	Principles of Art II, Art 126.....	3(3-0)
Pen and Ink Drawing, Arch. 134..	2(0-6)	Lettering, Art 127.....	2(0-6)
Block Prints, Arch. 137.....	2(0-6)	Costume Design I, Art 130.....	2(0-6)
Commercial Illus. I, Arch. 165....	2(0-6)	Costume Design II, Art 134.....	2(0-6)
Commercial Illus. II, Arch. 170....	2(0-6)	Costume Design III, Art 138.....	2(0-6)
Hist. Paint. and Sculp., Arch. 179,	3(3-0)	Costume Illustration, Art 139....	2(0-6)
Adv. Freehand Drawing, Arch. 201,	2-5 hrs.	Problems in Design, Art 220.....	2(0-6)
Etching, Arch. 217.....	2(0-6)	Problems in Interior Decoration,	
Oil Painting, Arch. 230	2-5 hrs.	Art 232	2(0-6)
Elementary Design I, Art 101A...	2(0-6)	Historic Textiles Design, Art 233..	2(0-6)
		Problems in Costume Design, Art	
		235	2(0-6)

37. Manual and Industrial Arts

Students preparing to teach industrial arts will require credit in at least fifteen hours in that line. Fifteen hours may also be chosen from the group by students in industrial journalism in satisfaction of the option related to an industry: Prerequisites must be observed.

Farm Buildings, Agric. Engr. 101..	3(2-3)	Woodwork IV, Shop 140.....	2(0-6)
Farm Machinery, Agric. Engr. 108,	3(2-3)	Farm Carpentry I, Shop 147.....	3(1-6)
Gas Eng. and Tract., Agric. Engr.		Forging, Shop 150.....	1(0-3)
130	3(2-3)	Farm Blacksmithing I, Shop 157..	1(0-3)
Surveying I, Civ. Engr. 102.....	2(0-6)	Farm Blacksmithing II, Shop 158..	1(0-3)
Engr. Drawing, Mach. Des. 101...	2(0-6)	Foundry Production, Shop 161....	1(0-3)
Des. Geom., Mach. Des. 106.....	2(0-6)	Metallurgy, Shop 165.....	2(2-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	Metallography I, Shop 167.....	1(0-3)
Engr. Woodwork, Shop 101.....	1(0-3)	Machine Tool Work I, Shop 170..	2(0-6)
Ele. Crafts for Teachers, Shop 117,	2(0-6)	Sheet Metal Work, Shop 173....	2(0-6)
Reed Furn. Const., Shop 119.....	2(0-6)	Farm Shop Methods, Shop 175....	3(1-6)
Woodwork I, Shop 120.....	2(0-6)	Machine Tool Work II, Shop 192..	2(0-6)
Woodwork II, Shop 125.....	2(0-6)	Machine Tool Work III, Shop 193,	1(0-3)
Woodwork III, Shop 130.....	2(0-6)	Adv. Shop Practice, Shop 261.....	Cr. Ar.
Woodturning, Shop 135.....	2(0-6)		

38. Printing

Students in industrial journalism may elect fifteen hours from this group in order to fulfill the requirement in respect to subjects related to an industry, or they may elect courses in this group to satisfy elective requirements, choosing not fewer than eight hours.

Ad. Composition I, Ind. Jour. 108,	2(0-6)	Ad. Composition II, Ind. Jour. 111,	2(0-6)
Ad. Composition III, Ind. Jour. 112,	2(0-6)	Job Composition I, Ind. Jour. 114,	2(0-6)
Job Composition II, Ind. Jour. 118,	2(0-6)	Job Composition III, Ind. Jour. 120,	2(0-6)
Press Work I, Ind. Jour. 122.....	2(0-6)	Press Work II, Ind. Jour. 126.....	2(0-6)

39. Radio Broadcasting

Students considering an option in radio broadcasting must consult the head of the Department of Public Speaking and arrange for a microphone test, before enrolling in any of the broadcasting courses.

Radio Writing, Ind. Jour. 162.....	2(2-0)	Hist. and Apprec. of Mus. II,	
Radio Advertising, Ind. Jour. 179..	3(3-0)	Mus. 131	2(2-0)
Broadcasting Station Practice, Ind.		Radio Program Partic., Pub. Spk.	
Jour. 180	1(0-3)	168	1(0-3)
Elements of Broadcasting, Pub.		Phonetics, Pub. Spk. 201.....	4(3-3)
Spk. 161	3(2-3)	Radio Continuity, Pub. Spk. 230..	2(2-0)
Broadcast Musical Programs, Mus.		Radio Program Production, Pub.	
119	2(3-0)	Spk. 231.....	2(1-3)
Hist. and Apprec. of Mus. I, Mus.		Problems in Broadcasting, Pub.	
130	2(2-0)	Spk. 232.....	Cr. Ar.

40. Milling Industry

Students in general science or industrial chemistry may elect work in milling industry for which they have taken the prerequisites.

Milling Practice I, Mill. Ind. 109..	3(1-6)	El. of Milling, Mill. Ind. 101.....	2(1-3)
Wheat and Flour Testing, Mill. Ind. 205	3(0-9)	Flow Sheets, Mill. Ind. 103.....	2(0-6)
Advanced Wheat and Flour Testing, Mill. Ind. 210.....	1 to 5(-)	Milling Practice II, Mill. Ind. 111,	3(1-6)
Farm Crops, Agron. 101.....	4(2-6)	Mill. Qual. of Wheat, Mill. Ind. 212	3(3-0)
Grain Marketing, Econ. 203.....	3(3-0)	Exper. Baking, Mill. Ind. 206....	3(1-6)
Quantitative Analysis A, Chem. 250,	3(1-6)	Grain Grad. and Judging, Agron. 108	2(0-6)
Elem. Org. Chemistry, Chem. 123..	3(2-3)	Quant. Analysis B, Chem. 251.....	3(1-6)
Milling Technology I, Mill. Ind. 201	2(0-6)	The Chem. of Proteins, Chem. 236A,	3(2-3)
Probs. in Milling, Mill. Ind. 214..	Cr. Ar.	Milling Technology II, Mill. Ind. 202	2(0-6)
		Colloidal Chemistry, Chem. 213...	2(2-0)

42. Personnel Management

Students who desire specific training for personnel and executive work should elect Educ. 273 and Econ. 126, 234, and 267, along with such other courses from the following group as may seem desirable.

Economics II, Econ. 104.....	3(3-0)	Vocational Education, Educ. 241..	3(3-0)
Business Management, Econ. 126..	2(2-0)	Mental Tests, Educ. 260.....	3(3-0)
Principles of Accounting, Econ. 136,	3(3-0)	Technic of Mental Testing, Educ. 261	3(1-6)
Corporation Organization and Finance, Econ. 219.....	2(2-0)	Psych. of Adv. and Selling, Educ. 265	3(3-0)
Labor Problems, Econ. 234.....	3(3-0)	Social Psychology, Educ. 270....	3(3-0)
Social Pathology, Econ. 258.....	3(3-0)	Psych. of Personnel Mgmt., Educ. 273	3(3-0)
Com. Org. and Lead., Econ. 267..	3(3-0)		
Advanced Sociology, Econ. 273....	3(3-0)		
Vocational Guidance, Educ. 230A..	3(3-0)		
Stat. Meth. App. to Educ., Educ. 233	3(3-0)		

44. Social Welfare Work

Economics I, Econ. 101.....	3(3-0)	Psych. of Pers. Mgmt., Educ. 273,	3(3-0)
Economics II, Econ. 104.....	3(3-0)	Personal Health, Child Welf. 101..	2(2-0)
Sociology, Econ. 151.....	3(3-0)	Child Guidance I, Child Welf. 201,	3(1-6)
Rural Sociology, Econ. 156.....	3(3-0)	Child Guidance II, Child Welf. 206,	3(3-0)
Labor Problems, Econ. 234.....	3(3-0)	Family Health, Child Welf. 211...	3(3-0)
Social Pathology, Econ. 258.....	3(3-0)	The Family, Child Welf. 216.....	2(2-0)
Com. Org. and Lead., Econ. 267..	3(3-0)	Clo. for the Ind., Clo. and Text. 103,	4(1-9)
Advanced Sociology, Econ. 273....	3(3-0)	Clo. Selection, Clo. and Text. 110,	2(2-0)
General Psychology, Educ. 184....	3(3-0)	Foods I, Food and Nutr. 102.....	5(3-6)
The Psychology of Childhood and Adolescence, Educ. 250.....	3(3-0)	The House, Household Econ. 107..	3(2-3)
Abnormal Psychology, Educ. 254..	3(3-0)	Home Mgmt., Household Econ. 116,	3(1-6)
Social Psychology, Educ. 270.....	3(3-0)	Heredit and Eugenics, Zool. 216..	2(2-0)

Bacteriology

Professor BUSHNELL
Professor GAINNEY
Assistant Professor FOLTZ
Assistant Professor NELSON

Instructor TWIEHAUS
Instructor McCALLA
Student Assistant TANNER

Bacteriology is presented as a biological science and as a practical factor in everyday life. Only the simplest forms of life, consisting almost invariably of one-celled organisms, are studied. It is now possible to study these microscopical forms with ease and accuracy, thus paving the way for a more complete study and better understanding of cells in the aggregate. The second point of view is that of its application in agriculture, medicine, home economics, and sanitation.

COURSES IN BACTERIOLOGY

FOR UNDERGRADUATE CREDIT

101. GENERAL MICROBIOLOGY. 3(1-6)*; I, II, and SS. Prerequisite: Chem. 110, or 103 and 104. Staff.

Morphological and biological characters, classification and distribution of bacteria, factors necessary for the development of bacteria, culture media, cultural features, staining values, and fundamental principles of applied bacteriology.

Laboratory.—The student prepares culture media and becomes familiar with principles of sterilization and incubation, and with general laboratory technic. Deposit, \$8.

111, 116. PATHOGENIC BACTERIOLOGY I AND II. 4(2-6) each; II and I, respectively. Courses designed especially for students in veterinary medicine. Prerequisite: Chem. 122. Bushnell, Twiehaus, McCalla.

Fundamental principles of bacteriology as applied to veterinary medicine. Deposit, \$8 for each course.

125. WATER AND SEWAGE BACTERIOLOGY. 2(0-6); I. Prerequisite: Chem. 108. Gainey.

Fundamentals of water purification and sewage disposal, as affected by microorganisms; analyses of water supplies; microbial changes involved in the disposal of sewage. Deposit, \$5.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. SOIL MICROBIOLOGY. 3(3-0); II. Prerequisite: Bact. 101. Gainey.
Influences of soil upon the activities of soil microorganisms.

204. SOIL MICROBIOLOGY LABORATORY. 2(0-6); II. Prerequisite: Bact. 202 or concurrent registration. Gainey.

Plot experiments and field work illustrative of theories developed in course 202. Deposit, \$8.

206. HYGIENIC BACTERIOLOGY. 4(2-6); I. Prerequisite: Bact. 101. Offered in 1939-'40 and in alternate years thereafter. Bushnell.

Pathogenic bacteria and their effect upon human health and diseases. Deposit, \$8.

211. DAIRY BACTERIOLOGY. 3(1-6); II. Prerequisite: Bact. 101 or 111. Nelson.
Bacterial flora and their effects in milk, butter, and cheese; laboratory practice to accompany the theory. Deposit, \$8.

217. POULTRY DISEASES. 2(2-0); II. Prerequisite: Bact. 116 and Surg. and Med. 163. Bushnell, Twiehaus.

Anatomy of fowls; poultry sanitation and hygiene; infectious and noninfectious diseases of fowls; parasites; minor surgery.

218. POULTRY SANITATION.* 3(2-3); II. Prerequisite: Bact. 101 or 111, Twiehaus.

Methods for control of poultry diseases. Deposit, \$3.

222. PHYSIOLOGY OF MICROÖRGANISMS. 3(3-0); II. Prerequisite: Bact. 101 or 111. Offered in 1938-'39 and in alternate years thereafter. Nelson.

Chemistry and physics of microbial processes.

225. BACTERIOLOGICAL TECHNIC. 3(0-9); I. Prerequisite: Bact. 101 or 111. Offered in 1938-'39 and in alternate years thereafter. Gainey.

Technic of laboratory manipulation; fundamental experiments and special experiments selected according to the interest of the student. Deposit, \$5.

229. ADVANCED SEROLOGY. 5(3-6); II. Prerequisite: Bact. 206. Offered in 1939-'40 and in alternate years thereafter. Bushnell.

Theories of immunity and immunization; preparation, purification, and standardization of the various biological products used in human and veterinary medicine. Laboratory arranged according to the material available. Deposit, \$8.

235. BACTERIOLOGY OF BUTTER CULTURES. 1(0-3); I. Prerequisite: Bact. 211. Nelson.

Bacteriological and chemical aspects of butter cultures.

270. PROBLEMS IN BACTERIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Bact. 101, 111, or 116. Staff.

Special problems assigned, credit depending upon the amount and quality of work done. Deposit, \$3 per credit hour.

275. BACTERIOLOGY SEMINAR. 1(1-0); I and II. For prerequisite, consult professor in charge. Bushnell.

Papers and discussions on various phases of current research work in bacteriology, serology, and related subjects. Graduate students in this department may be assigned to this subject for credit; others interested may visit the meetings at any time by making proper arrangements.

FOR GRADUATE CREDIT

301. RESEARCH IN BACTERIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Properly qualified students admitted to this course upon approval of the department head; opportunity to do experiment station and research work during vacation periods; problems for students working toward an advanced degree; upon completion, results presented in form of a thesis which, when accepted, fulfills part of the requirements for the master's degree or doctor's degree. Deposit, \$3 per credit hour.

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week, and the second shows the number of hours to be spent in laboratory work each week. I, II, and SS indicate that the course is given the first semester, the second semester, and summer school, respectively.

* Effective January 31, 1938.

Botany and Plant Pathology

Professor MELCHERS
Professor MILLER
Professor DAVIS
Professor HAYMAKER
Professor GATES

Associate Professor ELMER
Assistant Professor NEWCOMB
Instructor KINGSLEY
Instructor BATES
Instructor FRAZIER

Instructor CREAGER
Graduate Assistant AITKEN
Graduate Assistant BURT

The instruction given in the Department of Botany and Plant Pathology has a three-fold purpose: To give a training in botany for the general broadening of the student's knowledge; to give a training in the knowledge of plants that will serve as a foundation for the student's further college courses in agricultural subjects; and to instruct and direct those students who desire to investigate such problems in plant life as affect agriculture. Investigations may be undertaken in any of the major fields of botany.

COURSES IN BOTANY

FOR UNDERGRADUATE CREDIT

101, 105. GENERAL BOTANY I and II. 3(1-6), each; I and SS, and II and SS, respectively. Staff.

I: The principal life processes of plants, such as photosynthesis, digestion, respiration, transpiration, and growth; the responses of plants to environmental conditions and physical stimuli; and the anatomy of the plant.

II: The significance of plant morphology to the allied branches of botany, plant physiology, taxonomy and ecology; the economic importance of the fungi and other pathogenic plants; the evolution of plants, as developed by morphological criteria.

Laboratory.—I: A series of typical experiments followed out in the laboratory and in the greenhouse. Charge, \$3.50.

II: Study of the morphology of the typical representatives of the great groups of the plant kingdom, ecological factors which affect plants, and plant identification under both winter and summer conditions by use of an identification key. Charge, \$3.50.

110. NATURE AND DEVELOPMENT OF PLANTS. 3(3-0); II and SS. Haymaker.

A general survey of the plant kingdom emphasizing structure, life processes, identification classification, evolutionary development, geographical distribution, economic importance, etc.

126. MEDICAL BOTANY. 2(1-3); I. Prerequisite: High-school botany or its equivalent. Gates.

The principal stock-poisoning plants of the range; habitat, poisonous properties, and methods of control and elimination of native poisonous plants. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. FRUIT CROP DISEASES. 2(1-3); I. Prerequisite: Bot. 205. Offered in 1939-'40 and in alternate years thereafter. Haymaker.

Diseases of major and minor fruit crops; cause, effect on host, control. Charge, \$2.

205. PLANT PATHOLOGY I. 3(2-3); I and SS. Prerequisite: Bot. 101 and 105. Melchers, Haymaker, Elmer.

Characteristics of important diseases of crops and the organisms causing them. Charge, \$2.

206. MORPHOLOGY OF THE FUNGI. 3(1-6); I. Prerequisite: Bot. 105. Offered in 1938-'39 and in alternate years thereafter. Creager.

Structure of slime molds, moldlike bacteria, and fungi studied to determine taxonomic relationships.

208. PLANT PHYSIOLOGY I. 3(3-0); I. Prerequisite: Bot. 101 and 105 and Chem. 103 and 104 or 110. Miller.

A detailed study of the plant cell, solutions and membranes in relation to the cell, root systems, intake of water, intake of solutes, elements used, and loss of water.

210. PLANT PHYSIOLOGY II. 3(1-6); II. Prerequisite: Bot. 208. Miller.

Methods used in obtaining experimental data in regard to the more common functions of plants. Charge, \$5.

211. PLANT PHYSIOLOGY III. 3(3-0); II. Prerequisite: Bot. 208. Miller.

A continuation of Bot. 208, including a detailed study of photosynthesis, nitrogen metabolism, fat metabolism, digestion, translocation, respiration, and growth.

212. PROBLEMS IN BOTANICAL INSTRUCTION. 3(2-3); SS. Prerequisite: Ten credit hours in botany or in courses of botanical nature. Haymaker.

Advanced work in the morphology, anatomy, physiology, taxonomy, and diseases of plants; technic in presenting botany to high-school and college students. Charge, \$2.

217. BOTANICAL MICROTECHNIC. 3(1-6); II. Prerequisite: Bot. 101 or 105.

Offered in 1939-'40 and in alternate years thereafter. Creager.

Principles and methods of preparing plant materials for histological or cytological study. Charge, \$3.

218. FIELD BOTANY. 3(2-3); SS. Prerequisite: Bot. 101 and 105. Hay-

maker.

Identification and classification of seed plants. Charge, \$2.

220. BOTANICAL SEMINAR. 1(1-0); I and II. Prerequisite: Consult head

of department.

Reports of investigational work or other matters of interest in the various branches of botany.

225. TAXONOMIC BOTANY OF THE FLOWERING PLANTS. 3(1-6); I. Prerequisite: Bot. 101 and 105. Gates.

Development of the systems of classification; identification of plants in the field and in the laboratory; considerations of orders and families of plants. Charge, \$2.

228. PLANT ECOLOGY. 2(2-0); II. Prerequisite: Bot. 101 and 105. Gates.

The structure and dynamics of vegetation. Field trips.

232. PROBLEMS IN BOTANY. Credit to be arranged; I, II, and SS. Prerequisite: Bot. 101 and 105, and approval of the head of the department. Staff.

Some special field of work not definitely represented by one of the undergraduate elective courses. Charge, \$2.

241. FIELD CROP DISEASES. 3(1-6); II. Prerequisite: Bot. 205. Offered in 1939-'40 and in alternate years thereafter. Melchers.

Diseases of cereal and forage crops; cause, effect on host, control. Breeding for disease resistance. Charge, \$2.

251. ANATOMY OF THE HIGHER PLANTS. 3(1-6); II. Prerequisite: Bot. 101 and 105. Offered in 1938-'39 and in alternate years thereafter. Newcomb.

A study of the structure and development of the various tissues and organs of the seed plants. Charge, \$3.

266. LITERATURE OF BOTANY. 2(2-0); I. Prerequisite: Bot. 205. Davis.

Current botanical publications, together with the classics of botanical literature; historical development of botany.

268. PLANT CYTOLOGY. 3(1-6); II. Prerequisite: Bot. 101 or Zoöl. 105. Offered in 1939-'40 and in alternate years thereafter. Newcomb.

Structure, development, and functions of the plant cell, with special reference to chromosome behavior and its bearing on genetic results. Charge, \$3.

FOR GRADUATE CREDIT

301. PLANT PATHOLOGY III. 3(1-6); I. Prerequisite: Bot. 205. Offered in 1938-'39 and in alternate years thereafter. Elmer.

A course in phytopathological technic. Charge, \$5.

310. RESEARCH IN BOTANY. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Individual research problems are assigned in the fields of plant pathology, plant physiology, taxonomy, ecology, cytology, anatomy, and mycology.

Chemistry

Professor KING
 Professor HUGHES
 Professor BRUBAKER
 Professor COLVER
 Professor FAITH
 Associate Professor KEITH
 Associate Professor VAN WINKLE
 Associate Professor BARHAM
 Associate Professor PERKINS
 Assistant Professor HALL
 Assistant Professor HARRISS
 Assistant Professor WHITNAH
 Assistant Professor LASH
 Assistant Professor MARLOW
 Assistant Professor SMITS
 Assistant Professor SHENK
 Assistant Professor CONRAD
 Assistant Professor GREENE

Instructor ANDREWS
 Instructor McDOWELL
 Instructor REED
 Instructor BENNE
 Instructor CALDWELL
 Instructor HOSTETTER
 Instructor DORF
 Instructor BEERS
 Instructor OLSEN
 Instructor FISHER
 Instructor HEDRICK
 Instructor MORRO
 Instructor NEAL
 Graduate Assistant DEVOR
 Graduate Assistant MELLIES
 Graduate Assistant GRUBB
 Graduate Assistant BRYAN
 Graduate Assistant HORNE

COURSES IN CHEMISTRY

FOR UNDERGRADUATE CREDIT

101. CHEMISTRY I. 5(3-6); I, II, and SS. Not open to students who have credit in Chem. 107, 108, or 110.

Beginning of the study of general chemistry. Deposit, \$10.

103. CHEMISTRY II RECITATION. 3(3-0); I, II, and SS. Not open to students who have credit in Chem. 108 or 110. Prerequisite: Chem. 101. Staff. Completion of the study of general chemistry.

104. CHEMISTRY II LABORATORY. 2(0-6); I, II, and SS. Not open to students who have credit in Chem. 108 or 110. Prerequisite: Chem. 103 or concurrent registration. Staff.

General principles of qualitative analysis. Deposit, \$10.

107, 108. CHEMISTRY E-I AND E-II. 4(3-3) each; I, II, and SS each. Not open to students who have credit in Chem. 101 or 103 and 104, respectively. Staff.

Similar content to Chem. 101, 103 and 104; with special emphasis on applications to engineering. Deposit, \$7.50 for each course.

110. GENERAL CHEMISTRY. 5(3-6); I and II. Not open to students having credit in any college courses in inorganic chemistry. Staff.

A general treatment of some of the principal laws and theories of chemistry; the important metallic and nonmetallic substances. Deposit, \$10.

122. GENERAL ORGANIC CHEMISTRY. 5(3-6); I, II, and SS. Prerequisite: Chem. 110. Staff.

General study of some of the more important classes of organic compounds. Deposit, \$10.

123. ELEMENTARY ORGANIC CHEMISTRY. 3(2-3); II. Prerequisite: Chem. 110. Harriss.

An elementary study of some of the more important organic compounds, with special emphasis on their toxicological and physiological properties. Deposit, \$7.50.

124. ORGANIC CHEMISTRY (AGR.). 3(2-3); I, II, and SS. Prerequisite: Chem. 103. Staff.

Fundamentals of organic chemistry, particularly fats, proteins, and carbohydrates. Deposit, \$7.50.

130. INSPECTION TRIP. R. Faith.

Such manufacturing centers as Kansas City, St. Louis, and Chicago are visited. The cost of the trip varies from about \$30 to not more than \$50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. INORGANIC PREPARATIONS. 1 credit for each 3 hours of laboratory; I, II, and SS. Prerequisite: Chem. 104. Brubaker.

Preparation and purification of some typical inorganic compounds, of those of more complex composition, and compounds of the rarer elements. Deposit, \$10.

203. INORGANIC CHEMICAL TECHNOLOGY. 5(3-6); I. Prerequisite: Chem. 206. Faith, Greene.

Problems of the chemical industries and manufacture; plant construction; chemical engineering operations. Deposit, \$10.

205. INDUSTRIAL ELECTROCHEMISTRY. 2(2-0); II. Prerequisite: Chem. 104 or 110 and Phys. 103 or 106. Faith.

206. PHYSICAL CHEMISTRY I. 5(3-6); I. Prerequisite: Chem. 220 and 241, and Math. 115. Students from other divisions may enroll without Math. 115. King, Hall, Shenk.

Relations with matter in the gaseous, liquid, and solid states; elementary principles of thermodynamics, solution phenomena, colloids, surface chemistry, and thermochemistry. Deposit, \$10.

207. ADVANCED INORGANIC CHEMISTRY. 3(3-0); I. Prerequisite: Chem. 104. Keith.

Facts of chemistry and their present theoretical interpretations; properties of the elements as a basis for methods of classification; the rarer elements and compounds. Students electing this course are advised to take Chem. 202.

208. HISTORY OF CHEMISTRY. 1(1-0); II. Prerequisite: Chem. 206. Olsen. Development of the principal laws and theories of chemistry; failures and triumphs of the founders of chemical science.

209. SURFACE TENSION AND RELATED PHENOMENA. 2(2-0); I and II. Prerequisite: Chem. 206. King.

Methods of measuring surface tension; surface energetics, relation of surface tension to adsorption; and colloidal formation.

211. PAINT OILS AND PIGMENTS. 2(2-0); I. Prerequisite: Chem. 122 and 104. King.

Extraction, purification, and properties of the oils commonly used in paints; manufacture and properties of paint pigments; the products employed as protective coverings for both wood and metal.

212. ORGANIC CHEMICAL TECHNOLOGY. 3(3-0); II. Prerequisite: Chem. 219 and 206. Faith.

Organic process industries, including oil refining, synthetic organic chemicals, cellulose, fats, and oils.

213. COLLOIDAL CHEMISTRY. 2(2-0); II. Prerequisite: Chem. 206. Fisher. Suspensoids and emulsoids, optical and electrical properties of colloids, Brownian movement, action of electrolytes on colloids, adsorption and surface phenomena, and short review of the method for the preparation of colloids.

214. ORGANIC CHEMICAL TECHNOLOGY LABORATORY. 2(0-6); II. Prerequisite: Chem. 212 or concurrent registration. Faith.

Investigation of the important unit processes. Deposit, \$10.

215. CHEMICAL THERMODYNAMICS. 3(3-0); II. Prerequisite: Chem. 206 and Math. 115. Keith.

Principles of thermodynamics particularly applicable to chemistry, such as the first and second laws of thermodynamics and their application.

216. THEORETICAL ELECTROCHEMISTRY. 3(3-0); I. Prerequisite: Chem. 206 and 272. Keith.

The theory of electrolytic cells, the electrochemical series of metals, electrodes, potentials, polarization, overvoltage, and deposition of metals by electrolysis.

217. ELECTROCHEMISTRY LABORATORY. 2(0-6); II. Prerequisite: Chem. 216 or concurrent registration. Hall.

Experiments in electrometric titrations, storage battery efficiency, polarization, overvoltage, electrode potentials, and related subjects. Deposit, \$10.

218, 219. ORGANIC CHEMISTRY I AND II. 4(2-6) each; I and II, respectively. Prerequisite: Chem. 104. Colver, Reed. Deposit, \$10 for each course.

220. ORGANIC CHEMISTRY. 5(3-6); I, II, and SS. Prerequisite: Chem. 104. Colver.

Topics selected from the content of courses 218 and 219. Deposit, \$10.

221. QUALITATIVE ORGANIC ANALYSIS. 3(1-6); I. Prerequisite: Chem. 219. Colver. Deposit, \$10.

223. ORGANIC PREPARATIONS. 1(0-3) to 5(0-15); I. Prerequisite: Chem. 219. Colver. Deposit, \$10.

225. STEREOISOMERIC AND TAUTOMERIC COMPOUNDS. 2(2-0); II. Prerequisite: Chem. 219. Colver.

226. CARBOCYCLIC AND HETEROCYCLIC COMPOUNDS. 2(2-0); II. Prerequisite: Chem. 219. Colver.

228. SPECIAL REACTIONS OF ORGANIC COMPOUNDS. 2(2-0); I. Prerequisite: Chem. 219. Colver.

230. PRINCIPLES OF ANIMAL NUTRITION. 3(3-0); II. Prerequisite: Chem. 122. Hughes.

231. PHYSIOLOGICAL CHEMISTRY. 5(3-6); I, II, and SS. Prerequisite: Chem. 122. Hughes, Marlow, Devor. Deposit, \$10.

233. BIOCHEMICAL PREPARATIONS. 2(0-6) to 5(0-15); II. Prerequisite: Chem. 219 and 231. Marlow. Deposit, \$10.

235. PATHOLOGICAL CHEMISTRY. 2(2-0). Prerequisite: Chem. 231. Hughes.

236A. THE CHEMISTRY OF THE PROTEINS. 3(2-3); I. Prerequisite: Chem. 122. Conrad. Deposit, \$7.50.

237. BIOCHEMICAL ANALYSIS. 2(0-6); I and II. Prerequisite: Chem. 231 and 241. Marlow. Deposit, \$10.

238A. CATALYSIS IN ORGANIC CHEMISTRY. 3(3-0); I. Prerequisite: Chem. 219 and 206. Barham.

239. LABORATORY TECHNIC IN ANIMAL NUTRITION. 2(0-6); I and II. Prerequisite: An acceptable course in nutrition or Chem. 231. Hughes.

Preparation of diet and the care of experimental animals used in the study of various nutritional problems. Deposit, \$10.

240. ADVANCED QUALITATIVE ANALYSIS. 3(1-6); I and II. Prerequisite: Chem. 104. Van Winkle. Deposit, \$10.

241. QUANTITATIVE ANALYSIS. 5(-12); II and SS. Prerequisite: Chem. 104. Brubaker.

Practically the same as Chem. 250 and 251. Deposit, \$10.

242. FIRE ASSAYING. 2(0-6); I. Prerequisite: Chem. 241. Faith.
Assays of ores containing such metals as copper, zinc, lead, bismuth, tin, silver, and gold. Deposit, \$10.
243. GAS ANALYSIS. 1(0-3); I. Prerequisite: Chem. 241. Hedrick.
Analysis of air, flue and furnace gases, and illuminating gas. Deposit, \$7.50.
245. CHEMICAL MICROSCOPY. 1(0-3); I, II, and SS. Prerequisite: Chem. 122 and 250. Brubaker.
Use of the microscope in chemical analysis, both qualitative and quantitative, applied both to inorganic substances and to vegetable and animal products. Deposit, \$7.50.
246. INSTRUMENTAL METHODS IN CHEMICAL ANALYSIS. 3(3-0). Prerequisite: Chem. 206. Shenk.
The application of the spectrograph, spectrophotometer, colorimeter, nephelometer, refractometer, X-ray equipment and other instruments in the chemical analysis of gases, liquids and solids.
- 250, 251. QUANTITATIVE ANALYSIS A AND B. 3(1-6) each; I and II, respectively, and SS. Prerequisite: For A, Chem. 104; for B, Chem. 250. Brubaker.
A: General procedure of gravimetric analysis. Deposit, \$10.
B: General procedure in volumetric analysis. Deposit, \$10.
- 252A. CHEMISTRY OF SOILS AND FERTILIZERS. 2(0-6); I. Prerequisite: Chem. 250. Perkins. Deposit, \$10.
- 253A. CHEMISTRY OF CROPS. 2(0-6); II. Prerequisite: Chem. 122 and 250. Perkins. Deposit, \$10.
254. DAIRY CHEMISTRY. 3(1-6); I. Prerequisite: Chem. 122 and 250. Whitnah. Deposit, \$10.
255. ADVANCED SOIL CHEMISTRY. 3(1-6); I and II. Prerequisite: Chem. 206 and an acceptable course in soils. Perkins.
The important chemical phenomena of soils, ionic exchange, electrodialysis, solutions, and colloidal phenomena. Deposit, \$10.
256. INSECTICIDES AND FUNGICIDES. 2(2-0). Prerequisite: Chem. 122 and 250. Smits.
257. FOOD ANALYSIS. 3(0-9); II and SS. Prerequisite: Chem. 220 and 241 or 251. Brubaker.
Quantitative methods employed in the analysis of foodstuffs, practice in testing for adulterants, preservatives, and coloring materials. Deposit, \$10.
260. ADVANCED QUANTITATIVE ANALYSIS. 1 to 5 hours. Prerequisite: Chem. 241 or 250 and 251. Brubaker. Deposit, \$10.
265. THE CHEMISTRY OF THE CARBOHYDRATES. 2(2-0); I or II. Prerequisite: Chem. 122. Whitnah.
268. PROBLEMS IN CHEMICAL ENGINEERING. Credit to be arranged; I and II. Faith, Greene, Hedrick.
An introduction to chemical engineering research. Deposit, \$10.
270. PROBLEMS IN CHEMISTRY. Credit to be arranged; I, II, and SS. Staff.
Individual problems to fulfill the thesis requirements of students in agricultural chemistry, chemistry, and curriculum in industrial chemistry. Deposit, \$10.
271. SELECTED TOPICS IN INORGANIC CHEMISTRY. 2(2-0); II. Prerequisite: Chem. 206. Lash.
Thermal analysis, temperature measurements, atomic hydrogen, the hydrides, the halogens, solutions, and the ammonia system.

272. PHYSICAL CHEMISTRY II. 3(3-0); II. Prerequisite: Chem. 206. King. Homogeneous and heterogeneous equilibria, chemical kinetics, electrical conductance, electromotive force, chemical thermodynamics, photochemistry, and atomic and molecular structure.

273. CHEMICAL ENGINEERING CALCULATIONS. 3(3-0); I. Prerequisite: Chem. 272. Greene.

Stoichiometry and thermodynamics applied to chemical engineering.

275. CHEMICAL SEMINAR. Twice a month, throughout the year, the officers of the department, with the more advanced students and such others as wish to, meet for papers and discussions upon topics representing the progress of chemical science, chiefly as found in the current journals. The preparation of subjects for presentation at these meetings may be a part of the credit work of advanced students.

277. CHEMICAL LITERATURE. 1(1-0); I or II. Prerequisite: Chem. 219. Reed.

278. ELEMENTS OF CHEMICAL ENGINEERING I. 4(3-3); II. Prerequisite: Math. 115 and Chem. 206. Hedrick.

Fundamentals of chemical engineering operations, with emphasis on flow of fluids and flow of heat; application of these principles to equipment design. Deposit, \$10.

279. ELEMENTS OF CHEMICAL ENGINEERING II. 4(3-3); I. Prerequisite: Chem. 278. Greene, Hedrick.

A study of unit operations, including filtration, evaporation, humidification and drying, absorption, distillation, and crystallization. Deposit, \$10.

280. CHEMICAL ENGINEERING MATERIALS. 2(2-0); II. Prerequisite: Chem. 103 and 104. Faith.

Manufacture, use, and properties of metallic and nonmetallic materials of construction.

282. CHEMICAL ENGINEERING PRINCIPLES. 4(3-3); II. Prerequisite: Chem. 278 and 279. Faith, Greene.

Principles of plant location, plant layout and design; principles of organization and control of chemical plants, utilization of fuels and energy, and chemical engineering operation costs. Deposit, \$7.50.

283. ADVANCED UNIT OPERATIONS. 2(2-0); II. Prerequisite: Chem. 279. Hedrick.

Chemical engineering operations, with emphasis on drying, distillation, absorption, and extraction.

284. ORGANIC UNIT PROCESSES. 2(2-0); I. Prerequisite: Chem. 212 and 272. Faith.

Unit processes in organic synthesis, especially nitration, sulfonation, oxidation, hydrogenation, esterification, and hydrolysis.

285, 286. PETROLEUM REFINING ENGINEERING I AND II. 3(3-0) each; I and II, respectively. Prerequisite: for I, Chem. 279 or concurrent registration; for II, Chem. 285. Faith, Greene, Hedrick.

I: Properties of hydrocarbon mixtures, cracking, polymerization, hydrogenation, separation by distillation.

II: Design and operation of plants, refinery economics, natural gasoline plants.

287. CORROSION. 3(3-0); I and II. Prerequisite: Chem. 122 and 206 or concurrent registration. Van Winkle.

Theories and various factors involved in the corrosion of iron, steel and nonferrous metals; methods of testing for and preventing corrosion.

290. BIOCHEMISTRY OF INTERNAL SECRETIONS. 2(2-0); I or II. Prerequisite: Chem. 231. Marlow.

Chemistry of the glands of internal secretions.

299. CHEMICAL TOXICOLOGY. 3(2-3); I, II, and SS. Prerequisite: Chem. 122, 219, or 220. Smits.

Occurrence, chemical properties, and detection of the more common poisons. Deposit, \$7.50.

FOR GRADUATE CREDIT

301. RESEARCH IN CHEMISTRY. Credit to be arranged. Research work in the laboratories in connection with the Agricultural and Engineering Experiment Station, the State Food Laboratory, and the laboratories for analysis of feeds and fertilizers. Students working out theses in the Department of Chemistry are assigned to this course. Work is offered in:

Agricultural Chemistry. King, Perkins.

Industrial Chemistry and Chemical Engineering. Faith, Van Winkle, Greene, Hedrick.

Analytical Chemistry. Brubaker, Perkins.

Organic Chemistry. Colver, Barham, Whitnah.

Biochemistry. Hughes, Whitnah, Marlow.

General and Physical Chemistry. King, Hall, Keith, Lash.

305. ANIMAL NUTRITION SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructor. Hughes, McCampbell, Burt, Kramer, Payne.

Experiments in nutrition, methods employed, and validity of conclusions drawn.

Economics and Sociology

Professor GRIMES
Professor HOWE
Professor HILL
Associate Professor STEWART
Associate Professor HOLTZ
Associate Professor HODGES
Associate Professor THOMPSON
Assistant Professor HENNEY
Assistant Professor MONTGOMERY

Assistant Professor MURPHY
Assistant Professor NELSON
Assistant Professor PARSONS
Instructor WARD
Instructor PINE
Instructor FOX
Instructor DOLL
Instructor MILLER
Instructor VOGEL

The work in economics and sociology is offered in the divisions of General Science and Agriculture. The more general courses are listed here. Those courses having a direct bearing on agriculture are listed in the agricultural section of the catalogue.

CERTIFICATE OF CERTIFIED PUBLIC ACCOUNTANT

By act of the Kansas legislature passed March 24, 1915, provision is made for the examination for the certificate of Certified Public Accountant. Applicants must be citizens of the United States or must have declared their intention to become citizens. They must be at least twenty-one years of age; must have good moral character; must have a high-school education or the equivalent thereof; must have four years of experience and study in accountancy, at least three of which must have been in the office of a public accountant or on their own account; and must pass an examination in auditing, accounting, and business law given by the State Board of Examiners.

Examination questions are prepared and graded by the American Institute of Accountants and examinations are held in May and November of each year.

COURSES IN ECONOMICS

FOR UNDERGRADUATE CREDIT

(For Econ. 106, see agricultural section.)

101. ECONOMICS I. 3(3-0); I, II, and SS. Staff.
Introductory study of the principles of economics.

104. ECONOMICS II. 3(3-0); I, II, and SS. Prerequisite: Econ. 101. Nelson.
Continuation of Econ. 101.

116. MONEY AND BANKING. 3(3-0); I, II, and SS. Prerequisite: Econ. 101. Thompson.

Nature, history, and functions of money; banking in its modern and historic forms.

126. BUSINESS MANAGEMENT. 2(2-0); I, II, and SS. Prerequisite: Econ. 101. Thompson.

Analysis of management factors such as personnel, finance, accounting, production, and marketing.

FOR GRADUATE AND UNDERGRADUATE CREDIT

(For Econ. 202, 203, 206A, 212, 218, 220, 225, 227, 231, 235, 240, 251, 270, and 271, see agricultural section.)

210. ECONOMIC SYSTEMS. 2(2-0); I and SS. Prerequisite: Econ. 101. Thompson.

214. PUBLIC FINANCE. 3(3-0); I. Not open to students with credit in Econ. 220. Prerequisite: Econ. 101. Nelson.

Public expenditures and revenues; the administration of public funds.

217. BUSINESS FINANCE. 3(3-0); II. Prerequisite: Econ. 116 and 134 or 136, and 219. Thompson.

219. CORPORATION ORGANIZATION AND FINANCE. 2(2-0); I and II. Prerequisite: Econ. 101. Thompson.

Organization and classification of business enterprises; their financial structure and internal management.

222. INVESTMENTS. 3(3-0); II and SS. Prerequisite: Econ. 116 and 134 or 136. Stewart.

Types of investment securities; investment risks and values; investment banks; investment policies.

223. CREDITS AND COLLECTIONS. 2(2-0); II. Prerequisite: Econ. 101. Thompson.

224. INTERNATIONAL TRADE. 2(2-0); II. Prerequisite: Econ. 101. Nelson.

230. PRINCIPLES OF TRANSPORTATION. 3(3-0); II. Prerequisite: Econ. 101. Ward.

Development of transportation; principles involved; public regulation.

234. LABOR PROBLEMS. 3(3-0); I and II. Prerequisite: Econ. 101 or 151. Holtz.

Status and trends in industrial relations.

242. PROPERTY INSURANCE. 2(2-0); I and SS. Prerequisite: Econ. 101. Stewart.

Fire, marine, automobile, title, and credit insurance and corporate bonding; also other forms of property insurance.

244. LIFE INSURANCE. 2(2-0); II and SS. Prerequisite: Econ. 101. Stewart.

Nature and uses of life insurance, kinds of policies, determination of premiums, reserves, surrender values, dividends.

246. MARKETING. 3(3-0); I and SS. Prerequisite: Econ. 101. Ward.
Marketing functions, services, and agencies.

248. PROBLEMS IN ECONOMICS. Credit to be arranged. Prerequisite: Econ. 101. Staff.

249. COMMERCE SEMINAR. 1(1-0); II. Prerequisite: Senior standing. Staff.
Current questions in economics and commerce.

FOR GRADUATE CREDIT

(For Econ. 301, see agricultural section.)

302. RESEARCH IN ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Such courses as the problem undertaken may require. Staff.

Graduate students may elect for original investigation any acceptable problem in the general field of economics.

305. ADVANCED ECONOMICS. 3(3-0); I. Prerequisite: Econ. 101. Howe.
Advanced study of economic theory.

310. HISTORY OF ECONOMIC THOUGHT. 3(3-0); II. Prerequisite: Econ. 101. Grimes.

Development of economics and relation of economic doctrines to conditions existing when they were formulated.

COURSES IN SOCIOLOGY

FOR UNDERGRADUATE CREDIT

(For Econ. 156, see agricultural section.)

151. SOCIOLOGY. 3(3-0); I, II, and SS. Hill, Ward.

Fundamental principles of social life as related to other scientific principles.

FOR GRADUATE AND UNDERGRADUATE CREDIT

(For Econ. 256, see agricultural section.)

258. SOCIAL PATHOLOGY. 3(3-0); I, II, and SS. Prerequisite: Econ. 151. Hill, Ward.

Problems of society such as poverty, crime, delinquency, immigration, family discord, group conflict, and population.

267. COMMUNITY ORGANIZATION AND LEADERSHIP. 3(3-0); II and SS. Prerequisite: Econ. 151. Hill.

Organizations working in the urban and rural fields; the principles involved and the technic of organization.

273. ADVANCED SOCIOLOGY. 3(3-0); II. Prerequisite: Econ. 151. Hill.
A continuation of Econ. 151.

277. HISTORY OF SOCIAL THOUGHT. 3(3-0); I. Prerequisite: Econ. 151. Holtz.

Development of social thought from ancient civilization to the present.

279. PROBLEMS IN SOCIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Econ. 151. Hill.

Selected literature and investigation of social problems.

FOR GRADUATE CREDIT

(For Econ. 350, see agricultural section.)

351. RESEARCH IN SOCIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Such courses as the problem undertaken may require. Hill.

Graduate students may elect for original investigation any acceptable problem in the field of sociology.

COURSES IN ACCOUNTING

FOR UNDERGRADUATE CREDIT

(For Econ. 112, see agricultural section)

133, 134. ACCOUNTING I AND II. 3(2-3) each; I, II, and SS. Prerequisite: For Econ. 134, Econ. 133. Stewart, Vogel.

I: Principles and structure of accounts designed to give power to analyze commercial accounts and statements; problems and practice sets used as an application of principles to practice.

II. Partnership and corporation accounting and problems; valuation of balance-sheet items, with special reference to depreciation, inventories, and intangibles.

136. PRINCIPLES OF ACCOUNTING. 3(3-0); I and II. Not open to students in commerce curriculums. Stewart, Vogel.

Principles of accounting; use of accounting records and statements.

FOR GRADUATE AND UNDERGRADUATE CREDIT

280. VALUATION ACCOUNTING. 3(3-0); II and SS. Prerequisite: Econ. 134. Stewart.

Advanced course in accounting theory; content and analysis of accounting statements.

281. ADVANCED ACCOUNTING. 3(3-0); I and SS. Prerequisite: Econ. 134. Stewart.

Application of accounting principles to such types of business enterprise as partnerships, corporations with subsidiaries and branches, companies in financial difficulties, and estates and trusts.

284. INSTITUTIONAL ACCOUNTING. 2(2-0); II. Stewart.

Accounting principles and their application to cafeteria, lunch and tea rooms, restaurants, dormitories, clubs, and other institutions.

286. TAX ACCOUNTING. 3(3-0); II. Prerequisite: Econ. 280 or concurrent registration. Stewart, Vogel.

Accounting problems arising in connection with income, sales, social security, and other taxes.

287. COST ACCOUNTING. 3(3-0); I and SS. Prerequisite: Econ. 134. Stewart, Vogel.

Allocating production and distribution costs for the purpose of determining financial results and guiding the management of the business enterprise.

288. ADVANCED COST ACCOUNTING. 2(2-0); II. Prerequisite: Econ. 287. Offered in 1939-'40 and in alternate years thereafter. Stewart, Vogel.

289. GOVERNMENTAL ACCOUNTING. 2(2-0); I. Prerequisite: Econ. 280 or 287. Stewart.

Federal, state and municipal accounts, and accounts for public institutions.

290. AUDITING. 2(2-0); I. Prerequisite: Econ. 280 and permission of instructor. Vogel.

Auditing accounts of commercial enterprises; attention to balance sheet and detail audits.

Education

Professor HOLTON
 Professor PETERSON
 Professor WILLIAMS
 Professor STRICKLAND
 Professor RUST
 Professor DAVIDSON
 Professor ALM
 Associate Professor LANGFORD
 Assistant Professor HALL

Assistant Professor BAXTER
 Assistant Professor MOGGIE
 Instructor WYCKOFF
 Instructor H. H. BROWN
 Assistant SWOYER
 Assistant BARE
 Assistant SHIELDS
 Assistant H. M. BROWN

The courses in this department have been organized with the following objectives in view: (1) to meet the requirements of the Kansas State Board of Education in education and psychology for state certificates for teachers; (2) to give general information in the fields of psychology and public education; (3) to meet the requirements of a major for the degree of Master of Science. In the graduate work the main emphasis is on rural and vocational education.

The State Board of Education has set up the following standards or their equivalents for certification of teachers:

1. Three-year Certificates Renewable for Life.

a. Complete four years of college work with degree.

b. At least eighteen hours of the four years' work must be taken in the Department of Education, as follows:

(1) Three hours each in General Psychology, Educational Psychology, Educational Administration, and Teaching Participation in High School.

(2) Six hours elected from the following courses in the Department of Education: Rural Life and Education, Extra-curricular Activities, Educational Measurements, The Curriculum, Statistical Methods Applied to Education, Vocational Guidance, Educational Sociology, Vocational Education, History of Education, Psychology of Childhood and Adolescence, Abnormal Psychology, Mental Tests, The Technic of Mental Testing, Social Psychology, Psychology of Art, and Psychology of Exceptional Children.

c. Valid in any elementary or high school in Kansas.

2. Certificates for Teachers of Vocational Agriculture.

a. Complete four years of college work with degree, including the following:

(1) Not less than fifty hours in technical or practical agriculture.

(2) Not less than twenty-one hours of science related to agriculture.

(3) Eighteen hours in the Department of Education; three each in General Psychology, Educational Psychology, Vocational Education, Methods of Teaching Agriculture, Teaching Participation in Agriculture, and Educational Administration or Principles of Secondary Education.

(4) Seventeen hours in mechanical lines related to farm-shop problems.

b. Valid for three years and may be renewed for life.

c. The State Board for Vocational Education issues certificates of approval, for one year only, to teachers of Vocational Agriculture and reserves the right to require individual teachers to return to summer school for further preparation when the need becomes apparent.

3. Certificate for Teachers of Vocational Home-making.

a. Complete four years of college work with degree, including the following:

(1) Thirty-four hours in technical home economics, as required in the curriculum in Home Economics, three in Child Welfare, and three in Practice Work in Household Management.

(2) Eighteen hours in the Department of Education; three each in General Psychology, Educational Psychology, Vocational Education, Methods of Teaching Home Economics, Teaching Participation in Home Economics, and Educational Administration or Principles of Secondary Education.

b. Valid for three years and may be renewed for life.

4. To comply with the regulations of the State Board of Education regarding teachers' certificates based on four years of college work, the student must complete at least twenty-four of the last thirty semester hours or fifty of the last sixty semester hours, in residence at the college granting the degree.

COURSES IN EDUCATION

FOR UNDERGRADUATE CREDIT

107. **SCHOOL MANAGEMENT.** 3(3-0); I, II, and SS. Limited to freshmen and sophomores. Davidson.

Classroom and school administration; management of pupils in groups; problems of discipline, school sanitation, hygiene and health; general classroom efficiency; development of classroom routine and program.

109. **EDUCATIONAL PSYCHOLOGY.** 3(3-0); I, II, and SS. Prerequisite: Educ. 184 and junior or senior standing. Moggie.

The native equipment of human beings, individual differences, the psychology of learning, motivation, and the psychology of the school subjects.

111. **METHODS OF TEACHING.** 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Open to freshmen and sophomores only. Moggie.

Problems of general method in classroom procedure in grades and junior high school.

129. **TEACHING PARTICIPATION IN GRADE SCHOOL.** 1 to 4 hours. I, II, and SS. Prerequisite: Educ. 184, 111, and 107; not open to students below sophomore standing. Strickland, Hartman.

The work in this course is done in an elementary school of Manhattan. Appointment must be made at the time of registration for the semester during which it is done.

132. **METHODS OF TEACHING HOME ECONOMICS.** 3(3-0); I, II, and SS. Prerequisite: Food and Nutr. 102 and 107, Clo. and Text. 103, and Educ. 184. Rust, Baxter.

The principles of teaching applied to the selection and development of home-economics subject matter in lessons for all types of pupils, and to the conduct of laboratory and classroom exercises.

136. **METHODS OF TEACHING AGRICULTURE.** 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Davidson.

Planning lessons, organizing materials, and conducting class, laboratory, and field instructional work in vocational agriculture. Individual and class projects are studied, as well as coördinating farm mechanics work.

160. **TEACHING PARTICIPATION IN HOME ECONOMICS.** 3 hours. I, II, and SS. Prerequisite: Food and Nutr. 102 and 107, Clo. and Text. 103, and Educ. 132 or concurrent registration. Rust, Baxter.

Supervised teaching carried on in the home economics classes of the Manhattan high school.

161. **TEACHING PARTICIPATION IN AGRICULTURE.** 3 hours. I and II. Prerequisite: Educ. 109 and 136. Davidson.

Three weeks of observation and practice teaching in vocational agriculture classes in Manhattan high school and other high schools by arrangement; group study of classroom problems; lesson plans and presentation criticized by the College instructor and the vocational teacher in the practice department.

163. TEACHING PARTICIPATION IN HIGH SCHOOL. 1 to 4 hours. I, II, and SS. Prerequisite: Educ. 109 and senior standing. Strickland, Washburn, Saum.

Work is done in classes in the Manhattan high school, and special appointment must be made at the time of registration for the semester in which it is done. The work may be elected in biology, English, mathematics, modern languages, physical science, social science, art, physical education, and industrial arts.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. RURAL LIFE AND EDUCATION. 3(3-0); I, II, and SS. Prerequisite: Educ. 210. Davidson.

Development of organized rural life as affected by the development of rural education.

202. EXTRACURRICULAR ACTIVITIES. 3(3-0); I, II, and SS. Prerequisite: Educ. 210. Moggie.

Extracurricular activities of the junior and senior high schools; educational objectives of these activities; methods and means employed in their accomplishment.

206. PHILOSOPHY OF EDUCATION. 3(3-0); II and SS. Prerequisite: Educ. 109. Holton.

Controlling and unifying philosophy of the American public school system and its European background.

210. EDUCATIONAL ADMINISTRATION. 3(3-0); I, II, and SS. Prerequisite: For undergraduate credit, senior standing; for graduate credit, Educ. 109 and 184. Strickland.

Organization of state, county, city, and rural school systems in Kansas; Kansas school laws.

212. EDUCATIONAL MEASUREMENTS. 3(3-0); I, II, and SS. Prerequisite: Educ. 109 and 184. Strickland.

Scientific measurement of achievement as distinguished from intelligence testing.

219. THE CURRICULUM. 3(3-0); SS. Prerequisite: Six hours in education and junior standing. Holton.

Requirements of modern life upon schools and their objectives; examination of the entire school curriculum.

223. STATISTICAL METHODS APPLIED TO EDUCATION. 3(3-0); I, II, and SS. Prerequisite: Junior standing. Not open to students who have credit in Math. 203. Moggie.

Statistical interpretation of data from educational and biological experience and research; graphical representation and interpretation; experimental and research methods.

230A. VOCATIONAL GUIDANCE. 3(3-0); I, II, and SS. Prerequisite: Educ. 236 or 210. Williams.

Methods and practices in pupil guidance for vocations and career planning; analysis of desirable trades, professions, and business callings; guidance problems in the public schools.

232. TEACHING SUBJECTS RELATED TO HOME ECONOMICS. 1 to 3 hours; I, II, and SS. Prerequisite: Educ. 132 and 184. Rust.

Objectives and principles in teaching subjects related to home economics; planning of courses of study which are based upon the problem methods of teaching. (Designed for teachers of vocational homemaking in the Smith-Hughes high-school courses.)

234. METHODS IN ADULT HOMEMAKING CLASSES. 1 to 3 hours; SS. Prerequisite: Educ. 132 and 184 or equivalent. Rust.

The principles of teaching applied to adult classes and a demonstration class in one or more phases of homemaking.

236. PRINCIPLES OF SECONDARY EDUCATION. 3(3-0); I, II, and SS. Prerequisite: Educ. 184 and junior or senior standing. Williams.

Historical study of secondary education; objectives of junior and senior high-school organization, administration, and supervision; methods of organizing and conducting secondary education; field problems in junior and senior high school. A limited amount of field work required.

239. EDUCATIONAL SOCIOLOGY. 3(3-0); I, II, and SS. Prerequisite; Educ. 184 and junior or senior standing. Holton.

The group activities of the school in relation to personality traits; psychology of personality; the school's responsibility in the development of socialized personality traits.

241. VOCATIONAL EDUCATION. 3(3-0); I, II, and SS. Prerequisite: Educ. 210 and 236 and junior or senior standing. Williams.

Provisions for vocational education in Kansas and other states and countries; principles underlying such education; relation of vocational education to the community, county, state, and nation.

244. HISTORY OF EDUCATION. 3(3-0); I, II, and SS. Williams.

The history of education in the United States, with a consideration of the more important present-day problems in the organization, administration, and adjustment of public education in the light of historical development.

249. PROBLEMS IN EXTENSION EDUCATION. Credit to be arranged. Prerequisite: Econ. 151 or CS 3, and Educ. 184 or CP 8, or EXT. 5. Gemmell, Fleenor.*

Problems in extension met by director, supervisor, county agricultural agent, county home demonstration agent, 4-H club leader, or specialist.

FOR GRADUATE CREDIT

306. ADVANCED EDUCATIONAL ADMINISTRATION. 3(3-0); SS. Prerequisite: Educ. 210 or equivalent. Strickland.

Constitutional and legal basis of public-school administration. Intended primarily for school executives.

309. PROBLEMS IN EDUCATIONAL PSYCHOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109 and 184. Moggie.

A study of problems, recent experimentations, and applications of the principles of educational psychology.

311. PROBLEMS IN EDUCATIONAL MEASUREMENT. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109 and 212. Strickland.

Problems in refining educational measurement and using its results.

312. PROBLEMS IN TEACHING METHODS. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109. Strickland.

Individual problems in development and definition of effective teaching procedure.

313. RESEARCH IN ORGANIZATION AND PRESENTATION OF HOME ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing. Justin, Rust.

Individual research problems in phases of organization and administration for home economics. May be chosen as the basis for thesis for the master's degree. The nature of the problem will depend upon the student's major interest.

*From the staff of the Department of Home Study.

314. PROBLEMS IN ORGANIZATION AND PRESENTATION OF HOME ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing. Justin, Rust.

This course permits opportunity for study of problems of organization and administration in this field.

315. SUPERVISION IN HOME ECONOMICS. 2(2-0); II and SS, by appointment. Prerequisite: Educ. 160, and experience in teaching home economics. Rust.

Problems met by a supervisor or director of home economics in the public schools; standardization of work; relation of supervisor to teacher; modernization of plant and equipment; course of study, etc.

317. PROBLEMS IN EDUCATIONAL ADMINISTRATION. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 210 and one year of teaching experience. Strickland.

Critical study of a financial or administrative school problem. Primarily for school executives.

322. PROBLEMS IN STATISTICAL METHODS APPLIED TO EDUCATION. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 223 or equivalent, 8 hours of college mathematics, and full graduate standing. Moggie.

The solution of some statistical problem in research or thesis preparation; the theory of statistics from a more advanced point of view; regression curves and various methods of correlation; the literature of statistics.

325. RESEARCH IN EDUCATION. Credit to be arranged; I and II. Members of Graduate Faculty.

Individual research problems in the general field of education and in the fields of psychology, mental testing, administration, and vocational education.

333. PROBLEMS IN EDUCATIONAL SOCIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109 and 184 and graduate standing. Holton.

Research problems in the social organization of the school and the social inheritance of school populations, with special reference to the development of desirable personality traits.

337. PROBLEMS IN VOCATIONAL EDUCATION. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 241 and 210 or 236. Williams.

The solution of some vocational education problem in research or in thesis preparation. Problems in administration, supervision, or curriculum building in the varied vocational fields to meet community needs.

338. PROBLEMS IN VOCATIONAL GUIDANCE. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 230A. Williams.

Research problems in phases of guidance which affect better coördination and supervision of the work of junior and senior high schools, and development of part-time and adult education progress.

COURSES IN PSYCHOLOGY

FOR UNDERGRADUATE CREDIT

184. GENERAL PSYCHOLOGY. 3(3-0); I, II, and SS. Peterson, Alm, Langford.

FOR GRADUATE AND UNDERGRADUATE CREDIT

250. THE PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Alm.

A genetic study of the trends in the development of structures, capacities, interests, and personality traits, that facilitate understanding and control of the behavior of childhood and adolescence.

254. ABNORMAL PSYCHOLOGY. 3(3-0); I and II. Prerequisite: Educ. 184. Alm.

Maladjustment of personality, behavioral disorders, psychoneuroses, demencias, dreams, hypnotism, and multiple personality.

257. ADVANCED GENERAL PSYCHOLOGY. 3(3-0); II. Prerequisite: Educ. 184. Langford.

Fundamental problems, methods, and interpretations of general psychology.

259. EXPERIMENTAL PSYCHOLOGY. 3(3-0); I or II. Prerequisite: Educ. 184. Peterson.

Experiments in animal and sensorimotor learning; a survey of the experimental literature; objective studies of the thought processes.

260. MENTAL TESTS. 3(3-0); I and II. Prerequisite: Educ. 184. Peterson.

Selection of the best tests for particular purposes at various age and school levels; methods of conducting and scoring tests and of utilizing test results.

261. THE TECHNIC OF MENTAL TESTS. 3(1-6); II. Prerequisite: Educ. 223 and 260 or concurrent registration. Peterson.

Methods of giving and scoring the principal standard group tests of intelligence and special abilities; choice of tests; tabulation and interpretation of scores.

265. PSYCHOLOGY OF ADVERTISING AND SELLING. 3(3-0); II. Prerequisite: Educ. 184. Peterson.

Experimental results of present advertising and selling practices in the light of the principles of psychology.

266. PSYCHOLOGY OF EXCEPTIONAL CHILDREN. 3(3-0); II and SS. Prerequisite: Educ. 184. Alm.

Mental giftedness, mental subnormality, speech disorder, handedness, psychoneurotic and psychopathic personality trends and delinquency in children, with emphasis on causes, diagnostic tests, and behavioral adjustments.

269. ANIMAL PSYCHOLOGY. 3(3-0); I. Prerequisite: Educ. 184 and Zoöl. 105. Alm.

Animal behavior from the standpoint of sensory capacities, perception, adaptive behavior, learning, insight, and other functions. A survey of psychological apparatus and contributions to animal psychology.

270. SOCIAL PSYCHOLOGY. 3(3-0); II. Prerequisite: Educ. 184. Langford.

The individual as a member of the group, including results of experiments upon and observations of the individual in the group situation.

273. PSYCHOLOGY AND PERSONNEL MANAGEMENT. 3(3-0); I. Prerequisite: Educ. 184. Peterson.

Scientific principles and procedures involved in employment; promotion, motivation of work, measurement and reward of achievements.

276. PSYCHOLOGY OF ART. 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Langford.

Brief introduction to the philosophy of art; interpretation of psychological principles used in production and appreciation of art; review of experimental aesthetics in pictorial art and music, with special emphasis on the former.

FOR GRADUATE CREDIT

370. PROBLEMS IN PSYCHOLOGY. Credit to be arranged; I, II, and SS, by appointment. Prerequisite: Consult instructor. Peterson, Alm, Langford.

Individual problems and reports in the field of psychology. Enrollment by recommendation of the instructor not later than midsemester.

373. PSYCHOLOGY OF TEACHING AND LEARNING. 3(3-0); I and SS. Prerequisite: Educ. 184. Peterson.

An analysis of the various forms of learning and of the conditions favorable to the rapid development and effective functioning of knowledge, skills, attitudes, and purposes.

376. RESEARCH IN PSYCHOLOGY. Credit to be arranged; I, II, and SS. Members of graduate faculty.

Individual research problems in the field of psychology.

COURSES FOR FOUR-WEEK SUMMER SCHOOL

FOR GRADUATE AND UNDERGRADUATE CREDIT

283. ADMINISTRATION AND SUPERVISION OF SECONDARY SCHOOLS. 2(10-0); four-week SS. Prerequisite: Educ. 210. Williams.

Problems of organization, administration, and supervision covering the complete program of an administrative head of a school system in a small city. (Designed for principals of rural high schools and superintendents of small city systems.)

285. THE PROJECT METHOD IN AGRICULTURAL EDUCATION. 2(10-0); four-week SS. Prerequisite: Educ. 161. Davidson, Hall.

Intensive treatment of values, analysis, accounting, supervision, types, results, records, reports of projects; conducted on the problem basis.

287. ORGANIZATION AND CONDUCT OF CLASS PROJECTS. 2(10-0); four-week SS. Prerequisite: Educ. 241. Davidson, Hall.

Fundamentals and principles on which productive class projects should be organized. Research and field work in class project study will be undertaken.

289. ADMINISTRATION AND SUPERVISION OF VOCATIONAL EDUCATION. 2(10-0); four-week SS. Prerequisite: Educ. 210. Williams.

Objectives, curriculum organization and content, administrative and supervisory problems from the viewpoint of the city superintendent—leadership needs which must be met in a school system offering vocational education. The problem basis of treatment is used.

291. COMMUNITY PROBLEMS IN VOCATIONAL AGRICULTURE. 2(10-0); four-week SS. Williams, Davidson.

Methods, organization, and conduct of club work, junior project work, class projects, and community projects in general—a course conducted on the problem basis and designed specifically for teachers, supervisors, and directors of agricultural work.

293. PROBLEMS IN EVENING SCHOOL CLASSES. 2(10-0); four-week SS. Open to college graduates who have taught one year of vocational agriculture. Davidson, Hall.

Problems of organization, curriculum, and methods of teaching evening schools and classes sponsored by the national vocational education act. Designed for teachers in service.

295. ORGANIZATION PROBLEMS IN TEACHING FARM MECHANICS. 2(10-0); four-week SS. Prerequisite: Educ. 161. Davidson, Hall.

An analysis of the farm mechanics course of study; needs and interests of boys, learning difficulties, skills and technical knowledge required. Correlation with agriculture. Application of laws of learning to the teaching process. Determination of objectives.

English

Professor DAVIS
 Professor CONOVER
 Professor ROCKEY
 Professor MATTHEWS
 Professor RICE
 Professor FAULKNER
 Associate Professor STURMER
 Associate Professor ELCOCK
 Associate Professor BREEDEN

Associate Professor CALLAHAN
 Assistant Professor GARVEY
 Assistant Professor PARKER
 Assistant Professor ABERLE
 Assistant Professor SCOTT
 Instructor LAMAN
 Instructor PEERY
 Instructor BAKER

The work of the Department of English is to acquaint the student with the best standards of English practice and appreciation and to encourage him to maintain these standards in all his work. To this end the department offers studies in cultural and technical English and special drills in expressing thought freely and effectively.

COURSES IN ENGLISH LANGUAGE

FOR UNDERGRADUATE CREDIT

101. COLLEGE RHETORIC I. 3(3-0); I, II, and SS. Prerequisite: Three units of high-school English. Staff.

104. COLLEGE RHETORIC II. 3(3-0); I, II, and SS. Prerequisite: Engl. 101. Staff.

110. ENGINEERING ENGLISH. 2(2-0); I and II. Prerequisite: Engl. 104 and junior standing. Rockey, Matthews, Faulkner.

Problems of engineering writing; technical descriptions, expositions of ideas, mechanisms, and processes; preparation of engineering talks, business letters, technical manuscripts, and records; brief review of composition.

122. COMMERCIAL CORRESPONDENCE. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Faulkner, Callahan.

Routine types of business correspondence; writing of adjustment, credit, collection, and sales letters; principles of effective commercial writing.

123. WRITTEN AND ORAL SALESMANSHIP. 3(3-0); I and II. Prerequisite: Engl. 104. Faulkner.

Writing of follow-up systems of sales letters; composition and display of circular material and catalogues; principles of advertising and psychology of selling; sales talks; actual sales practice with commercial concerns.

125. BUSINESS ENGLISH AND SALESMANSHIP. 3(3-0); II. Prerequisite: Engl. 104. Callahan.

Principles of business letter writing and salesmanship in the field of engineering; writing of business letters; preparation of oral and written sales material.

137. AGRICULTURAL ENGLISH. 3(3-0); I. Prerequisite: Engl. 104. Davis, Matthews, Faulkner.

Review of the composition essentials; business correspondence; bulletin writing; organization of short business talks; principles of farm advertising; problems that confront the county agent, the high-school teacher of agriculture, and the farm manager.

140. LITERATURE FROM THE READERS. 3(3-0); SS. Staff.

Reading considered both as a fundamental means of acquiring knowledge and as a stepping stone to the appreciation of literature. Planned to meet the needs of teachers of rural and grade schools.

FOR GRADUATE AND UNDERGRADUATE CREDIT

207. TECHNICAL WRITING. 2(2-0); II. Prerequisite: Engl. 113 or 122. Staff.

Fundamental principles of technical and scientific writing, with such practice as will necessitate clearness, accuracy, and effectiveness.

219. ADVANCED COMPOSITION I. 3(3-0); I. Prerequisite: Engl. 104. Davis. Subjects selected from the student's particular field of work; exposition of mechanisms, processes, and general expository writing. For graduate students practice is given in thesis organization and style.

220. ADVANCED COMPOSITION II. 3(3-0); II. Prerequisite: Engl. 104. Davis. Narrative writing both in its relation to the other forms of composition and as an independent form; practical forms of the narrative. Direction and criticism of thesis work is offered to graduate students.

223. ADVANCED PROBLEMS IN COMMERCIAL CORRESPONDENCE. 3(3-0); II. Prerequisite: Engl. 122. Faulkner.

Writing adjustment, credit, and collection letters; specialized study and writing sales and business promotion letters; composition of form paragraphs and circular letters; correspondence supervision.

228, 230. THE SHORT STORY I AND II. 3(3-0) each; I and II, respectively. Prerequisite: For I, Engl. 172; for II, Engl. 228. Rice.

I: The world's best short stories; practice in writing sketches and short stories; emphasis on plot, setting, action, and characterization.

II: Preparation of the short story for publication; the short story in America; types, characteristics, and tendencies; standards set by the leading magazines; market problems.

232. ORAL ENGLISH. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Rockey, Matthews, Faulkner.

Oral composition as applied to conversation and informal discussions; correction of errors in grammar, pronunciation, and idiom in everyday speech; a brief history of English sounds. Investigations in phonology for graduate students.

243. ADVANCED GRAMMAR. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Elcock, Aberle.

English etymology, inflections, syntax, and modern English and American usage. For graduate credit, reports on problems in modern English grammar.

245. HISTORY OF THE ENGLISH LANGUAGE. 1(1-0). Prerequisite: for undergraduates, permission of the instructor; for graduates, Engl. 181. Nock.

Nature of language and its development; English language and its use in the United States.

COURSES IN ENGLISH LITERATURE

FOR UNDERGRADUATE CREDIT

172. ENGLISH LITERATURE. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Staff.

Principles of literary appreciation in narrative, lyric, and dramatic poetry, the essay, and the novel.

175. AMERICAN LITERATURE. 3(3-0); I, II, and SS. Prerequisite: Engl. 172. Staff.

American prose and poetry by intensive study of illustrative selections; historical background and tendencies of American literature.

181. HISTORY OF ENGLISH LITERATURE. 3(3-0); I, II, and SS. Prerequisite: Engl. 172. Staff.

FOR GRADUATE AND UNDERGRADUATE CREDIT

255. CULTURAL READING. 3(3-0); I and II. Not open to students who have credit in Engl. 172, 175, or 181. Prerequisite: Engl. 104. Conover, Davis, Matthews.

A reading course in English and American literature, designed for students in agriculture, engineering, and other technical curriculums.

260. CHAUCER. 3(3-0); I. Prerequisite: Engl. 172. Elcock.

262. MILTON AND THE PURITAN REVOLT. 3(3-0); II. Prerequisite: Engl. 172. Elcock.

265. AMERICAN SURVEY. 2(2-0); II. Prerequisite: Engl. 172 and 175. Davis, Breedon.

History of American literature beginning with the colonial literature and continuing to the present.

268. THE LITERATURE OF THE MIDDLE WEST. 3(3-0); I. Prerequisite: Engl. 172. Callahan.

Literature produced in that section of America known as the Middle West, particularly Kansas and the surrounding territory; its background, authors, and literature since the close of the Civil War.

271. THE ENGLISH BIBLE. 3(3-0); I, II, and SS. Prerequisite: Engl. 172. Conover, Rockey.

The Bible as literature, particularly the Old Testament, poetry, wisdom literature, and the book of Job.

273, 274. SHAKESPEAREAN DRAMA I AND II. 3(3-0) each; I and II, respectively. Prerequisite for each: Engl. 172. Davis, Conover, Sturmer.

I: The life and times of Shakespeare; five of Shakespeare's tragedies: Macbeth or Othello, Hamlet, King Lear, Coriolanus, and Romeo and Juliet.

II: Five of Shakespeare's comedies: The Winter's Tale, As You Like It, Twelfth Night, Cymbeline, and The Tempest; collateral reading of earlier, contemporary, and Shakespearean comedy; present-day criticism of Shakespeare.

276. ENGLISH ESSAYISTS OF THE EIGHTEENTH AND NINETEENTH CENTURIES. 3(3-0); II. Prerequisite: Engl. 172. Davis, Conover.

Among the authors discussed are Swift, Addison, Steele, Johnson, Burke, Lamb, Hazlitt, DeQuincey, Wilson, Newman, Ruskin, Spencer, Huxley, Pater, and Wilde.

278. WORDSWORTH, SHELLEY, AND KEATS. 3(3-0); I. Prerequisite: Engl. 172. Rockey.

280, 281. WORLD CLASSICS I AND II. 3(3-0) each; I and II, respectively. Prerequisite for each: Engl. 172. Faulkner.

I: The literary masterpieces (in translation) of early times, particularly Greek and Latin classics.

II: The literary masterpieces (in translation) of Western Europe, particularly Italian, Spanish, French and German writings.

283. CONTEMPORARY FICTION. 3(3-0); I and SS. Prerequisite: Engl. 172. Conover, Scott.

The more important British and American fiction since Hardy.

284. CONTEMPORARY DRAMA. 3(3-0); II. Prerequisite: Engl. 172. Conover.

Development of the drama since Ibsen; types of modern drama; works of important English, Irish, and American dramatists.

286, 287. THE NOVEL I AND II. 3(3-0); I and II, respectively. Prerequisite: Engl. 172. Breedon.

I: The English novel, its historical development, its relation to other forms of fiction, and its place in contemporary literature; representative works of modern English and American writers.

II: Continuation of course 286. Review of essentials in study of the novel; representative modern novels continued.

288, 290. ENGLISH SURVEY I AND II. 2(2-0) each; I and II, respectively. Prerequisite: Engl. 172. Davis, Conover, Matthews.

I: History of English literature from Anglo-Saxon times down to the close of the Elizabethan period.

II: The rise of Puritanism and its influence on English literature; the classical movement; romanticism and its development.

293. BROWNING AND TENNYSON. 3(3-0); II. Prerequisite: Engl. 172. Rocky.

297. CONTEMPORARY POETRY. 3(3-0); II and SS. Prerequisite: Engl. 172. Davis, Conover.

The more important British and American poetry since 1912.

FOR GRADUATE CREDIT

305. RESEARCH IN ENGLISH. Credit to be arranged; I, II, and SS. Prerequisite: Consult head of department and instructors concerned.

Students undertake original investigation in English literature or applied English. The final results may be used to fulfill the thesis requirements for the master's degree.

Entomology

Professor DEAN
Professor SMITH
Professor PARKER
Associate Professor PAINTER

Assistant Professor BRYSON
Assistant Professor WILBUR
Assistant LAMERSON
Graduate Assistant DILLON

The courses offered are intended to awaken in the student a keen appreciation of the general principles underlying insect life, of the life economy of the more beneficial as well as the more injurious species, and of the general principles governing methods for their control.

COURSES IN ENTOMOLOGY

(Zoöl. 105 is prerequisite to all courses in entomology except 101 and 117.)

FOR UNDERGRADUATE CREDIT

101. GENERAL ENTOMOLOGY. 3(3-0) or 4(3-3); I and II. Smith.

A popular, general course dealing with insects and related arthropods in their relations to plants and animals, including man. Students expecting to use this course as a prerequisite to other courses in entomology should register for the laboratory, which is the same as for Ent. 203. Charge, \$1.

117. MILLING ENTOMOLOGY. 2(2-0). Dean.

Insect pests of flour mills, elevators, granaries, warehouses, and bakeries, and standard methods of dealing with them; inspection trips to flour mills and warehouses.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. HORTICULTURAL ENTOMOLOGY. 2(2-0); I. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Parker.

The most important injurious insects of the vegetable garden, shade trees, flowering and greenhouse plants, deciduous and citrus orchards; methods of control.

203. GENERAL ECONOMIC ENTOMOLOGY. 3(2-3); I and II. Prerequisite: Zoöl. 105 or Bot. 101 and 105; when taken for graduate credit, Zoöl. 105. Staff. Elementary anatomy and physiology of insects and the general principles upon which the control of these economic forms is based. Charge, \$1.

206. STAPLE CROP ENTOMOLOGY. 3(2-3); II. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Dean, Wilbur.

Important economic insects of field crops, and methods to be used in dealing with them. Charge, 50 cents.

208. GENERAL APICULTURE. 3(2-3); I and II. Prerequisite: Ent. 101 (4 hours) or 203. Parker.

Structure, life history, general behavior, activities, and products of the honeybee; practice bee keeping; bee diseases and their eradication and control; relation of bees to agriculture and horticulture. Charge, \$1.

211. EXTERNAL INSECT MORPHOLOGY. 3(1-6); I. Prerequisite: Ent. 203. Wilbur.

External anatomy of representative insects belonging to a number of orders; structure of the exoskeleton; a basis for taxonomy and hexapod morphology. Charge, \$1.50.

212. INTERNAL INSECT MORPHOLOGY. 3(0-9); II. Prerequisite: Ent. 211. Painter.

Internal anatomy of representative insects; plan and structure of the internal systems. Charge, \$1.

216. PRINCIPLES OF TAXONOMY. 1(1-0); II. Prerequisite: Ent. 203 and 211. Painter.

217. TAXONOMY OF INSECTS I. 2(0-6); II. Prerequisite: Ent. 203, 211, and 216 or concurrent registration. Painter.

Determination of major orders of insects; taxonomic literature; use of catalogues. Charge, \$1.50.

218. TAXONOMY OF INSECTS II. 3(0-9); II. Prerequisite: Ent. 217. Painter. Intensive study of a selected group of insects. Charge, \$1.50.

221. ADVANCED GENERAL ENTOMOLOGY. 3(3-0); II. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Wilbur.

Broad biological aspects of the subject; understanding of the relation of insects to the complex environmental factors; the various subdivisions of entomology.

226. MEDICAL ENTOMOLOGY. 3(2-3); I. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Smith.

Insects and other arthropods as parasites and disseminators of disease; life cycles, biology, and control of insect parasites. Charge, \$1.50.

229. ADVANCED APICULTURE. 3(2-3); I and II. Prerequisite: Ent. 208. Parker.

A continuation of Ent. 208. Charge, \$1.

231. ENTOMOLOGICAL AND ZOÖLOGICAL LITERATURE. 2(2-0); I. Prerequisite: Ent. 101 or 203, and Zoöl. 105. Smith.

All advanced students of entomology and zoölogy are expected to take this course.

233. INSECT ECOLOGY. 2(2-0); II. Prerequisite: Ent. 101 (4 hours) or 203 and 235, and Zoöl. 105. Bryson.

Influence of light, temperature, pressure, moisture, evaporation, air movements, food relations, biotic and other conditions of soil and atmosphere.

234. INSECT CONTROL BY HOST PLANT RESISTANCE. 2(2-0); I. Prerequisite: Ent. 101 (4 hours) or 203 (3 hours), and An. Husb. 221. Painter.

Resistance of varieties of crop plants to insect attack and their utilization in insect control; insect habits and physiology in relation to the cause of resistance and methods of breeding resistant varieties of crops.

235. FIELD ENTOMOLOGY. 2(0-6); I. Prerequisite: Ent. 203. Painter.

Study of insects in the field; identification of some of the commoner insects. It is recommended that students taking this course follow it with Ent. 233. Charge, \$2.

236. ZOÖLOGY AND ENTOMOLOGY SEMINAR. 1(2-0); I and II. Prerequisite: Consult seminar committee.

Presentation of original investigations, reviews of papers appearing in current journals, summaries of recent advances in various fields and discussion of various aspects of the fundamental problems of modern biology.

238. PROBLEMS IN ENTOMOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

Students may pursue a special problem in one of the following subjects: insect life history, insect control, insect classification, apiculture, insects injurious to stored grain and milled products, and household insects.

240. INSECT PHYSIOLOGY. 3(3-0); II. Prerequisite: Ent. 211 and Chem. 122 or 219 or 220. Parker.

FOR GRADUATE CREDIT

316. RESEARCH IN ENTOMOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: (1) for research in taxonomy and morphology, Ent. 203, 211, 217, and Zoöl. 214; (2) for research in economic entomology, Ent. 203, 206, and 217. Staff.

Advanced students may undertake original investigation in taxonomy, morphology, or economic entomology. The results may be used to fulfill the thesis requirement for the master's degree or doctor's degree.

Geology

Professor SPERRY
Instructor BYRNE

Instructor CHELIKOWSKY
Graduate Assistant WALTERS

The courses offered in geology are designed to meet the needs of three kinds of students: The technical student in agriculture, civil engineering, or chemistry, who must know something of the relationship of geology to his particular field; the general student who desires some knowledge of the world about him, and who realizes the cultural and economic value of understanding his physical environment; and, finally, the student who wishes to major in geology.

COURSES IN GEOLOGY

FOR UNDERGRADUATE CREDIT

102. ENGINEERING GEOLOGY. 4(3-3); I and II. Prerequisite: Chem. 110 or equivalent. Sperry, Chelikowsky.

General principles of geology and their application to engineering problems. Charge, \$1.50.

103. GENERAL GEOLOGY. 3(3-0); I, II, and SS. Three or four field trips during the semester. Staff.

Structural and dynamic features of the earth; the rock-forming minerals; the rocks and their decay; a short history of the earth. Charge, \$1.50.

110. PHYSIOGRAPHIC GEOLOGY. 3(3-0); II and SS. Prerequisite: Geol. 102 or 103. Sperry.

Topography of the earth and forces that have produced it. Origin of the topographical features of North America. Charge, \$1.50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. HISTORICAL GEOLOGY. 4(3-3); I, II, and SS. Prerequisite: Geol. 102 or 103. Sperry, Byrne.

Physical and biological events through which the earth has gone, with stress on the philosophical side of earth history. Charge, \$1.50.

207. ECONOMIC GEOLOGY. 4(3-3); II. Prerequisite: Geol. 203 and Chem. 110 or equivalent. Sperry,

Origin and mode of occurrence of nonmetallic minerals, including coal and petroleum, and of metallic mineral deposits. Charge, \$1.50.

209. CRYSTALLOGRAPHY AND MINERALOGY. 4(2-6); I. Prerequisite: Chem. 110 or equivalent. Sperry, Chelikowsky.

Fundamentals of crystallography and mineralogy. Charge, \$1.50.

210. FIELD GEOLOGY. SS. Credit to depend upon the amount of work done. Opportunity is offered students to do field work in the Rocky Mountains. Students interested should consult Mr. Sperry.

215. STRUCTURAL GEOLOGY. 4(3-3); II. Prerequisite: Geol. 203 and 209. Sperry, Chelikowsky.

Mechanics of the earth's crust. Interrelation of structures found in the earth. Charge, \$1.50.

220. INVERTEBRATE PALEONTOLOGY. 4(3-3); I. Prerequisite: Geol. 203. Byrne. Evolution and geologic history of the invertebrate animals. Charge, \$1.50.

230. FIELD METHODS IN GEOLOGY. 3(1-6); I. Prerequisite: Geol. 203. Byrne.

Construction of geologic maps, including a complete map of the Manhattan area; application of field methods to the problems of geology. Charge, \$1.50.

235. OPTICAL MINERALOGY. 4(2-6); I. Prerequisite: Geol. 209. Sperry, Chelikowsky.

Use of the polarizing microscope in identifying crystal fragments, powders, sediments, and thin sections; optical methods of microscopic research. Charge, \$1.50.

240. PRINCIPLES OF GEOGRAPHY. 3(3-0); II and SS. Sperry, Byrne.

An introductory course in college geography, emphasizing the relationships between human activities and environment. Charge, \$1.50.

255. VERTEBRATE PALEONTOLOGY. 3(3-0); II. Prerequisite: Geol. 203 or ten hours of zoölogy. Byrne.

Evolution, geologic history, and classification of the vertebrates. Charge \$1.50.

275. PROBLEMS IN GEOLOGY. Credit to be arranged; I, II, and SS. Staff.

An individual problem in a particular phase of geology investigated under the guidance of an instructor.

FOR GRADUATE CREDIT

301. RESEARCH IN GEOLOGY. Credit to be arranged; I, II, and SS. Staff.

Students with adequate preparation may undertake original investigations in geology.

History and Government

Professor PRICE
 Professor ILES
 Professor JAMES
 Professor CORRELL

Professor SHANNON
 Professor PARRISH
 Associate Professor WILLIAMS
 Assistant Professor ALSOP

Training for citizenship, breadth of view, historic-mindedness, fairness of judgment, and general culture are specific aims of each course offered by the Department of History and Government. A knowledge of these subjects forms a common ground of meeting and conversing with fellow citizens, and contributes directly to larger success in life, including the business and professional world. In an institution supported by state and nation, it would seem to be the duty of every student to secure specific training for leadership in the governmental affairs of the state and nation that are thus preparing him for life and its duties.

COURSES IN HISTORY

FOR UNDERGRADUATE CREDIT

101. ANCIENT CIVILIZATIONS. 3(3-0); I and SS. Parrish.

An introductory course in the early western culture and civilization, from its beginning to the decline of the Roman empire.

102. MEDIEVAL EUROPE. 3(3-0); II and SS. Parrish.

An introductory course in the general history of Europe from the decline of the Roman empire to the discovery of the new world.

104. AMERICAN HISTORY SURVEY. 3(3-0); I and SS. Not open to students who have credit in Hist. 105, 201, or 202. Price.

A survey of American history and institutions from the newer viewpoint, combining constitutional, political, diplomatic, economic, and social phases of the growth of our republic, with background and interpretation. Charge, \$1.

105. AMERICAN INDUSTRIAL HISTORY. 3(3-0); I, II, and SS. Not open to students who have credit in Hist. 104, 201, 202, or 203. Shannon, Correll, Alsop.

History of American agriculture, manufactures, and commerce with related activities from their colonial beginnings to the present; European developments, as a side light on American history; growth of our national industrial organization and its present-day aspects.

110. HISTORY OF COMMERCE AND INDUSTRY. 3(3-0); I. Shannon.

The evolution of industry and commerce from primitive beginnings to present-day organization. An economic survey of world history, with special stress on the modern period.

115. MODERN EUROPE I. 3(3-0); I. Alsop.

Development of Europe from 1500 to 1815, with special study of the Commercial Revolution; the Reformation; political democracy; French Revolution; and the Napoleonic era.

121. ENGLISH HISTORY. 3(3-0); I, II, and SS. James.

Political history of England; constitutional growth, and development of the British Commonwealth.

126. CURRENT HISTORY. 1(1-0); I, II, and SS. May not be taken more than four semesters for credit. Staff.

Analysis of outstanding problems and activities engaging the peoples of the contemporary world.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. AMERICAN HISTORY I. 3(3-0); I, II, and SS. Not open to students who have credit in Hist. 104. Prerequisite: when taken for graduate credit, six hours of college history. Price.

Beginning of the American nation; development of American nationality and

democracy through the War of 1812, including our constitutional and political development with the European background. Charge, \$1.

202. AMERICAN HISTORY II. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. Price.

Western expansion and sectionalism; industrial conditions, political and constitutional issues, and leaders from 1812 to 1876. Charge, \$1.

203. AMERICAN HISTORY III. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. Price, Iles, Shannon.

Industrial conditions in America as affected by the Civil War; political and governmental activities of the period since 1865 in the light of industrial conditions and developments.

204. AMERICAN AGRICULTURAL HISTORY. 3(3-0); I. Prerequisite: when taken for graduate credit, six hours of college history. Shannon.

European background and Indian beginnings; development during the colonial period; the westward movement into the prairie regions of the Mississippi valley with the distinctive American developments in methods, livestock, and farm machinery.

206. AMERICAN POLITICAL PARTIES. 2(2-0); I. Prerequisite: when taken for graduate credit, six hours of college history. Iles.

Origin, development, leaders, and functions of political parties in America; issues and results of presidential elections; growth of nationality and development of self-government with special reference to present tendencies.

208. LATIN AMERICA. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. James.

Spanish expansion movement into the New World; development of Hispanic institutions therein; movement for independence and problems of the republican period.

223. MODERN EUROPE II. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, Hist. 115 or 121. Parrish.

General history of Europe from 1815 to the present, with emphasis upon the social and political developments.

225. HISTORY OF THE HOME. 3(3-0); II. Prerequisite: when taken for graduate credit, six hours of college history. Alsop.

A history of marriage and the family from primitive times to the present; marriage customs, position of women, child training; the modern home and recent changes and tendencies.

226. THE BRITISH EMPIRE. 2(2-0); II and SS. Prerequisite: when taken for graduate credit, six hours of college history. James.

British maritime expansion movement; founding of colonies overseas; growth of self-governing dominions and the British Commonwealth.

228. IMMIGRATION AND INTERNATIONAL RELATIONS. 2(2-0); I and SS. Prerequisite: when taken for graduate credit, six hours of college history. Price, James.

Causes and effects of the coming of the foreigner; changes as to the character of the immigrants; conditions in Europe and in America that affect the number and quality of immigrants; survey of our diplomatic history.

231. HISTORY OF RELIGIONS. 2(2-0); I or II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. Parrish.

Historical survey of the world's living religions; relation of each religion to its natural and cultural environment; dominating religious conceptions, leaders, and historic developments which characterize each.

234. TWENTIETH CENTURY EUROPE. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, Hist. 223 or equivalent. Correll.

Political and social reconstruction of Europe since the World War.

236. **THE FAR EAST.** 3(3-0); II and SS. Prerequisite: when taken for graduate credit, six hours of college history. Parrish.

Chinese culture and civilization from the beginning to the present day; achievements in the classical period; contacts with outsiders since 1840; new role of China and Japan in world commerce, trade, and politics.

250. **SEMINAR IN HISTORY AND GOVERNMENT.** 2 to 5 hours; I, II, and SS. Prerequisite: six hours of college history of a type that will serve as proper background for the subject to be studied. Staff.

Special fields connected with the history of agriculture, industry, commerce, though other fields may be studied at the discretion of the department.

290. **HISTORICAL METHOD AND BIBLIOGRAPHY.** 2(2-0); I and SS. Prerequisite: when taken for graduate credit, six hours of college history. Shannon.

Survey of historical works; methods in writing history, historical articles, or theses. Required of graduate majors in history, recommended to undergraduate majors.

FOR GRADUATE CREDIT

301. **RESEARCH IN HISTORY.** Credit to be arranged; I, II, and SS. Prerequisite: Hist. 290 or concurrent registration, and permission of instructor. Staff.

Research problems in European or American history, including international relations. Conclusions will generally take the form of a thesis.

COURSES IN GOVERNMENT

FOR UNDERGRADUATE CREDIT

151. **AMERICAN GOVERNMENT.** 3(3-0); I, II, and SS. Iles.

State and national government with emphasis on constitutional principles and on functional activity.

152. **AMERICAN NATIONAL GOVERNMENT.** 3(3-0); I. Not open to students who have credit in Hist. 151. Iles.

Mechanism, functions, and control of the government of the United States. With Hist. 153, this course affords a comprehensive study of American national, state, and local government.

153. **AMERICAN STATE GOVERNMENT.** 3(3-0); II. Not open to students who have credit in Hist. 151. Iles.

State and local government, with special attention to functions and problems.

163, 164. **BUSINESS LAW I AND II.** 3(3-0) each; I and II. Williams.

I: Contracts, agency, and sales.

II: Negotiable instruments, partnership, and corporations.

167. **LAW FOR ENGINEERS.** 2(2-0); I and II. Williams.

Case study of such rules of law as will prove most useful to engineers and architects; law of contracts.

175. **FARM LAW.** 2(2-0); I. Offered in 1939-'40 and in alternate years thereafter. Not open to students who have credit in Hist. 276. Williams.

Law, particularly real property, deeds, mortgages, relation of landlord and tenant, developed through study of Kansas cases.

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. **COMPARATIVE GOVERNMENT.** 2(2-0); I or II, and SS. Prerequisite: Hist. 151 or equivalent. Iles, Williams.

Principal democracies, including comparisons with the government of the United States; principal dictatorships of Europe.

256. **INTERNATIONAL LAW.** 2(2-0); I. James.

Nature and scope of international law; factors contributing to its growth; tendencies in the development of the law today.

260. GOVERNMENT AND BUSINESS. 2(2-0); II. Prerequisite: when taken for graduate credit, Hist. 151, 163, 167, 175, or 276. Williams.

Constitutional limitations upon the powers of government; laws affecting economic interests such as trade regulations, taxation, labor legislation; legislation for the benefit of debtors, and emergency legislation.

276. LAND LAW. 2(2-0); I. Planned to supplement Econ. 218. Offered in 1938-'39 and in alternate years thereafter. Not open to students who have credit in Hist. 175. Williams.

Interests and rights in land; methods by which such interests and rights are acquired and protected; relation of landlord and tenant and that of mortgagor and mortgagee, developed by study of Kansas cases.

FOR GRADUATE CREDIT

351. RESEARCH IN GOVERNMENT. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Research problems in national or local government, American or European; studies in comparative government or international law. The conclusions generally take the form of a thesis.

Industrial Journalism and Printing

Professor ROGERS
Professor KEITH
Associate Professor BIRD

Associate Professor AMOS
Associate Professor HOSTETTER
Assistant Professor LASHBROOK

Courses in industrial journalism train students to do occasional writing for newspapers and periodicals on subjects of special interest. The curriculum in industrial journalism prepares for positions on farm journals, newspapers, and publications where articles on agricultural and industrial subjects are in demand.

The *Kansas Industrialist*, *The Kansas State Collegian*, and the *Kansas Magazine* are published under the supervision of the department.

Printing has been taught in the College continuously since 1873, the longest period of instruction in any American college.

All students enrolled in the curriculum in industrial journalism, and all other students who take Journalism Lectures or courses designated "Journalism fee charged," pay a charge of \$1.50 a semester. Only one journalism fee is charged a student in a given semester.

COURSES IN PRINTING

FOR UNDERGRADUATE CREDIT

101. PRINCIPLES OF TYPOGRAPHY. 3(2-3); I and II. Prerequisite: Ind. Jour. 140 or sophomore classification. Amos.

The history and art of printing; practice in setting straight matter; typography of advertisements and head display; principles of effective makeup. Journalism fee charged.

102. PRINTING PRACTICE. 2(0-6); SS. Amos.

108, 111, 112. AD COMPOSITION I, II, and III. 2(0-6) each; I and II each. Prerequisite: For I, Ind. Jour. 101; for II, Ind. Jour. 108; for III, Ind. Jour. 111. Amos.

I: Principles of display and design as applied to advertisements. Journalism fee charged.

II and III: Ind. Jour. 108 continued; more complicated work studied. Journalism fee charged.

114, 118, 120. JOB COMPOSITION I, II, and III. 2(0-6) each; I and II each. Prerequisite: For I, Ind. Jour. 101; for II, Ind. Jour. 114; for III, Ind. Jour. 118. Amos.

I: Differences in requirements for job composition and ad composition. Journalism fee charged.

II and III: Color work, tabular forms, and other job work. Journalism fee charged.

122, 126. PRESS WORK I AND II. 2(0-6) each; I and II each. Prerequisite: For I, Ind. Jour. 108 or 114; for II, Ind. Jour. 122. Amos.

I: Practical platen presswork under ordinary printing-office conditions. Journalism fee charged.

II: I continued; mixing inks; color work. Journalism fee charged.

COURSES IN INDUSTRIAL JOURNALISM

FOR UNDERGRADUATE CREDIT

140. JOURNALISTIC VOCATIONS. 2(2-0); II. Rogers.

Orientation of the student in the profession and business of journalism. Journalism fee charged.

152. ELEMENTARY JOURNALISM. 3(3-0); I, II, and SS. Prerequisite: Ind Jour. 140 or sophomore classification. Hostetter, Lashbrook.

Methods of obtaining news of various types, the writing of the lead, and the general styles of the news story. Journalism fee charged.

153. KANSAS STATE COLLEGIAN JOURNALISM. 1(0-3); I, II, and SS. Prerequisite: Permission of instructor. Lashbrook.

The gathering and writing of news, or advertising practice, on *The Kansas State Collegian* under the supervision of the instructor.

160. AGRICULTURAL JOURNALISM. 3(2-3); I and II. Bird.

Principles of news writing as applied to agriculture. Journalism fee charged.

162. RADIO WRITING. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 152. Rogers, Keith.

Preparation and broadcasting of radio news.

164. INDUSTRIAL WRITING. 3(3-0); I and II. Prerequisite: Ind. Jour. 152. Hostetter, Lashbrook.

Principles of journalism in the treatment of industrial subjects. Journalism fee charged.

165. SPORTS REPORTING. 2(2-0); I. Prerequisite: Sophomore classification. Lashbrook.

Methods of gathering and writing news of sports. Journalism fee charged.

167. INDUSTRIAL FEATURE WRITING. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 164. Bird.

The feature article; its underlying principles applied to writing on agricultural and other industrial subjects. Journalism fee charged.

172. JOURNALISM FOR WOMEN. 2(2-0); II. Prerequisite: Ind. Jour. 167. Hostetter.

A course for women students in news and feature writing for women's pages and women's magazines and consideration of specialized fields for the woman writer. Journalism fee charged.

178. PRINCIPLES OF ADVERTISING. 4(4-0); I and II. Prerequisite: For industrial journalism students, Ind. Jour. 164; for commerce students, Engl. 123. Keith.

Study of goods to be advertised, analysis of the market, psychology of advertising, preparation of advertising copy, and other important matters. Journalism fee charged.

179. RADIO ADVERTISING. 3(3-0); I, II, and SS. Prerequisite: For students in curriculum in Industrial Journalism, Ind. Jour. 178; for other students, Pub. Spk. 161. Keith, Summers.

Broadcasting station management, principles and practice in radio advertising.

180. BROADCASTING STATION PRACTICE. 1(0-3); I, II, and SS. Prerequisite. Ind. Jour. 162. Rogers.

News gathering, writing, and broadcasting over radio station KSAC.

181. THE RURAL PRESS. 2(2-0); I and II. Prerequisite: Ind. Jour. 152. Bird.

The community newspaper; emphasis on presentation of agriculture and rural life. Journalism fee charged.

183. NEWS BUREAU METHODS. 2(2-0); I. Prerequisite: Ind. Jour. 152. Bird.

A study of publicity methods. Journalism fee charged.

199. INDUSTRIAL JOURNALISM LECTURE. R; I and II.

Addresses by practicing newspaper workers and members of the department. Required of all students in the curriculum in industrial journalism.

FOR GRADUATE AND UNDERGRADUATE CREDIT

254. COPY READING. 2(0-6); II. Prerequisite: Ind. Jour. 164. Hostetter, Lashbrook. Journalism fee charged.

255. CONTEMPORARY THOUGHT. 3(3-0); I. Prerequisite: For industrial journalism students, Ind. Jour. 254; for others, Econ. 101 or equivalent. Rogers.

Correlation and unification of various subjects previously pursued in college; contemporary development and contemporary figures in science, the arts, and philosophy.

257. EDITORIAL PRACTICE. 2(2-0); I. Prerequisite: Ind. Jour. 254. Hostetter.

The writing of editorials suitable for farm papers, trade papers, and newspapers; the shaping of editorial policies. Journalism fee charged.

265. MATERIALS OF JOURNALISM. 2(2-0); I. Prerequisite: Ind. Jour. 254. Rogers.

The principal newspapers and magazines; accuracy and adequacy of news reports and other published matter; materials handled by the publications; methods of treatment; character of editorial comment.

270. MAGAZINE FEATURES. 2(2-0); I, II, and SS. Prerequisite: For industrial journalism students, Ind. Jour. 167; for others, Engl. 104. Rogers.

The matter of the course is varied to suit the needs and desires of the students, emphasis being laid upon such types of magazine writing as members of the class wish to practice. Journalism fee charged.

273. HISTORY AND ETHICS OF JOURNALISM. 3(3-0); II. Prerequisite: Ind. Jour. 255. Rogers, Hostetter.

278. JOURNALISM SURVEYS. 2(0-6); II. Prerequisite: Ind. Jour. 254. Rogers, Hostetter.

Careful investigation of the periodical reading matter of communities; tabulation of information obtained; relation of the reading matter to the industrial, economic, social, and moral life of the communities.

280. BOOK REVIEWING. 1(1-0); I. Prerequisite: For undergraduates, permission of the instructor; for graduate students, Ind. Jour. 140 and 152 and Engl. 181. Nock.

Literary criticism in relation to book reviewing; the book review in periodicals and newspapers.

282. COLUMN CONDUCTING. 2(2-0); II, when requested by a sufficient number. Prerequisite: Engl. 104. Davis.

The conducting of the so-called column, humorous or semiserious; writing paragraphs, light verse, and similar material, with stress on practice in writing humor.

287. CURRENT PERIODICALS. 3(3-0); II. Prerequisite: Engl. 104. Hostetter.

The material contained in current periodicals of various types, and the nature of its appeal to the reader.

288. TRADE AND TECHNICAL WRITING.* 2(2-0); II. Prerequisite: Ind. Jour. 178.

Theory and practice writing which pertains to the special interests of industry, trade, and business.

289. NEWSPAPER MANAGEMENT.* 2(2-0); II. Prerequisite: Ind. Jour. 178.

Relation of departments of a newspaper to one another, costs, statistics, advertising news, and business methods in publishing.

FOR GRADUATE CREDIT

351. RESEARCH IN INDUSTRIAL JOURNALISM. Credit to be arranged; I and II. Rogers.

Several courses embodying creative literary work or detailed research in specialized journalism are arranged to meet the specific needs and desires of the individual graduate students.

Library Economics

Associate Librarian DERBY
Reference Librarian DAVIS

Reference Assistant SWENSON

In order that the Library may perform its functions with the highest degree of efficiency it is necessary that instruction be given regarding its use. With this thought in mind a course is offered, the purpose of which is to familiarize the student with scientific, up-to-date methods in the use of books and to acquaint him with the best general reference books, as well as with standard works on various subjects. Placed at the beginning of his College course, it tends to increase largely his efficiency in study throughout the entire course.

COURSES IN LIBRARY ECONOMICS

FOR UNDERGRADUATE CREDIT

101. LIBRARY METHODS. 1(1-0); I and II. Derby, Davis, Swenson.

Classification and arrangement of books in the library; card catalogues; indexes; and principal works of reference.

Mathematics

Professor STRATTON
Professor REMICK
Professor WHITE
Associate Professor HYDE
Associate Professor LEWIS
Associate Professor LYONS
Assistant Professor JAMES

Assistant Professor MOSSMAN
Assistant Professor HOLROYD
Assistant Professor DAUGHERTY
Assistant Professor MUNRO
Instructor GREER
Instructor BALL
Instructor WIERENGA

COURSES IN MATHEMATICS

FOR UNDERGRADUATE CREDIT

101. PLANE TRIGONOMETRY. 3(3-0); I, II, and SS. Prerequisite: Plane geometry and one and one half years of high-school algebra. Staff.

102. SOLID GEOMETRY. 2(2-0); I, II, and SS. Prerequisite: Plane geometry and one year of high-school algebra. Staff.

* Effective Jan. 31, 1938.

104. COLLEGE ALGEBRA. 3(3-0); I, II, and SS. Prerequisite: Plane geometry and one and one half years of high-school algebra. Staff.

107. COLLEGE ALGEBRA A. 5(5-0); I, II, and SS. Prerequisite: Plane geometry and one year of high-school algebra. Staff.

The third semester of high-school algebra and the chief content of Math. 104.

110. PLANE ANALYTICAL GEOMETRY. 4(4-0); I, II, and SS. Prerequisite: Math. 101 and Math. 104 or 107. Staff.

112. ELEMENTARY ANALYSIS I. 5(5-0); I. Prerequisite: Plane geometry and one and one-half units of algebra. Babcock.

Functional relations, particularly the power function and periodic functions; the circle, ellipse and hyperbola; binomial theorem and progressions.

113. ELEMENTARY ANALYSIS II. 5(5-0); I. Prerequisite: Math. 112. Babcock.

Logarithmic and exponential functions; solution of triangles; simple harmonic motion; complex numbers; and the conic sections.

114. CALCULUS I. 4(4-0); I, II, and SS. Prerequisite: Math. 110. Staff.

115. CALCULUS II. 4(4-0); I, II, and SS. Prerequisite: Math. 114. Staff.

116. CALCULUS IIA. 5(5-0); I and II. Prerequisite: Math. 114. Staff.

Similar to Math. 115, with the addition of elements of differential equations occurring in engineering.

121. DIFFERENTIAL EQUATIONS FOR ENGINEERS. 2(2-0); I, II, and SS. Prerequisite: Math. 115. Stratton, Remick, White.

126. ELEMENTS OF STATISTICS. 3(3-0); I and II. Not open to students who have credit in Educ. 223. White.

150. MATHEMATICS OF FINANCE. 3(3-0); II. Prerequisite: Econ. 133 and Math. 104 or 107. Janes.

Interest, annuities, sinking funds, amortization, valuation of bonds, depreciation, building and loan, and life insurance.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. DIFFERENTIAL EQUATIONS. 3(3-0); I. Prerequisite: Math. 115. Stratton, Remick, White.

202. HIGHER ALGEBRA. 3(3-0); I, II, and SS. Prerequisite: Math. 115. Stratton, Munro.

Material selected from Bocher's Higher Algebra.

203. THEORY OF STATISTICS. 3(3-0); II. Prerequisite: Math. 126 or permission of instructor. White.

Random sampling, frequency curves, correlation theory, curve fitting, significant differences, and analysis of variance; practice with data from biology, economics and agronomy.

207. SOLID ANALYTICAL GEOMETRY. 3(3-0); II. Prerequisite: Math. 115. Stratton.

Coördinates of points in space and their transformation involving discussion of lines and planes; quadric surfaces, their classification and principal properties.

210. ADVANCED CALCULUS I. 3(3-0); I. Prerequisite: Math. 115. White.

Special topics in integral calculus, including various methods of integrating elementary forms, definite integrals with attention to gamma and beta functions, and applications to lengths and areas.

213. ADVANCED CALCULUS II. 3(3-0); II. Prerequisite: Math. 210. White. Continuation of Math. 210.

216. THEORY OF EQUATIONS. 3(3-0); I. Prerequisite: Math. 115. Stratton. Elements of the classical theory; general cubic and quartic equation and the complete solution of numerical equations; symmetric functions, resultants, and discriminants.

221. HISTORY OF MATHEMATICS. 3(3-0); I, II, and SS. Prerequisite: Math. 110. Staff.

223. FOURIER'S SERIES. 3(3-0); II. Prerequisite: Math. 201. White.

225. MODERN PLANE GEOMETRY. 3(3-0); II. Prerequisite: Math. 110. Stratton.

Properties of a triangle and its circles, harmonic ranges and pencils, inversion, poles and polars.

230. VECTOR ANALYSIS. 3(3-0); I or II. Prerequisite: Math. 115. Babcock.

Methods of vector algebra and geometry, with applications, and the elements of tensors.

231. SURVEY OF APPLIED MATHEMATICS I. 3(3-0); I. Prerequisite: Math. 115. Offered in 1939-'40 and in alternate years thereafter. Babcock.

An introduction to such subjects as determinants and matrices; infinite series; Fourier series; multiple, line, and improper integrals; and elliptic integrals.

232. SURVEY OF APPLIED MATHEMATICS II. 3(3-0); II. Prerequisite: Math. 115. Offered in 1939-'40 and in alternate years thereafter. Babcock.

A continuation of Math. 231, including ordinary and partial differential equations; vector analysis; probability; curve fitting.

FOR GRADUATE CREDIT

The following courses are available by appointment:

301. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. 3(3-0); II. Prerequisite: Math. 201. Stratton, Munro.

306. THEORETICAL MECHANICS. 3(3-0); I. Prerequisite: Math. 115. Stratton.

312. HIGHER GEOMETRY. 3(3-0); II. Prerequisite: Math. 225. Stratton.

Linear dependence, homogeneous coördinates, cross ratio, properties of conics, elements of projective geometry.

316. ADVANCED DIFFERENTIAL EQUATIONS. 3(3-0); I. Prerequisite: Math. 201. Munro.

Special topics, such as the equations of Legendre, Bessel, and Ricatti, with applications.

326. CALCULUS OF VARIATIONS. 3(3-0); I. Prerequisite: Math. 201. Remick.

Some of the standard problems of maxima and minima wherein a definite integral affords the fundamental form of expression.

331. RESEARCH IN MATHEMATICS. Credit to be arranged; I and II. Required of all candidates for the master's degree whose major work is in the Department of Mathematics. Staff.

Military Science and Tactics

Professor KINGMAN, Colonel, Inf., U. S. A.
Associate Professor DEMPEWOLF, Major, Inf., U. S. A.
Associate Professor YON, Major, Inf., U. S. A.
Associate Professor CAMPBELL, Major, Inf., U. S. A.
Associate Professor CREWS, Major, CAC., U. S. A.
Associate Professor REHM, Major, Inf., U. S. A.
Assistant Professor ALDRICH, Captain, CAC., U. S. A.
Assistant Professor FRANK, Captain, CAC., U. S. A.
Instructor WILLIAMS, Staff Sergeant, D. E. M. L., U. S. A.
Instructor LARSON, Staff Sergeant, D. E. M. L., U. S. A.
Instructor WILSON, Staff Sergeant, D. E. M. L., U. S. A.
Instructor McDONALD, Sergeant, D. E. M. L., U. S. A.
Military Property Custodian PETERS, 1st Lieut., Inf.-Reserve

This College is one of the beneficiaries of the act of Congress of July 2, 1862, known as the Land-grant College Act. Military tactics is required in the College curriculums. All male students who are citizens of the United States, and not physically disqualified, are required to take military training three hours a week for two years. Students entering with 25 hours of advanced credit are excused from the second year of military training; those entering with 59 hours of advanced credit are excused from all military requirements.

Requests for excuse from military science, or for postponement, are acted upon by the president of the College. Such requests are presented through the student's dean, and the president obtains the advice of the professor of military science and tactics, who investigates each case on its merits and makes his recommendation to the president. Requests based on physical condition must be accompanied by a recommendation made by the College physician. Students excused from military science for any reason are assigned an equivalent amount of some other College work instead. Students permitted to postpone military science are not thereby excused, but must take it later.

Students enrolled in military courses who were members of junior units, R. O. T. C., at military academies or high schools, or those receiving military training while enrolled in government-aided schools (section 55c, National Defense Act, and section 1225, Revised Statutes) may apply for advanced-credit exemption on the basis of one semester for each year of training at a high school or government-aided school; provided there is stationed at these schools an officer of the Army detailed as professor of military science and tactics; and provided further, that no credit will be given beyond the basic course, which comprises the first four semesters of the College curriculums (freshman and sophomore years).

An infantry unit and a coast artillery unit of the Reserve Officers' Training Corps have been established in this College.

A laboratory fee of 75 cents per semester is required of all students assigned to military training.

PERTINENT REGULATIONS OF THE R. O. T. C.

1. BASIC COURSE (freshmen, sophomores). Each student of these classes will be furnished a complete uniform and equipment for his use during the course. The articles remain the property of the United States and must be turned in by each student at the close of each college year or upon withdrawal from the R. O. T. C. Shoes are not furnished. Tan shoes of smooth leather are required to be worn with the uniform by all basic R. O. T. C. students.

Any article of clothing requiring repairs because of improper use or lack of care will be repaired at the expense of the student concerned. Any such article damaged sufficiently to make reissue undesirable will be paid for by the student concerned. In either instance the extent and cause of the damage will be determined by the professor of military science and tactics or by a member of the regular military faculty designated by him.

No course in military science will be regarded as completed by any student who is indebted to the College for loss of, or damage to, government property.

2. **ADVANCED COURSE.** The student who continues in the R. O. T. C. after completing the Basic Course will receive the following:

a. A special uniform allowance.

b. Commutation of subsistence at the rate of 25 cents per day, provided he agrees to complete the Advanced Course, including a course in camp training. The camp training referred to is without expense to the student. Clothing and subsistence will be furnished and he will be paid at the rate of 70 cents per day, and five cents per mile to and from camp for travel expenses.

After graduation he will be eligible for appointment by the President of the United States as a reserve officer of the Army of the United States, and if so appointed he may, under certain conditions, be appointed and commissioned a second lieutenant in the regular army.

The corps of cadets at present is organized as one regiment with a military band.

Students who are regularly enrolled in the Advanced Course of the Senior Division receive three elective hours toward graduation for each semester of Advanced Military Training.

COURSES IN MILITARY SCIENCE AND TACTICS

FOR UNDERGRADUATE CREDIT

Senior Division, R. O. T. C.

BASIC COURSE, INFANTRY

(For students not in the Division of Engineering or in the curriculum in Industrial Chemistry and Milling Industry.)

101A. INFANTRY I. 1(1-2); I. Staff.

(a) *Practical*: Leadership, weapons, infantry drill, ceremonies, rifle marksmanship.

(b) *Theoretical*: National Defense Act and R. O. T. C., obligations of citizenship, military history and policy, military discipline, courtesies and customs of the service, military sanitation and first aid, military organization, organization of the infantry, weapons, rifle marksmanship.

102A. INFANTRY II. 1(1-2); II. Prerequisite: Mil. Sc. 101A. Staff.
Continuation of Mil. Sc. 101A.

103A. INFANTRY III. 1(1-2); I. Prerequisite: Mil. Sc. 102A. Rehm, Campbell.

(a) *Practical*: Leadership, infantry drill, ceremonies, automatic rifle, combat training.

(b) *Theoretical*: Leadership, automatic rifle, characteristics of infantry weapons, combat training.

104A. INFANTRY IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 103A. Rehm, Campbell.

Continuation of Mil. Sc. 103A.

ADVANCED COURSE, INFANTRY

(For students not in the Division of Engineering or in the curriculum in Industrial Chemistry and Milling Industry.)

109. INFANTRY V. 3(2-3); I. Prerequisite: Mil. Sc. 104A. Yon.

(a) *Practical*: Leadership, infantry drill, ceremonies, combat training.

(b) *Theoretical*: Aerial photograph reading, combat training, defense against chemical warfare, administration I, administration II, care and operation of motor vehicles.

110. INFANTRY VI. 3(2-3); II. Prerequisite: Mil. Sc. 109. Yon.
Continuation of Mil. Sc. 109.

111. INFANTRY VII. 3(2-3); I. Prerequisite: Mil. Sc. 110. Dempewolf.

(a) *Practical*: Leadership, infantry drill, ceremonies.

(b) *Theoretical*: Military history and policy, military law, company administration and supply.

112. INFANTRY VIII. 3(2-3); II. Prerequisite: Mil. Sc. 111. Dempewolf.
Continuation of Mil. Sc. 111.

NOTE.—Advanced-course students are required to attend one camp. This comes normally at the end of the junior year, and is held normally at Fort Leavenworth, Kan.

BASIC COURSE, COAST ARTILLERY

(For students not in the Division of Engineering or in the curriculum in Industrial Chemistry and Milling Industry.)

113A. ARTILLERY I. 1(1-2); I. Aldrich, Frank.

(a) *Practical*: Military sanitation, first aid, map reading, rifle marksmanship, leadership, Coast Artillery weapons and materiel.

(b) *Theoretical*: National Defense Act and the R. O. T. C., obligations of citizenship, military history and policy, organization of the Army, military discipline, courtesies and customs, map reading.

114A. ARTILLERY II. 1(1-2); II. Prerequisite: Mil. Sc. 113A or 101A.
Crews, Aldrich, Frank.
Continuation of Mil. Sc. 113A.

115A. ARTILLERY III. (1-2); I and II. Prerequisite: Mil. Sc. 114A or 102A.

(a) *Practical*: Leadership; Coast Artillery weapons and materiel; fire control and position finding for seacoast artillery; basic gunnery, fire control and position finding for anti-aircraft artillery; rigging.

(b) *Theoretical*: Leadership; Coast Artillery weapons and materiel; fire control and position finding for seacoast artillery; characteristics of naval targets.

116A. ARTILLERY IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 115A.
Crews, Aldrich.
Continuation of Mil. Sc. 115A.

ADVANCED COURSE, COAST ARTILLERY

(For students not in the Division of Engineering or in the curriculum in Industrial Chemistry and Milling Industry.)

117. ARTILLERY V. 3(2-3); I. Prerequisite: Mil. Sc. 116A. Frank.

(a) *Practical*: Leadership, fire control and position finding for seacoast artillery, orientation, applied gunnery for seacoast artillery.

(b) *Theoretical*: Leadership, administration, aerial photograph reading, defense against chemical warfare; basic gunnery, fire control and position finding for anti-aircraft artillery; signal communication, orientation, applied gunnery for seacoast artillery.

118. ARTILLERY VI. 3(2-3); II. Prerequisite: Mil. Sc. 117. Frank.
Continuation of Mil. Sc. 117.

119. ARTILLERY VII. 3(2-3); I. Prerequisite: Mil. Sc. 118. Crews.

(a) *Practical*: Leadership, orientation, field fortifications for sea coast artillery, technic and elementary tactics for seacoast artillery.

(b) *Theoretical*: Leadership, military law, orientation, field fortifications for seacoast artillery, technic and elementary tactics for seacoast artillery.

120. ARTILLERY VIII. 3(2-3); II. Prerequisite: Mil. Sc. 119. Crews.
Continuation of Mil. Sc. 119.

NOTE.—Advanced-course students are required to attend one camp. This comes normally at the end of the junior year, and is held usually at Fort Sheridan, Ill.

Modern Languages

Professor MOORE
 Professor LIMPER
 Associate Professor CRITTENDEN

Associate Professor PETTIS
 Instructor TOWNSEND

The primary objective of foreign language study here is to furnish the student with an instrument definitely useful in the fields of science and commerce. The broader purpose, however, which might be called cultural, is not overlooked entirely.

Students who have had German, French, or Spanish in high school may not duplicate that work for college credit. One year of a language in high school is, as a rule, equivalent to one semester in college. In doubtful cases, the head of the department should be consulted regarding the assignment to work here.

COURSES IN GERMAN**FOR UNDERGRADUATE CREDIT**

101, 102. GERMAN I AND II. 3(3-0) each; I, II, and SS. Prerequisite: For II, Mod. Lang. 101 or equivalent. Moore, Limper.

111. GERMAN III. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 102 or equivalent. Moore, Limper.

112. GERMAN IV. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 111 or equivalent. Moore, Limper.

137. SCIENTIFIC GERMAN. 4(4-0); I. Prerequisite: Mod. Lang. 102 or equivalent. Moore.

FOR GRADUATE AND UNDERGRADUATE CREDIT

209. SCHILLER. 3(3-0); I and II. Prerequisite: Mod. Lang. 112 or equivalent. Moore, Limper.

An introduction to the dramas of Schiller.

213. GOETHE. 3(3-0); I or II. Prerequisite: Mod. Lang. 112 or equivalent. Moore.

An introduction to the study of Goethe.

215. NINETEENTH CENTURY GERMAN DRAMA. 3(3-0); II. Prerequisite: Mod. Lang. 213 or equivalent. Moore.

Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann, and others.

COURSES IN FRENCH**FOR UNDERGRADUATE CREDIT**

151, 152. FRENCH I AND II. 3(3-0) each; I, II and SS. Prerequisite: For II. Mod. Lang. 151 or equivalent. Limper, Pettis, Townsend.

161. FRENCH III. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 152 or equivalent. Limper, Pettis, Townsend.

162. FRENCH IV. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 161 or equivalent. Limper, Pettis.

163. FRENCH COMPOSITION AND CONVERSATION. 3(3-0); I. Prerequisite: Mod. Lang. 162. Pettis.

FOR GRADUATE AND UNDERGRADUATE CREDIT

257. FRENCH DRAMA I. 3(3-0); I or II. Prerequisite: 15 hours of college French or equivalent. Pettis.

Classic French drama, including Corneille, Moliere, Racine, Marivaux, and others.

258. FRENCH DRAMA II. 3(3-0); I or II. Prerequisite: 15 hours of college French or equivalent. Pettis.

Modern French drama, including Brieux, Hervieu, Maeterlinck, Rostand, and others.

263. THE FRENCH NOVEL. 3(3-0); II. Prerequisite: Mod. Lang. 162 or equivalent. Limper.

COURSES IN SPANISH

FOR UNDERGRADUATE CREDIT

176, 177. SPANISH I AND II. 3(3-0) each; I, II, and SS. Prerequisite: For II, Mod. Lang. 176 or equivalent. Moore, Crittenden, Townsend.

180. SPANISH III. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 177 or equivalent. Moore, Crittenden, Townsend.

181. SPANISH IV. 3(3-0); I and II. Prerequisite: Mod. Lang. 180 or equivalent. Crittenden. Townsend.

194. SPANISH COMPOSITION AND CONVERSATION. 3(3-0); II. Prerequisite: Mod. Lang. 181. Townsend.

FOR GRADUATE AND UNDERGRADUATE CREDIT

275. THE SPANISH NOVEL. 3(3-0); I. Prerequisite: Mod. Lang. 181. Townsend.

An introduction to the Spanish novel.

280. THE SPANISH DRAMA. 3(3-0); II. Prerequisite: Mod. Lang. 181. Crittenden.

An introduction to the Spanish drama.

Music

Professor LINDQUIST
Associate Professor SAYRE
Associate Professor DOWNEY
Assistant Professor HARTMAN
Assistant Professor PAINTER
Assistant Professor JEFFERSON
Assistant Professor MARTIN

Assistant Professor STRATTON
Assistant Professor PELTON
Assistant Professor JESSON
Assistant Professor GROSSMANN
Instructor MOON
Instructor STILWELL

To be a vital factor in student life is the aim of the Department of Music. Instruction in voice, piano, organ, violin, violoncello, double-bass, and other instruments, is given in private lessons. All theoretical subjects are taught in classes.

PRELIMINARY MUSICAL TRAINING

Applicants for freshman standing in the four-year music curriculums must pass an examination over certain requirements, which are as follows:

CURRICULUM IN APPLIED MUSIC

Voice majors: A voice of superior quality, ability to sing in time and in tune, and a practical knowledge of music notation.

Piano and Organ majors: A considerable degree of proficiency in the fundamentals of piano technic and in the playing of the easier classics.

Other Instrumental majors: A practicable knowledge of the fundamental technique of playing the instrument in the study of which the student desires to major, and a considerable degree of proficiency in the playing of the easier classics written for that instrument.

CURRICULUM IN MUSIC EDUCATION

School Music majors: A practicable degree of proficiency in the fundamentals of piano technic and sight reading, and the ability to sing in time and in tune.

Band and Orchestra majors: A practicable degree of proficiency in the fundamentals of piano technic.

A complete and detailed list of the requirements for freshman standing in the music curriculums, including examination material, may be had by writing to the office of the vice-president of the College.

COURSES IN THE THEORY OF MUSIC

FOR UNDERGRADUATE CREDIT

101, 102. HARMONY I AND II. 2(3-0) each; I, II, and SS. Prerequisite: Mus. 118 or equivalent. Stratton, Jesson.

I: Major and minor scales; intervals; primary triads and their inversions; dominant seventh and its inversions; harmonizing melodies and basses.

II: Subordinate triads and their sevenths in progressions and inversions; elementary modulation; original exercises.

103, 104. HARMONY III AND IV. 2(3-0) each; I and II, respectively, and SS. Prerequisite: Mus. 102. Stratton, Jesson.

III: Modulation completed; altered and mixed chords; embellishments.

IV: Works of the masters; writing of original exercises and small compositions.

105, 106, 107, 108. EAR TRAINING AND SIGHT SINGING I, II, III, and IV. 2(1-3) each; I, II, I and II, respectively. Prerequisite: Mus. 118 or equivalent. Hartman.

Reading and hearing of intervals, chords, and rhythmical forms.

108A. COUNTERPOINT. 2(2-0); I, II, and SS. Prerequisite: Mus. 104. Jefferson.

Melody writing; association of melodies in simple counterpoint, leading to the writing of original two- and three-part inventions.

111. MUSICAL FORM AND ANALYSIS. 1(1-0); I, II, and SS. Prerequisite: Mus. 108A. Jesson.

Forms used in composition; the music of Bach, Haydn, Mozart, Beethoven, Schumann, Chopin, Brahms, Wagner, and others.

115. RADIO MUSIC APPRECIATION PROGRAM. 1(1-1); I, II, and SS. Prerequisite: Mus. 130 or concurrent registration. Grossmann.

Program building, and practical experience in planning and presentation of music appreciation programs.

118. MUSIC FUNDAMENTALS. 2(3-0); I, II, and SS. Not open to students in music curriculums. Sayre.

A basic course designed to meet the needs of students who desire elementary instruction in the theory of music.

119. BROADCAST MUSICAL PROGRAMS. 2(3-0); I, II, and SS. Prerequisite: Pub. Spk. 161 or equivalent. Stratton.

Planning and arranging broadcasts of musical programs; copyright law as applied to musical broadcasts; theme, transitional, background and incidental music; microphone technic applied to music.

130, 131. HISTORY AND APPRECIATION OF MUSIC I AND II. 2(3-0) each; I and II, respectively, and SS. Lindquist.

The three periods in the history of music, the style of music peculiar to each, and musical contact with the great composers.

133. CHORAL CONDUCTING. 1(2-0); I, II, and SS. Prerequisite: Mus. 118 or equivalent. Lindquist.

Essentials of conducting choirs, glee clubs, and choruses.

134. INSTRUMENTAL CONDUCTING. 1(2-0); I, II, and SS. Prerequisite: Mus. 104 and 133. Downey.

Essentials of conducting bands and orchestras.

136. INSTRUMENTATION AND ORCHESTRATION. 3(3-0); I, II, and SS. Prerequisite: Mus. 108A. Downey.

Instruments of the band and orchestra studied with relation to tone color, range and function; simple and familiar compositions scored for ensemble, including full orchestra.

138, 139. SCHOOL MUSIC I AND II. 2(2-0) each; I and II, respectively, and SS. Prerequisite: Mus. 105 and 106. Hartman.

I: Methods and materials for teaching music in kindergarten and the primary grades.

II: Methods and materials for teaching music in the elementary grades.

143. SCHOOL MUSIC III. 2(2-0); I, II, and SS. Prerequisite: Mus. 138 and 139. Hartman.

Methods and teaching materials suitable for junior and senior high school.

149. METHODS AND MATERIALS FOR THE STUDIO. 1(2-0); I and II. Staff.

Methods of teaching fundamental technic; selection of teaching materials, and the outlining of courses of study. For students in the curriculum in Applied Music; taught in separate divisions for voice, piano, organ, violin, etc.

151A to 151H. ORCHESTRAL INSTRUMENTS I TO VIII. $\frac{1}{2}$ (1-0) each; I, II, and SS. Downey, Martin.

Methods of tone production of the most important instruments of the orchestra. Fee, \$2.

COURSES IN APPLIED MUSIC

When Mus. 153, 156, 158, 161, 163, 167, or 172 are elected by students outside the music curriculums, a maximum of two hours per semester is allowed.

153. INSTRUMENT. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Downey, Martin. For fees, see table following Mus. 198.

156. VOICE. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Lindquist, Sayre, Grossman. For fees, see table following Mus. 198.

158. VIOLIN. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Martin. For fees, see table following Mus. 198.

161. PIANO. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Staff. For fees, see table following Mus. 198.

163. VIOLONCELLO. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Downey. For fees, see table following Mus. 198.

167. DOUBLE-BASS. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Downey. For fees, see table following Mus. 198.

172. ORGAN. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Jesson. For fees, see table following Mus. 198.

174. VOCAL ENSEMBLE. No credit (0-2); I, II, and SS. Elective for students of superior vocal talent. Lindquist, Sayre, Grossmann.

176. PIANO ENSEMBLE. R(1-0); I and II. Required of students majoring in piano or organ. Painter. Fee, \$2.

178. INSTRUMENTAL ENSEMBLE. 1(0-3); I, II, and SS. Elective for selected students. Downey, Martin. Fee, \$2.

181A to 181F. RECITAL I TO VI. R(-); I (181 A, C, and E) and II (181 B, D, and F). Required of all students taking work in the curriculum in Applied Music. A joint solo recital appearance in Recital IV, and an individual solo recital in Recital VI.

183. ENSEMBLE. $\frac{1}{2}$ (0-2) each semester. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Staff.

Required ensemble work may be taken in Choral Ensemble (Mus. 194); Orchestra (Mus. 195); or Band (Mus. 198).

187. PRACTICE TEACHING OF MUSIC. R(1-0); II. Staff.

Practice teaching in private classes for students in the curriculum in Applied Music.

194. CHORAL ENSEMBLE. $\frac{1}{2}$ (0-2) each semester. Weekly rehearsals, all special rehearsals, and public performances. Prerequisite: A voice of good quality, a knowledge of musical notation, and the ability to sing in time and in tune. Lindquist, Sayre, Grossmann.

Membership in both the College Chorus and the Men's Glee Club or the College Chorus and the Women's Glee Club.

MUSICAL ORGANIZATIONS

191. CHORUS. Weekly rehearsals. I and II. Prerequisite: Ability to read musical notation and to sing in time and in tune. Membership is open to the entire student body, and to others who may qualify. Approval of the head of the Department of Music must be obtained. Lindquist.

MEN'S GLEE CLUB. Membership, by competitive tryouts, is open to the entire student body. Lindquist.

WOMEN'S GLEE CLUB. Membership, by competitive tryouts, is open to the entire student body. Sayre, Grossmann.

195. ORCHESTRA. $\frac{1}{2}$ (0-2); I and II. Weekly rehearsals. Membership, by competitive tryouts, is open to the entire student body. Downey.

198. BAND. $\frac{1}{2}$ (0-2); I and II. Weekly rehearsals. Membership, by competitive tryouts, is open to the entire student body. Downey, Martin. Fee, 50 cents; deposit, \$2.

FEES IN MUSIC

COURSE

Two lessons each week for a semester:

Voice	\$36	\$30*	\$24*	\$14†
Piano	36	30*	24*	14†
Organ	36	30*	24*	14†
Violin	36	30*	24*	14†
Violoncello	36	30*	24*	14†
Other orchestral instruments.....	30	30*	24*	14†

One lesson each week for a semester:

Voice	\$20	\$17*	\$14*	\$9†
Piano	20	17*	14*	9†
Organ	20	17*	14*	9†
Violin	20	17*	14*	9†
Violoncello	20	17*	14*	9†
Other orchestral instruments.....	17	17*	14*	9†

Piano rent, one hour daily—\$4 a semester.

Piano rent, two hours daily—\$6 a semester.

Organ rent, one hour weekly—\$3 a semester.

Physical Education and Athletics

Professor AHEARN

Professor SAUM

Professor WASHBURN

Professor FRY

Assistant Professor ROOT

Assistant Professor GEYER

Assistant Professor MAYTUM

Assistant Professor HAYLETT

Assistant Professor MOLL

Assistant Professor WILLIAMSON

Instructor PATTERSON

Instructor YOUNG

Instructor THOMPSON

Assistant MYERS

Men taking physical education Courses 103, 104, 105, and 106 must furnish their own uniforms consisting of white sleeveless shirt, short white trunks, and rubber-soled shoes. Men majoring in physical education must purchase a special uniform for their gymnasium class work, which costs approximately \$9.

Equipment is furnished to acceptable candidates for varsity and freshman athletic teams, who are held responsible for it. Failure to return or replace equipment subjects the offender to a fine or other disciplinary action.

All freshmen and sophomores must enroll for physical education unless excused for disability on recommendation of the College physician. Students entering with 15, 25, 44, or 59 hours of advanced credit are excused from one, two, three, or four semesters, respectively, of physical education, no substitution being required.

Each student receives a physical examination before undertaking the work of the department. All students, whether taking work in the department or not, receive a physical examination.

The College is a member of the Big Six Athletic Conference. The Athletic Council, consisting of eight faculty members, has supervision and control of college sports. Each candidate for an athletic team receives thorough examination before he competes, and careful medical supervision throughout the year.

There is an extensive intramural program of thirteen sports for men and nine for women. Awards in the form of emblems, sweaters, plaques, and medals are made to students on the basis of participation.

COURSES IN PHYSICAL EDUCATION

FOR UNDERGRADUATE CREDIT—MEN

A deposit of \$3 is required of each student enrolled in any course designated "Deposit." Only one deposit is required from any student in one semester.

103, 104, 105, 106. PHYSICAL EDUCATION M. R(0-2). I, II, and SS. Staff.

Personal hygiene and social problems; marching calisthenics, apparatus and games.

* Fees for children.

† Student assistant fees.

The following activities may be elected by students in place of the gymnasium work: (a) swimming: beginning, advanced, and Red Cross life-saving. (Beginning swimming is a prerequisite for advanced swimming and for Red Cross life-saving. Students must pass a preliminary test before entering the Red Cross life-saving class unless they have passed the test given in the advanced swimming class.) (b) boxing, (c) wrestling, and (d) corrective gymnastics. Deposit.

107. INTRODUCTION TO PHYSICAL EDUCATION. 1(1-0); I. Washburn.

An introductory survey of the field and study of the principles of health and physical education.

113A. FIRST AID AND MASSAGE. 3(3-0); II and SS. Prerequisite: Zoöl. 123A. Moll.

119. PERSONAL HYGIENE. 2(2-0); I and SS. Moll.

120. SWIMMING M. 1(0-3); I and SS. Moll.

Instruction and practice in breast, back, and crawl strokes; diving, treading water, and floating. Deposit.

123. PHYSIOLOGY OF EXERCISE. 2(2-0); I. Prerequisite: Zoöl. 123A and 130. Washburn.

Effects of exercise on the tissues, systems, and organs of the body.

124A. PHYSICAL DIAGNOSIS AND PRESCRIPTION. 3(3-0); I. Prerequisite: Phys. Ed. 107, 137, 138, and 141B. Washburn.

Normal and physical diagnosis; individual corrective exercise.

126. FOOTBALL. 2(1-3); II and SS. Fry.

Study of rules, theory and practice; methods of coaching. Deposit.

130A. BASKETBALL. 2(1-3); I and SS. Root.

Study of rules, theory and practice; methods of coaching. Deposit.

133. BASEBALL. 2(1-3); II and SS. Ahearn.

Study of rules, theory and practice; methods of coaching. Deposit.

135, 136B. PRACTICE TEACHING IN PHYSICAL EDUCATION I and II. 1(0-3) and 2(0-6), respectively, I and II each. Prerequisite: Junior standing. Washburn.

Under immediate supervision of the teachers, students assist in the physical education classes, and officiate in intramural games. Deposit.

136C. PRACTICE TEACHING IN PHYSICAL EDUCATION III. 2(0-6); I and II. Washburn.

Continuation of Phys. Ed. 135 and 136B. Deposit.

137. PHYSICAL EDUCATION ACTIVITIES I. 1(0-3); I. Thompson.

Theory and practice of soccer, volleyball, and gymnasium games. Deposit.

138. PHYSICAL EDUCATION ACTIVITIES II. 2(0-6); II. Thompson.

Theory and practice of calisthenics, the gymnastic lesson, and tumbling. Deposit.

139. PHYSICAL EDUCATION ACTIVITIES III. 2(0-6); I. Thompson.

Graded exercises on gymnasium apparatus, gymnastic dancing, pyramids. Deposit.

140. PHYSICAL EDUCATION ACTIVITIES IV. 1(0-3); I. Patterson.

Theory and practice of wrestling and boxing. Deposit.

140A. TRACK AND FIELD SPORTS. 2(1-3); II. Haylett.

Study of rules, theory and practice; methods of coaching. Deposit.

141B. KINESIOLOGY M. 3(3-0); II. Prerequisite: Zoöl. 123A. Washburn. Elemental body movements analyzed; principles involved applied to teaching of physical education.

142. PUBLIC-SCHOOL PROGRAM IN PHYSICAL EDUCATION. 2(2-0); II. Prerequisite: Senior standing. Washburn.

Educational, health, and recreative significance and content of the school program; types of activity to be emphasized in grades and in high school.

145. NATURE AND FUNCTION OF PLAY. 2(2-0); II. Prerequisite: Educ. 184. Washburn.

Theoretical explanation of play; age and sex characteristics influencing play; value of play to individual and community.

146. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION M. 3(3-0); I. Prerequisite: Junior standing. Washburn.

149. TEACHING HEALTH. 2(2-0); I. Prerequisite: Phys. Ed. 119, Zoöl. 123A and 130. Moll.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. COMMUNITY RECREATION. 2(2-0); II and SS. Prerequisite: Phys. Educ. 145. Washburn.

Principles, management, and activities of the various forms of community recreation.

FOR GRADUATE CREDIT—MEN

301. PROBLEMS IN PHYSICAL EDUCATION. Credit to be arranged. Prerequisite: Variable, depending upon problem chosen. Washburn.

FOR UNDERGRADUATE CREDIT—WOMEN

A deposit of \$2.50 is required of each student enrolled in any course designated "Deposit." Only one deposit is required from any student in one semester.

151A, 152A, 153, 154. PHYSICAL EDUCATION W. R(0-3) each; I, II, and SS. Staff.

Modern dancing, swimming and individual gymnastics offered throughout the year; folk and tap dancing, recreational sports, Danish gymnastics, hockey, soccer, fieldball, tennis, basketball, archery, baseball and golf in season. Deposit. A refund of 50 cents, each semester, is made upon return of key.

Recreational swimming is offered on Tuesdays and Thursdays at 4 o'clock for those who have registered in the College and paid the necessary fees. Swimming fee, \$1 each semester.

Major Courses

The following courses may be elected by those who wish a minor in Home Economics: Art 101A, Elementary Design I; Art 130; Costume Design I; Food and Nutr. 102, Foods I; Clo. and Text. 103, Clothing for the Individual.

155. FUNDAMENTAL RHYTHM, 1(0-3); I. Young.

Body rhythm, fundamentals of music, and percussion accompaniment for rhythmic activities. Deposit.

157A. GENERAL TECHNIC I. 2(1-3); I. Maytum.

Theory and practice of self-testing activities. Deposit.

157B. GENERAL TECHNIC II. 2(1-3); II. Maytum.

Theory and practice of tumbling and recreational sports. Deposit.

157C. GENERAL TECHNIC III. 2(1-3); I. Prerequisite: Ability to play hockey and soccer. Geyer.

Methods of teaching soccer, hockey, fieldball and speedball. Deposit.

157D. GENERAL TECHNIC IV. 2(1-3); II. Prerequisite: Ability to play volleyball, basketball and baseball. Geyer.

Methods of teaching volleyball, basketball and baseball. Deposit.

157E. GENERAL TECHNIC V. 2(1-3); I. Prerequisite: Phys. Ed. 155 and one half semester each of folk dancing and tap dancing. Maytum.

Method of teaching child rhythms and folk dancing. Deposit.

157F. GENERAL TECHNIC VI. 2(1-3); II. Prerequisite: Knowledge of Danish gymnastics, tennis and golf. Geyer.

Methods of teaching Danish gymnastics, tennis and golf. Deposit.

157G. GENERAL TECHNIC VII. 2(1-3); I. Prerequisite: A semester each of beginning dancing and intermediate dancing. Young.

Methods of teaching modern dance. Deposit.

157H. GENERAL TECHNIC VIII. 2(1-3); II. Prerequisite: A semester each of beginning and intermediate swimming; one half semester of archery. Saum.

Methods of teaching swimming and archery. Deposit.

158. FIRST-AID. 1(1-0); SS.

The prevention of accidents and the treatment of injuries in an emergency.

163. PRINCIPLES OF HEALTH EDUCATION W. 3(3-0); I and SS. Prerequisite: Child Welf. 101. Geyer.

General program of health work; daily health inspection; health examinations; and evaluation of health education material for grades and high schools.

164. CLOG AND CHARACTER DANCING W. 1(0-3); SS.

Principles of teaching clog and character dancing; lectures and practical work; a notebook is required.

165. TUMBLING, PYRAMIDS, AND STUNTS W. 1(0-3); SS.

Instruction in tumbling, pyramids, and stunts in line with the ability of the class. Material presented may be used in grades and high school.

166. INTRAMURAL ATHLETICS FOR WOMEN. 1(1-0); SS.

This course is offered for teachers who direct intramural activities. Types and methods of conducting intramural athletics in high schools will be considered.

167. CAMP CRAFT W. 1(0-3); SS.

Fire building, outdoor cooking, day and overnight trips, and handicraft. Lectures, reports, and practical work.

168. GAMES FOR GRADES AND HIGH SCHOOL. 2(1-3); SS. Geyer.

Methods of teaching games in public schools suitable for recess, noon, and after-school periods. Deposit.

171. HEALTH EXAMINATIONS W. 2(0-6); I. Prerequisites: Phys. Ed. 184 and Zoöl. 123A and 130. Maytum.

Methods of giving health examinations, analysis of normal body mechanics, postural deviations; first-aid emergency treatment.

172. THERAPEUTICS AND MASSAGE. 2(0-6); II. Prerequisite: Phys. Ed. 171 and 184 and Zoöl. 123A. Maytum.

Postural defects studied and exercises given for correction of each; general and local massage practiced for cases which can be treated by the Department of Physical Education. Deposit.

176. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION W. 2(2-0); II. Prerequisite: Phys. Ed. 157A to 157G, 182A, and 188. Saum.

Administrative policies of physical education departments: the staff, activities, basic principles. Construction, equipment, and care of plant.

178. FOLK DANCING. 1(0-3); SS.

Singing games; rhythms and folk dancing for elementary and secondary schools. Deposit.

182A. PLAYGROUND MANAGEMENT AND GAMES W. 2(1-3); I. Geyer.

Organization and administration of playground activities and equipment; history of the playground movement; types of games suitable for different age periods. Practice teaching in elementary schools. Deposit.

183. ADULT RECREATION W. 2(2-0); II. Prerequisite: Phys. Ed. 182A. Maytum.

Principles and methods of organizing communities for leisure time activities.

184. KINESIOLOGY W. 2(2-0); II. Prerequisite: Zoöl. 123. Geyer.

The mechanics of movement; elemental body movements analyzed and principles involved applied to the teaching of physical education.

187A. TECHNIC OF BASKETBALL, BASEBALL, AND VOLLEYBALL. 1(0-3); SS.

Rules, duties of officials, organization of squads and teams, equipment. Methods of coaching and conducting of tournaments. Deposit.

188. TEACHING AND ADAPTATION OF PHYSICAL EDUCATION. 3(3-0); I. Prerequisite: Phys. Ed. 157A to 157F, 161, and 182A. Maytum.

Problems of physical education and general principles of leadership; adaptation of material to meet needs of various groups and to meet aims and ideals of physical education.

FOR UNDERGRADUATE CREDIT—MEN AND WOMEN

192. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. 3(3-0); II. Prerequisite: Sophomore standing. Maytum.

A survey of the field of physical education from ancient to modern times; aims and ideals of physical education and its relations to general education.

Physics

Professor CARDWELL
Professor HAMILTON
Professor RABURN
Professor FLOYD
Associate Professor BRACKETT
Associate Professor LYON

Associate Professor CHAPIN
Associate Professor McMILLEN
Assistant Professor HARTEL
Assistant Professor MAXWELL
Assistant Professor AVERY
Assistant Professor HUDIBURG

Courses in the Department of Physics are designed to meet the needs of three kinds of students: (1) The general student who desires some knowledge of physics for its cultural value; (2) the technical student in engineering, home economics or chemistry who must be well grounded in basic principles; (3) the student who wishes to major in physics, looking forward to a career in teaching, industrial physics, industrial research, or graduate work.

Persons classified under the third of the above groups should, at the earliest possible date, consult with the head of the department.

COURSES IN PHYSICS

FOR UNDERGRADUATE CREDIT

102, 103. GENERAL PHYSICS I AND II. 4(3-3) each; I, II, and SS each. Not open for full credit to students who have credit in Phys. 109. Prerequisite: For I, Math. 101; for II, Phys. 102. Staff.

I: Mechanics, heat, and sound.

II: Magnetism, electricity, and light. Charge, \$3 for each course.

105, 106. ENGINEERING PHYSICS I AND II. 5(4-3) each; I, II, and SS each. Prerequisite: For I, Math. 101; for II, Phys. 105. Not open for full credit to students who have credit in Phys. 109, 102, or 103. Staff.

I: Mechanics, heat, and sound for technical students.

II: Magnetism, electricity, and light for technical students. Charge, \$3 for each course.

109. HOUSEHOLD PHYSICS. 4(3-3); I, II, and SS. Hamilton, Avery, Hudiburg.

Lectures and demonstrations in which the laws and principles involved in household appliances are explained and illustrated. Charge, \$3.

121. PHYSICS FOR MUSICIANS I. 5(4-3); I. Prerequisite: Mus. 101 and 102. Floyd, Chapin.

Laws and principles necessary for an understanding of the physics of scales, chords, and musical instruments, including the human voice. Charge, \$3.

122. PHYSICS FOR MUSICIANS II. 3(3-0); II. Prerequisite: Phys. 121, 102, or 105. Floyd, Chapin.

Application of the material presented in Phys. 121.

125. ARCHITECTURAL ACOUSTICS. 2(2-0); II. Prerequisite: Phys. 103 or 105. Floyd, Chapin.

Prediction of acoustic properties of buildings in advance of construction and the correction of acoustic defects.

134. AGRICULTURAL PHYSICS. 3(3-0); II. Brackett.

Fundamental principles as related to agriculture. Required of students in agriculture who enter without high-school physics.

136. DESCRIPTIVE PHYSICS. 3(3-0); I, II, and SS. Not for credit if following Phys. 102, 103, 105, or 106. Brackett, Maxwell.

Non-mathematical explanations and experimental demonstrations of selected principles in physics.

141. DESCRIPTIVE ASTRONOMY. 3(3-0); II. Hartel.

Introductory course; observations with five-inch refracting telescope.

146. METEOROLOGY. 3(3-0); I and II. Hamilton, Raburn.

Weather phenomena and principles of forecasting; climatic factors; relation of weather studies to agriculture, general science, and physiology.

151. PHOTOGRAPHY. 2(1-3); II. Hamilton, Hudiburg.

Chemical and physical principles involved in photography; practice in making good negatives and prints. Charge, \$3.

160. INTRODUCTION TO MODERN PHYSICS. 2(2-0); I, II, and SS. Prerequisite: A course in physics and in chemistry. Cardwell, Brackett, Lyon.

A non-mathematical introduction to contemporary problems and theories.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. LABORATORY TECHNIC AND APPARATUS DESIGN. 1(0-3) or 2(0-6); I, II, and SS. Prerequisite: Phys. 103 or 106. Hudiburg.

A course designed to meet the needs of the individual student. Charge, \$3.

205. APPLIED X-RAYS. 3(2-3); I or II. Prerequisite: Phys. 103, 106, or 109. Hamilton.

Radiology, theory of short waves, and of the equipment used in production. Laboratory work involving the use and operation of X-ray equipment and making exposures and development of X-ray plates and films. Charge, \$3.

210. ASTRONOMY. 3(3-0); I or II. Prerequisite: Phys. 103 or 106, Phys. 141, and Math. 115. Hartel.

A second course by methods of the calculus.

217. GEOPHYSICS I. 3(3-0); I. Prerequisite: Phys. 103 or 106. Cardwell, Lyon.

Theory of the field work in gravitational, magnetic, electrical, seismic, and radioactive and temperature surveys.

218. GEOPHYSICS II. 3(1-6); II. Prerequisite: Phys. 217. Cardwell, Lyon. Continuation of Phys. 217 with laboratory work on the use of the torsion balance, the dip needle, and the methods of equipotential. Charge, \$3.

220. APPLIED SPECTROSCOPY. 3(2-3); I. Prerequisite: Phys. 103 or 106 and Chem. 103 and 104 or Chem. 110. McMillen.

Spectrographic methods for detecting, qualitatively and quantitatively, the chemical constituents of minerals, metals and biological specimens. Charge, \$3.

227. MECHANICS. 3(3-0); I. Prerequisite: Phys. 102 or 105 and Math. 115. McMillen.

Theoretical mechanics by methods of the calculus.

228. MECHANICS LABORATORY. 1(0-3) or 2(0-6); I. Prerequisite: Phys. 227 or concurrent registration. McMillen. Charge, \$3.

238. HEAT. 3(3-0); I. Prerequisite: Phys. 103 or 106 and Math. 115. Cardwell, Chapin.

A critical study of the general field of heat.

239. HEAT LABORATORY. 1(0-3); I. Prerequisite: Phys. 238 or concurrent registration. Cardwell, Chapin. Charge, \$3.

240. SOUND. 3(3-0); I and SS. Prerequisite: Phys. 102 or 105 and Math. 115. Floyd, Chapin.

A critical study of the general field of sound.

243. LIGHT. 3(3-0); II. Prerequisite: Phys. 103 or 106 and Math. 114. Cardwell, Chapin.

A critical study of the general field of light.

244. LIGHT LABORATORY. 1(0-3); II. Prerequisite: Phys. 243 or concurrent registration. Cardwell, Chapin. Charge, \$3.

253. ELECTRICITY AND MAGNETISM. 2(2-0); I or II. Prerequisite: Phys. 103 or 106 and Math. 115. Lyon.

Electricity and magnetism by methods of the calculus.

254. ELECTRICITY AND MAGNETISM LABORATORY. 1(0-3) or 2(0-6); I or II. Prerequisite: Phys. 253 or concurrent registration. Lyon. Charge, \$3.

265. ELECTRIC OSCILLATIONS AND WAVES. 3(3-0); II. Prerequisite: Phys. 253. Lyon.

Radiation field theory and radio circuits.

266. ELECTRIC OSCILLATIONS AND WAVES LABORATORY. 2(0-6); II. Prerequisite: Phys. 265 or concurrent registration. Lyon. Charge, \$3.

268. ELECTRON OPTICS. 2(2-0); II. Prerequisite: Phys. 103 or 106 and Math. 115. McMillen.

Theory of the bending and focusing of electron beams by electric and magnetic fields.

270. ATOMIC PHYSICS. 3(3-0); I or II. Prerequisite: Phys. 103 or 106 and Math. 115. Cardwell, Lyon, McMillen.

Contemporary theories and problems.

297. PROBLEMS IN PHYSICS. Credit to be arranged; I, II, and SS. Prerequisite: Consent of instructor. Staff.

299. COLLOQUIUM IN PHYSICS. R; I and II. Required of graduate majors and senior undergraduate majors. Staff.

FOR GRADUATE CREDIT

The following courses are available by appointment:

302. INTRODUCTION TO THEORETICAL PHYSICS I. 3(3-0). Prerequisite: Phys. 227 and Math. 201. Cardwell, McMillen.

A course designed to acquaint the student with the methods of mathematical and theoretical physics.

303. INTRODUCTION TO THEORETICAL PHYSICS II. 3(3-0). Prerequisite: Phys. 302. Cardwell, McMillen.

A continuation of Physics 302.

305. QUANTUM AND WAVE MECHANICS. 3(3-0). Prerequisite: Phys. 103 or 106 and Math. 201. Cardwell, McMillen.

310. GENERAL THERMODYNAMICS. 3(3-0). Prerequisite: Phys. 238 and Math 201. Cardwell, Chapin.

313. KINETIC THEORY OF GASES. 3(3-0). Prerequisite: Phys. 238 and Math. 201. Floyd, Raburn.

315. VECTOR MECHANICS. 3(3-0). Prerequisite: Math. 230. Babcock.

390. RESEARCH IN PHYSICS. Credit to be arranged; I, II, and SS. Prerequisite: Consent of instructor. Staff.

Public Speaking

Professor HILL
Professor SUMMERS
Associate Professor HEBERER

Associate Professor GIVEN
Assistant Professor TROUTMAN
Instructor WEBSTER

FOR UNDERGRADUATE CREDIT

101. ORAL INTERPRETATION. 2(2-0); I, II, and SS. Hill, Given.

Attainment of some proficiency in the art of reading aloud. Charge, \$1.

102. DRAMATIC READING. 2(2-0); II. Prerequisite: Pub. Spk. 101 or permission of the instructor. Given, Troutman.

Advanced study and application of the principles of oral interpretation to platform reading.

106. EXTEMPORE SPEECH I. 2(2-0); I, II, and SS. Staff.

Preparation and delivery of short addresses based on prepared outlines. Charge, \$1.

108. EXTEMPORE SPEECH II. 2(2-0); I, II, and SS. Prerequisite: Pub. Spk. 106. Staff.

Pub. Spk. 106 continued with special attention to illustrative material.

110. ELEMENTS OF PHONETICS. 2(2-0); I. Given.

An elementary study of the science of speech sounds. Charge, \$1.

121. ARGUMENTATION AND DEBATE. 2(2-0); II. Prerequisite: Pub. Spk. 106 or permission of instructor. Summers.

Fundamentals of argumentation as applied to debate.

123, 124. INTERCOLLEGIATE DEBATE I AND II. 2(2-0) each. Prerequisite: For I, Pub. Spk. 121; for II, Pub. Spk. 123 and permission of instructor. Summers. Open only to members of the intercollegiate debate squads.

126. PARLIAMENTARY PROCEDURE. 1(1-0); II. Summers.

The procedure used to organize, conduct, and participate in deliberative assemblies.

130, 135. **DRAMATIC PRODUCTION I AND II.** 2(2-0) each; I, I, II, and SS; II, II and SS. Prerequisite: For II, Pub. Spk. 130 or permission of the instructor. Heberer, Troutman.

I: The theory of and practice in the fundamentals of acting.

II: The fundamentals of stage-craft.

138. **PUBLIC SPEAKING FOR TEACHERS.** 1(1-0); II and SS. Hill, Troutman. Application of the principles of public speaking to pedagogy.

142. **ORATORICAL CONTEST.** 2(-); I and II. Hill.

Participation in contest oratory.

150, 152. **DEVELOPMENT OF THE THEATER I AND II.** 2(2-0) each; I and II, respectively. Heberer, Troutman.

I: The theater to the end of the nineteenth century.

II: The modern and the contemporary theater.

161. **ELEMENTS OF BROADCASTING.*** 3(2-3); I and II. Prerequisite: Pub. Spk. 106. Summers.

Fundamentals of radio broadcasting. Charge, \$2.

168. **RADIO PROGRAM PARTICIPATION.** 1(0-3); I and II. Prerequisite: Pub. Spk. 161. May not be taken for more than four semesters for credit. Summers.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. **ADVANCED PHONETICS.** 4(3-3); II. Prerequisite: Pub. Spk. 101, 106, and 110. Given.

An advanced study of the science of speech sounds.

222. **ADVANCED DEBATE.** 2(2-0); I. Prerequisite: Pub. Spk. 121 or permission of the instructor. Summers.

An advanced study of and participation in the methods of persuasion in public discussion.

225. **THE PUBLIC PROGRAM.** 2(2-0); II and SS. Prerequisite: Pub. Spk. 106 or permission of the instructor. Hill, Troutman.

Planning, building, and presenting non-radio public programs.

230. **RADIO CONTINUITY.*** 2(2-0); I and II. Prerequisite: Pub. Spk. 161 and permission of the instructor. Summers.

Planning and construction of radio programs.

231. **RADIO PROGRAM PRODUCTION.*** 2(1-3); I and II. Prerequisite: Pub. Spk. 161 and permission of the instructor. Summers.

Production and direction of radio programs.

232. **PROBLEMS IN BROADCASTING.*** Credit to be arranged; I and II. Prerequisite: Pub. Spk. 161 and permission of the instructor. Summers.

Individual problems in the general field of radio broadcasting.

FOR GRADUATE CREDIT

301. **RESEARCH IN SPEECH.** Credit to be arranged: I, II, and SS. Prerequisite: Consult instructor. Hill, Summers, Given.

Individual research problems in the general field of speech.

305. **CLINICAL PROBLEMS OF DEFECTIVE SPEAKING.** 4(2-6); II. Prerequisite: Pub. Spk. 101, 106, 108, and 201. Hill, Given.

A study of corrective methods.

* Effective January 31, 1938.

Zoölogy

Professor NABOURS
 Professor ACKERT
 Professor HARMAN
 Associate Professor HERRICK
 Associate Professor WIMMER
 Assistant Professor HARBAUGH
 Instructor GOODRICH
 Instructor CAUTHEN
 Instructor AMEEL

Instructor GROODY
 Research Assistant STEBBINS
 Graduate Assistant LOCKHART
 Graduate Assistant EDGAR
 Graduate Research Assistant CASE
 Graduate Research Assistant TODD
 Graduate Research Assistant FINERTY
 Graduate Research Assistant MACQUEEN

The courses have been planned to give a fundamental knowledge of the structures, functions, and relations of animals; information concerning the manner in which animals respond to the conditions of the environment; an appreciation of their human values; and a consideration of the problems of heredity and evolution.

COURSES IN ZOOLOGY

FOR UNDERGRADUATE CREDIT

105. GENERAL ZOOLOGY. 5(3-6); I, II, and SS. Staff. Charge, \$3.

123A. HUMAN ANATOMY. 5(3-6); I. Prerequisite: Zoöl. 105. Wimmer.
 General anatomy studied by means of dissectable models, skeletons, and charts. Charge, \$3.

130. PHYSIOLOGY. 4(3-3); I, II, and SS. Prerequisite: Zoöl. 105 and Chem. 101 or 110. Wimmer.

See Zoöl. 238. Charge, \$3.

135. EMBRYOLOGY A. 3(2-3); I and SS. Prerequisite: Zoöl. 105. Harman.
 Development of the human body; the chick and pig used as laboratory materials. Charge, \$3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. PROBLEMS IN ZOOLOGY. Credit to be arranged; I, II, and SS. Staff.
 Problems in heredity, parasitology, physiology, cytology, embryology, protozoology, ecology, ornithology, endocrinology, and neurology.

205. FIELD ZOOLOGY. 2(1-3) or 3(1-6); I, II, and SS. Prerequisite: Zoöl 105. Harbaugh.

Habitat, distribution, and relationship of animals. Charge, \$3.

206. ZOOLOGICAL TECHNIC. 1(0-3) or 2(0-6); II. Prerequisite: Zoöl. 105. Cauthen.

Methods and processes in preparation of microscopical slides; principles of photomicrography. Charge, \$3.

208. ANIMAL PARASITOLOGY. 3(2-3); I. Prerequisite: Zoöl. 105. Ackert.
 Biology, pathology, and prophylaxis of the principal external and internal parasites of the domestic animals. Charge, \$2.

209. PRINCIPLES OF PARASITOLOGY. 2(2-0); I. Prerequisite: Zoöl. 105. Ackert.

Principles, origin, history, and philosophy of animal parasitism.

212. INVERTEBRATE ZOOLOGY. 4(2-6); I. Prerequisite: Zoöl. 105. Goodrich.
 Charge, \$3.

214. CYTOLOGY. 4(2-6); I. Prerequisite: Zoöl. 105. Harman.
 Cells, chromosomes, and heredity. Charge, \$3.

216. HEREDITY AND EUGENICS. 2(2-0); I. Prerequisite: Zoöl. 105. Nabours.

Human inheritance and the interactions of nature and heredity.

217. EVOLUTION AND HEREDITY. 3(2-3) or 4(2-6); II. Prerequisite: Zoöl. 105. Nabours.

Development of the idea of evolution; evidence and principal theories of the causes of evolution; problems of variation, heredity, and experimental evolution.

218. HUMAN PARASITOLOGY. 3(3-0); II. Prerequisite: Zoöl. 105. Ackert.

219A. EMBRYOLOGY B. 4(3-3); I, II, and SS. Prerequisite: Zoöl. 105. Harman.

Physiology of reproduction and developmental anatomy of mammals, with special reference to man. Charge, \$3.

220. ADVANCED EMBRYOLOGY. 4(2-6); II and SS. Prerequisite: Zoöl. 135 or 219A. Harman. Charge, \$3.

225. ZOÖLOGY AND ENTOMOLOGY SEMINAR. 1(1-0); I and II. Prerequisite: Zoöl. 105.

227. GENETICS SEMINAR. 1(1-0); I and II. Prerequisite: Zoöl. 105. Nabours, Warren, Parker, Ibsen.

231. ENDOCRINOLOGY. 2(2-0); I and SS. Prerequisite: Zoöl. 130 and 135 or 246, and permission of instructor. Herrick.

237. ADVANCED PHYSIOLOGY. 3(3-0); I and SS. Prerequisite: Chem. 122 and Zoöl. 105. For graduate students and upperclassmen with the consent of the instructor. At least one hour of Zoöl. 238 must accompany this course. Wimmer.

238. ADVANCED PHYSIOLOGY LABORATORY. 1(0-3) or 2(0-6); I and SS. To be taken concurrently with Zoöl. 237; or with consent of the instructor, one credit hour may be taken concurrently with Zoöl. 130, or by students who have credit in Zoöl. 130. Wimmer. Charge, \$3 for one credit hour and \$1 for the additional credit hour.

240. TAXONOMY OF PARASITES. 2(1-3); II and SS. Prerequisite: Zoöl. 208 or 218. Ackert. Charge, \$2.

244. ORNITHOLOGY. 3(2-3); II, or 2(1-3); SS. Prerequisite: Zoöl. 105. Goodrich.

Study of bird anatomy, adaptation, and habits. Charge, \$2.

246. COMPARATIVE ANATOMY OF VERTEBRATES. 4(2-6); II. Prerequisite: Zoöl. 105. Herrick. Charge, \$3.

248. APPLIED ZOÖLOGY. 3(3-0); I and SS. Prerequisite: Zoöl. 105. Herrick, Harbaugh.

Valuable and destructive animals in relation to mankind.

250. COMPARATIVE AND HUMAN NEUROLOGY. 3(2-3); I. Prerequisite: Zoöl. 105. Herrick. Charge, \$2.

FOR GRADUATE CREDIT

301. RESEARCH IN ZOÖLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Research problems in the fields of heredity and experimental evolution, parasitology, cytology, embryology, ecology, physiology, neurology, endocrinology, and protozoölogy.

The Division of Home Economics

MARGARET M. JUSTIN, *Dean.*

Modern research in the sciences and present-day development of the industries, arts, and professions have brought a recognition of the value of technical training as a part of the preparation for life's work. An educational plan which combines industrial, technical, and scientific subjects with the older general studies results to the students in the power to express, in everyday activities, the knowledge acquired in the classroom. It increases the capacity for productive work and develops the desire to realize in practical form the theories and principles studied. The aim of a collegiate course in home economics is not merely to increase the student's stock of information, but to stimulate interest in continued study or research, to train in accuracy in detail, to teach discrimination with regard to criteria by which to interpret results, and to cultivate an attitude of economic and social responsibility.

The curriculums as outlined below are arranged to meet the needs of the following groups of students: Those who wish to teach, those who wish to enter graduate courses leading to technical or professional work, and those who wish to apply their knowledge to various problems of home life, or in the fields of industry and social service in which an understanding of home-economics subjects is essential to intelligent action. The training given is as varied as it is broad. It includes a knowledge of the laws of health; an understanding of the sanitary requirements of the home; the study of values, both absolute and relative, of the various articles used in the home; the wise expenditure of money, time, and energy; the scientific principles underlying the selection and preparation of food; the right care of children; and the ability to secure efficient service from others. Instruction is given on the basis of problem solving, sustained by class discussions. Life in the residence hall, in which the student participates in the numerous duties pertaining to the routine of living, is recognized as a sustaining influence in the mastery of instruction offered in the classroom and laboratory, and is suggested as desirable for all students not participating otherwise in group life. Experience shows that such training has significant value in developing social attitudes desirable in a democracy, and fosters a woman's independence and feeling of responsibility.

The three four-year curriculums in this division lead to the degree of Bachelor of Science in Home Economics, and a five-and-one-half-year curriculum leads to the degree of Bachelor of Science in Home Economics and Nursing.

CURRICULUM IN HOME ECONOMICS

The training in this curriculum is both general and specific. Since scientific training is fundamental in the intelligent and successful administration of the home, strong courses in the sciences are given as a foundation for the special training in home economics. To the end that well-rounded culture may be attained, courses in English, history, economics, and psychology receive due prominence. The time of the student is about equally divided among the purely technical subjects, the fundamental sciences, and studies of general interest. The courses in the related subjects are given in the different departments of the College, while the technical courses are given in the Division of Home Economics. In the junior and senior years opportunity is given for choice of electives, which makes it possible for students to specialize in some chosen line. To this end provision has been made for both options and electives to be chosen in groups combined logically in courses approved by the faculty or by the student's dean. This choice of electives will be made during the first semester of the sophomore year.

This curriculum is recommended for all who desire general training in home economics or who have not yet determined the special fields in which they wish to major. It is the curriculum to be chosen by those who wish to teach home economics or to engage in home demonstration work.

CURRICULUM IN HOME ECONOMICS AND ART

The curriculum offering special training in art is designed to meet the need of students especially interested in this field. The courses give background for professional work in the art field, for teaching of art, and for the general culture afforded by art study.

CURRICULUM IN HOME ECONOMICS AND INSTITUTIONAL MANAGEMENT AND DIETETICS

This curriculum is designed to meet the needs of the student who wishes to become a dietitian or director of food services in a college residence hall, cafeteria, tea room, or hotel. It meets the requirements set by the American Dietetic Association for entrance to accredited hospitals and at the same time provides practical training for the management of the food unit of various types of institutions. As a part of the training received, residence in the college residence hall for one semester will be required. Usually after graduation the student serves an apprenticeship in a recommended establishment to round out her training and experience.

CURRICULUM IN HOME ECONOMICS AND NURSING

The five and one-half year curriculum is offered in affiliation with the University of Kansas hospitals. A student wishing to take the degree of Bachelor of Science and the full professional training in nursing can complete this work in five and one half years. The first three years are spent at the College. The last two and one half years are spent at the school of nursing of the hospitals, where theoretical and practical training in nursing is given. Upon completion of the hospital training, the student presents her application for graduation to the registrar of Kansas State College.

The student is approved for the curriculum by the dean of the Division of Home Economics. At some time during her freshman year she is subject to approval by the superintendent of the school of nursing. Further information may be obtained from the dean of the Division of Home Economics.

The demand for trained women to fill administrative and teaching positions in schools of nursing and to enter the various branches of public-health nursing is greater than the supply and offers a growing and attractive field of work for the college graduate.

OPTIONS FOR STUDENTS IN THE DIVISION OF HOME ECONOMICS

In order that the student's interest and efforts be directed toward the exploration and mastery of some field, instead of being scattered in a casual manner, options of 15 hours, one of which must be filled to meet the requirements of graduation, have been established in the fields of Social Science, Modern Language, Mathematics, Music, Physical Education, Journalism, Physical or Biological Science, and Art. The Student selects courses in one of these eight fields with the advice and approval of the dean.

Option I—Social Science: Selection may be made from courses in Economics, Sociology, American History, European History, American Government, Economics of the Household, Consumer Buying, and Family Finance. If desired this option may be adapted to include 12 hours of social science and 3 hours of English.

Option II—Modern Language: Courses in German, French, or Spanish may be chosen. If the student has had one year of language in high school she

will be held for 12 hours of the same language in advance of the previous work; if two years of language have been taken in high school, the student will be held for nine hours of the same language in advance of that taken. Three of the hours thus released may be used to secure an additional three hours in English.

Option III—Mathematics: Plane Trigonometry, College Algebra, Plane Analytical Geometry, and Calculus I comprise the option. If only one year of algebra has been taken in high school the student must take the five-hour course, College Algebra A.

Option IV—Music: Courses in Piano, Voice, and Orchestral Instruments, two hours each, are taken. Other subjects in the Department of Music are Harmony I and II, School Music III, History and Appreciation of Music, and Choral Conducting. Ear training and Sight Singing I and II may be chosen instead of Harmony I and II. In addition to the above, the student should be enrolled in Choral Ensemble for two or more semesters.

Option V—Physical Education: The student should choose the required physical education courses in the first two years to serve as background for the option in this field. Prerequisites required for the courses in General Technic included in the option are as follows:

OPTION	PREREQUISITE
General Technic IV	Basketball and Baseball
General Technic V	Folk Dancing and Tap Dancing

Other subjects are Principles of Health Education W, Playground Management and Games W, History and Principles of Physical Education, Teaching and Adaptation.

Option VI—Journalism: Elementary Journalism, Journalism for Women, and Industrial Feature Writing are basic courses. In addition, selection may be made from the following courses: Industrial Writing, Magazine Features, Principles of Advertising, Radio Writing.

Option VII—Physical or Biological Science: Courses in the fields of Physics, Chemistry, and Geology, or in Botany, Zoölogy, Bacteriology, and Entomology may be chosen.

Option VIII—Art: Advanced courses in the various fields of Art, such as Design, Interior Decoration, and Costume Design may be chosen.

HOME ECONOMICS IN THE SUMMER SCHOOL

In addition to the regular instruction in various branches of home economics, the Division offers numerous courses in this subject in the Summer School. These courses apply directly on the curriculum in home economics, or on graduate credit.

Full information concerning the courses offered is contained in the Summer School number of the Kansas State College *Bulletin*, which may be obtained upon application to the vice-president of the College.

CERTIFICATE FOR TEACHING HOME ECONOMICS

The student who, in addition to securing the degree of Bachelor of Science, is desirous of qualifying for the three-year Kansas state teacher's certificate, renewable for life and valid in any high school or other public school in the state, should elect certain courses in the Department of Education and other technical courses which are deemed essential for vocational home economics and desirable for all teaching of home economics. These courses are as follows:

EDUCATIONAL SUBJECTS	TECHNICAL SUBJECTS
Educ. Psychology, Educ. 109.....	Child Guidance I, Child Welf. 201, 3(1-6)
Prin. of Secondary Educ., Educ. 236, 3(3-0)	Home Mgmt., Hshld. Econ. 116... 3(1-6)
Vocational Educ., Educ. 241.....	Adv. Clothing, Clo. and Text. 123.. 4(1-9)
Methods of Teach. Home Economics, Educ. 132.....	
Teach. Particip. in Home Economics, Educ. 160	
	3(-)

The State Board for Vocational Education issues certificates of approval for one year only, to teachers of Vocational Homemaking, and reserves the right to require individual teachers to return to summer school for further preparation when the need becomes apparent.

Curriculum in Home Economics

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	*3(3-0)	College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Chemistry, Chem. 110.....	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Elementary Design I, Art 101A...	2(0-6)	Costume Design I, Art 130.....	2(0-6)
Foods I, Food and Nutr. 102.....	5(3-6) <i>or</i>	Gen. Psychology, Educ. 184.....	3(3-0) <i>and</i>
Gen. Psychology, Educ. 184.....	3(3-0) <i>and</i>	Personal Health, Child Welf. 101..	2(2-0) <i>or</i>
Personal Health, Child Welf. 101..	2(2-0)	Foods I, Food and Nutr. 102.....	5(3-6)
H. E. Lectures, Gen. H. E. 130...	R(1-0)	H. E. Lectures, Gen. H. E. 130...	R
Phys. Educ. W. Phys. Ed. 151A...	R(0-3)	Phys. Educ. W, Phys. Ed. 152A...	R(0-3)
Total	15	Total	15

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
English Literature, Engl. 172.....	3(3-0)	American Literature, Engl. 175....	3(3-0)
General Zoölogy, Zoöl. 105.....	5(3-6)	Embryology B, Zoöl. 219A.....	4(3-3) <i>or</i>
Elementary Design II, Art 101B...	2(0-6)	Physiology, Zoöl. 130.....	4(3-3)
Foods II, Food and Nutr. 107....	3(1-6) <i>or</i>	Clothing for the Individual,	
Clothing for the Individual,		Clo. and Text. 103.....	4(1-9) <i>or</i>
Clo. and Text. 103.....	4(1-9)	Foods, II, Food and Nutr. 107....	3(1-6)
Economics I, Econ. 101.....	3(3-0)	Current History, Hist. 126.....	1(1-0)
H. E. Lectures, Gen. H. E. 130....	R	Household Physics,** Phys. 109...	4(3-3)
Phys. Educ. W, Phys. Ed. 153....	R(0-3)	H. E. Lectures, Gen. H. E. 130...	R
Home Projects, Gen. H. E. 140...	R	Phys. Educ. W, Phys. Ed. 154....	R(0-3)
Total	16 or 17	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Nutr., Food and Nutr. 112,	3(3-0)	Textiles, Clo. and Text. 116.....	3(2-3)
The House, Household Econ. 107..	3(2-3)	General Microb., Bact. 101.....	3(1-6)
Interior Decoration I, Art 113.....	2(0-6)	Option	3(-)
Option†	6(-)	Elective	6(-)
Elective‡	2(-)	H. E. Lectures, Gen. H. E. 130...	R
H. E. Lectures, Gen. H. E. 130....	R	Home Projects, Gen. H. E. 140...	R
Total	16	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Dietetics, Food and Nutr. 202.....	4(3-3)	Family Health, Child Welf. 211...	3(3-0)
The Family, Child Welf. 216.....	2(2-0)	Option	3(-)
Option	3(-)	Elective	9(-)
Elective	7(-)	H. E. Lectures, Gen. H. E. 130...	R(1-0)
H. E. Lectures, Gen. H. E. 130....	R		
Total	16	Total	15

Number of hours required for graduation, 124.

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week.

** General Physics may be substituted if a student plans to pursue research later.

† See options list on preceding page.

‡ Electives are chosen with the approval of the dean during the sophomore year. They give opportunity for special training in the various fields. If the teaching of Home Economics is elected, certain educational and technical subjects are required as given under "Certificate for Teaching Home Economics."

Curriculum in Home Economics with Special Training in Art

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Chemistry, Chem. 110.....	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Elementary Design I, Art 101A...	2(0-6)	Costume Design I, Art 130.....	2(0-6)
Foods I, Food and Nutr. 102.....	5(3-6) <i>or</i>	Gen. Psychology, Educ. 184.....	3(3-0) <i>and</i>
Gen. Psychology, Educ. 184.....	3(3-0) <i>and</i>	Personal Health, Child Welf. 101..	2(2-0) <i>or</i>
Personal Health, Child Welf. 101..	2(2-0)	Foods I, Food and Nutr. 102.....	5(3-6)
H. E. Lectures, Gen. H. E. 130...	R(1-0)	H. E. Lectures, Gen. H. E. 130...	R
Phys. Educ. W, Phys. Ed. 151A...	R(0-3)	Phys. Educ. W, Phys. Ed. 152A...	R(0-3)
Total	15	Total	15

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
English Literature, Engl. 172.....	3(3-0)	American Literature, Engl. 175....	3(3-0)
General Zoölogy,* Zoöl. 105.....	5(3-6)	Intermediate Design, Art. 103.....	2(0-6)
Elementary Design II, Art 101B...	2(0-6)	Drawing I, Art 120.....	2(0-6)
Clothing for the Individual,		Foods II, Food and Nutr. 107....	3(1-6) <i>or</i>
Clo. and Text. 103.....	4(1-9) <i>or</i>	Clothing for the Individual,	
Foods II, Food and Nutr. 107....	3(1-6)	Clo. and Text. 103.....	4(1-9)
Ancient Civilizations, Hist. 101....	3(3-0)	Extens. Speech I, Pub. Spk. 106..	2(2-0)
H. E. Lectures, Gen. H. E. 130....	R	Medieval Europe, Hist. 102.....	3(3-0)
Phys. Educ. W, Phys. Ed. 153....	R(0-3)	H. E. Lectures, Gen. H. E. 130...	R
Home Projects, Gen. H. E. 140....	R	Phys. Educ. W, Phys. Ed. 154....	R(0-3)
Total	16 or 17	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Nutr., Food and Nutr. 112,	3(3-0) <i>or</i>	Costume Design III, Art 138.....	2(0-6)
Applied Nutr., Food and Nutr. 121,	2(2-0)	Interior Decoration I, Art 113....	2(0-6)
Advanced Design A, Art 105.....	2(0-6)	Design in the Crafts, Art 102....	2(0-6)
Costume Design II, Art 134.....	2(0-6)	Art of the S. W. Indians, Art 111,	1(1-0)
Lettering, Art 127.....	2(0-6)	Option†	6(-)
Textiles, Clo. and Text. 116.....	3(2-3)	Elective	2(-)
The House, Household Econ. 107..	3(2-3)	H. E. Lectures, Gen. H. E. 130...	R
Elective**	1 or 2(-)	Home Projects, Gen. H. E. 140...	R
H. E. Lectures, Gen. H. E. 130....	R		
Total	16	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Child Guidance I, Child Welf. 201,	3(1-6)	Principles of Art II, Art 126.....	3(3-0)
Principles of Art I, Art 124.....	3(3-0)	Interior Decoration III, Art 117...	2(0-6)
Interior Decoration II, Art 115....	2(0-6)	Option	3(-)
Option	3(-)	Elective	7(-)
Elective	5(-)	H. E. Lectures, Gen. H. E. 130...	R(1-0)
H. E. Lectures, Gen. H. E. 130....	R		
Total	16	Total	15

Number of hours required for graduation, 124.

* General Botany I and II may be taken as an option for General Zoölogy and the necessary adjustment made in providing the required number of hours each semester and in lessening the electives one hour if the option is desired.

** See footnote regarding Electives under curriculum in Home Economics.

† See list of options.

Curriculum in Home Economics with Special Training in Institutional Management and Dietetics

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Chemistry, Chem. 110.....	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Elementary Design I, Art 101A...	2(0-6)	Costume Design I, Art 130.....	2(0-6)
Foods I, Food and Nutr. 102.....	5(3-6) or	Gen. Psychology, Educ. 184.....	3(3-0) and
Gen. Psychology, Educ. 184.....	3(3-0) and	Personal Health, Child Welf. 101..	2(2-0) or
Personal Health, Child Welf. 101..	2(2-0)	Foods I, Food and Nutr. 102.....	5(3-6)
H. E. Lectures, Gen. H. E. 130...	R(1-0)	H. E. Lectures, Gen. H. E. 130...	R
Phys. Educ. W, Phys. Ed. 151A...	R(0-3)	Phys. Educ. W, Phys. Ed. 152A...	R(0-3)
Total	15	Total	15

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
English Literature, Engl. 172.....	3(3-0)	American Literature, Engl. 175....	3(3-0)
General Zoölogy, Zoöl. 105.....	5(3-6)	Physiology, Zoöl. 130.....	4(3-3)
Interior Decoration I, Art 113.....	2(0-6)	Foods, II, Food and Nutr. 107....	3(1-6)
Clothing for the Individual,		Household Physics, Phys. 109.....	4(3-3) or
Clo. and Text. 103.....	4(1-9) or	Clothing for the Individual,	
Household Physics,* Phys. 109....	4(3-3)	Clo. and Text. 103.....	4(1-9)
Economics I, Econ. 101.....	3(3-0)	Current History, Hist. 126.....	1(1-0)
H. E. Lectures, Gen. H. E. 130....	R	H. E. Lectures, Gen. H. E. 130....	R
Phys. Educ. W, Phys. Ed. 153....	R(0-3)	Phys. Educ. W, Phys. Ed. 154....	R(0-3)
Home Projects, Gen. H. E. 140....	R		
Total	17	Total	15

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Nutr., Food and Nutr. 112,	3(3-0)	Physiol. Chemistry, Chem. 231....	5(3-6)
Sociology, Econ. 151.....	3(3-0)	Inst. Mgmt. I, Inst. Mgmt. 202....	4(1-9)
General Micro., Bact. 101.....	3(1-6)	Inst. Food Buying, Inst. Mgmt. 215,	2(2-0)
Meats HE, An. Husb. 176.....	1(0-3)	Inst. Furnishings and Equipment,	
Option**	6(-)	Inst. Mgmt. 230.....	2(2-0)
H. E. Lectures, Gen. H. E. 130....	R	Option	3(-)
		H. E. Lectures, Gen. H. E. 130....	R
		Home Projects, Gen. H. E. 140.....	R
Total	16	Total	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Dietetics, Food and Nutr. 202....	4(3-3)	Dietetics for Abn. Conditions, Food	
Meth. of Teaching H. E., Educ.		and Nutr. 205.....	2(1-3)
132	3(3-0)	Tea Room Mgmt., Inst. Mgmt. 225,	3(0-9) or
Child Guidance I, Child Welf. 201,	3(1-6)	Field Work in Nutr., Food and	
Exper. Cookery, Food and Nutr.		Nutr. 215	3(2-3)
255	2(0-6)	Food Econ. and Nutr. Seminar,	
Inst. Mgmt. II, Inst. Mgmt. 204..	3(3-0)	Food and Nutr. 251.....	2(2-0)
H. E. Lectures, Gen. H. E. 130....	R	Inst. Accounting, Econ. 284.....	2(2-0)
		Elective†	6(-)
		H. E. Lectures, Gen. H. E. 130....	R(1-0)
Total	15	Total	15

Number of hours required for graduation, 124.

* See footnote regarding Household Physics under curriculum in Home Economics.

** See list of options.

† See footnote regarding electives under curriculum in Home Economics.

Curriculum in Home Economics and Nursing

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Chemistry, Chem. 110.....	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Foods I, Food and Nutr. 102.....	5(3-6)	Gen. Psychology, Educ. 184.....	3(3-0)
Option*	3(-)	Personal Health, Child Welf. 101.,	2(2-0)
H. E. Lectures, Gen. H. E. 130...	R(1-0)	Option	3(-)
Phys. Educ. W, Phys. Ed. 151A...	R(0-3)	H. E. Lectures, Gen. H. E. 130...	R
		Phys. Educ. W, Phys. Ed. 152A...	R(0-3)
Total		Total	
16		16	

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
English Literature, Engl. 172.....	3(3-0)	American Literature, Engl. 175....	3(3-0)
General Zoölogy, Zoöl. 105.....	5(3-6)	Physiology, Zoöl. 130.....	4(3-3)
Foods II, Food and Nutr. 107....	3(1-6)	Gen. Microbiology, Bact. 101.....	3(1-6)
Current History, Hist. 126.....	1(1-0)	Abn. Psychology, Educ. 254.....	3(3-0)
Option*	3(-)	Economics I, Econ. 101.....	3(3-0)
H. E. Lectures, Gen. H. E. 130....	R	H. E. Lectures, Gen. H. E. 130...	R
Phys. Educ. W, Phys. Ed. 153....	R(0-3)	Phys. Educ. W, Phys. Ed. 154....	R(0-3)
Home Projects, Gen. H. E. 140...	R		
Total		Total	
15		16	

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Anatomy, Zoöl. 123A.....	5(3-6)	Child Guidance I, Child Welf. 201,	3(1-6)
Physiol. Chemistry, Chem. 231....	5(3-6)	The Family, Child Welf. 216.....	2(2-0)
Dietetics, Food and Nutr. 202....	4(3-3)	Sociology, Econ. 151.....	3(3-0)
H. E. Lectures, Gen. H. E. 130....	R	Extem. Speech I, Pub. Spk. 106...	2(2-0)
Elective**	1(-)	Elective	5(-)
		H. E. Lectures, Gen. H. E. 130...	R(1-0)
Total		Total	
15		15	

SENIOR

(Replaced by two and one-half years at University of Kansas Hospitals)
(Equivalent to 31 college hours)

Theoretical and practical work during the time includes:

FIRST YEAR	SECOND YEAR
History and Ethics of Nursing.	Surgery and Surgical Nursing and Bandaging.
Hospital Economics.	Obstetrics and Gynecology.
Nursing Methods.	Pediatrics.
Medical Nursing.	Diseases of Eye, Ear, Nose and Throat.
Communicable Diseases.	Nervous and Mental Diseases.
Special Therapeutics and Massage.	Materia Medica.
	Problems in Nursing.

Number of hours required for graduation, 124.

Groups of Electives for Students in the Division of Home Economics

The groups given below are selected with a view to training students for the vocations in which home economics may be directly applied.
A sufficient number of hours may be chosen from any group to fill the elective requirement, or a smaller number of hours may be taken from a group and, for the remaining elective hours, advanced courses of related subject matter may be chosen.

Music may be added to any group, in a minimum of six hours.

* See list of options.
** See footnote regarding electives under curriculum in Home Economics.

Child Care and Training

Sociology, Econ. 151.....	3(3-0)	History of the Home, Hist. 225...	3(3-0)
Social Problems, Econ. 257.....	2(2-0)	Psyc. of Childhood and Ado- lescence, Educ. 250.....	3(3-0)
The Family, Child Welf. 216.....	2(2-0)	Child Guidance II, Child Welf. 206,	3(3-0)
Field Work in Nutr., Food and Nutr. 215	3(2-3)	Problems in Child Welfare and Euthenics, Child Welf. 221....	1 to 5
Heredity and Eugenics, Zoöl. 216..	2(2-0)	Nutr. of Dev., Food and Nutr. 210,	2(2-0)
Child Guidance I, Child Welf. 201,	3(1-6)	Family Health, Child Welf. 211...	3(3-0)
Seminar in Child Welfare and Euthenics, Child Welf. 226....	1 or 2		

Costume Design

Hist. of Costume, Clo. and Text. 225	2(2-0)	Journalistic Vocations, Ind. Jour. 140	2(2-0)
Adv. Clothing, Clo. and Text. 123,	4(1-9)	Elem. Journalism, Ind. Jour. 152..	3(3-0)
Historic Textile Design, Art 233...	2(2-0)	Industrial Writing, Ind. Jour. 161,	2(2-0)
Clothing Econ., Clo. and Text. 201,	3(3-0)	Ind. Feature Writing, Ind. Jour. 167	2(2-0)
Costume Illustration, Art 139.....	2(0-6)	Radio Writing, Ind. Jour. 162....	2(2-0)
Problem in Costume Design, Art 235	2(0-6)	Sociology, Econ. 151.....	3(3-0)
Oral English, Engl. 232.....	3(3-0)	Modern Europe I, Hist. 115.....	3(3-0)

Interior Decoration

Domestic Architecture, Arch. 124..	2(2-0)	Journalistic Vocations, Ind. Jour. 140	2(2-0)
The Family, Child Welf. 216.....	2(2-0)	Elem. Journalism, Ind. Jour. 152..	3(3-0)
Historic Textile Design, Art 233...	2(2-0)	Industrial Writing, Ind. Jour. 161,	2(2-0)
Landscape Gardening I, Hort. 125,	3(3-0)	Ind. Feature Writing, Ind. Jour. 167	2(2-0)
Problems in Design, Art 217.....	2(0-6)	Radio Writing, Ind. Jour. 162....	2(2-0)
Problems in Interior Dec., Art 232,	4(0-12)	Sociology, Econ. 151.....	3(3-0)
Oral English, Engl. 232.....	3(3-0)	Modern Europe I, Hist. 115.....	3(3-0)

Home Service and Food Demonstration Work

Extm. Speech I, Pub. Spk. 106...	2(2-0)	Elem. Journalism, Ind. Jour. 152..	3(3-0)
Radio Spk. and Announc., Pub. Spk. 160	2(1-3)	Industrial Writing, Ind. Jour. 161,	2(2-0)
Radio Program Partic., Pub. Spk. 168	1(1-1)	Sociology, Econ. 151.....	3(3-0)
Oral English, Eng. 232.....	3(3-0)	Meats, H. E., An. Husb. 176.....	1(0-3)
Magazine Features, Ind. Jour. 270,	2(2-0)	Exp. Cookery, Food and Nutr. 255,	2(0-6)
Journalism for Women, Ind. Jour. 172	2(2-0)	Problems in Foods, Food and Nutr. 245	1(-)
Field Work in Nutr., Food and Nutr. 215	3(2-3)	Home Mgmt., Hshld. Econ. 116..	3(1-6)
Inst. Mgmt. I, Inst. Mgmt. 202...	4(1-9)	Consumer Buying, Hshld. Econ. 270,	2(2-0)
Meth. of Teaching H. E., Educ. 132,	3(3-0)	Hshld. Equipment I, Hshld. Econ. 203	2(0-6)
The House, Hshld. Econ. 107.....	3(2-3)	Hshld. Equipment II, Hshld. Econ. 206	3(1-6)

Research in Nutrition

Pathogenic Bact. I, Bact. 111.....	4(2-6)	Quant. Anal. B, Chem. 251.....	3(1-6)
Pathogenic Bact. II, Bact. 116....	4(2-6)	Plane Trig., Math. 101.....	3(3-0)
Bact. Technic, Bact. 225.....	3(0-9)	Col. Alg., Math. 104.....	3(3-0)
Chem. I, Chem. 101.....	5(3-6)	Plane Analytical Geom., Math. 110,	4(4-0)
Org. Chem. I, Chem. 218.....	4(2-6)	Calculus I, Math. 114.....	4(4-0)
Org. Chem. II, Chem. 219.....	4(2-6)	Calculus II, Math. 115.....	4(4-0)
Physiol. Chem., Chem. 231.....	5(3-6)	German I, Mod. Lang. 101.....	3(3-0)
Biochem. Analysis, Chem. 237....	2(0-6)	German II, Mod. Lang. 102.....	3(3-0)
Quant. Anal. A., Chem. 250.....	3(1-6)	Scientific German, Mod. Lang. 137,	4(4-0)

Biological Technician

Hygienic Bact., Bact. 206.....	4(2-6)	Quant. Anal. A., Chem. 250.....	3(1-6)
Advanced Serology, Bact. 229.....	5(3-6)	Quant. Anal. B., Chem. 251.....	3(1-6)
Physiol. of Microorganisms, Bact. 222	3(3-0)	Physiol., Zoöl. 130.....	4(3-3) or
Bact. Tech., Bact. 225.....	3(0-9)	Embryol. B, Zoöl. 219A.....	4(3-3)
Physiol. Chem., Chem. 231.....	5(3-6)	Human Parasitol., Zoöl. 218.....	3(3-0)
Biochem. Prep., Chem. 234.....	2 to 5	Comparative Anatomy of Vert., Zoöl. 246	4(2-6)
Pathological Chem., Chem. 235...	2(2-0)	Special Histology, Path. 252.....	3(1-6)
Biochem. Analysis, Chem. 237.....	2(0-6)		

Homemaking

Child Guidance I, Child Welf. 201,	3(1-6)	Child Guidance II, Child Welf. 206,	3(3-0)
The Family, Child Welf. 216.....	2(2-0)	Principles of Art I, Art 124.....	3(3-0)
Sociology, Econ. 151.....	3(3-0)	Econ. of Household, Hshld. Econ.	
Com. Organization, Econ. 267.....	3(3-0)	265	2(2-0)
Problems in Foods, Food and Nutr.		Adv. Clothing, Clo. and Text. 123,	4(1-9)
310	1 to 3	Meats HE, An. Husb. 176.....	1(0-3)
Home Mgmt., Household Econ. 116,	3(1-6)	Hist. of Engl. Literature, Engl. 181,	3(3-0)
World Classics I, Engl. 280.....	3(3-0)	Psyc. of Childhood and Adolescence,	
Nutr. of Dev., Food and Nutr. 210,	2(2-0)	Educ. 250	3(3-0)
Family Health, Child Welf. 211..	3(3-0)		

Social and Welfare Work

Child Guidance I, Child Welf. 201.	3(1-6)	Child Guidance II, Child Welf. 206,	3(3-0)
Econ. of the Household, Hshld.		Labor Problems, Econ. 233.....	2(2-0)
Econ. 265	2(2-0)	Rural Sociology, Econ. 156.....	3(3-0)
Sociology, Econ. 151.....	3(3-0)	Social Problems, Econ. 257.....	2(2-0)
Com. Organization, Econ. 267.....	3(3-0)	Modern Europe II, Hist. 223.....	3(3-0)
Field Work in Nutrition, Food and		Immi. and Int. Rel., Hist. 228....	2(2-0)
Nutr. 215	3(2-3)	Probs. in Child Welfare and	
Family Health, Child Welf. 211..	3(3-0)	Euthenics, Child Welf. 221....	1 to 5

Textiles

College Algebra, Math. 104.....	3(3-0)	Physical Chemistry I, Chem. 206,	5(3-6)
General Physics I, Phys. 102.....	4(3-3)	Qual. Organ. Analysis, Chem. 224..	2(0-6)
General Physics II, Phys. 103.....	4(3-3)	Probs. in Clo. and Text., Clo. and	
Plane Trigonometry, Math. 101...	3(3-0)	Text. 215	1 to 3
Clothing Econ., Clo. and Text. 201,	3(3-0)	Human Physiology, Zoöl. 235.....	4(3-3)
Experi. Textiles, Clo. and Text. 312,	2 to 5	Statis. Meth. Ap. to Educ., Educ.	
Plane Analytical Geom., Math. 110,	4(4-0)	223	3(3-0)
Calculus I, Math. 114.....	4(4-0)	Bact. Problems, Bact. 270.....	1 to 4
Calculus II, Math. 115.....	4(4-0)	Adv. Textiles, Clo. and Text. 205,	3(1-6)

Teaching Home Economics

See "Certificate for Teaching Home Economics."

Art

Professor BARFOOT
Associate Professor EVERHARDY
Assistant Professor HARRIS
Assistant Professor MORRIS
Instructor DARST

Instructor STALDER
Instructor CLAY
Instructor SMITH
Assistant GUSTAFSON
Assistant BALLARD

There is an increasing realization of the need for a usable knowledge of art. The curriculum in art is designed to develop the general culture afforded by art study, and to provide an art background for homemaking or other professional work. Depending upon the interests of the students they may specialize in design, interior decoration, costume design, or teaching of art.

COURSES IN ART

FOR UNDERGRADUATE CREDIT

101A. ELEMENTARY DESIGN I. 2(0-6)*; I, II, and SS. Staff.

A fundamental course in the study of color and form and the application of their principles to daily living. Charge, \$1; deposit, 25 cents.†

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory required each week. I, II, and SS indicate that the course is given the first semester, second semester, and summer school, respectively.

† Only one key deposit is made in a given semester, regardless of the number of art courses taken.

101B. **ELEMENTARY DESIGN II.** 2(0-6); I, II, and SS. Prerequisite: Art 101A. Staff.

A continuation of Art 101A, incorporating a unit in history and appreciation of art. Charge, \$1; deposit, 25 cents.

102. **DESIGN IN THE CRAFTS.** 2(0-6); I, II, and SS. Prerequisite: Art 101A. Staff.

An application of design principles to various technical processes as book binding, block printing, carving, decorative stitchery, leatherwork, modeling, metalwork, and weaving. Projects selected from this group will make up a semester's work. Charge, \$1.50; deposit, 25 cents.

103. **INTERMEDIATE DESIGN.** 2(0-6); I, II, and SS. Prerequisite: Art 101B. Staff.

A continuation of Art 101B, with special emphasis on color possibilities and different design media. Charge, \$1; deposit, 25 cents.

105. **ADVANCED DESIGN.** 2(0-6); I and II. Prerequisite: Art 103. Barfoot, Everhardy, Morris.

A continuation of Art 103, with emphasis on art structure. Charge, \$1; deposit, 25 cents.

111. **ART OF THE SOUTHWEST INDIANS.** 1(1-0); I, II, and SS. Prerequisite: Art 101A. Everhardy.

Discussions designed to familiarize the student with the origin and development of the decorative arts and ceremonials of the Southwest area from pre-historic times to the present.

113. **INTERIOR DECORATION I.** 2(0-6); I, II, and SS. Prerequisite: Art 101B. Staff.

A study of the decoration and furnishings of the modern dwelling. Charge, \$1; deposit, 25 cents.

115. **INTERIOR DECORATION II.** 2(0-6); I. Prerequisite: Art 113. Staff.

A continuation of Art 113, with attention paid especially to the interplay between modern culture and art expression as shown in interior decoration. Charge, \$1; deposit, 25 cents.

117. **INTERIOR DECORATION III.** 2(0-6); II. Prerequisite: Art 115. Harris, Morris, Darst.

A continuation of Art 115, including a study of house types, furniture, and fabric styles. Charge, \$1; deposit, 25 cents.

120. **DRAWING.** 2(0-6); I and II. Prerequisite: Art 101B. Staff.

Representative sketching, decorative illustrating, and creative designing in which a variety of media and technique is employed. Charge, \$2; deposit, 25 cents.

124. **PRINCIPLES OF ART I.** 3(3-0); I. Prerequisite: Art 101B. Barfoot, Harris, Morris.

A study of the culture of various peoples and their homes as indicated through their use of color, line, and form in the fields of architecture, sculpture, and painting.

126. **PRINCIPLES OF ART II.** 3(3-0); II. Prerequisite: Art 124. Barfoot, Harris, Morris.

A continuation of Art 124, dealing particularly with home crafts and minor arts.

127. **LETTERING.** 2(0-6); I, II, and SS. Prerequisite: Art 101B. Harris, Morris, Darst.

Creative design in the field of lettering in relation to historic and natural forms. Charge, \$1; deposit, 25 cents.

130. **COSTUME DESIGN I.** 2(0-6); I, II, and SS. Prerequisite: Art 101A. Staff.

Line, form, color, texture in costume design and selection as related to the requirements of the individual. This course is a design basis for garment selection and construction. Charge, \$1; deposit, 25 cents.

134. **COSTUME DESIGN II.** 2(0-6); I and II. Prerequisite: Art 130. Harris, Morris, Stalder.

A continuation of Art 130, with review and application of the art principles in modern costume in relation to the human figure as the structural basis for costume. Charge, \$1; deposit, 25 cents.

138. **COSTUME DESIGN III.** 2(0-6); I and II. Prerequisite: Art 134. Harris, Morris, Stalder.

A continuation of Art 134, dealing with the relation between the historic background and fabric and costume design. Charge, \$1; deposit, 25 cents.

139. **COSTUME ILLUSTRATION.** 2(0-6); I or II. Prerequisite: Art 101B and Art 130. Harris, Morris, Stalder.

Costume figures for fashion illustration rendered in various media suitable for reproduction. Charge, \$1; deposit, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

217. **PROBLEMS IN DESIGN.** Credit to be arranged; I and II. Prerequisite: Eight hours in art or permission of instructor. Staff.

Problems in design planned to meet the particular needs of the student. Charge, \$1; deposit, 25 cents.

230. **PROBLEMS IN TEACHING ART.** Credit to be arranged; I, II, or SS. Prerequisite: Art 101B and Educ. 132 or its equivalent. Barfoot, Everhardy.

For the high-school teacher who is correlating art with home economics subjects, particularly for the teacher of art subjects connected with vocational training; training given through lectures and class discussions of methods, consideration of suitable laboratory equipment, use of illustrative material, and preparation of courses of study. Charge, \$1; deposit, 25 cents.

232. **PROBLEMS IN INTERIOR DECORATION.** Credit to be arranged; I and II. Prerequisite: Art 117 or permission of instructor. Harris, Morris, Darst.

Problems planned with the student to meet her particular needs. Charge, \$1; deposit, 25 cents.

233. **HISTORIC TEXTILE DESIGN.** 2(2-0); I, II, or SS. Prerequisite: Art 101B and Clo. and Text. 116. Staff.

A study of the design employed in fabrics in each of the great art periods.

235. **PROBLEMS IN COSTUME DESIGN.** Credit to be arranged; I and II. Prerequisite: Eight hours in art or permission of instructor. Harris, Morris, Stalder.

Problems planned with the student to meet her particular needs. Charge, \$1; deposit, 25 cents.

FOR GRADUATE CREDIT

302. **ADVANCED COSTUME DESIGN.** Credit to be arranged. I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which may form the basis for the thesis submitted for the master's degree. Charge to be arranged with instructor.

304. **ADVANCED INTERIOR DECORATION.** Credit to be arranged. I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which may form the basis for the thesis submitted for the master's degree. Charge to be arranged with instructor.

Child Welfare and Euthenics

Professor FORD
Associate Professor TRIPLETT
Assistant Professor KELL
Assistant Professor WILLIAMS

Assistant Professor FISHER
Instructor DALES
Instructor LANCASTER
Graduate Assistant LISTER
Graduate Assistant KEIM

Through the study, in this department, of physical and mental health, child guidance, and human relationships, it is hoped that students and teachers may see more clearly how life can be finer than it is and may develop an increasing determination to work toward such realization.

COURSES IN CHILD WELFARE AND EUTHENICS

FOR UNDERGRADUATE CREDIT

101. PERSONAL HEALTH. 2(2-0); I, II, and SS. Williams, Triplett, Fisher. Charge, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. CHILD GUIDANCE I. 3(1-6); I, II, and SS. Prerequisite: Educ. 184; Ch. W. and E. 101 or its equivalent. Staff.

Laboratory—Directed observations and assisting in the nursery school. Charge, \$1.

206. CHILD GUIDANCE II. 3(3-0); II. Prerequisite: Ch. W. and E. 201. Ford.

211. FAMILY HEALTH. 3(3-0); I, II, and SS. Prerequisite: Junior standing and Educ. 184; Zoöl. 105 or 130; Ch. W. and E. 101 or its equivalent. Williams, Ford. Charge, 50 cents.

216. THE FAMILY. 2(2-0); I, II, and SS. Prerequisite: Educ. 184 and junior standing. Ford. Charge, 50 cents.

221. PROBLEMS IN CHILD WELFARE AND EUTHENICS. Credit to be arranged; I, II, and SS. Prerequisite: Ch. W. and E. 201; consult instructors. Staff.

226. SEMINAR IN CHILD WELFARE AND EUTHENICS. 1 to 2 hours; II. Prerequisite: Ch. W. and E. 201. Ford.

FOR GRADUATE CREDIT

301. RESEARCH IN CHILD WELFARE AND EUTHENICS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Ford, Triplett.

Clothing and Textiles

Professor LATZKE
Associate Professor COWLES
Associate Professor HESS
Assistant Professor CORMANY

Assistant Professor FLETCHER
Instructor HOWE
Assistant HALSTEAD
Assistant CRAWFORD

Clothing is an important factor in both the physiological and psychological well-being of the individual and of the family. The wise selection of clothing requires a high degree of skill in the application of hygienic, economic, and aesthetic principles. The preservation of clothing is based upon a practical knowledge of chemistry, entomology, and bacteriology. In the construction of garments, art and technic are presented in their proper relations in order to train students in fundamental principles and enable them to utilize these principles in their everyday practices. Advanced courses are offered for students who wish to prepare for vocational, professional, and business positions such as college teachers, research workers, textile chemists, clothing consultants, purchasing agents for institutions and department stores, and extension workers.

COURSES IN CLOTHING AND TEXTILES

FOR UNDERGRADUATE CREDIT

103. CLOTHING FOR THE INDIVIDUAL. 4(1-9); I, II, and SS. Prerequisite: Art. 130. Staff.

Application of design principles to dress; selection of clothing with self-analysis as a basis; budgeting, buying procedures; choice and care of fabrics.

Laboratory.—Designing and constructing costumes that express individuality through the correct use of line and color. Charge, \$2.50; deposit, 25 cents.

110. CLOTHING SELECTION. 2(2-0); I and II. Latzke, Cowles.

Selection of clothing with self-analysis as a basis; budgeting, buying procedures. Designed for students not majoring in home economics, or those not planning to take Clo. and Text. 103.

112. TEXTILE SELECTION AND CARE. 2(2-0); I or II and SS. Hess, Cormany.

A study of factors which influence service qualities of common textile fabrics. Designed for students not required to take Clo. and Text. 116.

116. TEXTILES. 3(2-3); I, II, and SS. Prerequisite: Chem. 122; Phys. 101 recommended. Hess, Fletcher.

Fundamental facts concerning fibers, fabric construction, and finishes as applied to the everyday problems of the consumer.

Laboratory.—Fabrics for specific uses; identification of fibers; simple fabric analysis; the effect on fabrics of various methods of cleaning. Charge, \$2; deposit, 25 cents.

123. ADVANCED CLOTHING. 4(1-9); I, II, and SS. Prerequisite: Clo. and Text. 103. Open to juniors and seniors. Cowles, Cormany, Latzke.

Development of an understanding and an appreciation of line, form, texture, and color to express the characteristics of the individual. Social significance of fashion as explained through its origin and function.

Laboratory.—Designs draped in cotton and then in silk or wool. Charge, \$3; deposit, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. CLOTHING ECONOMICS. 3(3-0); I or II, and SS. Prerequisite: Clo. and Text. 103 and 116 and Econ. 101. Latzke.

The organization of textile industries and markets; consumer problems in relation to existing market conditions; standardization of clothing and textiles.

205. ADVANCED TEXTILES. 3(1-6); I or II, and SS. Prerequisite: Clo. and Text. 116. Hess, Fletcher.

Physical, chemical, and optical testing of textiles; progress in textile research.

Laboratory.—Special emphasis placed on research technique and equipment. Charge, \$3; deposit, 25 cents.

215. PROBLEMS IN CLOTHING AND TEXTILES. Credit to be arranged; I, II, and SS. Prerequisite: Senior or graduate standing; consult instructors. Staff.

An assigned problem in some phase of clothing or textiles. Charge to be arranged with instructor.

225. HISTORY OF COSTUME. 2(2-0); II. Prerequisite: Hist. 101 or equivalent. Cowles.

Development of ancient and modern costume and its relation to the life of the people.

FOR GRADUATE CREDIT

301. RESEARCH IN CLOTHING AND TEXTILES. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing; consult instructors. Latzke, Hess, Fletcher.

Individual research in the field of clothing or of textiles that may form the

basis for the thesis submitted for the master's degree. Charge to be arranged with instructor.

304. CLOTHING AND TEXTILES SEMINAR. 1(1-0); II, and SS. Prerequisite: Graduate standing. Staff.

Assigned readings and discussion of current developments in the field.

312. EXPERIMENTAL TEXTILES. 2 to 5 hours; I, II, and SS. Prerequisite: Clo. and Text. 205. Hess, Fletcher.

Individual experimental work with textiles. Charge to be arranged with instructor.

Food Economics and Nutrition

Professor PITTMAN
Professor KRAMER
Assistant Professor McMILLAN
Assistant Professor VAIL
Assistant Professor BROWNING
Instructor KUNERTH
Instructor MEYER

Instructor MULLEN
Instructor FORNEY
Instructor MEILLER
Instructor SPARLING
Assistant STEWART
Assistant SAFFRY
Technician CEDERQUIST

Selection, preservation, preparation, and service of food suited to individual requirements involve the application of principles of chemistry, physics, bacteriology, physiology, economics, and art. Courses in these subjects are required and some are prerequisite to courses offered in this department.

Training is provided for teachers of foods, dietitians, and commercial, extension, and research workers.

COURSES IN FOOD ECONOMICS AND NUTRITION

FOR UNDERGRADUATE CREDIT

102. FOODS I. 5(3-6); I, II, and SS. Staff.

Elementary nutrition and food economics. Practice in food preparation and meal service. Charge, \$5; deposit, \$1.

107. FOODS II. 3(1-6); I and II. Prerequisite. Chem. 122 and Food and Nutr. 102 or equivalent. Staff.

Chemical and physical properties of food related to preparation and preservation. Charge, \$4; deposit, \$1.

112. HUMAN NUTRITION. 3(3-0); I and II. Prerequisite: Food and Nutr. 107 and Zoöl. 219A or 130.† Kramer, Kunerth, Meyer.

Chemistry of food and nutrition, emphasising food nutrients, digestion, and metabolism.

121. APPLIED NUTRITION. 2(2-0); I and II. Prerequisite: Chem. 122 or permission of instructor. Staff.

Practical nutrition, including food requirements, food selection and food habits. For men and women students not majoring in home economics.

176. MEATS HE. 1(0-3); I and II.

See Department of Animal Husbandry, Division of Agriculture, An. Husb. 176.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. DIETETICS. 4(3-3); I, II, and SS. Prerequisite: Food and Nutr. 112. Pittman, Meiller, Mullen.

Food requirements in health during infancy, childhood, adolescence, adult life, and old age. Application of principles of human nutrition to adequate diets at different cost levels.

† Students from other divisions desiring to elect Human Nutrition may substitute an equivalent number of hours in other sciences for Embryology or Physiology, and Foods II.

Laboratory.—Calorie, protein, mineral, and vitamin values; shares; diets for infants, children, and adults. Charge, \$4.50; deposit, \$1.

205. DIETETICS FOR ABNORMAL CONDITIONS. 2(1-3); I and II. Prerequisite: Food and Nutr. 202. Kramer, Meiller.

Dietetic requirements in pathological and abnormal conditions. (For students who expect to qualify as professional dietitians.)

Laboratory.—Demonstrations of special foods used in such conditions, computation of dietaries, consideration of costs. Charge, \$1; deposit, \$1.

210. NUTRITION OF DEVELOPMENT. 2(2-0); II. Prerequisite: Food and Nutr. 202. Pittman.

Nutrition in pregnancy and lactation. Food requirements of fetus, infant, pre-school child, and school child through adolescence.

215. FIELD WORK IN NUTRITION. 3(2-3); I and II. Prerequisite: Food and Nutr. 202. Browning, Mullen.

Survey of field of child nutrition, field work with school children, special work with malnourished and normal individuals. Charge to be arranged with instructor.

245. PROBLEMS IN FOODS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

Problems dealing with preparation, preservation, and storage of food. Charge to be arranged with instructor.

248. PROBLEMS IN FOOD ECONOMICS AND NUTRITION. Credit to be arranged. I, II and SS. Prerequisite: Senior or graduate standing. Staff.

Problems dealing with the nutritive value of foods; feeding experiments; dietary studies, practice in methods commonly used in simpler experiments in nutrition. Charge to be arranged with instructor.

251. FOOD ECONOMICS AND NUTRITION SEMINAR. 1 to 2 hours a semester; maximum, 4 credits; I, II, and SS. Prerequisite: Food and Nutr. 112, Kramer, Pittman, Kunerth.

Individual reports and discussion of topics in fields of food economics and nutrition. Special attention to recent literature. Charge, \$1.

255. EXPERIMENTAL COOKERY. 2(1-3); I and II. Prerequisite or parallel: Food and Nutr. 202. Vail, McMillan, Browning.

Food preparation from experimental standpoint. Charge, \$1 to \$3; deposit, \$1.

FOR GRADUATE CREDIT

305. RESEARCH IN FOOD ECONOMICS AND NUTRITION. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which may form basis for thesis submitted for master's degree. Charge to be arranged with instructor.

306. ANIMAL NUTRITION SEMINAR. 1(1-0) per year; I and II. Prerequisite: Senior or graduate standing. Pittman, Kramer.

Reports of experiments in nutrition, discussion of methods, and validity of conclusions.

General Home Economics

Dean JUSTIN
Assistant Dean McMILLAN
Assistant LAUTZ

COURSES IN GENERAL HOME ECONOMICS

FOR UNDERGRADUATE CREDIT

130. HOME ECONOMICS LECTURES. R (meetings by appointment). Material presented by Dean Justin, Assistant Dean McMillan, department heads of the Division, professors of subject-matter departments, students, and invited speakers. Charge, 75 cents.

Freshmen meet weekly during the fall semester. The purpose of these meetings is: (1) the orientation of the student to her college environment; (2) the development of the ability to study; (3) guidance in choice of one of the several fields of home economics for her profession.

Seniors meet weekly during the spring semester. The opportunities and responsibilities of the home economist are presented, and means for professional growth and personal advancement of the trained woman are stressed.

All students in the division meet in a general seminar four times a semester, usually the third Thursday of each month. Discussion of general questions in the field of home economics and of home economics student affairs. Programs presented by speakers from outside, faculty members, and students. As far as possible, the course serves as an introduction to the professional aspect of home economics. The Home Economics Club is used as an organ for expression and experience. In the fall (for the freshmen) and in the spring (for the seniors) this general meeting will take the place of the meetings of their respective groups.

135. GUIDANCE OF FRESHMEN. 1(1-0); I. Prerequisite: Junior or senior standing or special permission from the dean. Application for enrollment in this class must be made the preceding spring semester. Dean's staff, Division of Home Economics, and others.

Instruction in counseling techniques employed in freshman orientation in the Division of Home Economics.

140. HOME PROJECTS. R (meetings by appointment). Each student must complete a minimum of two home projects at least one semester before graduation, except that students in Home Economics and Nursing and those transferring from other colleges and divisions during their junior or senior years need to complete only one.

COURSES IN HOME ECONOMICS EDUCATION*

Professor RUST

Assistant Professor BAXTER

FOR UNDERGRADUATE CREDIT

132. METHODS OF TEACHING HOME ECONOMICS. 3(3-0); I, II, and SS. Rust, Baxter.

See Department of Education, Division of General Science.

160. TEACHING PARTICIPATION IN HOME ECONOMICS 3(-); I, II, and SS. By appointment. Rust, Baxter.

See Department of Education, Division of General Science.

FOR GRADUATE AND UNDERGRADUATE CREDIT

232. TEACHING SUBJECTS RELATED TO HOME ECONOMICS. 1 to 3 hours; I, II, and SS. Prerequisite: Educ. 184 and 132. Rust.

See Department of Education, Division of General Science.

* The six courses named here are given by the Department of Education for the Division of Home Economics. Professor Rust and Assistant Professor Baxter are appointed coöperatively by that department and the Division of Home Economics.

FOR GRADUATE CREDIT

313. RESEARCH IN ORGANIZATION AND PRESENTATION OF HOME ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing and confirmation of Division of Home Economics. Justin, Rust.

See Department of Education, Division of General Science.

314. PROBLEMS IN ORGANIZATION AND PRESENTATION OF HOME ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Senior or graduate standing. Justin, Rust.

See Department of Education, Division of General Science.

315. SUPERVISION IN HOME ECONOMICS. 2 hours; I, II, and SS. Prerequisite: Educ. 160 and experience in teaching home economics. Rust.

See Department of Education, Division of General Science.

Household Economics

Dean JUSTIN
Associate Professor CLAPP
Associate Professor GUNSELMAN
Assistant Professor _____

Instructor AGAN
Instructor MCKINNEY
Instructor GOODYEAR
Graduate Research Assistant KELLER

The modern home is greatly influenced by social and economic conditions in the world outside. An understanding of the interaction of these forces on the home is fundamental to a grasp of its problems and its successful management. These forces influence the amount of the money income and the available information that will make its wise expenditure possible, as well as the kind and amount of home production carried on. Through the courses in this department an opportunity is offered for studying the effect of social and economic forces on the home and its management. The phases presented for study include housing, household administration, household equipment, and economic problems of the household. Graduate students preparing to become directors of home management houses, specialists in home management, teachers, homemakers, or research workers in this field find suitable courses in this department.

COURSES IN HOUSEHOLD ECONOMICS

FOR UNDERGRADUATE CREDIT

107. THE HOUSE. 3(2-3); I, II, and SS. Prerequisite: Food and Nutr. 102; Phys. 109 recommended. McKinney, Goodyear.

Criteria for judging the adequacy of certain types of dwellings in meeting the housing needs of the family; management of time, effort, and income—important factors in providing and maintaining family life in the home; choice of equipment.

Laboratory.—Selection, care, and operation of certain equipment for the home. Charge, \$1.

116. HOME MANAGEMENT. 3(1-6); I, II, and SS. Prerequisite: Senior standing. Clapp, McKinney.

Offers opportunity and help to the students in the application of the knowledge received in the basic home economics courses to the management of a home; and helps to develop an understanding of the essential attitudes that bring satisfaction in group living and family life.

Laboratory.—Residence is required in the home-management houses for a period of six weeks.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. HOUSEHOLD EQUIPMENT I.* 2(0-6); I, II, and SS. Prerequisite: Phys. 109.

Practical studies which involve care, construction, operation, and repair of various pieces of equipment used in the home. Charge, \$2.50.

206. HOUSEHOLD EQUIPMENT II.* 3(1-6); II. Prerequisite: Hshld. Econ. 203.

Selection, care, construction, operation, and testing of mechanical, electrical, and heat equipment from the standpoint of the physical and chemical principles involved. Charge, \$2.50.

238. PROBLEMS IN HOUSEHOLD EQUIPMENT.* Credit to be arranged; I, II, and SS. Prerequisite: Hshld. Econ. 203.

Special problems in selection, care, operation, and testing of household equipment. Charge, \$1.

243. PROBLEMS IN HOUSEHOLD ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

Special problems for individual investigation in standards of living and family expenditures; housing, household equipment, organization and methods of housework; use of home-makers' leisure time or social aspects of the household and of the family.

263. FAMILY FINANCE. 2(2-0); II and SS. Prerequisite: Econ. 101. Gunselman.

A study of some of the economic problems involved in the efficient management of the family's financial resources.

265. ECONOMICS OF THE HOUSEHOLD. 2(2-0); I, II, and SS. Prerequisite: Econ. 101. Gunselman.

Problems of household production, problems incident to earning and spending the money income and, factors determining the purchasing power of the "dollar of the home."

270. CONSUMER BUYING. 2(2-0); II and SS. Prerequisite: Econ. 101 and junior standing. Clapp, Gunselman, and others from related subject matter fields.

Consideration is given to the problems faced by the consumer in the present market, aids toward intelligent buying of commodities used by the consumer, and the need for protective legislation.

FOR GRADUATE CREDIT

301. RESEARCH IN HOUSEHOLD ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Justin, Clapp, Gunselman.

An individual research problem in the field of household economics, housing or equipment. This may form the basis for a part or all of a master's thesis.

302. THE ECONOMICS OF CONSUMPTION. 2(2-0). II, and SS. Prerequisite: Econ. 101, Hshld. Econ. 263 and 265. Gunselman.

The consumer and his function; determinants of choice; analysis of the quantitative and qualitative studies of consumption habits, and of theories concerning their origin and significance.

* Not offered in 1937-1938.

Institutional Management

Professor WEST
 Assistant Professor WOOD
 Instructor JAMES
 Instructor FOWLER
 Assistant TOLLIVER

Assistant PRICE
 Graduate Assistant HARGER
 Graduate Assistant WESTCOT
 Graduate Research Assistant BANCROFT

The successful administration of an institution involves the wise expenditure of time, energy, and money, in order that requirements of food and shelter may be satisfactorily furnished to large groups. Courses in this department provide training for cafeteria, tea-room, lunch-room managers, dietitians, and directors of residence halls.

COURSES IN INSTITUTIONAL MANAGEMENT

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. INSTITUTIONAL MANAGEMENT I. 4(1-9); I, II, and SS. Prerequisite: Food and Nutr. 107. James.

Food problems of institutions, including preparation and serving of food in large quantities, menu planning, and food costs.

Laboratory.—Carried on in College cafeteria where food is prepared and served in large quantities. Charge, \$2.50.

204. INSTITUTIONAL MANAGEMENT II. 3(3-0); I, II, and SS. Prerequisite: Inst. Mgmt. 202. Graduate students may parallel Inst. Mgmt. 202 and 204. West.

A study of the organization and administration problems of the food and house department of certain institutions such as the school lunch, residence halls, hospitals, cafeteria. Concurrent residence in Van Zile Hall affords opportunity for actual managerial experience.

210. PROBLEMS IN INSTITUTIONAL MANAGEMENT. Credit to be arranged; I, II, and SS. Prerequisite or parallel: Inst. Mgmt. 204; consult instructor. West.

Individual investigation of problems in the field of institutional management. Conferences are held and reports made at appointed hours.

215. INSTITUTIONAL FOOD BUYING. 2(2-0); I and II. Prerequisite: Inst. Mgmt. 202. West.

Study of producing areas, the distribution of food products, and methods of purchasing food in large quantities.

218. SCHOOL LUNCH-ROOM MANAGEMENT. 2(1-3); II and SS. Prerequisite: Food and Nutr. 107. West.

Organization, administration, equipment, food buying, food costs, and menu planning for the school lunch; banquet service for secondary schools.

225. TEA-ROOM MANAGEMENT. 3(0-9); I and II. Prerequisite or parallel: Inst. Mgmt. 204 and 215. Fowler.

Practical experience in the planning, preparation, and serving of food to the public. The College tea room serves as a laboratory for this course. Charge, \$2.50.

230. INSTITUTIONAL FURNISHINGS AND EQUIPMENT. 2(2-0); I and II. Prerequisite: Food and Nutr. 107. West.

A study of the different types of equipment for the house and food departments of institutions, including selection, arrangement, installation, and care.

235. INSTITUTIONAL HOUSEKEEPING. 2(1-3); II. Prerequisite or parallel: Inst. Mgmt. 204. Wood.

Problems involved in the management and care of the house departments of various types of institutions. Charge, \$1.

FOR GRADUATE CREDIT

301. RESEARCH IN INSTITUTIONAL MANAGEMENT. Credit to be arranged; I, II, and SS. Prerequisites: Consult instructor. West.

Bureau of Research in Home Economics

The Bureau of Research in Home Economics conducts investigations in the scientific, economic, and social problems of the home. The purpose of this research is to discover new facts and new methods of the application of scientific knowledge bearing upon the welfare of the members of the family and the conditions under which they live.

The fields of research included in the bureau are: Child welfare, clothing and textiles, food economics, household administration, institutional management, human nutrition, dietetics, and public health.

The laboratories of the Division of Home Economics include equipment suitable for work on certain of the problems. Opportunities for surveys and investigations of conditions in the state are found through the coöperation of various educational and social agencies.

The results of all investigations are published from time to time and are available on request to all citizens of the state.

The personnel of the bureau staff includes members of the teaching faculty in home economics. Several of the departments in other Divisions of the College advise or collaborate with officers of the bureau on problems of related interest.

Among the investigations in progress are the following:

- *A study of calcium and phosphorus in various forms of milk and cheese.

- *Effect upon the animal body of varying the amount of vitamin in the diet.

- *Vitamin content of foods relating to human nutrition:

- a. Fruits.
- b. Vegetables.
- c. Cereals.
- d. Eggs.
- e. Dairy products.
- f. Meat.

Utilization by human subjects of the nitrogen and phosphorus of different cuts of meat.

Factors affecting the quality of cakes.

- *Composition of cooked meats.

Dietary studies—group, individual.

- *Nutritional status of college women as related to dietary habits.

- *A study of the factors affecting service qualities of certain textile fabrics.

- *A study of service qualities of fabrics with regard to adequate labeling.

- *A study of the coefficient of protection of clothing and household fabrics.

- *A study of the silk fiber, weighted and unweighted, as affected by:

- a. Light.
- b. Light and moisture.
- c. Light and perspiration.

Coefficient of absorption of textile materials.

Comparative study of certain body measurements:

- a. With those of selected commercial patterns.
- b. With those of certain commercially made garments.

Methods in parent education.

Behavior records for nursery school.

The difference in individuals in maintaining physical equilibrium under varying conditions.

Studies of factors affecting the expenditures for family living.

* The investigations starred are being supported in part by funds from the Agricultural Experiment Station.

The Division of Veterinary Medicine

RALPH R. DYKSTRA, *Dean*

The College has one of the best-equipped schools of veterinary medicine in the West. In addition to giving the student the best possible technical training in veterinary medicine, the course is designed to give the broad culture necessary for men who are to take their places in public affairs. Professional men, such as veterinarians, are placed in a more or less public relation to the communities they serve. They must have a broad groundwork in culture and ethical training, which will win them the confidence and respect of their communities. Success is measured in something more than dollars and cents, and the man whose view of life is no broader than his profession adds but little to the world and its happiness. The training given by the College in veterinary science seeks to emphasize the value of the man as a man, as much as his value as a specialist.

VETERINARY ENROLLMENT LIMITED

By authority of the State Board of Regents, enrollment in the curriculum in Veterinary Medicine is limited to a total of 200 students. Persons wishing to enter this curriculum should apply several weeks in advance of the opening of the college year. Admission to each of the four years is based on the applicant's scholarship record and other evidence of his fitness. When all other factors are equal, first preference is given to applicants who are residents of Kansas, and second preference to applicants who are residents of those states having no standard college of veterinary medicine. In general, no requests for admission will be approved after August 15. Application blanks may be obtained from the dean of the Division of Veterinary Medicine.

Applicants must offer: (1) the high-school units required for admission to the pre-veterinary adaptation of the freshmen year of the curriculum in General Science; (2) thirty-two hours of college work as prescribed in or equivalent to the pre-veterinary year in the Division of General Science. This work may be done here or in any approved junior college, college, or university.

CURRICULUM IN VETERINARY MEDICINE

The curriculum in veterinary medicine at the Kansas State College was established to give the young men of this state an opportunity to pursue these studies in an agricultural environment, where the facilities offered by other branches of the College would be at their command. While the instruction in this curriculum is largely technical, enough subjects of a general character are included to give a sound education and a broad outlook. Better to fit the veterinarian to deal wisely with the livestock problems which he has to meet, he is required to take the work in livestock feeding, breeding, and judging, in milk inspection, and in zoölogy, in addition to his purely professional work.

Work must be taken as prescribed except that certain courses may be selected from the list of extracurricular electives if the student has the prerequisites.

Curriculum in Veterinary Medicine

FRESHMAN

FIRST SEMESTER

Anatomy I, Anat. 104.....	*4(3-3)
Histology I, Path. 102.....	4(2-6)
Gen. Org. Chemistry, Chem. 122..	5(3-6)
Medical Botany, Bot. 126.....	2(1-3)
Infantry III, Mil. Sc. 103A.....	1(1-2)
Phys. Educ. M, Phys. Ed. 105....	R(0-2)

Total 16

SECOND SEMESTER

Anatomy II, Anat. 110.....	8(4-12)
Histology II, Path. 106.....	3(1-6)
Path. Bact. I, Bact. 111.....	4(2-6)
Infantry IV, Mil. Sc. 104A.....	1(1-2)
Phys. Educ. M, Phys. Ed. 106....	R(0-2)

Total 16

SOPHOMORE

FIRST SEMESTER

Anatomy III, Anat. 112.....	4(1-9)
Comp. Physiology I, Anat. 222...	4(3-3)
El. of An. Husb., An. Husb. 125..	3(2-4)
Path. Bact. II, Bact. 116.....	4(2-6)
Dairy Cattle Judg., Dairy Husb. 104	1(0-3)

Total 16

SECOND SEMESTER

Pathology I, Path. 203.....	5(3-6)
Comp. Physiology II, Anat. 227...	4(3-3)
Farm Poul. Prod., Poul. Husb. 101,	2(1-2, 1)
Feeds and Feeding, An. Husb. 189,	3(3-0)
Dairy Inspec. II, Dairy Husb. 119,	2(1-3)

Total 16

JUNIOR

FIRST SEMESTER

Surgery I, Surg. 102.....	5(5-0)
Materia Medica, Surg. 158.....	4(3-3)
Pathology II, Path. 208.....	4(3-3)
Parasitology, Zool. 208.....	3(2-3)
Clinics I, Surg. 138.....	2(0-6)

Total 18

SECOND SEMESTER

Surgery II, Surg. 107.....	5(5-0)
Dis. of Large Animals I, Surg. 175,	5(5-0)
Pathology III, Path. 211.....	3(2-3)
Therapeutics, Surg. 163.....	3(3-0)
Clinics II, Surg. 141.....	2(0-6)

Total 18

SENIOR

FIRST SEMESTER

Dis. of Large Animals II, Surg. 177,	5(5-0)
Dis. of Small Animals, Surg. 186..	2(2-0)
Surgical Exercises, Surg. 112.....	1(0-3)
Meat Hygiene, Path. 217.....	3(3-0)
Pathology IV, Path. 214.....	3(2-3)
Clinics III, Surg. 144.....	4(0-12)
Clinical Path. I, Path. 225.....	R(0-12)

Total 18

SECOND SEMESTER

Inf. Dis. of Large Animals, Surg. 181	5(5-0)
Obst. and Breed. Dis., Surg. 130..	5(5-0)
Poultry Diseases, Bact. 217.....	2(2-0)
Med. Econ. and Law, Surg. 191...	2(2-0)
Clinics IV, Surg. 147.....	4(0-12)
Clinical Path. II, Path. 226.....	R(0-12)

Total 18

Total number of hours required for graduation..... 136

EXTRACURRICULAR ELECTIVES

FIRST SEMESTER

Vaccine Manu. I, Path. 228.....	2-5(-)
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SECOND SEMESTER

Vaccine Manu. II, Path. 231.....	2-5(-)
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FIRST OR SECOND SEMESTER

Special Histology, Path. 252.....	3(1-6)
Pathological Technic and Diagnosis I, Path. 222.....	2 to 5(-)
Pathological Technic and Diagnosis II, Path. 223.....	2 to 5(-)
Special Anatomy, Anat. 202.....	2 to 4(-)
Applied Anatomy, Anat. 206.....	1(0-3)
Research in Pathology, Path. 302.....	Credit to be arranged
Problems in Physiology, Anat. 215.....	Credit to be arranged
Research in Medicine, Surg. 310.....	Credit to be arranged
Research in Surgery, Surg. 301.....	Credit to be arranged
Senior Seminar, V. M. 101.....	2(1-3)
Applied Veterinary Parasitology, Path. 250.....	2(1-3)

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week.

Anatomy and Physiology

Professor BURT
Professor McLEOD
Professor LEASURE
Instructor LINK
Instructor WAGERS

The classroom instruction consists of lectures, quizzes, and recitations, and special dissection of the part under discussion; also a study of dissected specimens, various models, and the Azoux model of the horse. Mounted skeletons and limbs and loose bones are abundant in the museum. The horse is taken as a type, and the other domestic animals are compared with the horse. As often as necessary parts of other animals are dissected to show the differences.

The equipment for instruction in physiology is ample to give the student a thoroughly comprehensive course in laboratory study.

COURSES IN ANATOMY

FOR UNDERGRADUATE CREDIT

104. ANATOMY I. 4(3-3)*; I. McLeod, Wagers.

A detailed study of the bones of the horse, and a comparative study of the bones of other animals and of man. Deposit, \$3.

110. ANATOMY II. 8(4-12); II. Prerequisite: Anat. 104. Burt, McLeod, Wagers.

Dissection of the trunk and limbs of the horse; study of the muscles, viscera, and joints, and of the blood and nerve supply of the same. Deposit, \$8.

112. ANATOMY III. 4(1-9); I. Prerequisite: Anat. 104. Burt, Wagers.

Dissection and study of all structures of the head of the horse with exception of the bones of the head; the comparative anatomy of other domestic animals. Deposit, \$8.

101. V. M. SENIOR SEMINAR. 2(1-3); II. Prerequisite: Senior standing. Staff.

Given coöperatively by the several departments of the Division; largely a review of the courses in the professional curriculum, and a study of recent developments in veterinary medicine; special emphasis on preparation for federal and state examinations. Deposit, \$3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. SPECIAL ANATOMY. 2 to 4 hours; II. Prerequisite: Anat. 104 or 110 or 112 or 131 or equivalent. Burt, McLeod.

Study of any part of the horse (as the digestive system, the genital system), ox, sheep, pig, dog, cat, or poultry; adapted to the work in which the student is specializing. Deposit, \$5.

206. APPLIED ANATOMY. 1(0-3); I. Prerequisite: Anat. 112. Burt, McLeod, Wagers.

Dissection of certain areas embraced in performing the various surgical operations, and study of all the structures in each area and their relation to one another as they would present themselves during an operation. Deposit, \$2.

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week. I, II, and SS indicate that the course is given the first semester, second semester, and summer school, respectively.

COURSES IN ANATOMY AND PHYSIOLOGY

FOR UNDERGRADUATE CREDIT

131. ANATOMY AND PHYSIOLOGY. 3(2-3); I. Adapted to students majoring in Animal Husbandry. Link.

Physiology of the domestic animals with special emphasis on digestion, absorption, metabolism, and excretion; sufficient anatomy to give a thorough understanding of the correlation between the two subjects and of the physiologic relations existing among the various organs of the body. Charge, \$1.

COURSES IN PHYSIOLOGY

FOR GRADUATE AND UNDERGRADUATE CREDIT

215. PROBLEMS IN PHYSIOLOGY. Credit to be arranged; I and II. Prerequisite: Anat. 131 or 222 or 227 or its equivalent. Leasure, Link.

Individual investigational problems in the physiology of digestion, reproduction, endocrine glands, etc. Charge, \$1.50 per semester hour.

222. COMPARATIVE PHYSIOLOGY I. 4(3-3); I. Prerequisite: For veterinary students, Anat. 104 and 110 and Chem. 122; for others, and approved courses in organic chemistry. Leasure, Link.

Physiology of domestic animals and the study of the blood, heart, blood vessels, and continuing with the ductless glands and internal secretions, respiration, digestion, and absorption.

Laboratory.—A practical application of the knowledge derived in the classroom. Laboratory directions furnished the student. Deposit, \$5.

227. COMPARATIVE PHYSIOLOGY II. 4(3-3); II. Prerequisite: Same as for Anat. 222. Leasure, Link.

The urine and urinary system, nutrition, animal heat, muscular and nervous systems, locomotion, generation and development, growth and decay. Deposit, \$5.

FOR GRADUATE CREDIT

301. ANIMAL NUTRITION SEMINAR. 1(1-0); I and II. Prerequisite: Consult Burt.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of validity of conclusions drawn.

Pathology

Professor LIENHARDT*
Professor RODERICK
Professor KITSELMAN
Assistant Professor FARLEY

Assistant Professor MORRILL
Assistant Professor THOMPSON
Instructor WHITLOCK
Technician KIMBALL

The Department of Pathology presents courses in histology, pathology, and meat inspection. Instruction is by lectures or recitations, laboratory work, and demonstrations which are carried out by the use of the lantern slides and by autopsies.

COURSES IN HISTOLOGY

FOR UNDERGRADUATE CREDIT

102. HISTOLOGY I. 4(2-6); I. Prerequisite: Zoöl. 105. Whitlock.

Care and manipulation of the microscope; microscopical examination and study of the cell, the developing embryo, the specialized tissues, blood-forming organs, the digestive tract, etc. Previously prepared specimens are studied with the microscope and drawn by the student. Deposit, \$3.

106. HISTOLOGY II. 3(1-6); II. Prerequisite: Path. 102. Whitlock.

* Deceased Nov. 11, 1937.

Study of the stomachs of the dog, the horse, and the ox; the intestines, the liver, pancreas, respiratory tract, the urinary organs, genital organs, the skin and appendages, suprarenal gland, the brain, the eye, and the ear. Deposit, \$3.

101. V. M. SENIOR SEMINAR. See "Courses in Anatomy."

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. SPECIAL HISTOLOGY. 3(1-6); I, II, and SS. Prerequisite: Anat. 131 or equivalent. Lienhardt, Whitlock.

A course dealing with special organs, as those concerned with digestion, respiration, etc; tissues fixed, dehydrated, imbedded, sectioned, stained, mounted, and studied. Charge, \$3.

COURSES IN PATHOLOGY

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. PATHOLOGY I. 5(3-6); II. Prerequisite: Anat. 222, Bact. 116, Chem. 122, and Path. 106. Lienhardt, Morrill.

General pathology, treating of the history of pathology, predisposition, immunity, congenital and inherited disease, etiology, course and termination of disease. Deposit, \$3.

208. PATHOLOGY II. 4(3-3); I. Prerequisite: Path. 203 and Anat. 227. Lienhardt, Morrill.

Special pathology, study of specific pathological processes occurring in the various organs of the body. Deposit, \$3.

211. PATHOLOGY III. 3(2-3); II. Prerequisite: Path. 208. Lienhardt, Morrill.

Special pathology; continuation of Pathology II. Deposit, \$3.

214. PATHOLOGY IV. 3(2-3); I. Prerequisite: Path. 211. Lienhardt.

Pathology of the infectious diseases and laboratory diagnosis. Deposit, \$2.50.

217. MEAT HYGIENE. 3(3-0); I. Prerequisite: Path. 211. Kitselman.

Kinds and classes of stock, transportation of animals, inspection before and after slaughter, disposition of the condemned carcasses from economic and hygienic standpoints, different methods of preservation, adulterations, and sanitary laws and regulations dealing with healthful meat production.

222, 223. PATHOLOGICAL TECHNIC AND DIAGNOSIS. I and II. 2 to 5 hours each; I and II each. Prerequisite: For I, Path. 203; for II, Path. 211 and 222. Lienhardt, Morrill.

Pathological technic; collecting, fixing, hardening, embedding in celloidin and paraffin, also freezing and sectioning of tissues; methods of preserving gross specimens; practice in post-mortem and laboratory diagnosis. Deposit, \$3 to \$7.50 for each course.

225, 226. CLINICAL PATHOLOGY I and II. R(0-12); I and II. Credit in Clinics III and IV. Open only to senior students in veterinary medicine, and to graduate students. Prerequisite: Surg. 138 and 141. Staff.

The unification and practical application of the various laboratory test procedures to clinical diagnosis. Pathological examinations will include autopsies, biopsies, and hematological, bacteriological, serological, chemical pathological, and parasitological diagnosis. If the student is simultaneously enrolled in Clinics III and IV, the grade reported for these courses will include the grade for the courses in Clinical Pathology I and II.

228, 231. VACCINE MANUFACTURE. I and II. 2 to 5 hours each; I and II each. Prerequisite: Bact. 116. Farley.

I: Theory and practice of immunization as applied to blackleg and hog cholera.

Laboratory.—Isolation and identification of the blackleg organism and of related anaërobes, and practical production of blackleg immunizing agents and antihog-cholera serum and virus. Deposit, \$3 to \$7.50 for each course.

II: Preparation and standardization of various veterinary biological products, such as tuberculin, bacterial vaccines, and bacterins.

Laboratory.—Production of some of the products mentioned and special work on blackleg immunizing agents and antihog-cholera serum and virus. Deposit, \$3.

250. APPLIED VETERINARY PARASITOLOGY. 2(1-3); II. Limited to veterinary students. Prerequisite: Zoöl. 208. Whitlock.

Identification and diagnosis of parasites and parasitoses in living and dead animals; important parasitic diseases of live stock in the United States; animal parasites of public health importance; field trips. Charge, \$2.

FOR GRADUATE CREDIT

302. RESEARCH IN PATHOLOGY. Credit to be arranged; I and II. Prerequisite: Path. 214 and 222, Bact. 116, and Chem. 235 or equivalent. Lienhardt, Morrill.

Individual research problem in pathology of the nervous system, eye, and ear; investigational work on disease caused by a filterable virus. This work may form the basis for a master's thesis. Deposit, \$1.50 to \$15.

310. ANIMAL NUTRITION SEMINAR. 1(1-0); I and II. Prerequisite: Consult Lienhardt.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of validity of conclusions drawn.

Surgery and Medicine

Professor FRICK
Professor FRANK
Professor DYKSTRA

Instructor EBERTZ
Instructor HUMMER

The veterinary hospital is equipped with every modern appliance for surgical operations and diagnosis of animal diseases. The hospital has capacity for more than fifty horses or cattle, and in addition it can accommodate fifty small animals, such as sheep, swine, cats, dogs, etc. Members of the clinical staff, accompanied by students, make trips into the surrounding country to treat patients. In this way the students come in contact every year with the diseases of animals and their treatment.

COURSES IN SURGERY

FOR UNDERGRADUATE CREDIT

102. SURGERY I. 5(5-0); I. Prerequisite: Junior or senior standing in veterinary medicine. Frank.

Lectures, recitations, and demonstrations on the fundamental principles of surgery, methods of restraint, asepsis and antisepsis, anaesthesia, division of tissues, union of tissues, control of hemorrhage, neoplasms, and animal dentistry.

107. SURGERY II. 5(5-0); II. Prerequisite: Surg. 102. Frank.

Lectures, recitations, and demonstrations on the surgical diseases of domesticated animals; horseshoeing is included.

112. SURGICAL EXERCISES. 1(0-3); I. Prerequisite: Surg. 107. Staff.

Major surgical operations on anaesthetized domesticated animals and on cadavers. Charge, \$5.

101. V. M. SENIOR SEMINAR. See "Courses in Anatomy."

FOR GRADUATE CREDIT

301. RESEARCH IN SURGERY. Credit to be arranged; I and II. Prerequisite: Anat. 104, 110, and 112 and Surg. 102, 107, and 163. Dykstra, Frank.

The purpose of this course is to attempt to solve many of the surgical problems confronting the average veterinary practitioner. Offered especially for graduates in veterinary medicine.

COURSES IN OBSTETRICS

FOR UNDERGRADUATE CREDIT

130. OBSTETRICS AND BREEDING DISEASES. 5(5-0); II. Prerequisite: Senior standing in veterinary medicine. Ebertz.

Physiology of reproduction, principles of normal and abnormal parturition, special attention given to handling of reduced fertility.

COURSES IN CLINICS

FOR UNDERGRADUATE CREDIT

138, 141. CLINICS I AND II. 2(0-6) each; I and II, respectively. Prerequisite: Junior or senior standing in veterinary medicine. Staff.

All species of domestic animals are treated at a free clinic. Students assist in the restraint of animals, in bandaging, in compounding prescriptions, and in preparing antiseptics and other medical agents. Deposit, \$5 for each course.

144, 147. CLINICS II AND IV. 4(0-12) each; I and II, respectively. Prerequisite: Junior or senior classification in veterinary medicine. Staff.

Diagnosis and treatment of hospital patients, including keeping clinical records, administering medicines, changing dressings on surgical wounds, X-ray technique, etc.; assisting clinicians in out-clinic work. Deposit, \$5 for each course.

150. EXTRA CLINICS. 1(0-3); I, II, and SS. Prerequisite: Surg. 141 or 147. Staff.

A course in clinics intended for those undergraduate students desiring clinical training in addition to that offered in the curriculum in veterinary medicine. Deposit, \$2.50.

COURSES IN MATERIA MEDICA

FOR UNDERGRADUATE CREDIT

158. MATERIA MEDICA. 4(3-3); I. Prerequisite: Junior standing in veterinary medicine. Hummer.

A detailed study of important drugs; their origins, properties, and classification; their physiological actions, clinical administration, and dosage; metrology, prescription writing, pharmaceutical processes, and pharmaceutical preparations; compounding of prescriptions. Deposit, \$3.

163. THERAPEUTICS. 3(3-0); II. Prerequisite: Surg. 158. Hummer.

History of therapeutics; healing methods; types of therapy, including mechanical, chemical, electrical, biological, dietetic, and thermal; toxicology as encountered in veterinary practice.

COURSES IN MEDICINE

FOR UNDERGRADUATE CREDIT

175, 177. DISEASES OF LARGE ANIMALS I AND II. 5(5-0) each; II and I, respectively. Prerequisite: Surg. 158 and junior or senior standing in veterinary medicine. Frick, Ebertz.

I: Different diagnostic methods employed for the detection of disease; noninfectious diseases of the digestive, circulatory, and respiratory organs of the larger animals.

II: Noninfectious diseases of the urinary organs, diseases of metabolism, of the nervous system, of the organs of locomotion, of the skin, and of the eye.

181. INFECTIOUS DISEASES OF LARGE ANIMALS. 5(5-0); II. Prerequisite: Surg. 177 and senior standing in veterinary medicine. Frick.

The distinctly infectious and contagious diseases of the large domestic animals.

186. DISEASES OF SMALL ANIMALS. 2(2-0); I. Prerequisite: Surg. 158 and 163, and senior standing in veterinary medicine. Frick.

Infectious and noninfectious canine and feline diseases; breeds of dogs, cats, and fur-bearing animals, erection of kennels, the breeding and care of puppies, care and feeding of dogs in general, and the hygienic measures pertaining thereto.

191. MEDICAL ECONOMICS AND LAW. 2(2-0); II. Prerequisite: Senior standing in veterinary medicine. Staff.

The veterinarian's legal responsibilities; national and state livestock laws; quarantine regulations; principles of business law.

FOR GRADUATE CREDIT

310. RESEARCH IN MEDICINE. Credit to be arranged; I, II, and SS. Prerequisite: Surg. 158, 175, 177, and 181. Frick.

An attempted solution of some of the medical and parasitological problems confronting the practitioner of veterinary medicine. Offered especially for graduates in veterinary medicine.

The Division of College Extension

HARRY UMBERGER, *Dean and Director*

The Division of College Extension offers the benefits of the College to farm people throughout Kansas. It is active in every county in the state. By means of institutes, training schools, publications, correspondence courses, and radio programs, information on agriculture, home economics, and rural engineering is made readily available to everyone.

In the beginning, this work was informal. Members of the College staff answered inquiries by mail and occasionally met with small groups at various places in the state. The exchange of information thus made possible proved valuable both to the citizens of the state and to the College investigators. In 1914, with the passage of the Smith-Lever Act, this type of work became a coöperative undertaking of the federal and state governments, through the United States Department of Agriculture and the agricultural colleges.

There now are six major departments in this Division, each with its own head and staff. Coöperatively employed extension agents are located in 103 counties of the state. The extension organization, which reaches more than 800,000 Kansas people each year, still serves its original function of a two-way communication system between the College and the general public. Extension workers take to the people of the state information developed by the experiment stations, by the United States Department of Agriculture, and by the experience of the best farmers and homemakers. They bring to the state and federal research workers information concerning problems that are of immediate general interest. Their goal is to assist in making agriculture more prosperous and rural living more satisfying.

Extension Schools

In Agriculture and Home Economics

L. C. WILLIAMS in Charge

W. G. AMSTEIN, Horticulture
 _____, Horticulture
 HENRY W. GILBERT, Landscape Gardening
 LLOYD F. SMITH, Farm Forestry
 C. G. ELLING, Animal Husbandry
 J. J. MOXLEY, Animal Husbandry
 J. W. LUMB, Veterinary Medicine
 E. G. KELLY, Entomology
 M. A. SEATON, Poultry Husbandry
 E. R. HALBROOK, Poultry Husbandry
 JOHN O. MILLER, Plant Pathology
 JAMES W. LINN, Dairy Husbandry
 D. M. SEATH, Dairy Husbandry
 L. E. WILLOUGHBY, Crops
 E. A. CLEAVINGER, Crops

L. L. COMPTON, Crops
 JOHN G. BELL, Crops
 VANCE M. RUCKER, Marketing
 J. WARREN MATHER, Marketing
 CHARLES E. DOMINY, Marketing
 B. W. WRIGHT, Farm Management
 L. M. SCHRUBEN, Farm Management
 C. R. JACCARD, Agricultural Economics
 G. B. RAILSBACK, Fieldman, Farm Bureau-
 Farm and Home Management Association
 J. H. COOLIDGE, Fieldman, Farm Bureau-
 Farm and Home Management Association
 W. J. CONOVER, Fieldman, Farm Bureau-
 Farm and Home Management Association

This department includes those members of the extension staff who conduct and supervise programs in agricultural education throughout the state. The programs are developed in coöperation with the residents of the counties through their designated leaders. The department also has charge of the program and arrangements for Farm and Home Week, annual state-wide farmers' meetings, and the scheduling of judges for county and local fairs.

FARM AND HOME INSTITUTES

A farm and home institute is an association of farmers and farm homemakers with regular officers, constitution, and by-laws. Some organizations hold six or more meetings during the year and no institute can obtain state aid unless, in addition to the annual meeting at which representatives of the College must be present, it also holds at least three local meetings. It is the plan of the College to send two specialists, one in agriculture and one in home economics, to the annual meetings to present certain well-defined lessons and to give the results of demonstration work for the county or locality. The specialists and their subjects are chosen because of known need or interest of a particular community or because of a plan to start or encourage certain definite lines of work.

EXTENSION SCHOOLS

Extension schools are meetings of one or two days' duration conducted for the purpose of giving practical instruction in agriculture, rural engineering, and home economics. Most of these schools are organized on a project basis, and they are an important feature in the yearly program of work conducted by each specialist. Results of demonstrations and experiments are given at these meetings and suggestions are made for their practical application under local conditions.

Extension schools are classified according to the subject matter presented. Each year schools are held in horticulture, animal husbandry, veterinary medicine, entomology, poultry husbandry, dairying, agronomy, marketing, farm management, plant pathology, and farm forestry. In addition to these specialized meetings, schools of a more general character are held, and these are designed to present the extension program best suited to the communities of the county. Home economics and 4-H club work have an important place on the program of these schools.

EXTENSION PROJECTS

The specialists of the division work in extension schools and institutes during the winter months only, and a portion of this time is devoted to co-operative demonstration work in agriculture and home economics. During

the remainder of the year, they conduct special extension programs in soil management and crop production, plant pathology, horticulture, animal husbandry, dairying, veterinary medicine, poultry husbandry, entomology, farm management, marketing, and farm forestry. This phase of the work of the extension specialist is being supplemented by coöperative demonstration work. In much of the coöperative work each specialist has from 10 to 100 or more coöperators in each county. These men and women work under the direction of the specialist and the county agent. They keep records of the work and demonstration meetings are held at their farms.

The extension specialist takes to the farm and farm home the results of the research work of the Agricultural Experiment Station and the United States Department of Agriculture in a practical, effective, and usable form. He brings back reports of the progress of demonstration work in the field. He seldom makes a trip without coming in contact with agricultural problems requiring the attention of research workers.

COUNTY AND LOCAL FAIRS

The agricultural specialists devote some time each year to judging livestock and agricultural products at county and local fairs. An excellent opportunity for lectures and demonstration work is furnished and each specialist endeavors to make his judging work as instructive as possible.

FARM AND HOME WEEK

The purpose of Farm and Home Week is to interest the farmers of the state in methods of production and management that will increase farm profits, to demonstrate to farm women methods of home management that will add to the comfort and enjoyment of farm life, and to encourage farm folks in social organization that will enrich the social life of the rural community.

All meetings, lectures, and demonstrations during Farm and Home Week are free of charge. The United States Department of Agriculture, the Agricultural Experiment Station, the Extension Service, agricultural specialists, and leading farmers bring to those in attendance the latest results of investigations in agriculture, home economics, and rural engineering. Problems concerning crops and soils, dairying, beef cattle, horses, hogs, sheep, poultry, horticulture, community service, beekeeping, and diseases of animals are discussed by some of the leading agricultural authorities in America. In addition to these lectures and demonstrations there are other interesting features.

County Agent Work*

F. O. BLECHA, District Agent
J. V. HEPLER, District Agent
A. F. TURNER, District Agent
L. M. KNIGHT, District Agent
(Organization)

E. H. TEAGARDEN, S. W. District Supervisor
HARRY C. BAIRD, N. W. District Supervisor
OTIS B. GLOVER, E. District Supervisor
M. L. ROBINSON, District Supervisor (Wheat)

The county agent constitutes a direct and continuous contact of the College and the United States Department of Agriculture with the rural population of the state. The program of county-agent work is as broad as the interests of rural life. It includes the farm as a business, the farm home, the farm youth, and the rural community. The program for the farm as a business involves those things that may be done by the individual farmer and those that require extensive coöperation among farmers. On the one hand it includes organization and management, and production problems such as soil management, erosion control, cropping systems, crop pests, adapted crop varieties, and

* To find an alphabetical list of county agricultural agents, see Index.

livestock management. On the other hand it includes coöperative financing, coöperative marketing of farm products, and agricultural adjustment procedure.

The first county agent in Kansas was employed by the Leavenworth county farm bureau, August 1, 1912. At first county agents were financed by membership dues, private subscription, and a small state appropriation. In 1914 Congress enacted the Smith-Lever law and in 1915 the Kansas legislature passed the farm-bureau law. These statutes remain the basis of county-agent work. Additional federal funds have been made available in recent years under several other statutes such as the Capper-Ketcham, Clark-McNary, and Bankhead-Jones acts.

On October 1, 1937, there were 102 county agents and twenty-seven assistant county agents. One organized county was temporarily without an agent but an assistant was serving until a regular agent could be employed. Six of the assistant county agents are coöperating with Soil Conservation associations, twelve serve as testers for Dairy Herd Improvement Associations, one is co-operating with the state office of the Agricultural Adjustment Administration, and seven are securing training in various counties under the leadership of county agricultural agents.

Home Economics*

GEORGIANA H. SMURTHWAITE, State Home Demonstration Leader

DISTRICT HOME DEMONSTRATION AGENT LEADERS

ELLEN M. BATCHELOR

MAUDE E. DEELY

RACHEL MARKWELL

SPECIALISTS IN HOME ECONOMICS

M. CHRISTINE WIGGINS, Clothing
and Textiles**

ALICE LINN, Clothing and Textiles***

LORA V. HILYARD, Clothing and Textiles

GERTRUDE ALLEN, Foods and Nutrition

MARY FLETCHER, Foods and Nutrition

RUTH J. PECK, Home Furnishings**

RACHEL MARTENS, Home Furnishings***

W. PEARL MARTIN, Home Health
and Sanitation

EUNICE PARDEE, Home Management

ELLEN LINDSTROM, Home Management

Extension work in Home Economics is carried on in counties through organized groups and through extension schools, particularly those of the more general type. Organized programs are pursued throughout the year in connection with county farm bureaus. Material furnished by the specialists and by home demonstration agents is used by local leaders in their respective communities.

Home demonstration work was made possible in August, 1917, when Congress provided funds for the employment of emergency home demonstration agents. The work was instituted under the auspices of city or county organizations, but after a short time the placing of home demonstration agents was deferred until the counties were properly organized for this specific purpose. Since August, 1918, the organization of an ideal farm bureau, providing membership for women as well as for men, has been required; and since July 1, 1921, a county desiring a home demonstration agent has had to provide a well-equipped office with adequate stenographic help, transportation facilities, and a county appropriation of not less than \$2,400 to the farm bureau for the salary and expenses of the agricultural agent and the home demonstration agent.

The program of work for the home demonstration agent is based on the interest and the needs of the communities in the county. It is evolved through community and committee meetings and includes the development of activities pertaining to the farm, the home, and the community. Such programs of work become a part of the state program. On October 1, 1937, thirty-five counties had home demonstration agents.

* To find an alphabetical list of home demonstration agents, see Index.

** On leave.

*** Temporary.

Boys' and Girls' 4-H Club Work

M. H. COE, State Club Leader
MABEL R. SMITH, Assistant State Club Leader
J. HAROLD JOHNSON, Assistant State Club Leader
MARY ELSIE BORDER, Assistant State Club Leader
ROGER E. REGNIER, Assistant State Club Leader
ALBERT A. PEASE, County Club Agent, Rice County
WAYNE EWING, County Club Agent, Sedgwick County
CLAUDE L. KING, County Club Agent, Shawnee County
O. W. KERSHAW, County Club Agent, Washington County
I. H. DAVIES, County Club Agent, Wyandotte County

The 4-H club work is conducted by the College in coöperation with the counties, the county farm bureaus, and the United States Department of Agriculture. Community 4-H clubs are open to all young people between the ages of ten and twenty years, inclusive. They work under the direction of the county agents with the help of local voluntary 4-H leaders. Local organizations also give important assistance. County 4-H councils assist the county agents in the supervision and promotion of the 4-H program. 4-H members receive visits from their county agents and from their local leaders; written material is prepared by specialists and sent out by the state club leader, to give members definite information and suggestions regarding farm and home practices recommended by the College.

The origin of the 4-H club work is obscure. Shortly after 1900, farmers' institutes, farm leaders, and educators, in various parts of the country, made efforts to bring about a more definite connection between real life and school life. They assisted boys and girls to conduct, at home, various educational demonstrations or contests, centering around improved agricultural practices.

It became evident that the educational development of the boys and girls was of greater importance than the spread of improved farm and home practices. Hence the 4-H club program was broadened to include not only projects of a farm and home nature, but also many activities such as health, music, conservation of wild life and natural resources, recreation, parliamentary practices, and art. The present 4-H club program is designed to develop wholesome citizenship and leadership among rural young people and to provide them with the opportunity to participate with their parents and friends in the adoption and spread of better farm and home practices. Coöperation with the group is promoted, leadership is encouraged, exhibitions and contests are conducted, accurate records and reports are required, and achievements are suitably recognized. Wholesome recreation is promoted and county and state-wide round-ups, camps, and conferences are arranged.

Rural Engineering

WALTER G. WARD, Extension Architect, in Charge
EUGENE D. WARNER, Extension Architect
HAL F. EIER, Extension Agricultural Engineer
HAROLD E. STOVER, Extension Agricultural Engineer
JOHN M. FERGUSON, Extension Agricultural Engineer

The function of this department is to assist in the application of engineering principles to various phases of agriculture. In the beginning, in 1914, it dealt chiefly with drainage and irrigation. Other subjects have been added, including the control of soil erosion, farm buildings, conveniences for the farm home, and farm machinery. Annually thousands of direct inquiries on these subjects are answered by mail.

Much of the work is conducted in coöperation with the county farm bureaus. More than two thirds of the counties in the state are coöperating with the department in demonstration work involving drainage, irrigation, or the control of erosion. Standardized plans for hundreds of farm buildings are fur-

nished each year. One-day builders' schools are held in various counties to supply information on the planning, construction, and maintenance of farm buildings. Advice is given on the selection, installation, and operation of systems of water supply, sewage disposal, lighting, and heating for the rural home. The choice, use, adjustment, and repair of farm machinery are discussed with distributors and farmers in one-day and two-day schools.

Home Study

GEORGE GEMMELL, Head of Department
BEATTY H. FLEENOR, Education
ADA BILLINGS, History and Government

JESSE M. SCHALL, English
FLOYD PATTISON, Industrial Subjects
CHESTER B. BILLINGS, Agriculture

The Department of Home Study is a member of the National University Extension Association comprising forty-eight leading universities in America with whom extension credits are interchangeable. The members of the department devote their entire time to the work of teaching by correspondence. They keep in close touch with the various departments of the College, and all credit courses which are offered by correspondence must first meet the requirements of the regular College departments handling the courses in residence.

There are many people in Kansas and elsewhere who cannot attend classes on the College campus, but who can use the facilities of the College to great advantage. The Department of Home Study is designed through correspondence courses to enable the College to go to those who cannot come to it. By utilizing them, odd hours of spare time may be made to count. The gross time required to complete correspondence courses is practically the same as would be necessary for the same courses in school. Correspondence courses may be started at any time. They wait when one is busy. They are instantly ready when one has time. In fact, they are "made to order" for the busy person.

FOR WHOM INTENDED

Though credit courses offered by the Department of Home Study are limited, it is the purpose of the department to add courses whenever a demand for them becomes evident. The following groups in particular should profit by the courses offered:

1. Those who have completed a common-school course but who are unable to attend high school.
2. High-school graduates unable to attend college.
3. Students who have fallen behind in their work and wish to use their spare time catching up.
4. Students whose attendance at high school or college has been interrupted.
5. The strong, aggressive student who does not wish to halt his progress for vacation and other interruptions.
6. High-school and grade classes in practical courses that need supplementing and enrichment.
7. Teachers who wish further training or who need help in planning and conducting their work.
8. Professional and business men who wish to keep growing along some line of interest, industrial or avocational.
9. Clubs and other organizations that wish to make systematic studies.
10. Men and women who wish effective help in meeting the demands of their vocations for technical and scientific knowledge and training.

HOW THE WORK IS CONDUCTED

In correspondence courses the assignment usually takes the form of assigned readings, studies, problems, and investigations, together with a list of questions and directions for a written report. The correspondence lesson is usually much longer than the common lesson in resident class work, eight such lessons being the equivalent of one semester hour of college credit. When necessary, the lessons are supplemented by lectures prepared by the instructor containing

helpful outlines and explanations, additional subject matter, and such special directions as seem desirable. The lessons are modified from time to time as suggested by experience and as new information becomes available.

As soon as an enrollment card and fee are received at the Department of Home Study, the first assignments are immediately sent out. As reports are received, additional assignments are mailed. The plan keeps work always at hand for the student and at the same time makes it possible for the instructor to keep in close touch with the student's progress and to offer, from time to time, such suggestions as seem desirable to guide the student in his work. As a rule the student should make careful study of the corrections, comments, and suggestions upon receiving a returned paper before going further with succeeding lessons.

The progress made by the student depends entirely upon his ability, preparedness, and application. As a general suggestion, it might be stated that an hour a day spent in systematic study should enable the average student to complete an assignment a week. Students may work more rapidly if their opportunities permit. Lessons will be received as rapidly as is consistent with good work, provided not more than eight assignments are sent in one week. Under no circumstances will hastily prepared manuscripts, showing superficial knowledge, be accepted.

The questions accompanying each assignment are intended to help the student to a better understanding of the subject. After careful study of the assignment, the student is required to write his manuscript, answering the questions carefully and concisely. The manuscript is then mailed to the Department of Home Study, where all lesson papers are read carefully, criticized, marked, and returned to the student with such comments, suggestions, advice, and additional references as may be deemed necessary. Each student is invited to ask questions, relate his personal experience, and in every way possible get into close contact with his instructors.

No effort is spared by the department to bring about the nearest possible approach to personal acquaintanceship between each instructor and his students. To this end the student is required to fill out and mail to the department with his first lesson a personal acquaintance blank giving full information about himself, his aims, ambitions, and previous experience and education, as well as the conditions of his daily work that necessarily affect his responses to the lessons. This information enables the instructor to enter at once into cordial, sympathetic, and helpful relations with the student.

EXAMINATION

At the close of each course, before a grade is issued, a final examination is necessary. The final examination may be taken in the office of the Department of Home Study at the College, or other arrangements may be made by the student to take it locally under the city or county superintendent of schools or the principal of the local high school. In the latter case, the examination questions and instructions for conducting the examination are mailed from the department to the examiner, and the student's paper is sent in by him.

FEEES

For residents of Kansas there is an initial enrollment fee of \$10 for a course of three semester hours of credit or less, with \$3 additional for each added hour of work; for nonresidents of the state an initial enrollment fee of \$15 for a course of three semester hours of credit or less and \$4 for each additional hour of work.

For courses of secondary school (high school) grade there is an initial enrollment fee for residents of the state of \$6 for the first half-unit course and \$5 for each additional half-unit course; for nonresidents of the state an initial enrollment fee of \$9 for the first half-unit course, with a fee of \$7 for each additional half-unit.

Each student is expected to pay postage on lessons, manuscripts, and communications sent in to the department. The office will furnish postage for the return of all such papers to students.

REGULATIONS

1. Enrollments for correspondence-study work will be received at any time during the year, and students may continue their work uninterruptedly throughout the entire year.

2. Correspondence students will be expected to complete any course for which they are enrolled within twelve months from date of enrollment.

3. Not more than two courses are advised by correspondence at any one time. It is recommended that a student carry but one subject at a time, particularly where only part of the time is given to the work.

4. Each subject listed under the various departments constitutes what is known as a correspondence "course."

5. Students enrolling for correspondence courses must meet the prerequisites the same as if undertaking the work in residence.

6. A student may not be enrolled for correspondence work while in attendance at any institution of learning without special permission from the dean or proper authorities in the institution of which he is a student.

7. No correspondence student shall be permitted to complete a three-hour course in less than three weeks; a two-hour course in less than two weeks; a one-hour course in less than one week.

8. Where there is evidence of any correspondence student copying any part of the lessons from the papers of another student who has previously taken the course, such student is to be automatically and permanently dropped from the course and a failing grade is to be sent to the registrar's office with notation of cause.

9. Credit for correspondence courses is determined by a final examination prepared by the Department of Home Study.

STUDY-CENTER EXTENSION CLASSES

Study-center classes conducted by regular instructors from the College may be organized if the demand is sufficient. Regulations concerning such classes are obtainable from the Department of Home Study.

HIGH-SCHOOL COURSES

(College Entrance Credit Work)

In offering the following work for high-school credit, there is no intention of competing with high schools of the state. It is not the purpose of those who have planned the work to present a full four-year high-school course. Students who have opportunity to attend local high school should by all means take advantage of the opportunity, for in such attendance they will have the benefits to be derived from association with fellow students as well as many other advantages which will be helpful to immature students of high-school age.

These courses are offered as an aid to those who may, by necessity, be temporarily out of high school, who may not find the work which they desire offered locally, or who wish to carry work for high-school credit during vacation periods. It is not to be expected that a student can progress as rapidly by correspondence-study methods as he can by devoting his full time to his work when attending high school. Any student who completes a half year of high-school work in a year by correspondence may feel that he has done exceedingly well.

The high-school courses will be especially advantageous to prospective college students who have entrance deficiencies and to public school teachers who may not have had the opportunity to do this type of work. No effort has been spared to make the work as nearly as possible parallel with the courses offered by the accredited high schools of the state. The same textbooks have been used wherever feasible, and the credits issued by this department are recognized by the colleges and State Board of Education.

List of High-school Courses

Course No.		Number of assignments	Unit H. S. credit
AGRICULTURE			
PCA 1.	Elementary Agriculture I.....	20	$\frac{1}{2}$
PCA 2.	Elementary Agriculture II.....	20	$\frac{1}{2}$
DRAWING			
PCD 3.	Shop Mechanical Drawing I.....	20	$\frac{1}{2}$
PCD 4.	Shop Mechanical Drawing II.....	20	$\frac{1}{2}$
ENGLISH			
PCE 1C.	Grammar and Composition (first year).....	20	$\frac{1}{2}$
PCE 2L.	Literature (first year)	20	$\frac{1}{2}$
PCE 3C.	Composition (second year).....	20	$\frac{1}{2}$
PCE 4L.	Literature (second year).....	20	$\frac{1}{2}$
PCE 5C.	Composition (third year).....	20	$\frac{1}{2}$
PCE 6L.	Literature (third year).....	20	$\frac{1}{2}$
HISTORY AND CIVICS			
PCH 1.	Ancient History I.....	20	$\frac{1}{2}$
PCH 2.	Ancient History II.....	20	$\frac{1}{2}$
PCH 3.	Modern History I.....	20	$\frac{1}{2}$
PCH 4.	Modern History II.....	20	$\frac{1}{2}$
PCH 5.	American History I.....	20	$\frac{1}{2}$
PCH 6.	American History II.....	20	$\frac{1}{2}$
PCH 7.	Community Civics	20	$\frac{1}{2}$
PCH 8.	Constitution of United States.....	20	$\frac{1}{2}$
PCH 9.	World History I.....	20	$\frac{1}{2}$
PCH 10.	World History II.....	20	$\frac{1}{2}$
MATHEMATICS			
PCM 1.	Algebra I.....	20	$\frac{1}{2}$
PCM 2.	Algebra II.....	20	$\frac{1}{2}$
PCM 3.	Algebra III.....	20	$\frac{1}{2}$
PCM 4.	Plane Geometry I.....	20	$\frac{1}{2}$
PCM 5.	Plane Geometry II.....	20	$\frac{1}{2}$
PCM 6.	Solid Geometry	20	$\frac{1}{2}$
PCM 7.	Bookkeeping	20	$\frac{1}{2}$
SCIENCE			
PCS 1.	Physical Geography	20	$\frac{1}{2}$
PCS 2.	Botany	20	$\frac{1}{2}$
PCS 4.	Physiology	20	$\frac{1}{2}$
PCS 5.	General Science	20	$\frac{1}{2}$
PCC 1.	Commercial Geography	20	$\frac{1}{2}$
PCC 2.	Elementary Economics	20	$\frac{1}{2}$
PCC 3.	Elementary Sociology	20	$\frac{1}{2}$
PCC 4.	Elementary Psychology	20	$\frac{1}{2}$

COLLEGE COURSES

A number of college courses paralleling resident courses and carrying the same credit are offered through the Department of Home Study. These will be found especially advantageous for college students who desire to make up deficiencies or to gain certain credits during the vacation season; for teachers who wish to further their professional training; and for men and women who wish to promote their cultural, technical, or vocational interests. The prerequisites are the same as for corresponding courses in resident instruction.

The following course is available through resident enrollment for graduate and undergraduate credit. Graduates may be enrolled for from one to six hours of research or problem work *in absentia*, on the recommendation of a member of the graduate faculty and with the approval of the dean of the Division of Graduate Study.

EDUC. 249. PROBLEMS IN EXTENSION EDUCATION. Credit to be arranged. Prerequisite: Econ. 151 or CS 3 and Educ. 184 or CP 8, or EXT 5. Dr. Gemmell and Dr. Fleenor.

Problems in extension met by director, supervisor, county agricultural agent, county home demonstration agent, 4-H club leader, or specialist.

List of College Courses

DIVISION OF AGRICULTURE

Course No.		AGRONOMY	Assignments	Semester hours of credit
CA 3.	Farm Crops		16	2
ANIMAL HUSBANDRY				
CL 2.	History of Breeds		16	2
HORTICULTURE				
CH 1.	Elements of Horticulture		16	2
CH 2.	Vegetable Gardening		16	2
CH 3.	Floriculture		16	2
CH 5.	Landscape Gardening		8	1
CH 6.	Small Fruits		16	2
POULTRY HUSBANDRY				
CPP 1.	Farm Poultry Production		8	1

DIVISION OF ENGINEERING

MACHINE DESIGN				
CE 2.	Engineering Drawing		16	2
CE 6.	Machine Drawing I.....		16	2
CE 4.	Mechanism		24	3
CE 11.	Descriptive Geometry		16	2
CIVIL ENGINEERING				
CE 1.	Highway Engineering I.....		16	2
SHOP PRACTICE				
CE 7.	Metallurgy		16	2
AGRICULTURAL ENGINEERING				
CE 3.	Gas Engines and Tractors		16	2
MECHANICAL ENGINEERING				
CE 9.	Steam Turbines		16	2

DIVISION OF GENERAL SCIENCE

ECONOMICS AND SOCIOLOGY				
CEc 1.	Economics		24	3
CS 2.	Rural Sociology		24	3
CS 3.	Sociology		24	3
CS 4.	Community Leadership		16	2
EDUCATION (PROFESSIONAL)				
CP 2.	Educational Psychology		24	3
CP 3.	Educational Sociology		24	3
CP 4.	History of Education		24	3
CP 5.	School Management		24	3
CP 6G.	Methods of Teaching in Elementary Graded Schools and Rural Schools		24	3
CP 6H.	Methods of Teaching in the High School.....		24	3
CP 7.	Educational Administration		24	3
CP 8.	Psychology		24	3
CP 14.	Vocational Education		24	3
CP 17.	Introduction to Philosophy.....		24	3
ENGLISH				
CCE 1.	College Rhetoric I.....		24	3
CCE 2.	College Rhetoric II.....		24	3
CCE 3.	Commercial Correspondence		24	3
CCE 4.	The Short Story		24	3
CCE 6.	English Literature		24	3
CCE 7.	American Literature		24	3
JOURNALISM				
CCJ 1.	Agricultural Journalism		24	3

<i>Course No.</i>		<i>Assignments</i>	<i>Semester hours of credit</i>
GEOLOGY			
CG 1.	Geology	24	3
HISTORY AND CIVICS			
CHC 1.	Community Civics	16	2
CHC 2.	Modern Europe I.....	24	3
CHC 3.	Modern Europe II.....	24	3
CHC 4.	English History	24	3
CHC 5.	Medieval History	24	3
CHC 6.	Ancient Civilizations	24	3
CHC 7.	History of Latin America.....	24	3
MATHEMATICS			
CM 6.	Solid Geometry	16	2
CM 7.	Plane Trigonometry	25	3
CM 8.	College Algebra	25	3
CM 9.	College Algebra A.....	40	5
DIVISION OF COLLEGE EXTENSION			
EXT 5.	Extension Education	24	3

Prerequisite: Educ. 184 and junior standing. Dr. Fleenor. Origin and development of extension work, its aim and purposes, and its relation to other general educational activities; organization and administration of extension work under the Smith-Lever law and the part taken by colleges and the Department of Agriculture; psychological and sociological bases and various methods employed in extension teaching; achievements and future problems of extension work.

Degrees Conferred

In the Year 1937

Seventy-fourth Annual Commencement

May 31, 1937

DEGREES CONFERRED

Honorary Degrees

DOCTOR OF SCIENCE

Flora Rose, B. S., Kansas State College, 1904; M. A., Columbia, 1909; Cornell University, Ithaca, N. Y.
Fred Coleman Sears, B. S., Kansas State College, 1892; M. S., *ibid.*, 1897; Massachusetts State College, Amherst, Mass.

Professional Degrees in Engineering

ARCHITECT

Charles Lewis Brainard, B. S., Kansas State College, 1930; Minneapolis, Minn.

CIVIL ENGINEER

Arthur Edward Everett, B. S., Kansas State College, 1931; Topeka
Glenn Edwin Thomas, B. S., Kansas State College, 1928; Liberal

ELECTRICAL ENGINEER

Leander Eastwood Rossel, B. S., Kansas State College, 1922; Normandy, Mo.
Joesph Frank Swarner, B. S., Kansas State College, 1924; Madison, Wis.
Harry Edwin Tuthill, B. S., Kansas State College, 1927; Plattsburg, N. Y.

Division of Graduate Study

DOCTOR OF PHILOSOPHY

Mohammed Hassan Radi, B. S., North Carolina State College of Agriculture and Engineering, 1933; M. S., Kansas State College, 1935; Cairo, Egypt

MASTER OF SCIENCE

*Earl Bowater Ankenman, B. S., Kansas State College, 1929; Dellvale.
Esther Ann Atkinson, B. S., University of Nebraska, 1932; McPherson
Howard Raley Bradley, B. S., Kansas State College, 1930; Oskaloosa
Merle Alfred Dodge, B. S., Kansas State College, 1935; Manhattan
Albert Ray Evans, B. S., Oklahoma Agricultural and Mechanical College, 1912; Manhattan
Karl Frederick Finney, A. B., Kansas Wesleyan University, 1935; B. S., Kansas State College, 1936; Manhattan
Alva Everett Freeman, Jr., B. S., University of Tulsa, 1935; Tulsa, Okla.
Hugh Gilbert Gauch, A. B., Miami University, 1935; West Manchester, Ohio
Thomas Elliot Hall, B. S., Kansas State College, 1933; Manhattan
Earl Dahl Hansing, B. S., University of Minnesota, 1933; Manhattan
*Garland Clarence Heglund, B. S., Kansas State College, 1935; Miller
†Corinne Bonner Martin, B. S., Howard University, 1935; Memphis, Tenn.
Edmund Peter Marx, B. S., Kansas State College, 1935; Spencer, Neb.
Rose Margaret McCoy, B. S., Kansas State College, 1903; Wamego
†Lloyd Everett McDaniel, B. S., Kansas State College, 1935; Michigan Valley
Willard Malcolm Reid, B. S., Monmouth College, 1932; Manhattan
Vance Mather Rucker, B. S., Kansas State College, 1928; Manhattan
Marlin Charles Schrader, B. S., Kansas State College, 1934; Junction City
Virginia Shinkle, B. S., Kansas State Teachers College, Pittsburg, 1932; Paola
*Theodore Christian Stebbins, B. S., Kansas State Teachers College, Emporia, 1934; B. S., Kansas State College, 1936; White City
Charles Raymond Stumbo, B. S., Kansas State College, 1936; Manhattan
Martha Elizabeth Swoyer, A. B., Southwestern College, 1929; Wilmot
Olaf Torstveit, B. A., Concordia College, 1934; St. Hilaire, Minn.
Dorothy Elfie Turner, B. S., Kansas State Teachers College, Emporia, 1932; Hope

* *In absentia.*

† Requirements for degree completed and diploma presented January 30, 1937.

BACHELOR OF SCIENCE IN LANDSCAPE ARCHITECTURE

†James Dean Stout, Independence

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

George Thomas Anton, Lexington, Mo.	John Charles Horak, Wakeeney
Roy Edward Beach, Manhattan	Peter Arthur Kimen, Leavenworth
Robert Vincent Blanche, Leavenworth	William John Lewis, Kansas City, Mo.
Sidney Orel Brady, Manhattan	Sam Long, Abilene
Wilbur Dell Clark, Jr., Iola	Roland Seldon Nash, Alma
†Warden Harold Cook, Eskridge	Harry Robert Robinson, Hoxie
Hollis Townsend Galley, Manhattan	Charles Clarence Tillotson, Manhattan
Kenneth Clyde Hancock, Salina	*Albert Ross Wilcox, Dodge City
Charles Franklin Hardman, Anthony	Charles Ernest Winters, Kansas City

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

†Kemp Elmo Barley, Neodesha	†Eugene Michael Lill, Mt. Hope
Lyle Eugene Bennett, Burr Oak	Hobart Graham Mariner, Fredonia
Chalmers Morton Boles, Turon	Palmer Martin Mellgren, Cleburne
Ralph Oliver Chilcoat, Wichita	John Locke Noble, Manhattan
John Ralph Dobbin, Viola	Fred William Nussbaumer, Lebanon
Raymond Wilson Ely, Ashland	George Jacob Staehler, Glendale, N. Y.
John Paulette Irwin, Topeka	†Milo Elton West, El Dorado
William Thomas Kilian, Detroit	†Luke Avery Wilper, Merriam
John Lewis Kyser, Grenola	

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Francis Wendell Beichley, Chase	Floyd Ralph McNicol, Wichita
Roy William Caldwell, Kansas City	Alvin Hanson Morgan, Manhattan
Tate Benton Collins, Jr., Jackson, Tenn.	Earl Harry Myers, Kansas City, Mo.
Robert Marshall Coon, Anthony	Herman Elby Nicholas, Johnson
†Alley Hugh Duncan, Andover	Walter Eugene Peery, Manhattan
†Gordon Lawson Gamble, Coffeyville	†William Hardy Prentice, Clay Center
Richard Fredrick Garinger, Harveyville	Alwin H. Rector, Lincoln
†Frederick Edward Huttie, Jr., Russell	†Charles John Schierlmann, Liberty
*Henry Adams Kilian, Chapman	Burl Jackson Snow, Topeka
Roy Charles Kirkpatrick, Manhattan	†Elvin Arthur Thompson, Goff
Melvin August Lindahl, Enterprise	†Mervin Earl Vantuyl, Peabody
William Wallace Litfin, Great Bend	Carson Harold Wiedeman, Caldwell
Clyde McCauley, Jr., Arkansas City	

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Laurence Marion Bell, Selden	*Michael John Kilroy, Kansas City, Mo.
Paul Lang Blakslee, Manhattan	John Milton Kliever, Newton
Leslie Jenks Bowman, Lebo	Delmer Thiede Lang, Falls City, Nebr.
Ruthford Eugene Brodie, Manhattan	Francis Leo Marschallinger, Pittsburg
Richard Joseph Cronin, McCune	†Loyal Kay Mock, Osborne
James Stokely Dukelow, Hutchinson	†Louis Gary Montre, Topeka
*Charles Joel Edelen, Kansas City, Mo.	Clarence Nielsen, Vesper
Richard Laurence Edwards, Meade	†Edwin Essick Reed, Kanopolis
George Bondurant Ewald, Kansas City, Mo.	Carl Fred Samp, McCune
Dudley King Flint, Girard	Karl Marion Scanlan, Wichita
William Victor Gough, Leavenworth	†Charles Teare Thompson, Belmont
James Graves, Independence	Walter Theodore Thompson, Manhattan
Charles Paul Hamlin, Kansas City	Howard Wright Vick, Wellsville
Marvin Arvid Hanson, Newton	*Walter Herman Warstler, Columbus
Maurice Edward Hanson, Newton	Aubrey Otis Weatherholt, Augusta
Clarence Preston Hubbs, Manhattan	William Lawrence Wheelock, Pleasanton
Aaron Trent Hunt, Altamont	

* *In absentia.*

† Requirements for degree completed and diploma presented January 30, 1937.

Division of Agriculture

BACHELOR OF SCIENCE IN AGRICULTURE

Ralph Wayne Arnold, Manhattan	Charles Morris Loyd, Valley Center
Charles William Beer, Larned	Gilbert Gordon Lundgren, Clyde
Clarence LaFollette Bell, McDonald	Mary Jane McComb, Wichita
Carl Henry Herman Beyer, Manhattan	Albert Edward McKay, Richmond
Houston Blair Bliss, Kansas City, Mo.	James Alfred McMurtry, Clarendon, Tex.
Elon Bramble Boyers, Manchester, Okla.	Donald Lawrence Maxwell, Menlo
Charles Francis Bredahl, Fairview	Burris Edward Miles, Cunningham
†Glenn Orrin Brown II, Kansas City, Mo.	Darrell Morey, Manhattan
Oran Frank Burns, Topeka	†Clyde Allen Murrell, Hopewell
James Clayton Buster, Larned	†James Lowell Myler, Andover
Charles Lyman Calahan, Abilene	Irving Russell Niles, Lebo
Howard Vance Cheney, Grainfield	†Harvey Max Nixon, Manhattan
†Wesley Samuel Coblentz, Topeka	James William Patton, Hiawatha
Frederick Monroe Coleman, Sylvia	Clare Robert Porter, Stafford
Clarence Edwin Cook, Effingham	Thomas Mitchell Potter, Peabody
Omer Lincoln Cook, Larned	Oren Jared Reusser, Wellington
Frank Harvey Cooley, Goff	John William Richards, Madison
Marion Maxwell Dickerson, Parsons	Paul Wesley Rust, Junction City
William Hyde Dieterich, Minneola	Willard James Sainer, Bison
John Russell Dukelow, Hutchinson	Frank Joseph Santo, Manhattan
*Carl Mudge Elling, Manhattan	Harold James Scanlan, Abilene
Fred Leroy Fair, Alden	Arthur Eugene Schafer, Jewell
Roy Henry Freeland, Effingham	Alfred Gustav Schroeder, Newton
Don Clinton Gillmore, Hutchinson	Olive Elizabeth Schroeder, Lorraine
Harvey Edwin Goertz, Hillsboro	John Leonard Scott, White City
Eugene Simpson Hamilton, Richmond, Mo.	Louis Vernon Splitter, Lorraine
Robert Henry Harvey, Schenectady, N. Y.	Clark Bernard Stephenson, Sedan
Orville Omer Hodson, Argonia	Harley Allen Stewart, Eskridge
*Rolla Buskirk Holland, Iola	James Curtis Strong, Moran
Hilton Delos Hollembeak, Cimarron	Wilton Bradley Thomas, Clay Center
†Anton Stephen Horn, Horton	Carrol Leroy Wahl, Wheaton
Fung Kuan Huang, Canton, China	Maxwell Perrine Wann, Hays
†Wilbur Eugene Hunter, Howard	Frederick Gail Warren, Beverly
Marion Irwin, Bronaugh, Mo.	James Howard Watson, Shawnee
Samuel Wallace Kerr, Americus	Rex Eugene Watts, Havensville
†Robert Winston Kirk, Scott City	Marshall Roland West, Blue Mound
Irwin Henry Klassen, Whitewater	Wayne Clark Whitney, St. George
Robert Tudor Latta, Holton	William Henry Wiggins, Eureka
Horton Meyer Laude, Manhattan	William Orra Wikoff, Modoc
Peter Henry Leendertse, Wichita	James Wesley Williams, Dodge City
†Joseph Dean Lerew, Portis	Paul Henry Wilson, Washington

BACHELOR OF SCIENCE IN MILLING INDUSTRY

Charles Edgar Baker, Jr., Kansas City	Lyle Clifton Mertz, Manhattan
Robert Evans Huschle, East St. Louis, Ill.	Henry Kermit Wagner, Schuyler, Nebr.
Harold Woodrow Lindahl, Enterprise	

Division of Engineering

BACHELOR OF SCIENCE IN AGRICULTURAL ENGINEERING

Ord Kent Brown, Edmond	†Elmer Henry Kloepper, Effingham
Clarence Richard Crawford, Luray	*Harold Redmond New, Lenexa
Frank Douglas Dale, Coldwater	Willard Glidden Ransom, Jr., Homewood
†Robert Mitchell Dill, Winchester	Harold Elmo Redfield, Bucklin
Paul Kenneth Fanning, Melvern	Hy Henry Rothganger, Kinsley
James Meredith Johnson, Sylvia	Earl Louis Stadel, Manhattan
Charles Harry Kent, Wakefield	

BACHELOR OF SCIENCE IN ARCHITECTURE

†Homer Eugene Dreier, Kansas City	Wilbur Griggs Thorpe, Manhattan
Robert Martin Segor, Oshkosh, Wis.	Keith Bernard Underwood, Gypsum
Victor Preston Terrell, Syracuse	

BACHELOR OF SCIENCE IN ARCHITECTURAL ENGINEERING

George Howard Eicholtz, Abilene	Edward Leroy Waller, Wellington
Ralph LeRoy Hollis, Salina	Edson Young Wilder, Newton
Orville Franklin Longerbeam, Herington	

* *In absentia.*

† Requirements for degree completed and diploma presented January 30, 1937.

Division of General Science

BACHELOR OF SCIENCE

Elizabeth Olive Able, Kansas City
 Loren Claude Bell, McDonald
 Eunice Allene Belt, Burr Oak
 Leslie Marion Blake, Glasco
 Grace Louise Burson, Oakley
 Arthur Adam Case, Nickerson
 Castella Childers, Garnett
 Kathryn Laura Correll, Manhattan
 Mary Alice Davis, Madison
 Phena Davis, Madison
 Helen Levina Edgerton, Iola
 Florence Elizabeth Edwards, Manhattan
 Pauline Elizabeth Eiler, Oberlin
 Harvey Irvin Fisher, Blue Springs, Mo.
 Robert Jerome Frick, Kansas City
 Pauline Avis Gravenstein, Riley
 Dorothy Lucile Hammond, Great Bend
 Harris Warren Hantman, Brooklyn, N. Y.
 Clare Barton Harris, Pratt
 Leroy Anson Haselwood, Beloit
 Elmon Graves Heaton, Norton
 Grace Ellen Hodgson, Hutchinson
 Guy Burger Homman, Solomon
 Ellen Louise Jenkins, Manhattan
 Ray Ford Lowry, Hoisington

Naomi Sue Lyon, Nevada, Mo.
 Marjorie Mabel McColloch, Manhattan
 Marcella Rita Meyer, Lillis
 John Alfred Miller, El Dorado
 William Alexander Nixon, Lewis
 Marian Olene Norby, Cullison
 Helen Madeline Offutt, Kansas City
 Gladys Irene Poole, Kansas City, Mo.
 Elsie Elizabeth Prickett, Wamego
 Esther Catherine Relihan, Smith Center
 Helen Irene Rhoads, Falls City, Nebr.
 Janet Anabel Samuel, Manhattan
 Karl William Schroeder, Manhattan
 Sigrid Johanna Sjogren, Concordia
 Mary French Skinner, Manhattan
 *Glenna Louise Sowers, Manhattan
 Mary Caroline Thurston, Elmdale
 Lee Chester Tippet, Manhattan
 Goldie Evelyn Van Diest, Prairie View
 Kenneth Fred Wainner, Hutchinson
 Dorothy Alice Walker, Evanston, Ill.
 Dorothy May Whitney, Hutchinson
 †Barbara Peters Wilcox, Manhattan
 Margaret Fulton Wyant, Topeka

BACHELOR OF SCIENCE IN COMMERCE

Alonzo Robert Adams, Leavenworth
 †DuFay Hamilton Coryell, Junction City
 Robert Edwin Cress, Manhattan
 Mary Clare Dixon, Junction City
 James Phillips Dodge, Manhattan
 †Walter Titus Emery, Jr., Manhattan
 Mary Helen Gregory, Hugoton
 Frank Richard Groves, Atchison
 Howard Laird Hall, Manhattan
 *Leland Taylor Harvey, Council Grove
 Oscar Gerald Hassler, Enterprise
 George Deloy Haynes, Abilene
 †Lloyd Howard Hessong, Fort Scott
 †Lorraine Howard Johnson, Talmo
 Otho Merton Koontz, Jetmore
 Velma May Koontz, Jetmore
 Clark Fritz Kostner, Kingman

Lloyd Milton Lewis, Bavaria
 Melvin August Lindahl, Enterprise
 John Robinson McClung, Jr., Topeka
 Jane Phelan, Kansas City, Mo.
 †Arthur Thomas Schade, Rochester, N. Y.
 Mildred Louise Schwartzkopf, Bison
 Eileen Shields, Manhattan
 †Frank Burnette Stratford, El Dorado
 Dorothy Emilia Teichgraber, Marquette
 Ivan John Wassberg, Topeka
 Frieda Elizabeth Werts, Republic
 Laura Belle Whiteside, Fort Scott
 Laurence Eugene Wilson, Kansas City
 Laurence Leroy Wisdom, Colby
 Frances Corinne Wright, Kansas City, Mo.
 Helen Gwendolyn Young, Manhattan

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

Taiichi Asami, Sappo-City, Japan
 Kenneth Carson Bottenberg, Wetmore
 James Leonard Foster, Emmett
 †LeRoy William Horne, Alma
 *Donald Clell Landon, Topeka

Clyde Raymond Lay, Sycamore
 William Addison Small, Argonia
 Juan Rambac Vidad, Solano, Philippine Islands

BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Virginia Ruth Appleton, Manhattan
 Gerald Wayne Brubaker, Manhattan
 Caroline Elaine Dawley, Manhattan
 Rachael Eleanor Duesing, Morrill
 Ruth Laura Duesing, Morrill
 Roy Allison Dunham, Jewell
 Willabeth Harris, Neosho Falls
 George Thomas Hart, Phillipsburg
 Winifred Henney, Hutchinson
 Elinor Harriet Hogan, Kansas City, Mo.
 *Ruth Ellen Howe, Emporia
 Ernest DeWayne Jessup, Wichita
 Henry William Lins, Beloit
 William George McDanel, Ashland, Ohio
 †Hester Mary McKenna, Kingman

Iris Jereldene Miller, Lyons
 George Eugene Monroe, Lyons
 Georgia Louisa O'Dell, Abilene
 Jane Frances Remington, Hutchinson
 Bernice Adaline Scott, Manhattan
 Garnet Evadna Shehi, Topeka
 Frank Jessup Shideler, Girard
 †Virginia Ann Sidlinger, Hutchinson
 Lois Eileen Smith, Garden City
 Virginia Lee Wilson, Hutchinson
 Harley Alvin Witt, Partridge
 †John Woodman, Manhattan
 †Faye Adeline Young, Bloom
 Iona Jessamine Young, Morganville

* *In absentia.*

† Requirements for degree completed and diploma presented January 30, 1937.

BACHELOR OF SCIENCE IN MUSIC EDUCATION

Doris Olive Bathurst, Abilene
Norma Frances Hofess, Partridge
Ella Gertrude Johnstone, Wamego
Frances Geraldine Lennen, Lyons

Carrie Ann McAninch, Stockdale
Elizabeth May Mauck, Junction City
Eileen Hope Shaw, Macksville

BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

Sara Jane Antrim, Topeka
Leo Carlton Ayers, Pasadena, Calif.
Arthur Paul Baxter, Little River
Kenneth Oliver Brecheisen, Garden City
Margaret Louise Bryan, Newton

John Franklin Hanson, Concordia
Marjorie Kittell, Topeka
Mary Corrine Lancaster, Parsons
Frances Metta Morgan, Manhattan

Division of Home Economics

BACHELOR OF SCIENCE IN HOME ECONOMICS

Frances Aicher, Hays
Edna Anna Anderson, Courtland
Margaret Louise Ballard, Topeka
Anna Lee Evelyn Berry, Manhattan
*Lucile Elizabeth Bilderback, Nortonville
Helen Mary Blythe, White City
†Helen Renée Brown, Kansas City, Mo.
Ellen Bernice Brownlee, Sylvia
Jean Durand Burt, Manhattan
Ceora Katherine Caven, LeRoy
†Helene La Verne Cavin, Ottawa
Dorothy Kathleen Coldwell, Independence
Geraldine Cook, Russell
Mary Elizabeth Danner, Springfield, Ill.
Bernice Arlone Dappen, McPherson
Rosalie Ellis, Manhattan
Mildred Louise Ewing, Olathe
Alva Smith Fatzer, Fellsburg
Georgia Le Flook, Canton
Sarah Florene Garrison, Parsons
†Fern Maxine Geyer, Topeka
Mary Margaret Golden, Whitewater
Gertrude Bernice Green, Iola
Helen Virginia Hall, Sterling
*Mamie LaCledé Hall, Augusta
Jeannette Estelle Halstead, Manhattan
Mary Virginia Herst, Argonia
Neva Inez Hilton, Manhattan
Arless Evelyn Honstead, Waterville
Mary Alice Howard, Garnett
Morna Evalena Howe, Stockdale
Geraldine Jones Hurd, Junction City
Olive Marie Hutchins, Sterling
Mildred Evelyn Johnson, Hartford
Helen Anna Karns, Bucklin
Clara Bess King, Manhattan
Cornelia Louise King, Manhattan
Marguerite Beatrice Knudson, Everest
Dorothy Orlene Krig, Manhattan
†Margaret Ruth Lewis, Arkansas City

Etha Margaret Lynn, Centralia
Edith Louise McCaslin, Manhattan
Paula Mary McDaniel, Topeka
Philena Deane Merten, Morganville
Elva Marie Miller, Kansas City
Mary Katheleene Morrison, Iola
Blanche Lillyane Nattier, Fredonia
Marion Elsie Nichols, Enosburg Falls, Vt.
Elizabeth Ann Norelius, Springfield, Ill.
Mildred Lucile North, Coffeyville
Cleta Charlene Null, Ravenwood, Mo.
Aldene, Nussbaumer, Lebanon
Carol Leola Olsen, Horton
Lorena Freda Otte, Great Bend
Dorothy Eunice Palmquist, Concordia
Ruth Evelyn Petty, Altamont
Carolyn Marian Phillips, Salina
Mary Mabry Porter, Russell Springs
†Ora Lea Riepe, Dighton
Amy Louise Rust, Manhattan
Mary Elizabeth Rust, Manhattan
Caroline Louise Schoettker, Springfield, Ill.
Marjorie Marie Scott, Altoona
Mary Lee Shannon, Geneseo
Eula Pauline Sherwood, Grenola
Corinne Solt, Manhattan
Annie Margaret Spiker, Manhattan
Keeta Elizabeth Strong, Hoisington
Violet Ethel Stumbo, Manhattan
Frances Maxine Tannahill, Manhattan
Lois Lucille Travis, Goddard
Helen Alice Trekell, Belle Plaine
Edith Mary Ukena, Leona
Velda Frances Umbach, Spearville
Arlene Wallace, Hill City
LaVerne Rosemarie Weekly, Girard
Rachel Thelma Williams, Meriden
Marie Alphonsine Wilson, Manhattan
Theresa Bernice Wood, Manhattan
†Eunice Pearl Youngquist, Topeka

Division of Veterinary Medicine

DOCTOR OF VETERINARY MEDICINE

Aaron Francis Allison, Olathe
Guy William Bayles, Newton, Ill.
Clark Wayne Burch, Manhattan
Lucius Nelson Butler, Phoenix, Ariz.
Horace Reynolds Collins, Jr., Manhattan
Edwin Morris Crawford, Richmond, Va.
Walter Wallace Fechner, Alta Vista
Pearl Hugh Hand, Salt Fork, Okla.
Henry Everett Harriman, Kanawha, Iowa
Earl Hester Harrison, Lawrence
John Graham Hemphill, Chanute
William Hugh Hervey, Belle Plaine
Harry Ethelburt Hubbard, Lincoln, Nebr.
Irvin Preston Irwin, Wilsey
James Randle Ketchersid, Manhattan

George Kendrick Lang, Longmont, Colo.
Russell Martin Madison, Slayton, Minn.
Floyd Edward Monroe, Dover, N. J.
Richard Eugene Omohundro, Wellington
Ray Sherman Pyles, Kansas City
Lee Thomas Railsback, Langdon
Ward Dallas Redman, Avoca, Iowa
Charles Edwin Robinson, Manhattan
Lawrence Eric Spong, Enterprise
Clifford Wesley Turner, Denver, Colo.
Irwin John Twiehaus, Independence, Mo.
Willard Merrill Van Sant, Dixon, Calif.
James Howard Watson, Shawnee
Ben Newhouse Winchester, Kinsley

* *In absentia.*

† Requirements for degree completed and diploma presented January 30, 1937.

COMMISSIONS AWARDED

SECOND LIEUTENANT, OFFICERS' RESERVE CORPS

Aaron Francis Allison, Olathe	Aaron Joseph Lane, Manhattan
Guy William Bayles, Newton, Ill.	George Kendrick Lang, Longmont, Colo.
**Roy Edward Beach, Abilene	Robert Tudor Latta, Holton
William Woodrow Bell, Marysville	Harold Woodrow Lindahl, Enterprise
†William Edmond Bentley, Manhattan	Donald Kenneth Long, Neodesha
*Max A Besler, Manhattan	Sam Long, Abilene
Elon Bramble Boyers, Manchester, Okla.	Max Lyman Lyon, Sabetha
Charles Francis Bredahl, Fairview	William George McDanel, Ashland, Ohio.
Clark Wayne Burch, Manhattan	Russell Martin Madison, Slayton, Minn.
Oran Frank Burns, Topeka	Arthur Emil Malacky, Peabody
Lucius Nelson Butler, Phoenix, Ariz.	George Eugene Monroe, Lyons
Charles Lyman Calahan, Abilene	*Lyle Moyer Murphy, Manhattan
Robert Hoover Calahan, Abilene	‡James Lowell Myler, Andover
§Robert Steele Cassell, Salina	*§Harold Redmond New, Lenexa
Hyle Keith Clafin, Manhattan	Herman Elby Nicholas, Johnson
Tate Benton Collins, Jr., Jackson, Tenn.	††Paul Talogi Nomura, Manhattan
Robert Edwin Cress, Manhattan	Richard Eugene Omohundro, Wellington
Allen Payne Crowley, Manhattan	Vernon Alfred Ostendorf, St. Paul, Minn.
Dale Alfred Dahlgren, Enterprise	‡Vincent Lorin Peters, Ness City
*Carl Mudge Elling, Manhattan	Thomas Mitchell Potter, Peabody
Raymond Wilson Ely, Ashland	Lee Thomas Railsback, Langdon
John Loy Engler, Chapman	George Carlson Rankin, Gardner
Maynard Melvon Furney, Manhattan	‡Edwin Essick Reed, Kanapolis
John Franz Gaumer, Wamego	‡Arthur Lynn Robinson, Fenton, Ill.
Stanley Edward Goodwin, Hiawatha	Charles Edwin Robinson, Manhattan
Loren Dwight Grubb, Phillipsburg	Albert Von Schwartz, Manhattan
§Howard Laird Hall, Manhattan	Allan Eugene Settle, Strong City
Pearl Hugh Hand, Salt Fork, Okla.	§Willard Joe Sherar, Latham
§Marvin Arvid Hanson, Newton	William Daniel Smith, Fredonia
Charles Franklin Hardman, Anthony	Earl Louis Stadel, Manhattan
Henry Everett Harriman, Kanawha, Ia.	George Jacob Staehler, Glendale, N. Y.
Earl Hester Harrison, Lawrence	Gordon Kirkpatrick Steele, Columbus
†George Thomas Hart, Phillipsburg	Clark Bernard Stephenson, Sedan
Leroy Anson Haselwood, Beloit	§Harley Allen Stewart, Eskridge
Oscar Gerald Hassler, Enterprise	**Earl Sutton, Abilene
**George Deloy Haynes, Abilene	Lewis Sweat, Cedar
John Graham Hemphill, Chanute	Irwin John Twiehaus, Independence, Mo.
Lester Lee Hermon, Jetmore	Willard Merrill Van Sant, Dixon, Calif.
William Hugh Hervey, Belle Plaine	‡Mervin Earl Vantuyl, Peabody
§Anton Stephen Horn, Horton	**William Victor Warren, Sterling
Irvin Preston Irwin, Wilsey	Ivan John Wassberg, Topeka
Richard Claude Jarrett, Urbana, Ill.	Merle Alfred Webb, Manhattan
Ernest DeWayne Jessup, Wichita	**William Lawrence Wheelock, Pleasanton
**William Gottlieb Kaeser, Manhattan	William Orra Wikoff, Modoc
§Francis Maxwell Kennedy, Lawrence	Ben Newhouse Winchester, Kinsley
James Randle Ketchersid, Manhattan	Harry Albert Woodbury, Abilene
Seth William Kuykendall, Pratt	

* *In absentia.*

† Certificate in lieu of commission—not 21 years of age.

‡ Requirements for commission completed and commission delivered January 30, 1937.

§ Requirements for commission completed January 30, 1937.

** Commissioned at end of Summer Camp—1936.

†† Commissioned May 26, 1936.

Thirteenth Annual Summer School Commencement

July 30, 1937

DEGREES CONFERRED

Division of Graduate Study

DOCTOR OF PHILOSOPHY

Erwin John Benne, B. S., Kansas State College, 1928; M. S., *ibid.*, 1931; Manhattan

MASTER OF SCIENCE

Jerome Melvin Adams, A. B., University of Wichita, 1933; Wichita
 Robert Francis Adams, B. S., Kansas State College, 1936; Wellington
 Edward Leroy Askren, Jr., B. S., Kansas State College, 1936; Manhattan
 *Alvin Kornelius Banman, B. S., Kansas State College, 1931; Harper
 Clarence Orval Banta, B. S., Kansas State Teachers College, Emporia 1922; Ottawa
 Loren Richard Berner, B. S., Kansas State College, 1926; Agenda
 Max William Bickford, B. S., Kansas State College, 1933; Phillipsburg
 Hale H Brown, B. S., Kansas State College, 1928; Manhattan
 Ray James Bryan, B. S., Kansas State College, 1933; Woodbine
 Merle Vernon Chase, B. S., Kansas State College, 1932; Sabetha
 Mary Josephine Coffman, B. S., Kansas State College, 1936; Manhattan
 Charlia Vurnette Cole, B. S., Tillotson College, 1934; Austin, Tex.
 *Grace Lillian Cox, A. B., Union College, 1936; St. Paul
 Frank Gillette Craft, B. S., Fort Hays Kansas State College, 1933; Galva
 Vaughn Eugene DeGeer, Jr., B. S., Kansas State College, 1936; Lake City
 Noblesse Armenta DeMoss, A. B., University of Kansas, 1931; Manhattan
 Arthur William Devor, B. S., McPherson College, 1935; Manhattan
 Ralph Henry Eaton, B. S., Kansas State College, 1926; Wilson
 Doris Evangeline Ekstrom, B. S., Kansas State Teachers College, Emporia, 1928; Dodge City
 *Leonard Hubert Elwell, A. B., Kalamazoo College, 1935; Climax, Mich.
 Harry Frederick Freeman, B. S., Kansas State College, 1936; Kansas City
 Arthur Ernest Goodwin, B. S., Kansas State College, 1925; Concordia
 Guilford Burney Grant, B. S., Agricultural and Mechanical College of Texas, 1936; Dozier, Ala.
 Edward William Grigg, A. B., Drury College, 1923; Chanute
 Thomas Conrad Groody, B. S., Kansas State College, 1936; Manhattan
 Roland Edward Gunn, A. B., College of Emporia, 1930; Waverly
 James Egly Herbertson, A. B., Friends University, 1936; Wichita
 John Clair Higginbotham, B. S., Kansas State College, 1936; Herington
 Wilma Marguerite Hilt, B. S., University of Nebraska, 1932; Sabetha
 Eugene Everett Howe, B. S., Kansas State College, 1936; Stockdale
 William Luther Hoyle, A. B., Southwestern College, 1935; Winfield
 Percy Jennings Isaacson, B. S., Kansas State College, 1933; Manhattan
 Arline Johnson, B. S., Kansas State College, 1928; Frankfort
 Homer Dale Kirgis, B. S., Kansas State College, 1936; Cawker City
 Leonard Ben Kropp, B. S., Oklahoma Agricultural and Mechanical College, 1935; Tulsa, Okla.
 Ellen Ruth Lindstrom, B. S., University of Nebraska, 1928; Manhattan
 George Abraham Merkey, A. B., McPherson College, 1927; Portis
 Victor Pinkerton Morey, B. S., Fort Hays Kansas State College, 1934; Westmoreland
 Nevlyn Richard Nelson, B. S., Kansas State College, 1934; Belle Plaine
 Fern Marie Oline, A. B., Sterling College, 1926; Sterling
 Olga Barbara Saffry, B. S., Kansas State College, 1928; M. S., *ibid.*, 1933; Alma
 Lester John Schmutz, B. S., Kansas State College, 1925; Hays
 Clare Liggett Shellenberger, B. S., Kansas State College, 1922; Manhattan
 Otho Wilbur Shoemaker, A. B., Manchester College, 1926; Logan
 Sister Regina Marie Dickman, B. S., Marymount College, 1935; Salina
 Sister M. Bonaventure McKenna, A. B., Mount St. Scholastica College, 1921; Atchison
 Elvon Gilbert Skeen, B. S., Kansas State College, 1931; Linn
 Louise Sklar, D. V. M., Kansas State College, 1934; Manhattan
 Daphyne Vivian Smith, B. S., Kansas State College, 1932; Manhattan
 Delos Clifton Taylor, B. S., Kansas State College, 1925; Manhattan
 Irene Tolliver, B. S., Iowa State College of Agriculture and Mechanics Arts, 1931;
 Charles City, Iowa
 Marguerite Velma Harper Umberger, B. S., Kansas State College, 1928; Manhattan
 *James Wesley Wells, B. S., Kansas State College, 1933; Winona
 Oral Martin Williamson, B. S., Kansas State College, 1924; Kansas City
 Helen Mildred Wilmore, B. S., Kansas State College, 1929; Halstead
 Wai Sing Wong, B. S., Lingnan University, 1931; Lin-siang District, Hunan Province, China

* *In absentia.*

Division of Agriculture

BACHELOR OF SCIENCE IN AGRICULTURE

Lawrence Sylvester Alwin, Morrowville
 Harold Andrew Borgelt, Zenda
 Jasper Ronald Calcara, Kanopolis
 Ivor Harold Davies, Lebo
 Darrell Dean Dicken, Winfield
 *Fritz Lucado Furtick, Salina

Robert Bright Jaccard, Mahattan
 *Lyle Moyer Murphy, Manhattan
 Irvin Wendell Wagner, Cherryvale
 Merle Alfred Webb, Manhattan
 Joseph Myles Williams, Fort Riley

BACHELOR OF SCIENCE IN MILLING INDUSTRY

Robert Milton Jay, Kansas City, Mo.

Division of Engineering

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Robert Odos Fosmire, Kansas City
 Loren Dwight Grubb, Phillipsburg

Levi George Morgan, Topeka

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Ralph Waldo Armstrong, Manhattan
 Donald Warlick Collins, Junction City
 †Kenneth Clinton Cooper, Nickerson

John Loy Engler, Chapman
 Arthur Emil Malacky, Peabody

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Harold Hall Harris, Grinnell
 Laurence Keeney King, Fort Scott
 Merwin Ellenwood Schoonover, Topeka

*Robert Dean West, Coffeyville
 Joseph Lewis Wissman, Parsons

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Howard Warner Davenport, Manhattan

Jack Leonard Flynn, Independence

Division of General Science

BACHELOR OF SCIENCE

Richard Alford Case, Nickerson
 *Robert Steele Cassell, Salina
 Lois Getty, Winchester
 Lucile Adele Hiller, Lewis
 Lela Ethel Huber, Manhattan

Mary Magdalene Rolfe, Fairview
 Mildred Marie Shaffer, Simpson
 Frances Ellen Singleton, Tribune
 Meredith Earl Sperline, Sabetha
 Clarence Hale Weaver, Clay Center

BACHELOR OF SCIENCE IN COMMERCE

Irene Wilhelmina Oelke, Hoyt
 Wesley Wayne Richardson, Erie
 Melvin Lloyd Spitze, Kinsley

Velma Louise Wilsey, Washington
 Everett Wilson Woodward, Salina

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

Robert Lewis Griffith, Bogue
 Robert LeRoy Harris, Topeka

Millard Yantzi, Kansas City

BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Max A. Besler, Manhattan
 Roy Fred Fritz, Kansas City

Allan Eugene Settle, Strong City

BACHELOR OF SCIENCE IN MUSIC EDUCATION

Edith Elizabeth Lyness, Walnut

Ethel Agnes Rosey, Junction City

BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

Maurice La Verne Elder, Manhattan
 Vincent Lorin Peters, Ness City

Willard J. Sherar, Latham
 Riley Russell Whearty, Rossville

* *In absentia.*

† Deceased.

Division of Home Economics

BACHELOR OF SCIENCE IN HOME ECONOMICS

Edna Neeta Chapin, Augusta
Leslie Elizabeth Fitz, Wilmette, Ill.
Helen Virginia Goff, Arkansas City
Margaret Evalyn Hammels, Phoenix, Ariz.
Helen Maxine Hart, Blue Rapids
Audrey Fern Hewitt, Pleasanton
Esther Elizabeth Jenkins, Jewell

Boyda Jo Lacy, Everest
Marjorie Sellers McCall, Chevy Chase, Md.
Imogene Murphy, Kansas City
Elizabeth May Parrish, Fort Scott
Lois Frances Simpson, Dresden
Mary Luella Stewart, Topeka
*Frances Josephine Thomas, Harrisonville, Mo.

Division of Veterinary Medicine

DOCTOR OF VETERINARY MEDICINE

Ben Salvatore Burdo, New York, N. Y.
Robert George Cotten, Kansas City
Maurice Crouch, Kansas City

Edmund Burke McCormick, Manhattan
*Carl Fred Steinhauser, Mountain Lake, Minn.

** In absentia.*

HONORS

PHI KAPPA PHI

1936-1937

Division of Graduate Study

Max William Bickford
Leonard Hubert Elwell
Homer Dale Kirgis
Victor Pinkerton Morey

Willard Malcolm Reid
Theodore Christian Stebbins
Marguerite Velma Harper Umberger

Division of Agriculture

Clarence LaFollette Bell
Marion Maxwell Dickerson
Fred Leroy Fair
Roy Henry Freeland
Robert Tudor Latta
Horton Meyer Laude

Lyle Moyer Murphy
Earl Foster Parsons
Oren Jared Reusser
Alfred Gustav Schroeder
Wilton Bradley Thomas
Frederick Gail Warren

Division of Engineering

Francis Wendell Beichley
Glenn Edwin Benedict
Kenneth Clinton Cooper
Gordon Lawson Gamble
Loren Dwight Grubb
John Lewis Kyser
William Wallace Litfin

Lyman Max Lyon
Hobart Graham Mariner
Earl Harry Myers
John Locke Noble
Alwin Rector
Wilbur Griggs Thorpe
Perry F. Wendell

Division of General Science

Elizabeth Olive Able
Arthur Adam Case
Mary Alice Davis
Harvey Irvin Fisher
Lois Getty
Pauline Avis Gravenstein
Robert Lewis Griffith
Ellen Gertrude Johnstone
Velma May Koontz
William George McDanel

Gladys Irene Poole
Elsie Elizabeth Prickett
Helen Irene Rhoads
Janet Anabel Samuel
Garnet Evadna Shehi
Frances Ellen Singleton
Sigrid Johanna Sjogren
Mary Caroline Thurston
Laura Belle Whiteside
Dorothy Mae Whitney

Division of Home Economics

Geraldine Cook
Mary Elizabeth Danner
Grace Mary Gustafson
Helen Virginia Hall
Clara Bess King

Cornelia Louise King
Blanche Lillyane Nattier
Pauline Eula Sherwood
Corrine Solt
Frances Maxine Tannahill

Division of Veterinary Medicine

Edwin Morris Crawford

SENIOR HONORS

1937

In each Division of the College, high honors are awarded at commencement to not more than three percent of the senior class having the highest standing in scholarship during their junior and senior years. Honors are also awarded to not more than an additional seven percent of the senior class.

Division of Agriculture

HIGH HONORS

*Horton Meyer Laude
*Oren Jared Reusser

Alfred Gustav Schroeder

HONORS

Clarence LaFollette Bell
Fred Leroy Fair
Hilton Delos Hollembeak
*Robert Tudor Latta

*Lyle Moyer Murphy
Arthur Eugene Schafer
Frederick Gail Warren

Division of Engineering

HIGH HONORS

*Francis Wendell Beichley
*William Wallace Litfin

Earl Harry Myers
Wilbur Griggs Thorpe

HONORS

†Kenneth Clinton Cooper
Jack Leonard Flynn
Gordon Lawson Gamble
John Lewis Kyser
*Hobart Graham Mariner
John Locke Noble

Alwin H Rector
Edwin Essick Reed
James Dean Stout
Keith Bernard Underwood
Robert Dean West

Division of General Science

HIGH HONORS

Harvey Irvin Fisher
*Ella Gertrude Johnstone

Velma May Koontz
*Garnet Evadna Shehi

HONORS

Elizabeth Olive Able
Leslie Marion Blake
Arthur Adam Case
Mary Alice Davis
Lois Getty
Pauline Avis Gravenstein
*Robert Lewis Griffith
Willabeth Harris

*Gladys Irene Poole
*Elsie Elizabeth Prickett
Helen Irene Rhoads
*Janet Anabel Samuel
*Frances Ellen Singleton
*Sigrid Johanna Sjogren
Mary Caroline Thurston
Laura Belle Whiteside

Division of Home Economics

HIGH HONORS

*Helen Virginia Hall

Cornelia Louise King

HONORS

Frances Aicher
Helen René Brown
Edna Nelta Chapin
Geraldine Cook
Clara Bess King

Marjorie Sellers McCall
*Eula Pauline Sherwood
Corinne Solt
Frances Maxine Tannahill

* These persons were awarded sophomore honors at the end of their sophomore year.

† Deceased.

Division of Veterinary Medicine**HIGH HONORS**

Edwin Morris Crawford

HONORSGuy William Bayles
Edmund Burke McCormick

Floyd Edward Monroe

SOPHOMORE HONORS**1937**

In each Division of the College, honors are awarded at commencement to not more than five percent of the sophomore class having the highest standing in scholarship during their freshman and sophomore years.

Division of AgricultureHerman J Reitz
Charles William Lobenstein
Earl Edward Miller
John Harris, Jr.
Earl Jesse CookGeorge Wilson Aicher
Emerson Lyle Cyphers
Arthur Frank Leonhard
Kenyon Thomas Payne**Division of Engineering**Harry Copley Buchholtz
Wilfred Leroy Park
Wendell John Pfeffer
Leroy Culbertson
Robert D Sieg
Richard Edgar Lindgren
James William McKinleyMilton Kaslow
Dean Eugene Braden
Howard Roy Stover
Edward Paul Smith
Rolland Brooks Hammond
John Wesley Pennington**Division of General Science**Thelma Lowene Forney
George Robert Kramer
Amy Laurie Correll
Helen Iams Wroten
Robert William Nottorf
Robert Morton Thomas
Russell John YounkinEdna Marie Gaston
Gordon Ray Molesworth
Ermal Irene Dearborn
Howard Allen Crawford
John D McNeal
Robert William Lindenstruth**Division of Home Economics**Mary Frances Davis
Rhoda Selma Putzig
Helen Beth Coats
Phyllis Irene Boyle
Arlene Lois WatersonRuth May King
Stella Lucille Beil
Bula May Carlson
Ailine Laurentia Hanson**Division of Veterinary Medicine**Norwood Harry Casselberry
Edgar Lewis Taylor

Wade Oberlin Brinker

GENERAL INDEX

	PAGE
Absence and Tardiness	85
Accounting, Courses in	193
Accounting, Curriculum in Commerce with Special Training in	171
Administrative officers	10
Admission, Methods of	67
Admission, Requirements for	65
Advanced degrees	97
Agricultural Administration, Curriculum in	104
Agricultural agents, Alphabetical list of	47
Agricultural agent work	266
Agricultural Economics, Courses in	111
Agricultural Engineering, Courses in	138
Agricultural Engineering, Curriculum in	130
Agricultural Experiment Station	126
Agricultural societies	90
Agriculture, Curriculum in	105
Agriculture, Division of	103
Agriculture in the Summer School	105
Agronomy, Courses in	113
Aims and purposes of the College	61
American Chemical Society	93
Anatomy, Courses in	258
Animal Husbandry, Courses in	115
Applied Mechanics, Courses in	140
Applied Music, Courses in	223
Applied Music, Curriculum in	168
Aptitude tests for freshmen	83
Architectural Engineering, Curriculum in	131
Architecture, Courses in	142
Architecture, Curriculum in	132
Architecture, Division of Engineering and	128
Art, Courses in	244
Art, Curriculum in Home Economics and	240
Assembly, General, of students and faculty	83
Assignment and registration schedules	9
Assignment to studies	83
Assignments, Changes in	84
Athletics	225
Auditing classes	84
Bacteriology, Courses in	181
Band, The College	93
Bible study	88
Board and rooms	75
Board of Regents, The State	10

	PAGE
Botany and Plant Pathology, Courses in	183
Boys' and Girls' Club work	268
Branch Agricultural Experiment Stations	127
Buildings and grounds	63
Bureau of Research in Home Economics	255
Business directions	82
Calendar, The College	7
Certified Public Accountant, Certificate of	190
Chemical Engineering, Curriculum in	133
Chemistry, Courses in	185
Chemistry, Curriculum in Industrial	165
Child Welfare and Euthenics, Courses in	247
Chorus, The College	224
Christian Associations, The	89
Civil Engineering, Courses in	146
Civil Engineering, Curriculum in	134
Classes, Minimum size of	88
Classification of students	88
Clinics, Courses in	262
Clothing and Textiles, Courses in	248
Colby Branch Agricultural Experiment Station	127
College buildings, Descriptions of the	63
College calendar	7
College Extension, Division of	264
College Library, The	95
College Orchestra, The	93
Colleges, junior, accredited	69
Commerce, Curriculum in	170
Commerce and Accounting, Curriculum in	171
Commissions awarded in 1937	280
Conditions, How removed	87
Correspondence study	269
County agent work	266
County agricultural agents	47
Course—see, also, Curriculum, and Special courses.	
Course numbers	88
Credit courses, in Extension	272
Credits for extra work	88
Curriculum in Agricultural Administration	107
Curriculum in Agricultural Engineering	130
Curriculum in Agriculture	105
Curriculum in Applied Music	168
Curriculum in Architectural Engineering	131
Curriculum in Architecture	132
Curriculum in Chemical Engineering	133
Curriculum in Civil Engineering	134
Curriculum in Commerce	170
Curriculum in Commerce and Accounting	171
Curriculum in Electrical Engineering	135
Curriculum in General Science	163

	PAGE
Curriculum in Home Economics	239
Curriculum in Home Economics and Art	240
Curriculum in Home Economics and Institutional Management and Dietetics	241
Curriculum in Home Economics and Nursing	242
Curriculum in Industrial Arts	136
Curriculum in Industrial Chemistry	165
Curriculum in Industrial Journalism	166
Curriculum in Mechanical Engineering	137
Curriculum in Milling Industry	109
Curriculum in Music Education	167
Curriculum in Physical Education for Men	169
Curriculum in Physical Education for Women	169
Curriculum in Specialized Horticulture	108
Curriculum in Veterinary Medicine	257
Dairy Husbandry, Courses in	118
Deans, List of	10
Deficiencies, When made up	66
Degrees conferred by the College	70
Degrees, Professional, in Engineering and Architecture	100
Degrees, Recipients of, in 1937	275
Department of Agricultural Engineering	138
Department of Agronomy	113
Department of Anatomy and Physiology	258
Department of Animal Husbandry	115
Department of Applied Mechanics	140
Department of Architecture	142
Department of Art	244
Department of Bacteriology	181
Department of Botany and Plant Pathology	183
Department of Boys' and Girls' 4-H Club Work, in Extension	268
Department of Chemistry	185
Department of Child Welfare and Euthenics	247
Department of Civil Engineering	146
Department of Clothing and Textiles	248
Department of County Agent Work, in Extension	266
Department of Dairy Husbandry	118
Department of Economics and Sociology	191
Department of Education	195
Department of Electrical Engineering	149
Department of English	201
Department of Entomology	204
Department of Extension Schools, in Extension	266
Department of Food Economics and Nutrition	249
Department of Geology	206
Department of History and Government	208
Department of Home Economics, in Extension	267
Department of Home Study, in Extension	269
Department of Horticulture	120
Department of Household Economics	252

	PAGE
Department of Industrial Journalism and Printing	212
Department of Institutional Management	254
Department of Machine Design	152
Department of Mathematics	214
Department of Mechanical Engineering	154
Department of Military Science and Tactics	218
Department of Milling Industry	123
Department of Modern Languages	220
Department of Music	222
Department of Pathology	260
Department of Physical Education and Athletics	225
Department of Physics	229
Department of Poultry Husbandry	124
Department of Public Speaking	222
Department of Rural Engineering, in Extension	268
Department of Shop Practice	158
Department of Student Health	94
Department of Surgery and Medicine	261
Department of Zoölogy	234
Division of Agriculture	103
Division of College Extension	264
Division of Engineering and Architecture	128
Division of General Science	162
Division of Graduate Study	96
Division of Home Economics	236
Division of Veterinary Medicine	256
Doctor of Philosophy degree, Requirements for	98
Domestic Art—see Clothing and Textiles	248
Domestic Science—see Food Economics, and Household Economics	249
Dormitory (Van Zile Hall)	75
Drawing—see Architecture, Art, and Machine Design	142, 244
Dressmaking—see Clothing and Textiles	248
Duties and privileges of students	72
Economics, Courses in	191
Education, Courses in	195
Electives in Division of Agriculture	106
Electives in Division of General Science	172
Electives in Division of Home Economics	242
Electives in Division of Veterinary Medicine	257
Electrical Engineering, Courses in	149
Electrical Engineering, Curriculum in	135
Employment bureau for students	89
Engineering, Curriculums in	128
Engineering and Architecture, Division of	128
Engineering Experiment Station	161
Engineering in the Summer School	130
Engineering societies	91
English Language, Courses in	201
English Literature, Courses in	202
Entrance to College, Requirements for	65

	PAGE
Entomology, Courses in	204
Euthenics and Child Welfare, Courses in	247
Examinations	85
Expenses of students	74
Experiment Station, Agricultural	126
Experiment Station, Branches of the Agricultural	127
Experiment Station, Engineering	161
Expression—see Public Speaking	222
Extension Schools	265
Extension Service society	91
Extension—see College Extension	264
Extra work, Credits for	88
Faculty, Alphabetical list of	11
Faculty, Standing committees of the	60
Fairs, County and local	266
Farm and Home Week	266
Farm Crops, Courses in	113
Fees and tuition	72
Floriculture, Courses in	122
Food Economics and Nutrition, Courses in	249
Forestry, Courses in	121
Fort Hays Branch Agricultural Experiment Station	127
French, Courses in	220
Garden City Branch Agricultural Experiment Station	127
General Agriculture, Courses in	120
General Engineering, Courses in	152
General Home Economics, Courses in	251
General information	72
General Science, Curriculum in	163
General Science, Division of	162
General Science society	91
Geology, Courses in	206
German, Courses in	220
Government, Courses in	210
Grades, Reports of	87
Grading, System of	86
Graduate assistantships	82
Graduate Study, Division of	96
Graduation, Requirements for	70
Grounds and buildings	63
Health, Department of Student	94
Histology, Courses in	259
History and location of the College	61
History, Courses in	208
Home demonstration agents, Alphabetical list of	56
Home Demonstration agent work	267
Home Economics, Bureau of Research in	255
Home Economics, Curriculum in	239
Home Economics, Division of	236
Home Economics Education, Courses in	251

	PAGE
Home Economics, Extension work in	267
Home Economics in the Summer School	238
Home Economics Society	91
Home Study, Department of	268
Honorary and professional organizations	92
Honor societies	91
Honors awarded for scholarship	92
Honors, Recipients of, in 1937	284
Horticulture, Courses in General	120
Household Economics, Courses in	252
Industrial Arts, Curriculum in	136
Industrial Chemistry, Curriculum in	165
Industrial Journalism and Printing, Courses in	212
Industrial Journalism, Curriculum in	166
Institutes and extension schools	265
Institutional Management, Courses in	254
Institutional Management, Curriculum in Home Economics and	241
Instruction and Administration, Officers of	10
Journalism—see Industrial Journalism	166
Junior colleges accredited	69
Land, College	63
Landscape Gardening, Courses in	121
Late admission	69
Late assignment	69
Library Economics, Course in	214
Library, The College	95
Literary and scientific societies	90
Loan funds	76
Machine Design, Courses in	152
Master of Science degree, Requirements for	98
Materia Medica, Courses in	262
Mathematics, Courses in	214
Mechanical Engineering, Courses in	154
Mechanical Engineering, Curriculum in	137
Medals and prizes	80
Medicine, Courses in	262
Men's Glee Club	224
Military Science and Tactics, Courses in	218
Milling Industry, Courses in	123
Milling Industry, Curriculum in	109
Milling Industry, Limited Enrollment in	105
Modern Languages, Courses in	220
Motor car parking regulations	83
Musical organizations	224
Music, Courses in	222
Music, Curriculums in	167
Music Education, Curriculum in	167
Newman Club, The	89
Numbering of courses	88
Nursing, Curriculum in Home Economics and	237

	PAGE
Nutrition, Courses in Food Economics and	249
Obstetrics, Courses in	262
Officers, Administrative	10
Officers of Administration, Instruction, and Research	11
Orchestra, The College	93
Organizations, Honorary and Professional	92
Painting, Courses in	143
Pathology, Courses in	260
Physical Education and Athletics, Courses in	225
Physical Education, Curriculums in	169
Physical Education for men	169
Physical Education for women	169
Physics, Courses in	229
Physiology, Courses in	259
Point System, The	87
Pomology, Courses in	122
Post Office, The College	83
Poultry Husbandry, Courses in	124
Premedical courses	164
Prepharmaceutical courses	164
Preveterinary courses	164
President of the College	10
Printing, Courses in	211
Prizes and medals	80
Professional degrees in Engineering and Architecture	100
Psychology, Courses in	198
Publications of the College	83
Public Speaking, Courses in	222
Refund of fees	74
Regents, The State Board of	10
Registration and assignment schedules	9
Reports of grades	87
Research assistantships	100
Residence hall for women	75
Rooms and board	75
Rural Engineering, Extension work in	268
Rural Sociology, Courses in	112
Scholarship deficiencies	66
Scholarships	81
Science Club	90
Scientific societies, Literary and	90
Self-support, Opportunities for	75
Seniors and graduate study	101
Shop Practice, Courses in	158
Sociology, Courses in	192
Soils, Courses in	114
Spanish, Courses in	221
Specialized Horticulture, Curriculum in	108
Standing committees of the faculty	60
State Teacher's Certificate	104

	PAGE
Student Governing Association.....	89
Student Health, Department of.....	94
Student loan funds.....	76
Student organizations.....	89
Summer School	101, 105, 130, 238, 281
Surgery, Courses in.....	261
Table of contents.....	3
Tardiness, Absence and.....	85
Teacher's Certificate, State.....	104
Tribune Branch Agricultural Experiment Station.....	127
Tuition and fees.....	72
Unit of high-school work defined.....	66
Van Zile Hall, residence hall for women.....	75
Vegetable Gardening and Floriculture, Courses in.....	122
Veterinary Medicine, Courses in.....	262
Veterinary Medicine, Curriculum in.....	257
Veterinary Medicine, Division of.....	256
Veterinary Medicine, Limited Enrollment in.....	256
Veterinary society.....	91
Vice-President of the College.....	10
Vocational Agriculture, Certificates for teachers of.....	104
Women's Glee Clubs.....	224
Young Men's Christian Association.....	89
Young Women's Christian Association.....	89
Zoölogy, Courses in.....	234



PRINTED BY KANSAS STATE PRINTING PLANT
 W. C. AUSTIN, STATE PRINTER
 TOPEKA 1938
 17-1899

KANSAS STATE COLLEGE BULLETIN

VOLUME XXII

JULY 15, 1938

NUMBER 8

STUDENT LIST NUMBER

SEVENTY-FIFTH SESSION

1937-1938



KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

MANHATTAN, KANSAS
Published by the College

PRINTED BY KANSAS STATE PRINTING PLANT
W. C. AUSTIN, STATE PRINTER
TOPEKA 1938
17-4440

The Kansas State College Bulletin is published on the first and fifteenth of each month by Kansas State College of Agriculture and Applied Science, Manhattan, Kan., to which requests for copies of the publication should be addressed. Entered as second-class matter November 6, 1916, at the post office at Manhattan, Kan., under the Act of August 24, 1912.



TABLE OF CONTENTS

	PAGE
Students Pursuing Graduate Work in Regular Session	5
Graduate Students	5
Senior Students	6
Undergraduate Students in Regular Session	7
Seniors	7
Juniors	13
Sophomores	20
Freshmen	28
Special Students	39
Summer School Students	40
Nine-week Summer School	40
Graduate Students	40
Undergraduate Students	41
Four-week Summer School	46
Graduate Students	46
Undergraduate Students	46
Statistics	47
Record of Registration and Degrees Conferred, 1863-1938	48
College Registration, 1937-1938	50
Degrees Conferred in the Year 1937	51
Analysis of Registration, 1937-1938	52

LIST OF STUDENTS**

Students Pursuing Graduate Work In Regular Session

Graduate Students

- *Lynn A. Aitken; Roberts, Ida.
Samuel E. Alsop; Wakefield
Kling Leroy Anderson; Turlock, Cal.
Mabel Anderson; Lincoln
Thomas Burt Avery; Coldwater
*George Howard Bain; Kansas City
Norman Davis Ball; Oneida
Georgia Francis Ballard; Kiowa
*Sara Virginia Bancroft; Wichita Falls, Tex.
†Everett George Barber; Salina
Nora E. Bare; Protection
Buell Wesley Beadle; Manhattan
Glenn Hans Beck; Manhattan
John Gregory Bell; Manhattan
Mary Blackman; Manhattan
Leslie Marion Blake; Glasco
Blanche Sappenfield Bowman; Abilene
†Francis Woodrow Boyd; Mankato
*Loren Aldro Bryan; Emporia
Harry Ray Bryson; Manhattan
Lucile Beatrice Burt; Manhattan
†Raymond Cecil Bushland; Menard, Tex.
Marion John Caldwell; Manhattan
Marjorie Willis Call; Manhattan
†Harold Robert Callahan; Junction City
†Ernest Vernon Carson; Emporia
Arthur Adam Case; Manhattan
Ralph Boyd Cathcart; Manhattan
George Edward Cauthen; Manhattan
*Dena Caroline Cedarquist; Manhattan
†Arnold Ervin Chase; Washington, D. C.
*Chi Chen; Hangchow, China
Jean (Chih-Ying) Chen; Futsing, China
*Theodore Classen; St. George
Eugene Arthur Cleavinger; Manhattan
*Christine Helen Coleman; Pine Bluff, Ark.
Eugene Fredrick Collins; Manhattan
Lawrence LeRue Compton; Manhattan
Donald Risdon Cornelius; Wheaton
*Madelyn Crawford; Spring Hill
*Alfred Charles Curtiss; Beeler
Howard Preston Davis; Manhattan
*Lois Estelle Dennhardt; Neenah, Wis.
Bertus Johannas Deters; Cawker City
Arthur William Devor; Manhattan
Wayne Vorine Dexter; Waterville
George Franklin Dillon; Wichita
Fredric Tyson Dines; Loveland, Colo.
Raymond Joseph Doll; Manhattan
Keith Barber Dusenbury; Manhattan
Nina Edelblute; Manhattan
*Samuel Allen Edgar; Sterling
Hal Field Eier; Manhattan
Kenneth Joseph Ekdahl; Manhattan
Vera May Ellithorpe; Manhattan
*Josephine English; Macksville
Doris Hays Fenton; Manhattan
*Miscal Leon Fierke; Manhattan
*Jack Finerty; Chicago, Ill.
*Hazel Marie Fletcher; Modoc, Ind.
Glenn Sylvester Fox; Manhattan
*Thomas Henry Fraser, Jr; Moro, Ore.
Frank R. Freeman; Kirwin
Roy Fred Fritz; Kansas City
Ella Chitty Fuhrer; Long Beach, Cal.
†Dora Eloise Gilmore; Chetopa
Clarence Lee Gish; Manhattan
*Golen Francis Glessner; McPherson
Otis B. Glover; Manhattan
Newell Emanuel Good; Manhattan
Margaret Rose Goodyear; Wichita
Edison Greer; Council Grove
Loren Dwight Grubb; Phillipsburg
Myrtle Annice Gungelman; Manhattan
Grace Mary Gustafson; Manhattan
Walter Raymond Gustafson; Salina
†*Virgil Lee Haas; Severy
Virginia Kay Haggart; Topeka
*Hubert C. Hahn; St. George
Jeanne Estelle Halstead; Manhattan
*Virginia Frances Harger; Spokane, Wash.
†Merle Preston Haymond; Plevna
Irene Burnema Heer; Manhattan
William Andrew Hemphill; Chanute
Lester Lee Herman; Jetmore
Elmer George Heyne; Wisner, Neb.
Wilma Marguerite Hilt; Sabetha
*Leonard C. Hoegemeyer; Hooper, Neb.
Hilton Delos Hollembeak; Cimarron
James Leonard Hollis; Holton
LeRoy William Horne; Manhattan
Maurice Wilson Horrell; Manhattan
Helen Pansy Hostetter; Manhattan
†Walter Henry Hukriede; Lewis
J. Harold Johnson; Manhattan
*Mable Joan Jones; Quail, Tex.
*Edna Jane Kaufman; Galva
*Virginia Voigt Keim; Lincoln, Neb.
Althea Leonora Keller; Enterprise
*Edith Kelley; Baldwin
*Alvin Lawrence Kenworthy; Mounds, Okla.
Alice Day Kimball; Manhattan
Eunice Leola Kingsley; Manhattan
Louis Myers Knight; Manhattan
Everette Jesse Kreizinger; Bellwood, Neb.
John Theodore Kroulik; Bellville, Tex.
*Lola Vivian Lambert; Pretty Prairie
Barbara Lautz; Manhattan
*Grace Neville Lawrence; Newton
Roger Paul Link; Manhattan
Sarah Jo Lister; Wamego
Charles Howard Lockhart; Junction City
Jeanne Agnes Lyon; Manhattan
Max Elton McCluggage; Manhattan
*Patricia Fleming McCluggage; Manhattan
Fredrick Lee McDonald; Horton
*A. B. Mackie; Salina
Elbert Bonebrake Macy; Woodston
*Mary Enid Meek; Emporia
Russell Lloyd Melhes; Wellington

* Matriculated 1937-'38.

† In absentia.

** June 1, 1937, to May 30, 1938.

GRADUATE STUDENTS—*Concluded*

- *Rudolph Dixon Michael; Blackburg, Va.
 John O. Miller; Manhattan
 Kenneth William Miller; Manhattan
 Leonard Fred Miller; Agra
 Reba Clare Miller; Haviland
 †Clark Carlyle Milligan; Linn
 Tom Allen Montgomery; Hill City
 *Doris L. Moon; Pratt
 Leo Albert Moore; Manhattan
 Francis Earl Mordy; Manhattan
 Emory Lavern Morgan; Ottawa
 Nelle Ruth MacQueen Morgan; Manhattan
 *Donald LeRoy Murray; Coon Rapids, Iowa
 *Arthur Leslie Neal; Manhattan
 *Edna Ethel Neher; McCune
 Lois Marie Oberhelman; Barnes
 *Charles Ernest O'Neal, Jr.; Jackson, Miss.
 †Carl Gerhardt Ossmann; Greenleaf
 Charles K. Otis; Manhattan
 Earl Foster Parsons; Manhattan
 Franklin Leonard Parsons; Manhattan
 Buel Rorex Patterson; Manhattan
 Charles Alfred Patterson; Kansas City
 Arthur Fredrick Peine; Manhattan
 Marion Herfort Pelton; Manhattan
 †Paul Clutter Perry; Little River
 Wilfred Harold Pine; Lawrence
 *Alice S. Plumb; Manhattan
 Roland Wagner Portman; Manhattan
 *Imogene Price; Triplett, Mo..
 †Glen Bradshaw Railsback; Clay Center
 †Helen Marjorie Reed; Circleville
 June Roberts; Manhattan
 Mott Luther Robinson; Manhattan
 Ralph Rogers; Manhattan
 Dale S. Romine; Oswego
 *Marshall Minton Ross; Wichita
 Olga Barbara Saffry; Alma
 †Ella Schalansky; Bunker Hill
 †William H. Schindler; Winchester
 *Richard Lawrence Schnepel; Roselle
 Park, N. J.
 Olive Elizabeth Schroeder; Lorraine
 *Vera Dora Schroeder; Lorraine
 Luke Michael Schruben; Manhattan
 †Herbert Henry Schwardt; Fayetteville,
 Ark.
 Sarah Elizabeth Scott; Manhattan
 Lucile Heath Schaidnagle; Manhattan
 †Lydia Elizabeth Skeen; Linn
 *Charles Mervyn Slagg; Salina
 *Harry Herbert Smith; Logan, Utah
 *Mary Ashman Stalder; Manhattan
 *Mae Bessie Staley; Englewood
 *Francis Joseph Sullivan; Manhattan
 *William Augustus Tanner; Aurora, Ill.
 Delos Clifton Taylor; Manhattan
 Shirley Jacobs Taylor; Lenora
 *Altha Tedrow; Salina
 *Arlie Todd; Bangor, Mich.
 Marvin John Twiehaus; Manhattan
 *Martha Jane Ulrich; Hamilton
 Margaret Esther Walbridge; Topeka
 *Jessie Hertz Walker; Harrisburg, Pa.
 Charles Philip Walters; Manhattan
 Ellen Grace Warren; Atascosa, Tex.
 Frieda Elizabeth Werts; Republic
 *Mabel S. Westcot; Linden, Iowa
 *Dennis Emerson Wiant; Brookings, S. Dak.
 Harold Wierenga; Cawker City
 Donald Alden Wilber; Manhattan
 Eleanor May Wilkinson; Howard
 Jennie Williams; Meriden
 Mannie Ray Wilson; Manhattan
 *Wai Lan Wong; Canton, China
 Joe Nate Wood; Manhattan
 Millard Yantzi; Kansas City

Senior Students Pursuing Graduate Study

- Annette Alsop; Manhattan
 Leonard William Bird; Hill City
 Alvin Herbert Block; Bavaria
 Mildred May Buckwalter; Manhattan
 Earl Stephen Chieken; Hutchinson
 John Hayes Collett; Pratt
 Eleanor Dales; Eureka
 Myron Samuel Dendurent; Goodland
 Deda DeYoung; Prairie View
 Marshall Wayne Dutton; Harlan
 Roland Baker Elling; Manhattan
 Caroline Ruth French; Lyndon
 Maynard Melvon Furney; Manhattan
 Loren Dwight Grubb; Phillipsburg
 Chester Martin Gull; El Dorado
 Pauline Louise Hallman; Danville
 David Ross Haney; Manhattan
 Thelma Alta Harmon; Indianapolis, Ind.
 Alfred Eugene Harris; Grinnell
 Leora Belle Hubbell; Fredonia
 Raymond Whitfield Isle; Independence
 Chester Herman Johnson; Manhattan
 Aimison Jonnard; Manhattan
 Mary Christine Jorgenson; Manhattan
 Virgil Miller McIntosh; Manhattan
 Wayne Wesley McIntosh; Manhattan
 James William Martin; Manhattan
 Carl William Morgan; Long Island
 Harold Allen Perkins; Kansas City
 John Donald Peterson; Enterprise
 Dan Rickert; Newton
 Roger Turner Shepherd; Rexford
 Clarence McPherson Skaggs; Dodge City
 Mary Luella Stewart; Topeka
 Evelyn Emma Stout; Lone Elm
 John Lawrence Taylor; Kansas City
 Gilbert Leroy Terman; Columbia City, Ind.
 Leona Zoe Tibbetts; Wheaton
 Wayne Tjaden; Wichita
 Arthur Eugene Watson; Hutchinson
 Joe Arthur Weybrew; Wamego

* Matriculated 1937-'38.

† In absentia.

UNDERGRADUATE STUDENTS

In Regular Session

The following lists include seniors, juniors, sophomores, freshmen and special students in College. For students in the Summer Schools see lists following these.

Abbreviations here used denote curriculums as follows: AA, agricultural administration; Ag, agriculture; AE, agricultural engineering; AH&V, animal husbandry and veterinary medicine; Ar, architecture; ArE, architectural engineering; C, commerce; C&A, commerce and accounting; CE, civil engineering; ChE, chemical engineering; EE, electrical engineering; GS, general science; GS&V, general science and veterinary medicine; HE, home economics; HE&A, home economics and art; HE&J, home economics and industrial journalism; HE&N, home economics and nursing; IA, industrial arts; IC, industrial chemistry; IJ, industrial journalism; IM&D, institutional management and dietetics; LA, landscape architecture; M, applied music; MuE, music education; ME, mechanical engineering; MI, milling industry; PE, physical education; PVM, pre-veterinary; SH, specialized horticulture; VM, veterinary medicine.

SENIORS

Gerald Ellsworth Abbey (C); Russell
Walter Abmeyer (Ag); Grantville
Julia McNeill Absher (IJ); Fort Riley
Lillian Emma Adams (HE); Leavenworth
Neil Lavelle Adams (EE); Sun City
Woodrow L. Ainsworth (GS); Wichita
John Bernard Alferts (EE); Denton
Edward Ira Allen (CE); Michigan Valley
Esther Verneada Allen (HE); Wellington
William Redmond Allen (Ag); Cummings
†Annette Alsop (GS); Manhattan
Dorothy Anne Alspaugh (PE); Wichita
Wilbur Leo Alvey (AA); Kansas City
Neils Kay Anderson (EE); Leavenworth
Robert John Anderson (MI); Lyons
Jay Donald Andrews (Ag); Bloom
John Alden Angold (EE); Bethel
Hazel LaVergne Angus (HE); Sterling
Jacob Antelyes (VM); Brooklyn, N. Y.
John Dean Armstrong (ME); Hutchinson
Perry Charles Arnold (CE); Winfield
Ernest Roy Ausherman (AA); North
Topeka
Georgiana Martha Avery (HE);
Coldwater
Dewey Axtell (Ag); Manhattan
Nelta Evelyn George Axtell (HE);
Manhattan
Nora Alice Babb (IM&D); Broughton
Walter Worth Babbitt (Ag); Willis
Ellwood Tyler Baker (Ag); Abilene
Clarence Arthur Balwanz (ME);
El Dorado
Bruce Warren Barker (Ag); Burns
Ted Collings Barnes (CE); Manhattan
Wilma Mildred Barr (GS); Manhattan
John Wilson Baska (CE); Kansas City
John Henry Bateman (CE); Lawrence
Dale Renier Bathurst (AA); Abilene
Violet Mae Bauer (HE); Clay Center
Dorman Carrol Becker (Ag); Durham
Robert Gale Beckwith (LA); Hiawatha
Donald Wilson Beeler (PE); Mankato
*Guenndolyn Alberta Beeler (HE);
Kansas City

Howard Hayden Belew (IC); El Dorado
Russell Lee Belflower (EE); Dodge City
Dorothy Jane Bell (GS); Manhattan
Glenn Edwin Benedick (ArE); Manhattan
Charles Wilmot Benkelman (GS);
McDonald
Alma Lois Bennet (HE); Sterling
Florence Elaine Bergmann (HE); Axtell
Darwin L. Berry (PE); Wilmot
Matthew Thornton Betton (MuE); Bethel
Vincent Clinton Bevenue (VM); Kansas
City
Frank Gearhart Bieberly (AA); Dodge
City
Gerald Alden Biggs (IJ); Potwin
†Leonard William Bird (AA); Hill City
Ross Henry Bird (CE); Elk City
David Ford Biven (EE); Kansas City
Byron Woodrow Black (IC); Utica
Lois Virginia Black (GS); Attica
Mary Lou Black (IM&D); Independence
Delber Lloyd Blackwell (CE); Rozel
Francis Leroy Blaesi (AA); Abilene
Charles Graham Blakely (EE); Topeka
Sanford Davis Blattner (CE); Rozel
Herbert Harner Blevins (C&A); Clay
Center
†Alvin Herbert Block (C); Bavaria
Everett George Blood (GS); Garnett
Arthur Randolph Blythe (VM); White
City
Zeaurita Elaine Bonar (HE); Washington
Grafton Diddle Bowers (VM); Cowgill,
Mo.
Walter Enos Boyer (AE); Kinsley
Doris Boyle (IM&D); Spivey
Elliot Wilson Brady (ME); Manhattan
William Raymond Brady (AA); Vermillion
John Robson Brainard (Ag); Carlyle
Wilbur Golden Brainerd (MI);
Whitewater
Blaine Barton Brandenburg (AA); Riley
Wayne D. Branick (CE); Fredonia
Norman Garner Branson (EE); Belleville
Ralph Edward Breeden (CE); Latham

* Matriculated 1937-'38.

† Also pursuing graduate study.

SENIORS—Continued

- Robert Allen Briggs (PE); El Dorado
 Clarence Neil Brigham (ME); Topeka
 Frank Louis Brooks (AA); Scott City
 Floyd Payne Brown (ME); Wichita
 Zona Barbara Brown (C); El Dorado
 Elvin Stanton Brumfield (ME); Jetmore
 Max Theodore Bruner (CE); Burns
 Edward Arnold Buchmann (IJ); Clay
 Center
 Nelson Lewis Buck (ME); Dover, N. J.
 †Mildred May Buckwalter (IJ); Manhattan
 Ruth Geraldine Burcham (IM&D);
 Kansas City
 Raymond Earl Burdge (MI); Parsons
 Allen Warwick Burns (PE); Kansas City
 Stephanna Burson (HE); Manhattan
 Beatrice Allene Burton (HE); Kansas
 City, Mo.
 Delia Margaret Call (PE); Mount
 Vernon, Mo.
 Elizabeth Achten Campbell (IJ); Wetmore
 Hugh Burkett Campbell (VM);
 Geneva, Ind.
 Jewell Colbert Campbell (Ag);
 Manhattan
 James Henry Cannon (C); Salina
 Irvin Leroy Cantrall (C); Olathe
 Walter Monroe Carleton (AE); Coldwater
 Wayne Rodeen Carlson (CE); Topeka
 Barbara Raiden Carr (IJ); Hutchinson
 William Henry Carr, Jr. (EE); Kansas
 City
 Charles Tulloch Carter (ME); Topeka
 Virginia Aline Case (PE); Nickerson
 Francis Adam Caspar (VM); Alida
 Paul Wendell Cassell (GS); Salina
 Don Lewis Cassidy (VM); Cedar
 Rapids, Iowa
 Robert Junior Cassidy (AA); Marion
 Merwyn Pierce Chapman (VM); Fredonia
 Donald Evans Charles (Ag); Republic
 †Earl Stephen Chicken (Ag); Hutchinson
 Esther Irene Chitwood (GS); Meriden
 Carl Ernest Claassen (Ag); Newton
 Harold F. Claassen (CE); Newton
 Hyle Keith Clafin (ME); Manhattan
 Floyd Harvey Clark (EE); Florence
 George J. Clark (EE); Riley
 Marie Clennin (HE); Tulia, Tex.
 Ralph Cole (C); Altton
 †John Hayes Collett (MI); Pratt
 *Delbert C. Collister (IC); Salina
 Merwin Blake Cook (AE); Monument
 Morris Jackson Coolbaugh (CE);
 Stockton
 Marjorie Ellen Cooper (C); Stafford
 Thomas Cantwell Cory (CE); Parsons
 William Hammond Cost, Jr. (C); Salina
 Arthur Howard Costain (ChE); Fort
 Riley
 Barbara Ellen Costin (HE); Wichita
 George Edward Cottrall (VM);
 Savanna, Ill.
 Maurice Russell Coulson (C); Wichita
 Janet Courtright (IJ); El Dorado
 James Richard Cowan (GS); Wichita
 Elizabeth Cowie (HE); Kansas City, Mo.
 Earl Cox (Ar); Downs
 Florine Fay Craig (GS); Protection
 Audrey Louvina Cramer (HE); Webber
 Fred Morton Crawford (AE); Madison
 John Carl Crawley (PE); Elkhart
 Fred Butcher Crist (ChE); Brewster
 *Walter Francis Cronin (EE); McCune
 Charles Burton Crook (Ag); Ord
 Roger McKee Crow (CE); Topeka
 Allen Payne Crowley (IC); Manhattan
 Wilbur Russell Crowley (Ag); Burden
 Russell Louis Culp (CE); Kansas City
 Pauline Bernice Curtis (HE); Manhattan
 Carl Czaplinski (AgE); Lawrence
 Ralph Roy Daggett (IJ); Reading
 Dale Alfred Dahlgren (C); Enterprise
 Verda Mae Dale (HE); Coldwater
 †Eleanor Dales (HE); Eureka
 William Bradford Danford (C&A);
 Hutchinson
 Ivernia Rosetta Danielson (IJ);
 Manhattan
 Verner Ephraim Danielson (Ag);
 Lindsborg
 Margaret Sarah Daum (C); Manhattan
 Nelson Earl Davidson (EE); Yates
 Center
 Eugene Price Davies (Ag); Winchester
 Herbert Smith Davies (Ag); Manhattan
 Dale Virginus Davis (CE); Dodge City
 Francis Louise Davis (HE); Fort Scott
 Elmer A. Dawdy (Ag); Washington
 Clifton Dawson (Ag); Norcatur
 Paul McConnell Dean (Ar); Manhattan
 Charlyene Deck (HE); Circleville
 Edna May Decker (HE); Holton
 Edward Alphonse DeClerck (GS);
 Carmen, Okla.
 John Lewis Deffenbaugh (ME); Kansas
 City, Mo.
 Myron Winterstien DeGeer (CE); Lake
 City
 †Myron Samuel Dendurent (ChE);
 Goodland
 Harold George Deters (ChE); Cawker
 City
 †Deda DeYoung (HE); Prairie View
 Ben Diamond (GS); New York, N. Y.
 Clarence Wendell Dickhut (Ag);
 Scott City
 James Paul Dillingham (C&A); Alma
 William Roy Dillingham (C); Salina
 Esther Marie Dilsaver (HE); Athol
 Charlotte Gail Diver (HE&A); Chanute
 Vernon Lloyd Doran (AA); Macksville
 Murray Dean Dougan (IC);
 North Kansas City, Mo.
 Blanche Pauline Drysdale (HE); Severy
 Don Duckwall (C); Abilene
 Elizabeth Virginia Dukelow (GS);
 Hutchinson
 Helen Lucille Dunbar (HE);
 Arkansas City
 Dale Leroy Duncan (PE); St. Francis
 Forrest Lemoin Duncan (MI); Penalosa
 Janet Dunn (HE); Axford
 †Marshall Wayne Dutton (AA); Harlan
 Augustus Milton Duvall, Jr. (ME);
 Topeka
 Newton A. Eaton, Jr. (ME); Chanute
 George Washington Eberhart (AH&V);
 Jewell
 Lloyd Samuel Eberhart (C); Topeka
 Cecil Harold Eberle (IC); Alta Vista
 Edwin Dale Ebright (CE); Lyons
 Grover William Eddy (PE); Havensville
 William Otho Edmonds (MI); Okeene, Okla.
 Paul Arnold Ehram (C); Enterprise
 †Roland Baker Elling (Ag); Manhattan
 James Franklin Ellis (IC); El Dorado
 Ray LaVern Ellis (PE); Wichita
 Theodore Franklin Emerson (EE);
 Wellington
 Merton Vincent Emmert (AA);
 Blue Rapids
 George Albert Engelland (IC); Sterling
 Donald Leroy Engle (M); Manhattan

* Matriculated 1937-'38.

† Also pursuing graduate study.

SENIORS—Continued

- George Thaine Engle (IJ); Abilene
 Harold Thomas Engleman (EE);
 Indianapolis, Ind.
 Evert Eric Ericson (CE); Clyde
 Albert Ross Ewing (EE); Great Bend
 Lester Lloyd Fankhouser (C); Haviland
 Forrest Raymond Fansher (Ag);
 Hutchinson
 Joseph Abraham Farney (VM); Kiowa
 Merle Leroy Farris (VM); Ottawa
 Joseph George Feinberg (VM);
 Brooklyn, N. Y.
 Isabel Gifford Fell (HE); Fellsburg
 Reinhold Paul Fensch (Ar); Lincoln
 Lee Shriver Fent (GS); Newton
 Mary Elizabeth Fink (HE); Osborne
 Ermina Jane Fisher (HE); Holton
 Kenneth Adrian Fisher (Ag); Newton
 Harry M. Flagler (C); Manhattan
 June Fleming (IJ); Council Grove
 Donald Eugene Flenthrope (AA);
 St. George
 Walter Edo Folkerts (ME); Timken
 Eleanor Foncannon (C); Ashland
 Lon E. Foote (VM); Manhattan
 Max Eugene Foote (CE); Ottawa
 Marjorie V. Forbes (HE); Columbus
 Mary Jane Foulston (C); Wichita
 Mabel Lenora Foy (PE); Hutchinson
 Hazel Thelma Frager (HE); Wamego
 Betty Frances Frederick (GS); Hutchinson
 Ruth Genevieve Freed (IJ); Scandia
 Bettie Freeland (HE&A); Wichita
 Robert Roy Freeman (ChE); Manhattan
 Sylvester Thaine Freeman (IJ); Severy
 Wayne Henry Freeman (Ag); Kirwin
 †Caroline Ruth French (GS); Lyndon
 Nancy Genevieve French (HE);
 Emlenton, Pa.
 Charles Frederick Frey (C); Topeka
 Charles William Frick (ME);
 Kansas City
 Robert Jerome Frick (ME); Kansas City
 Paul Delbert Fuller (EE); Kansas City
 Floyd Wilson Fulton (ME);
 Kansas City, Mo.
 H. Selby Funk (C); Arkansas City
 †Maynard Melvon Furney (ME);
 Manhattan
 Robert Wade Furtick (MI); Salina
 Paul Gabler (EE); Salina
 John William Gamby (C); Everest
 Harold Alfred Gardner (ME); Garden City
 Louis McDonald Gasche (ME); Hartford
 Edna Marie Gaston (IJ); Centralia
 John Franz Gaumer (EE); Wamego
 Beulah Blaser Germann (HE); Fairview
 Maxine Gibbs (PE); Quinter
 Sallie Burnette Gilbreath (HE);
 Hereford, Tex.
 James Hugh Giovagnoli (EE); Girard
 Evan Dalton Godfrey (C); Joplin, Mo.
 Albert John Goetz (C); Dodge City
 Corbin Carter Goff (GS); St. Joseph Mo.
 Stanley Edward Goodwin (ArE);
 Hiawatha
 Sadie Alma Graham (MuE); Republic
 Merwin Jack Gregg (VM); Caney
 Robert Hamett Griffin (EE);
 Chillico, Okla.
 Rosethel Grimes (HE&A); Manhattan
 Russell Herman Gripp (Ag); Wakefield
 Addie Maurine Grizzell (IM&D);
 Claffin
 Hilbert August Grote (Ag); Manhattan
 Dorothy Belle Gudgell (IJ); Edmond
 Mary Louise Gudgell (C); Edmond
 †Chester Martin Gull (GS); El Dorado
 Waneta Beulah Guthrie (HE);
 Fort Scott
 Herbert Frank Haas (GS); Kansas City
 Richard Harry Hageman (IC);
 Hollenberg
 *Bess Blanche Haile (HE); Neodesha
 Marjorie Ilene Haines (C); Hutchinson
 Kenneth M. Hale (EE); Wichita
 John Stewart Haley (VM); Delphos
 Avis Charlotte Hall (HE); Agra
 John Fenwick Hall (CE); Junction City
 Lawrence Isador Haller (EE); Alma
 †Pauline Louise Hallman (HE); Danville
 Daniel Clell Hallmark (ChE);
 Arkansas City
 Paul Leo Hammann (EE); Independence
 Elmer Floyd Hampl (GS); Luray
 †David Ross Haney (AH&V); Manhattan
 Jacqueline Hanly (HE&A); Manhattan
 John Robert Harclerode (ME); Sycamore
 Hyman Joseph Harkavy (VM);
 New York, N. Y.
 Ray Merle Harmon, Jr. (ArE); Wichita
 †Thelma Alta Harmon (IM&D);
 Indianapolis, Ind.
 Charles Hal Harned (GS); Manhattan
 †Alfred Eugene Harris (AA); Grinnell
 Bryant Glenn Harris (EE); Topeka
 Carl Robert Harris (ChE); Mullinville
 John Russel Harrison (EE); Sterling
 Ralph Jay Hathaway (Ag); Chase
 Lenore Hatter (C); Abilene
 Ellen Anita Hawke (GS); Irving
 George William Hawks (PE); Holton
 Frances M. Heaton (HE&A); Partridge
 Paul Milton Hefty (ME); Valley Falls
 Daniel Philips Heigels (AE); Wilsey
 Charles Matthew Heizer (ArE); Hamilton
 Karl Miller Hemker (EE); Great Bend
 †William Andrew Hemphill (Ag-1;
 Grad-2); Chanute
 Roger Lyman Hendershot (Ag);
 Hutchinson
 George Clifford Henderson (ChE);
 Herington
 Richard Leon Henderson (IC); Earleton
 Paul Wilson Hensleigh (Ag); Winchester
 †Lester Lee Hermon (ME-1; Grad-2);
 Jetmore
 *Kenneth M. Heywood (IJ); Manhattan
 Benjamin George Hildyard (CE);
 Nickerson
 Kenneth Verle Hill (Ag); Bloom
 John Worth Hines (Ar); Manhattan
 Paul William Hodler (MI); Beloit
 Ruth Mae Hofess (HE); Partridge
 Edwin Burns Holland (EE); Liberal
 †James Leonard Hollis (EE-1; Grad-2);
 Holton
 Wilma Draper Hollis (HE);
 Westmoreland
 Marjorie Eleanor Holman (IJ); Manhattan
 Bernard Harry Holmgren (C);
 Kansas City
 Norma J. Holshouser (HE); Dwight
 Thelma Frances Holiba (IJ); Manhattan
 *Janie Mae Hood (GS); Washington
 Clyde Donald Hoover (CE); Macksville
 Charles Fred Horne (IC); Alma
 Lehnus Lloyd Horst (CE); Holyrood
 Laurence Calvin Horton (Ar); Wichita
 Richard Eugene Hotchkiss (MI);
 Manhattan
 Betty Ruth Houser (IM&D); Grainfield
 Harold Kenneth Howell (CE); Quinter
 Dean Howig (C); Topeka

* Matriculated 1937-'38.

† Also pursuing graduate study.

SENIORS—Continued

- †Leora Belle Hubbell (GS); Fredonia
 Paul Emlyn Huff (C); Salina
 Lorraine Hulpieu (GS); Dodge City
 Frank Carrol Hund (CE); Leavenworth
 Dallas T. Hunter (ME); Newton
 George McCloud Hutcherson (C&A);
 Manhattan
 John Harvey Hyde (Ag); Augusta
 †Raymond Whitfield Isle (Ag);
 Independence
 Milford Felix Itz (ME); Osage City
 David Jacobson (VM); Brooklyn, N. Y.
 Richard Claude Jarrett (Ar); Manhattan
 Agnes Irene Jenkins (HE); Jewell
 Eleanor Jenkins (IM&D); Springfield, Ill.
 Florence Esther Jensen (GS); Manhattan
 James Robert Jesson (GS);
 Ashland, Ohio
 John Jay Jewett (CE); Halstead
 Avis E. Johnson (HE); Sterling
 †Chester Herman Johnson (CE);
 Manhattan
 James Elbert Johnson (Ag); Winfield
 Kenneth Emil Johnson (C); Newton
 Shirley Aileen Johnson (GS); Winfield
 Zara Walter Johnson (Ag); Beeler
 Robert Compton Johnson (ME);
 Manhattan
 Helen McCune Jones (HE); Herington
 William Robert Jones (CE); Wichita
 †Aimison Jonnard (ChE); Manhattan
 †Mary Christine Jorgenson (HE);
 Manhattan
 Dorothy Judy (IJ); Kansas City
 Robert Francis Kane (IJ); Topeka
 Alma Belle Karns (HE); Bucklin
 Mac Kappelman (ME); Athol
 Harold Bud Keller (C); Enterprise
 Mary Margaret Keller (HE); Clyde
 William Mosier Kelley (IJ); El Dorado
 Robert Verne Kellogg (C); Wichita
 Irene Vivian Kenady (HE&D);
 Nevada, Mo.
 Raymond Carroll Kent (EE); Manhattan
 Homer Wilbur Kerley (C); Lawrence
 Frank Boone Kessler (Ag); Newton
 Emile Fredrick Kientz (Ag); Manhattan
 Frederick Vincent Kilian (AA); Detroit
 Richard Franklin King, Jr. (AA);
 Manhattan
 Robert Edgar Kitch (Ag); Winfield
 Isobel Margaret Kittell (GS); McPherson
 Edward Fred Klahr (C&A); Topeka
 Edward William Klimek (PE); Manhattan
 Dorothea Klinger (C); Ashland
 Dwight David Klinger (AA); Ashland
 Delpha Alberta Klint (HE); Clifton
 Helen Margaret Koestel (HE); Partridge
 Milton Clarence Kohrs (AA); Elmo
 Jack Haynes Koster (MI); Salina
 Clifford Ray Krabbenhoft (CE); Emporia
 Hilda Mae Kroeker (HE); Hutchinson
 Dorothy Maxine Kubin (IM&D);
 McPherson
 *Bettie Kunkle (GS); Leavenworth
 William Eugene Larson (IC); Wichita
 Virginia Kathryn Laskie (IM&D);
 Bucyrus
 Alvin George Law (Ag); Hill City
 Jack Morris Lawson (Ar); Wichita
 Dorothy Geraldine Leach (GS);
 Wellington
 Rhoda Evelyn Lebow (GS); Salina
 Elizabeth Christine Lechner (MuE);
 Salina
 Chung Keun Lee (EE); Seoul, Korea
 John Knepper Leidy (EE); Wichita
 Kenneth Raymond Leonard (AA);
 Manhattan
 John Frederick Levin (EE); Atchison
 Sidney Levine (VM); Brooklyn, N. Y.
 James Trevor Lewis (ArE); Emporia
 Paul Allen Lichty (EE); Sabetha
 Helen Louise Lillibridge (HE); Hutchinson
 Violet Eleanor Linville (HE); Chase
 Walter Newton Linville (Ar);
 Independence
 Robert Emil Loebbeck (ChE); Kansas City
 Eleanor Emma Long (IM&D); Stockton
 Susanne Long (IJ); El Dorado
 Juanita Joan Looney (IJ); Winfield
 Harold G. Lortscher (C); Sabetha
 Ernest Leland Love (VM); Macon, Mo.
 John Wilson Loy (ChE); Chanute
 Elvera Marlene Lundine (GS); Woodbine
 Max Lyman Lyon (CE); Sabetha
 Robert James McCall (AE); Wakeeney
 Rodney Keith McCammon (Ag); Esbon
 Cecil Earl McClaren (CE); Mullinville
 Max McCord (CE); Manhattan
 Mary Mabel McCoy (HE); Iola
 Loren McDaniel (CE); Garden City
 †Frederick Lee McDonald (GS-1;
 Grad-2); Horton
 Ian Currie McDonald (VM);
 Petaluma, Calif.
 Allan William McGhee (IJ); Centralia
 †Vergil Miller McIntosh (GS); Manhattan
 †Wayne Wesley McIntosh (GS); Manhattan
 Helen Ruth McKenzie (GS); Solomon
 Raymond Leroy McMahon (VM);
 Manhattan
 Louis Barber McManis (EE); Kingman
 Betty Lee McTaggart (IJ); Belleville
 Mary Doris McVey (IM&D); Hill City
 William Laurence McKnight (Ag);
 Oxford
 Harris Mackey (CE); Caldwell
 Hazel Mahon (HE); Silver Lake
 George Badsky Maichel (VM); Overbrook
 Vernon Frank Maresch (AA); Nekoma
 Abby Lindsey Marlatt (IM&D);
 Manhattan
 Wilma Nina Marsh (IM&D); Columbus
 Joseph Ralph Marshall (ChE);
 Manhattan
 Harold Roy Martin (ME); Salina
 †James William Martin (AE); Manhattan
 Roy Scott Martin (ChE); Pratt
 Sara Lee Alice Mastin (IM&D);
 Statesbury, Mo.
 Jaccard Matchette (ME); Kansas City
 Clayton Matney (ME); Garden City
 Minnie Isabel Matthias (HE); Atchison
 Robert Lewis Mawdsley (EE);
 Hoisington
 William Allen Mayfield (EE); Soldier
 Floyd J. Maynard (Ag);
 Kansas City, Mo.
 Homer Ensley Mayo (ChE-1; IC-2);
 Kansas City
 Louis Fullington Meek (GS); Idana
 Fred Howard Merrick (CE); Wichita
 Fred Meyer, Jr. (AE); Jewell
 Ivard Dean Meyer (CE); Bison
 Marion Louise Meyer (HE&A); Salina
 Lois Alma Michelstetter (GS); Hutchinson
 Carl Miller (EE); Charley, Ky.
 Hans David Oliver Miller (GS);
 Manhattan
 Luman Glenn Miller (C); Salina
 Olive Agnese Miller (HE&J); Mahaska
 Wayne Ishmael Miller (ChE);
 Kansas City

* Matriculated 1937-'38.

† Also pursuing graduate study.

SENIORS—Continued

- John Junior Minnis (GS); Manhattan
 Alice Carol Mitchelson (IM&D);
 Baxter Springs
 Lloyd Burdette Mobiley (VM);
 Kansas City
 Mary Margaret Montgomery (HE);
 Sedalia
 Paul Jarboe Montgomery (CE); Topeka
 †Tom Allen Montgomery (GS-1; Grad-2);
 Hill City
 Edward Fox Moody (Ag); Greeley
 *Margaret Louise Moon (PE); Emporia
 Francis John Moore (Ag); Ashland
 John Richard Moore (Ag); Alliance, Ohio
 William Lorenzo Moore (SH);
 Bridgeton N. J.
 Lloyd Murle Mordy (MuE); Delia
 †Carl William Morgan (CE); Long Island
 Ilene Anna Morgan (HE); Manhattan
 Olga Adelle Morgenson (HE&J);
 Manhattan
 Ethel Clarine Morton (HE); Coldwater
 Harry Clifford Morton (EE); Winfield
 Wilbur Henry Mowder (VM); Sabetha
 Benn Michael Moyer (C&A); Columbus
 Wilson Muhlheim (CE); Ellis
 Mildred Lucille Mundell (HE);
 Nickerson
 Elbert Lindon Mundhenke (AE); Lewis
 Fred Harold Muret (Ag); Winfield
 Lester Duane Murphy (AA); Sublette
 Esther Mae Musil (IM&D); Blue Rapids
 Howard Cecil Myers (Ag); Abilene
 Hugh Garry Myers (Ag); Barnard
 Mervin W. Myers (MI); Anson
 Joseph Pleasant Neill (AA); Miltonvale
 Celeste Wilhelmina Nelson (HE);
 Topeka
 Dorothy Leona Nichol (HE); Concordia
 Clara Wilhelmina Niemoller (C);
 Wakefield
 Charlotte Clair Norlin (GS); McCracken
 Kenneth Sidney Norton (GS); Oberlin
 H. Allen Nottorf (Ag); Abilene
 Robert Nuttelman (Ag); Great Bend
 Lorin Edward Oberhelman (EE);
 Silver Lake
 Ethel Ohr (HE); Portales, N. Mex.
 David Deyoe Olive (C&A); Leavenworth
 Victor Thomas Oliver (VM);
 St. Louis, Mo.
 Charles Patrick Olomon Jr. (Ag);
 Garden City
 Charles Herman Olson (Ag); Dwight
 Wayne Edward Olson (EE); White City
 Ernest E. Opitz (CE); Arcadia
 Carl Meredith Osborne (EE);
 Council Grove
 James Carlile Osten (ChE); Herington
 *Marie Louise Ostendorf (GS);
 Blue Island, Ill.
 Gustaf Clark Overley (Ag); Belle Plaine
 Joeetta Orlena Owens (HE&A);
 Manhattan
 June Owens (GS); Neodesha
 David Page, Jr. (MI); Topeka
 Wilbur Charles Page (ME); Hesston
 Cruise Palmer (IJ); Kansas City
 Hyman Parrell (VM); Los Angeles, Cal.
 Elton Vernon Parsons (VM); Emporia
 Rollin Chester Parsons (Ag); Manhattan
 Arthur Eli Patterson (C); Kansas City
 †Charles Alfred Patterson (AA-1; Grad-2);
 Kansas City
 Lora Marguerite Patterson (HE&A);
 Kansas City
 Martin Oren Pattison (CE); Manhattan
 Richard Donald Patton (Ag); Newton
 Jay Henry Payne (AE); Delphos
 Charles William Pence (Ag); Topeka
 Charles Belden Percival (C); Kansas City
 Arlene Marie Perkins (HE); Kansas City
 Eugene Edmond Perkins (C);
 Independence
 †Harold Allen Perkins (Ag); Kansas City
 †John Donald Peterson (IC); Enterprise
 Lois Maurine Peterson (HE&A); Garrison
 Mildred Florence Peterson (HE);
 Kingman
 Velma Irene Peterson (C); Manhattan
 William Raymond Peterson (IJ);
 Manhattan
 Forrest Wayne Pettey (C&A);
 Clay Center
 Cecil Vernon Phillips (EE); Marion
 Russell Eugene Phillips (EF); Wichita
 James Meriden Phinney (EE); Russell
 Howard Daniel Pierce (IJ); Kansas City
 Edward Wilson Pitman (AA); Scott City
 Hardy Wilson Pitts (C); Amarillo, Tex.
 Charles Morris Platt (IJ); Manhattan
 Lawrence Almon Platt (ME);
 Junction City
 Sidney Smith Platt (Ar); Junction City
 Lester Winner Polloom (C); Topeka
 Waldo Weaver Poovey (Ag); Oxford
 John Gilbert Powers (ChE); Casper, Wyo.
 Joseph Curtis Prentice (PE); Manhattan
 Wilma Kathryn Price (M); Manhattan
 William Morrow Proudfit (IC);
 Manhattan
 Hugh Patrick Quinn (C); Salina
 Earl Albert Ragland (EE); Herington
 Kenneth Edwin Rall (C); Wichita
 Charles Bernard Randall (VM); Bethel
 Verlin Willis Randall (MI); Haddam
 George Carlson Rankin (C); Gardner
 Max Calvin Rankin (C&A); Highland
 Ralph Thornton Rankin (IC); Manhattan
 Weldon Wilday Reager (CE); Augusta
 David Vernon Rector (Ag); Topeka
 Addison Doyle Reed (Ag); Lawrence
 Clyde Cadwell Reed (Ag); Kanopolis
 John Gilbert Reel (C); Manhattan
 Joseph Wakar Reeves (ME); Burlington
 Elma Helen Regier (HE); Newton
 Eldon Edwin Reichle (GS); Riley
 Anna Reimer (IM&D); Buhler
 Jack Chilcott Remmele (IJ); Manhattan
 Eldon Eugene Retzer (IC); Montrose, Colo.
 John William Reynolds (AA); Winfield
 Joseph Buel Reynolds (Ar); Chetopa
 John Jacob Rhodes (C); Topeka
 †Dan Rickert (IC); Newton
 Juanita Louise Riley (HE); Tescott
 Robert Edward Rion (C&A); Wetmore
 Christine Eleanor Robinson (HE&A);
 Nash, Okla.
 Roy Albion Robinson (MI); Larned
 Harold Daniel Rodabaugh (VM);
 Manhattan
 *Mary Margaret Rodgers (IM&D);
 Cincinnati, Ohio
 Charles Willard Roe (CE); Parsons
 Max Fenton Rovers (CE); Glasco
 Charles Eugene Roper (EE); Atchison
 Leland Jay Rose (EE); Council Grove
 *Margaret Helen Roseberry (GS);
 Shawnee, Okla.
 Claude Floyd Ross (ME); Dover
 Louise Mina Ross (HE); Wamego
 Forrest Hamer Roulund (EE); Melvern
 Imogene Theresa Ruch (C); Kansas City
 Opal Bernice Ruddick (GS); Manhattan

* Matriculated 1937-'38.

† Also pursuing graduate study.

SENIORS—Continued

- Edward Allen Russell (C); Manhattan
Eugenia Carolyn Sanderson (IM&D);
Arkansas City
Carl Robert Sandstrom (C&A); Herington
Mary Gertrude Sardou (HE); Topeka
Andy John Sargent (VM);
San Bernardino, Cal.
Julia Sawtell (HE); Topeka
Leroy Edward Schafer (AH&V);
Valley Center
Kathryn Patricia Scheier (PE); Everest
Willard H. Scherff (IJ); Kansas City
Frank Lee Schneider (C); Wichita
Louis Howard Scholl (MI);
Kansas City, Mo.
Maurice A. Schooley (VM); Morganville
Edna Margaret Schroeder (HE); Lorraine
Walter Scott Schultz (ME); Augusta
Edwin Whitaker Schumacher (ME);
Jewell
Albert V. Schwartz (VM); Winkler
Hazel Marie Scott (HE); Manhattan
Elmer Ellison Scott (EE); Kansas City
Deane Robert Seaton (Ag); Abilene
James Newell Seaton (IJ); Manhattan
Ervin Walter Segebrecht (IC);
Kansas City
Edith Alfreda Sellberg (HE); McPherson
Marvin Leroy Shafer (ME); Kansas City
LaGrande Clarence Shaw (VM);
Geneva, Neb.
Thomas Richard Shaw (EE); Kansas City
Clarence Franklin Shelby (VM); Columbus
Edwin Joseph Shellenberger (EE);
Ransom
Dean Shepherd (ME); White City
†Roger Turner Shepherd (GS); Rexford
Vernice Shipman (HE); Kansas City
Patty Walsh Shoaf (HE&A); Topeka
Hazel Shoemaker (HE); Fort Scott
Dorothy May Shrack (IJ); Pratt
Phyllis Marian Shuler (C); Hutchinson
Charles Leon Simmons (ME); Strong City
Gerald Edward Simms (IC); Republic
Harriette Caroline Simpson (IJ);
Fort Lewis, Wash.
Fred William Sims (MI); Salina
†Clarence McPherson Skaggs (C);
Dodge City
Warren Lang Skinner (VM); Beverly
Gordon R. Skiver (C&A); Burr Oak
Ethel Sklar (Ar); Manhattan
William Leonard Slater (Ar); Manhattan
*James Cornelius Slattery (C); Wright
Elsie Belle Sloan (HE); Manhattan
Robert Fred Sloan (Ag); Leavenworth
Alice Pearl Sloop (HE); Nortonville
Gwendolyn Maxine Small (MuE);
Neodesha
Walter William Smirl (PE); Wilsey
George William Smith (ME);
Sugar Creek, Mo.
Roy Ivan Smith (C); Lincoln
William Daniel Smith (VM); Fredonia
Charles Raymond Socolofsky (PE);
Tampa
Raymond R. Sollenberger (CE);
Manhattan
Kay Vern Spear (CE); Leoti
Whitcomb Glenn Speer, Jr. (PE);
Manhattan
Eleanor Evelyn Spencer (GS); Whiting
Herbert August Sperling (C&A); Inman
Robert Jacob Spiegel (CE); Topeka
Charles Cecil Spore (SH); Halstead
James Porter Sproul (AE); Penokey
- Frances Evelyn Spurlock (GS);
Louisburg
Dorothy Dawn Stagg (HE); Manhattan
Eleanor Stahlman (HE); Potwin
Beverly Earl Steadman (ME);
Junction City
Jeannette Elizabeth Stearns (HE);
Wichita
Gordon K. Steele (GS); Columbus
Robert J. Steele (Ag); Manhattan
Elden Russell Stensaas (ME); Concordia
Jack Amos Stephens (PE); **Wichita**
Mary Marjory Stephenson (C&A);
Little River
Joseph Robert Sterling (VM);
Brooklyn, N. Y.
Dean Stevens (ChE); Topeka
Harry Stevens, Jr. (CE); Sycamore
John Mitchel Stevens (C); Waterburg,
Conn.
Vernon McKee Stevens (GS); Abilene
Charlesanna Dorothea Stewart (IJ);
Hutchinson
Darrella Lynette Stewart (IJ); Hutchinson
Everett W. Stewart (C); Talmage
Mary Ethel Stewart (HE); Oak Mills
George James Stipe (GS); Arvada, Colo.
Alice Mary Stockwell (HE&J); Manhattan
William Eugene Story (IJ); Winfield
Elmore Gregory Stout (Ag);
Cottonwood Falls
†Evelyn Emma Stout (HE); Lone Elm
William Robert Strieby (C);
Council Grove
Earl Sutton (CE); Abilene
Clarence Arthur Swanson (CE);
Loveland, Colo.
Lewis James Sweat (AA); Cedar
Buford Delmont Tackett (EE); Topeka
Ray Harold Tackett (ME); Parsons
Cleon Orel Tackwell (VM); Phillipsburg
Robert Edward Tate (IJ); Downs
Howard Lee Taylor (MuE); Norton
†John Lawrence Taylor (IC);
Kansas City
Katherine Elizabeth Taylor (IM&D);
Osborne
Lila Elaine Taylor (IM&D); Enterprise
Virginia Mae Teichgraeber (HE);
Marquette
†Gilbert Leroy Terman (Ag);
Columbia City, Ind.
Buford Lewis Thomas (IC); Manhattan
Dudley Percy Thomas (ME); Marysville
Marshall H. Thomas (ME); Belleville
Virgil Bergner Thomas (GS); Manhattan
David Ambrose Thompson (IJ); Cheney
Eleanor Tibbetts (GS); Wheaton
†Leona Zoe Tibbetts (HE); Wheaton
†Wayne Tjaden (Ag); Wichita
Gertrude Tobias (IJ); Lyons
John Wayne Tonkin (LA); Topeka
Wilma Maurine Tonn (IM&D); Haven
Richard Earl Totten (EE); Clifton
James Madsen Towner (CE) Manhattan
Harry Elmer Trubey (EE); Ellsworth
*Joseph Benjamin Tuck (GS);
Morrisville, Mo.
Elinor Lucile Uhl (GS); Smith Center
Harold Preston Ulrickson (EE);
Kanopolis
Pauline Ernestine Umberger (HE&A);
Manhattan
Ross Bingham Vandever (ME); Fredonia
Loyal M. VanDoren (CE); Hays
Gilbert John Wagner (IC); La Crosse

* Matriculated 1937-'38.

† Also pursuing graduate study.

SENIORS—Concluded

Evelyn Maxine Walker (GS); El Dorado
 William Henry Walker (AE);
 Junction City
 Mary Ann Wall (GS); Mahaska
 Samuel Paul Wallingford (MI);
 Manhattan
 Harold Clifford Walters (IC); Wetmore
 Keith Carter Walton (EE); Peck
 Raymond Woodrow Wann (VM);
 Kingman, Ind.
 Joseph Duane Ward (Ar); Peabody
 Lee C. Ward (Ar); Manhattan
 Theresa Mae Ward (HE); Langdon
 Carl Saylor Warner (AA); Whiting
 Ralph Dale Warner (AA); Arlington
 Vida Schmidler Warner (HE); Arlington
 Kenneth McKinley Warren (PE);
 Delphos
 Jean Washburn (Ar); Manhattan
 Irene Margaret Wassmer (GS); Garnett
 †Arthur Eugene Watson (EE); Hutchinson
 Evan Watts (CE); Havensville
 Donald Louis Webb (EE); Cedarvale
 Leonard Eugene Weckerling (CE);
 Manhattan
 Charles Poe Weeks (CE); Wichita
 Mary Ann Katherine Weiler (HE);
 Manhattan
 Homer Theodore Wells, Jr. (ChE);
 Marysville
 Perry F. Wendell (Ar); Manhattan
 Otto Ernest Wenger (Ag); Basehor
 Willis Raymond Wenrich (Ag); Oxford
 Hilary John Wentz (IA); Concordia
 D. C. Wesche (CE); Manhattan
 Charles Jesse West (IC); Fort Scott
 Marion Chalmer West (Ag); Blue Mound
 William Roger West (IC); Manhattan
 James Richard Westmacott (CE); Chase
 Wallis Christian Wetlaufer (EE);
 Montello Wis.
 Joseph Leo Wetta (MI); Colwich
 †Joe Arthur Weybrew (IC); Wamego
 Elton Clive Whan (C); Manhattan
 Thomas Charles Wherry (ChE); Sabetha
 Winifred Lois Whipple (PE); Omaha, Neb.
 Loren Edgar Whipps (AA); Belleville
 Lucy Eliza Whiteman (IM&D); Sedgwick
 Robert Louis Whiteside (ME); Topeka

Ernest William Whitney (C);
 Kansas City
 Donald Edward Wick (ME); Hunter
 Irving Bennett Wilcox (Ag); Manhattan
 Floyd Eugene Wiley (ChE); Junction City
 Wilma Grace Wilkins (HE); Milford
 Marjorie Ellen Williams (HE);
 Marysville
 Thaine Daniel Williams (CE);
 Pawnee Rock
 David George Willich (EE); Hamlin
 Grant Noble Willis (EE); Phillips
 Solon Luther Willsey (GS); Anthony
 Charles Peairs Wilson (Ag); Anness
 Eleine Wilson (HE); Towanda
 Evelyn R. Wilson (HE); Towanda
 Margaret Alleyne Wilson (HE);
 Valley Center
 Victoria Helen Jennie Wilson (HE);
 Manhattan
 Norman Dunning Wilttrout (C); Logan
 Richard Gordon Wiltse (Ag); Altoona
 Harry Lester Wimmer (GS); Robinson
 Virginia Iyone Winkler (HE&A);
 Randolph
 Wayne Ross Witter (VM);
 Brookfield, N. Y.
 Herald George Wixom (VM);
 San Bernardino, Cal.
 Frances Evelyn Wolf (HE); Nickerson
 Max Wolf (IC); Manhattan
 Tit Wong (VM); Canton, China
 Beulah Marie Woodcock (HE);
 Manhattan
 James Longwell Woodruff (IC);
 Dodge City
 Edith Mabelle Woods (HE); Kensington
 *Rose Woods (HE); Kansas City, Mo.
 George Henry Works (Ag); Humboldt
 Emery Donald Wright (C); Parsons
 Jack Frederick Wynne (EE); Salina
 Hulda Bertha Yenni (HE); Ogden
 Mander Xenophon Yonts (EE);
 Ivan, Ky.
 James Leroy Young (Ag); Cheney
 Laura May Young (HE); Cheney
 James Elias Ziegler (VM); Junction City
 Ruth Virginia Zirkle (HE); Jamestown
 Iva Maxine Zook (PE); Wichita
 Fred Zutavern (MI); Great Bend

JUNIORS

John Elden Abbott (VM); Manhattan
 Margaret Elizabeth Abbott (HE);
 Manhattan
 *Michael Bartley Adams (ME); Newton
 George Wilson Aicher (Ag); Hays
 Elizabeth Ennis Allbee (IM&D);
 Marshall, Mo.
 Arthur Forrest Allen (A);
 Allamuchy, N. Y.
 Philip Tingley Allen (Ag); Circleville
 Marion Calvert Alson (VM);
 Carthage, Mo.
 William George Alsop (AA); Wakefield
 Bruce Logue Amos (CE); Arkansas City
 Hilding August Anderson (Ag);
 Cleburne
 Karl Manfred Anderson (AE); Walnut
 Lloyd Miller Angelo (C&A); Horton
 Alta Margaret Ansdell (HE); Jamestown
 Victor Pierson Archer (SH);
 Kansas City, Mo.
 Fernando Edmundo Armstrong (AH&V);
 Ponce, Puerto Rico

*Robert Lee Armstrong (ME); Hays
 Gordon Arnett (CE); Anthony
 *Dean Franklin Arnold (IJ); Kansas City
 Edna May Arnold (SH); Wichita
 Rose Lee Arnold (IJ); Newton
 *Leona Lucille Ash (HE&A); Wichita
 Cynthia Elizabeth Askren (MuE);
 Manhattan
 Neville LaVon Astle (VM); Manhattan
 Earl William Atkin (C); Topeka
 William Henry Auchard (CE); Manhattan
 William Gerald Auer (CE); El Dorado
 Jane Alleyne Auld (IJ); Wichita
 Ruth Avery (HE); Concordia
 *Allan Vincent Ayres (AA) Augusta
 Robert Oris Baber (MI); Oakley
 *Margaret Elizabeth Bacon (GS);
 Atchison
 Georgene Elizabeth Baird (GS); Formoso
 *James Annison Baird (IC) Dodge City
 Richard Clair Banbury (PE); Wichita
 James Walter Barger (PE); Blue Mound
 Lawrence Newton Barker (Ag); Louisburg

* Matriculated 1937-'38.

† Also pursuing graduate study.

JUNIORS—Continued

- Myrven Walton Barnard (EE);
Kansas City, Mo.
Esther Alba Baxter (HE); Manhattan
Virginia Faye Baxter (HE); Manhattan
Forrest Overton Beardmore (AE);
Manhattan
Edna Wildman Beardmore (HE);
Manhattan
*Donald Gordon Beatson (EE);
Arkansas City
W. LaVerne Bechtold (C); Garden City
Emil William Beckman (CE);
Phillipsburg
Glenn Lester Beichley (CE); Minneapolis
Stella Lucille Beil (HE); Bavaria
*Clair L. Belden (C); Kansas City, Mo.
Anna Lora Bell (C); Silver Lake
Charles Arthur Bell (AA); Fort Scott
Garnetta Lavia Bell (HE&J); Haven
Hallie Marguerite Bell (HE&N); Norcatur
Marion Albert Bell (GS); McDonald
George Henry Benson (ME); Grainfield
William Edmund Bentley (MI);
Manhattan
William Ellsworth Berger (GS);
Manhattan
Donald Deane Berkey (C&A); Rossville
Israel Berkowitz (VM); Brooklyn, N. Y.
Helen Louise Berridge (HE); Fostoria
Raymond E. Bert (MI); Neodesha
Frank H. Betton (ArE); Bethel
Anna Elizabeth Betts (HE); North Topeka
*Ruth Virginia Bewley (GS);
Oklahoma City, Okla.
Dorothy Isabell Beyer (HE&N);
Manhattan
Ruth Helen Bishop (HE); Atchison
Elmore Joseph Blackburn (ME); Alma
Dorothy Grace Blaesi (HE); Abilene
*Helen Mae Blake (C); Kansas City
Frank LeRoy Blakely (C);
Waterbury, Conn.
Carrol Gould Blandin (EE); Greeley
*Gerald Martin Boatwright (ME);
Valley Center
Arthur Emil Bock (ME); Wamego
Glenn Harold Boes (CE); Bucklin
Jesse Edward Bogan (IJ);
Kansas City, Mo.
*Vernon Glenn Boger (ChE); Junction City
Chester Lloyd Boles (CE); Turon
Hubert Paul Bolks (VM); Hull, Iowa
Joseph Michael Bonfield (MI); Elmo
Glenn Ivan Booth (Ag); Paradise
James Frederick Booth (AA); Fairview
Phyllis Irene Boyle (HE); Manhattan
Dean Eugene Braden (ChE); Junction City
Dean Thompson Bradley (IC);
Belle Plaine
Raymond Thomas Bradley (CE);
Belle Plaine
James Richard Brandon (CE); Wichita
Marjorie Bee Breneman (HE); Macksville
Leo James Brenner (AA); Bazine
Ray DeLore Brent (AA); Alton
Hubert Ross Breuninger (C&A); Beattie
John A. Brewer (ME); Concordia
Wade Oberlin Brinker (VM);
Massillon, Ohio
Lois Helen Britt (HE&A); Salina
Carrol Wright Brooks (AA); Westmoreland
*Robert James Brosamer (ChE); Topeka
David Wilson Brower (ChE); Emporia
Elizabeth Brown (HE); Manhattan
Gordon Wonnacott Brown (EE);
Manhattan
Grover David Brown (EE); Kansas City
Harold Eugene Brown (CE); Salina
Katherine Elizabeth Brown (HE);
Emporia
Winnifred Iris Brubaker (HE); Bird City
Thomas Rudolph Brunner (C); Wamego
Harry Copley Buchholtz (EE); Olathe
Eilene Harriet Buch (HE); Derby
Russell Conwill Buehler (CE); Seneca
Robert Harlan Bull (PE); Marysville
John Earl Bullock (CE); Glasco
Howard Ernest Bumstead (ChE);
Clay Center
George Frank Burditt (IC); Coldwater
Anthony Michael Burdo (VM);
Brooklyn, N. Y.
Virgil Alfred Burgat (GS); Peabody
Harry Dale Burkeholder (CE); Wamego
Ruth Elizabeth Burnett (PE);
Manchester, Okla.
Gilbert Harold Burnett (ChE);
McPherson
Franklin Harold Burr (VM);
South Orange, N. J.
Walter Eugene Burrell (ME); Emporia
Linus Homer Burton (SH); Belle Plaine
Margaret Elizabeth Busch (HE);
Manhattan
Thomas Oeland Bush (C); Salina
Martha Marie Caldwell (HE); El Dorado
Augustus Caesar Cardarelli (PE);
Republic
Ena Jeanette Carlisle (HE); Mount Hope
Bula May Carlson (HE); Manhattan
Harold Eugene Carpenter (ME);
Coffeyville
Glenn Irville Case (GS&V); Nickerson
Norwood Harry Casselberry (VM);
Savanna, Ill.
*Earl Everett Certain (C); Dodge City
Ned Chestnutt (EE); Logan
*Richard Binford Christy (AE); Scott City
Marybelle Churchill (IJ); Topeka
*Robertha Jeanette Clack (HE);
Arkansas City
Allen Roland Clark (AA); Miltonvale
Forrest William Clark (VM); Jewell
*Mayselle LaVerna Clark (C); Independence
Owen Earl Clark (IJ); Hoisington
Theodore Stanley Clark (C); Penokee
*Rosamond Claywell (HE&J); Kansas City
Robert George Clendenin (MI);
Kansas City
Howard Whittier Cleveland (PE);
Muscotah
Clarena Bruce Clevenger (CE);
Kingsdown
Helen Beth Coats (HE); Topeka
Alton Monroe Coddington (VM);
Alexander
Lawrence Donaldson Colburn (C);
Manhattan
Alice Rosalind Coldren (IJ); Oberlin
Carol Eugene Coleman (AA); Sylvia
Wayne Devere Collins (VM); Marysville
*Donald Raymond Conard (GS); Coolidge
*Jessie May Conrad (GS); Coolidge
Harry Jacob Conrad (VM); Kansas City
William Kenneth Conwell (ChE);
Manhattan
Earl Jesse Cook (Ag); Parker
Florence Margaret Cook (HE); Newton
Oscar George Cook (AE); Larned
James Fenimore Cooper (IJ); Manhattan
Jess Ralph Cooper (Ag); Preston
Amy Laurie Correll (GS); Fort Riley
Edwin Courtney (Ag); Danville
Deane Hadley Cousins (C); Talmo
Frank Andrew Cowell, Jr. (EE);
Hutchinson

* Matriculated 1937-'38.

JUNIORS—Continued

- Maynard Gerald Cox (C&A); Colony
 Howard Allen Crawford (C); Stafford
 Delbert Clare Creighton (MI); Denison
 Mary Elizabeth Crocker (HE);
 White City
 Geraldine Lucile Cross (GS); Wilson
 Walter LeRoy Culbertson (ME); Wichita
 Everett John Cupps (ME); Haven
 Eugene Francis Damer (VM);
 Webb City, Mo.
 *William L. Daniels (EE); Kansas City
 Maxine Evelyn Danielson (HE&A);
 Manhattan
 *Dillon O'Neal Darby (IC); Manhattan
 Lois Darby (MuE); Washington
 Robert Vernon Darby (IJ); Morrowville
 *Edward LeRoy Dauphin (ChE);
 Arkansas City
 Hyatt Lynne Davidson (IC); Manhattan
 Albert A. Davies (VM);
 Kansas City, Mo.
 Charles Willard Davis (Ag); Halstead
 *D. C. Davis (ChE); Sedalia, Mo.
 *Frances A. Davis (HE); Hutchinson
 Ileene Genevieve Davis (HE); Marysville
 Mary Frances Davis (HE);
 Chardon, Ohio
 *Valoris Aeolia Davis (HE); Hutchinson
 Ermal Irene Dearborn (GS); Manhattan
 Peter DeCinque (VM); Woodbine, N. J.
 Clifford N. Decker (VM); Arlington, Neb.
 Ernest Wilson Decker (Ag); Tecumseh
 Everett John Degenhardt (C); Alma
 John Patton Denton (VM); Manhattan
 John Russell DeRigne (ME); Kansas City
 Otis Gerald Dewey (AA); Hollenberg
 Darwin Newcomb DeYoe (MuE);
 Hiawatha
 Jack Dickens (IJ); Manhattan
 Paul Rutherford Dickens (PE);
 Long Island
 William Hyde Dieterich (VM); Minneola
 Dorothy Alice Diggs (HE); Emporia
 Rose Geraldine Diller (GS); Morrowville
 Evelyn Leone Dilsaver (HE); Athol
 Loren John Dilsaver (AE); Athol
 John Perry Dilworth (IC); Winfield
 Herbert Merrill Dimond (EE);
 Smith Center
 *Vivian Aline Doak (IM&D); Kansas City
 Leslie Doane (Ar); Osborne
 Rowland Maxwell Dolan (C&A); Clifton
 Vincent Wendell Doll (C); McPherson
 Clifford Jerrold Drake (EE); Corbin
 Clarence Joseph Dreier (CE);
 Kansas City
 Donald Frederick Dresselhaus (CE);
 Lincoln
 *Robert Harrison Dubois (AE);
 Burlingame
 Samuel Griffith Dukelow (ME);
 Hutchinson
 Raymond Reinholdt Dumler (AE);
 Gorham
 Clifford E. Duncan (PE); St. Francis
 Robert Frederick Dundon (EE);
 Junction City
 Mary Lou Dunkerly (IM&D); Holliday
 *John Myrone Dunn (MI); Plains
 *Marguerite DuPree (MuE); Salina
 Stanley Narsmeth Dwyer (IJ); Manhattan
 *Ruth Wilma Edgerton (GS); Iola
 *Floyd Kenneth Edwards (IJ); Garden City
 Luella Edith Effland (GS); White City
 Elnita Ella Ehler (C&A); Holyrood
 Albert Henry Eikelberger (ME);
 Scott City
 Irene Eisenhower (HE); Ramona
 Howard Surber Elliott (AA); Manhattan
 Mary E. Elliott (C); Manhattan
 Shirley Irene Englehart (GS); Bronson
 Frederick Dale Engler (Ag); Topeka
 Kenneth Leroy Enright (AA); El Dorado
 Earl Albert Erickson (Ag); Clairton, Pa.
 *Hamel Kai Eshelman (EE); Wichita
 James Andrew Eskeldson (VM) Ramona
 Hoy Boyd Etling (AA); Copeland
 David Edward Evans (VM);
 Montrose, Colo.
 Willard Halsey Eyestone (AH&V);
 Pittsburg
 Farland Edgar Fansher (Ag); Manhattan
 John Robert Farmer (ME); Pratt
 Henry Horatio Farrar (GS); Beattie
 Willis Bert Faulkender (Ag); Holton
 Harold A. Fechter (C&A); Aurora
 Murray Feldman (VM); Brooklyn, N. Y.
 Velma May Felker (HE); Hoyt
 Naomi Grace Fent (HE&A); Newton
 *Paul C. Fisher (GS); Belleville
 Beattie Harris Fleenor (MI); Manhattan
 Homer Wendell Fleming (GS); Pratt
 Merlin J. Fleming (C&A); Oakley
 Chester Alanson Foreman (CE); Wichita
 Dolores Coraleen Foster (IJ); Manhattan
 Emma Helen Frick (HE); Larned
 *John Walters Friedline (ChE);
 Grand Saline, Tex.
 *Jack Pearson Fuller (CE); Kansas City
 Paul Willis Furst (IJ); Atchison
 Garret Gardner (CE); Belvidere, N. J.
 Howard E. Gardner (EE); Garden City
 Jess Dudley Garinger (ME); Harveyville
 Arthur Raymond Garvin (Ag); Ogden
 Frances Macy Gebhart (IJ); Salina
 Peter Joseph Germanio (VM);
 Woodbine, N. J.
 Charles Herbert Giddings (Ag);
 Munday, Tex.
 Richard Mills Gillispie (EE);
 Junction City
 *Neil David Gilmore (CE); Hutchinson
 Golda Lucile Gish (HE); Manhattan
 Robert Newton Gist (ME); Manhattan
 Leslie Ray Glassburner (ME); Leon
 Barbara Jean Glenn (GS); Garden City
 James Banks Godin (IC); Wamego
 Charles Martin Good, Jr. (IC); Plevna
 John Frederic Granstedt (Ar); Courtland
 Lawrence Grauerholz (IJ); Kensington
 Mary Faye Graves (IM&D); Greensburg
 Roy Raymond Green (AA); Manhattan
 Beverly Stubbs Greene (C); Dodge City
 C. Lyndon Griffith (ME); Elkhart
 Orville William Griffith (ChE); Bogue
 Glenn Gordon Gross (VM); Russell
 Thomas Joseph Guilfoil (VM);
 Kansas City
 Neil Claypool Gustafson (Ag); Marquette
 Lois Virginia Gwin (HE); Washington
 Beatrice Gertrude Habiger (HE); Bushton
 *Robert Monroe Hackney (ChE); Parsons
 Donald Eugene Hall (AA); Macksville
 Clare C. Hamilton (VM); Geneseo
 Pauline Chandler Hammack (HE); Parsons
 Rolland Brooks Hammond (ArE); Pratt
 *Robert Lyman Hammond (EE); Parsons
 August Martin Hanke (ME); Wathena
 Emmett Benjamin Hannawald (AA);
 Pratt
 John Vernon Hansen (Ag); Hiawatha
 Ailine Laurentia Hanson (HE); Olsburg
 Walter Edmund Hanson (CE); Lyndon
 Harris Warren Hantman (VM);
 Brooklyn, N. Y.
 Ethel Dale Harkness (IJ); Ness City

* Matriculated 1937-'38.

JUNIORS—Continued

- Vernon Franklin Harness (AE-1; Ag-2); Iuka
 John Thomas Harrell (C&A); Paradise
 John Harris, Jr. (Ag); Havensville
 Meade Charles Harris, Jr. (MI); Tecumseh
 *Sidney Lloyd Harry (C); Home
 Lucile Esther Hawks (HE&A); Hiawatha
 Edward Millin Hays (EE); Anthony
 Eldon Francis Hays (VM); Newton
 Barnabus Allen Hays (PE); Kansas City, Mo.
 Edna Alletta Heaton (PE); Buford, Ark.
 Robert M. Heaton (C&A); Norton
 Powell Heide (AA); Wilmore
 Harold Arthur Heimerich (EE); Clay Center
 Elizabeth Fern Henderson (HE); Dover
 Harold Vincent Henderson (CE); Eskridge
 Tom Knight Henderson (ME); Wichita
 Merle Logan Henrickson (VM); Concordia
 Margaret Jane Henry (GS); Belleville
 Earl Francis Hertach (AA); Claflin
 Arlene Herwig (GS); Kansas City, Mo.
 Vann Hess (CE); Manhattan
 Helen Ethel Heter (HE&A); Sterling
 Mikael Earl Hickey (CE); Hoisington
 Helen Vivian Higbee (HE); Eureka
 Norman Walter Hildwein (AA); Fairview
 Arthur Wayne Hjort (C); Manhattan
 Fred Homer Hoaglund (EE); Sun City
 Millard Eugene Hobson (C); Kingman
 Lester John Hoffman (AA); Haddam
 George Wesley Hofsess (CE); Partridge
 Beth Merle Hollis (PE); Manhattan
 Margene Verena Holmes (IJ); Manhattan
 Marion Elias Holverson (GS); Maplehill
 William Henry Honstead (ChE); Topeka
 *Harvey J. Hoover (C); Kansas City
 *Conner Garth Hopkins (C); Parsons
 Louis John Horn (IJ); Horton
 Cecil Earl Hornbuckle (Ag); Hillsdale
 Tom Clark Houston (AE); Goodland
 Archie Willard Howell (GS); Marietta
 Fung Kuan Huang (VM); Canton, China
 William Joseph Hudspeth (C); Parsons
 *Elizabeth Laura Huey (IM&D); Atchison
 Veal Nathan Huff (EE); Norton
 *Ralph LaVerne Huffman (AG); Chanute
 *Flora May Hulings (HE); Sidney, Mont.
 Arlyn Morris Humburg (C&A); Bison
 Jesse Richard Hunt (GS); Arkansas City
 Lena Marie Hurst (HE); Clearwater
 Hazelbel M. Hutchins (Ar); Sterling
 Roberta Laurine Hutchinson (MuE); Wamego
 Aubrey Means Hutton (VM); St. Joseph, Mo.
 Donald Clayton Innes (VM); Philadelphia, Pa.
 *Mary Grace Ioerger (C); Harper
 *Glenn Reben Irey (ME); Riverton
 Margaret M'Lee Isenbart (HE); Wilmore
 Clifford Clinton Isom (MI); Baldwin, Ill.
 Howard Nelson Jackson (CE); Barnes
 James Thomas Jackson (GS); Manhattan
 Paris Shedrick Jackson (C); Ness City
 Warren Cowan Jackson (ME); Manhattan
 Duane George Jehlik (CE); Cuba
 Calvin M. Jenkins (AE-1; GS-2); Manhattan
 Dale Edward Johnson (Ag); Manhattan
 Earl William Johnson (EE); Salina
 Jean Frances Johnson (MuE); Olsburg
 Keith Cleon Johnson (Ag); Sylvia
 *Kenneth Edward Johnson (AA); Emporia
 Kenneth Eugene Johnson (Ag); Norton
 Virginia Verle Johnson (HE&J); Circleville
 Walter Lee Johnson (ME); Emmett
 Herman August Jokerst (VM); Waco, Neb.
 *Alice Aline Jones (GS); White City
 Charles Fenwyck Jones (GS); Irving
 Charlotte E. Jones (HE&A); Leavenworth
 *Eleanor Mary Jones (IJ); Garden City
 Frances Jane Jones (GS); Reading
 Gomer Wood Jones (ME); Reading
 *John Russell Jones (AA); Sterling
 Raymond Albert Jones (VM); Penalosa
 *Van Chaffin Jones (EE); Parsons
 Frank Wilson Jordon (VM); Beloit
 *Thelma Louise Joss (HE); Burlingame
 Jane Julian (IM&D); Kansas City
 Patricia Catherine Kail (HE); Longford
 Wendell Lee Kanameyer (VM); Cucamonga, Cal.
 Ralph Clayton Kantz (ArE); Wichita
 Milton Kaslow (ChE); New York, N. Y.
 Fred Detter Kathis (C); Wichita
 *Roland Harry Kaufman (C-1; IA-2); Galva
 Arthur Bruce Keckley (C&A); Almena
 Virgil Roscoe Kelley (AH&V); Arkansas City
 Grace Lorene Kendrick (IM&D); Topeka
 Charles Isaac Kern (Ag); Smith Center
 *William F. Kern (C); Kansas City
 Glenn Walter Kerr (IC); Rossville
 Joseph Boston Key (VM); Kansas City
 Lewis Andrew Kidder (AH&V); Pittsburg
 Gracilou Kiene (GS); Topeka
 Anthony Kimmi (MuE); Everest
 Dora Grey King (HE); Republic
 Elwood Chase King (Ag); Potwin
 Ray Carlyle King (IJ); Olsburg
 Ruth May King (HE&N); Manhattan
 *Dean Karl Kipp (GS); Manhattan
 Wayne Klamin (Ag); Manhattan
 Dell James Klema (EE); Wilson
 Fred Vinton Klemp, Jr. (IJ); Leavenworth
 Jack Ross Knappenberger (VM); Penalosa
 Ralph Wesley Knedlik (C&A); Belleville
 *Merle Ashton Knepper (EE); Winfield
 May Belle Marie Knight (HE); Parker
 Robert Samuel Knight (AE); Medicine Lodge
 George Robert Kramer (IC); Mankato
 *Iden Frederick Krase (CE); Cheney
 Ralph Edward Krenzin (Ag); Kinsley
 Harold A. Krig (VM); Manhattan
 Anthony Francis Krueger (C); Gardner
 Kenneth Ernst Kruse (Ag); Barnes
 Max Maxon Kurman (PE); Woodbine, N. J.
 Charles D. Labahn (VM); Sedalia, Mo.
 *Emory Harmon Lackey (AE); Melvern
 Gerald August Lake (ChE); Manhattan
 Colter Adiel Landis (ChE); Topeka
 *Lewis Ansley Landsberg (AE); Bonner Springs
 *Shelvy Haninson (ArE); Bucklin
 *George Herbert Larson (AE); Lindsborg
 Arthur Robert Laughlin (ME); Turon
 Jean Marty Lawson (IM&D); McPherson
 Fern Adele Layman (HE&A); Arlington
 Opal M. Leach (HE); Bird City
 Wayne Howard Lee (CE); Junction City
 Margaret Elizabeth Leger (HE&N); Peiping, China
 Edward Lyle Leland (AA); Manhattan
 Walter John Leland (Ag); Manhattan

* Matriculated 1937-'38.

JUNIORS—Continued

- Clifford Alonzo Lemen (GS&V);
Manhattan
Arthur Frank Leonhard (AA); Lawrence
Robert Jerome Levi (VM);
New York, N. Y.
Joe W. Lewis (Ag); Larned
Howard Brice Leibengood (VM);
Kentland, Ind.
Richard Edgar Lindgren (CE); Dwight
Marceline Carroll Link (HE); Chase
Wayne Arnold Linville (Ag); Chase
Vere Oakley Lipperd (ME); Udall
*John Wheeler Livingston (Ag); Vliets
Charles Milton Lobenstein (Ag);
Edwardsville
Glenn Richard Long (EE); Arlington
Ralph Alvin Long (C); Kansas City
*Daniel Martin Longenecker (EE);
Kingman
Henry Loughridge (VM); Lyndon
Florence Elma Lovejoy (HE); Alma
*James Stanley Lucas (EE); Kansas City
Ruth Maxine Lund (HE); Green
Chauncey Karl Lundberg (GS);
Manhattan
William Joseph McAllister (VM);
Santa Barbara, Cal.
LeRoy Lloyd McAninch (MI);
Manhattan
Edward Joseph McCarthy (ChE);
St. Marys
Dale Edwin McCarty (AA); Oneida
Elizabeth Ann McComb (GS); Stafford
John Clark McComb (EE); Wichita
*Charles Murry McCormick (ArE);
El Dorado
Edward LeRoy McCoy (C); Manhattan
Nancy Ellen McCroskey (HE);
Kansas City
William Edward McCune (AE);
Leavenworth
Ernest Raymond McDonald (C);
La Crosse
Don Brooke McEntire (C); Topeka
Norris J. McGaw (MuE); Topeka
Joseph Thomas McGinity (EE);
Humboldt
Joseph Clark McGonagle (IJ); Manhattan
*Velma Maysle McGaugh (HE);
Garden City
Helen McGuire (HE&A); Burlington
Charles Lynn McInnes (C&A);
Manhattan
*Donald Leslie McInteer (CE); Minneola
Dean Elwyn McIntire (GS); Manhattan
*Virginia Addie McIntire (GS);
Kansas City
Dorothy Carol McKeen (HE&A);
Manhattan
*Arthur Raymond McKenna (GS);
Junction City
John Thomas McKenna (ME); Narka
Maxine Doris McKenzie (HE); Wayne
James William McKinley (ME);
Manhattan
*William George McKinley (CE); Parsons
Elsie Marie McLendon (HE);
Kansas City
Hugh Otis McMillen (GS); Topeka
Cecil Louis McNeal (EE);
Kansas City, Mo.
John D. McNeal (GS); Boyle
Machlett Neal McVay (Ag); Sterling
Lewis Francis Madison (AA); Fort Scott
Herman Paul Madsen (IA); Corbin
Richard Hamilton Magerkurth (MI);
Salina
Manoutchehre Mahin (Ag); Tehran, Iran
Alfred Eugene Makins (IJ); Abilene
Albert Leon Malle (VM); Mulberry
*Gail Andrew Malson (C); Chanute
*Manford Edward Mansfield (AA);
McCune
Charles Franklin Manspeaker (MI);
Topeka
Clayton Wilson Marker (AA); Topeka
Francis Kirby Marston (C); Junction City
Helen Elizabeth Martin (HE); Wichita
Samuel Page Martin (CE); Kinsley
Theodore Vernon Martin (Ag);
Kingsdown
*Vernon Glenwood Martin (ME);
Neodesha
*Robert Edwin Marx (AA); Emporia
Joseph Raymond Massey II (VM);
Sun City
*Frances Maxine Masterson (GS);
Hutchinson
Delos Gordon Mayhew (AA); Trousdale
Galen Elmer Mechkfessel (ME); Lewis
Lester L. Mehaffey (ME); Farmington
Edith Magdalena Meisner (HE); Wichita
Helen Hope Merryfield (IM&D);
Minneapolis
Harry Harrison Meyer (C); Basehor
Ivan John Meyer (C); Basehor
Carl William Miller (C); Manhattan
Earl Edward Miller (AA); Sublette
Irwin Alvin Miller (AA); Oberlin
*John William Miller (ME); Alma
Leonard John Miller (VM);
Clarkson, Neb.
*Lester Isaac Miller (ChE); Le Roy
June Winifred Milliard (Ar); Manhattan
Arthur Ben Mills (EE); Lakin
Stanley Cole Miner (C); Ness City
John Ludvig Mitcha (ME); Rossville
Charles Edward Mitchell (GS);
Ordway, Colo.
Dorothy Mize (HE); Atchison
Gordon Ray Molesworth (IJ); Colony
*Darrel Emmett Moll (EE); Hutchinson
Harry Earl Molzen (AA); Newton
Frances Jeannette Montgomery (HE);
Sedalia, Mo.
Edward Cooper Moore (C&A);
Westmoreland
June Alice Moore (HE); Great Bend
*Somers Moore, Jr. (IC);
Kansas City, Mo.
William Hugh Moore (AA); Munden
William Dennis Moran (EE); Weir
C. Boyd Morgan (GS); Ottawa
Naomi Morlan (HE); Courtland
Vern Vencil Morris (EE-1; C-2);
Manhattan
Melvern Charles Morse (ArE); Salina
Lynus Robert Morton (VM);
Yates Center
Leland Mark Moss (ArE); Miltonvale
Donald Fleet Mossman (VM); Manhattan
Vera May Mowery (HE&J); Salina
Clyde Dewey Mueller (Ag); Sawyer
James Franklin Muggleston (Ag);
Berkeley, Cal.
Elinor Adelle Murphy (IM&D);
Manhattan
Grayson Elwood Murphy (Ag); Norton
Joe Kenneth Murphy (EE); Chapman
Donald James Murray (C); Beloit
Elizabeth Frances Nabours (HE);
Manhattan
*Leslie Clyde Nash (Ag); Hays
Samuel Siskind Nebb (VM);
Brooklyn, N. Y.
Beulah Burnetta Nelson (IM&D);
Manhattan

* Matriculated 1937-'38.

JUNIORS—Continued

- Conrad Lundsgard Nelson (GS&V);
Oklahoma City, Okla.
Harold Eugene Nelson (IJ); Holton
Richard Albert Nelson (EE); Manhattan
Robert William Nelson (C&A);
Leavenworth
Walbert Oscar Nelson (VM); Olsburg
Charles Clarence Newhart (GS&V);
Delaware Water Gap, Pa.
Joseph William Newman (IJ);
Manhattan
John Hart Nicholson (C); Newton
Willia Dean Nodurft (IM&D);
Wichita
*Fern Aileen Norbury (IM&D);
Hume, Mo.
*Ingrid Leone Nordin (HE); Marquette
Kenneth Leroy Nordstrom (MI);
Norton
Morris Nossob (VM); New York, N. Y.
Robert William Nottorf (IC); Abilene
LaDonna Jean Ober (MuE); Hiawatha
Leona Ochsner (HE); Tribune
Preston Edward Olderog (Ag);
Omaha, Neb.
Annette Olson (HE); Manhattan
Crothy Mae Olson (IM&D); Oberlin
Floyd Russell Olson (Ag); Minneola
Raymond Wingenreid Olson (MI);
Atchison
Robert Orpin (ArE); Newton
*LeVon Klein Painter (C&A);
Kansas City
Joseph S. Palen (VM); Hays
*Wilfred Leroy Park (EE); Oakley
William Thomas Parrott (IC); Colby
Merle Jay Parsons (Ag); Emporia
William David Paske (Ag); Toronto
Eugene Payer (Ag); Westphalia
Kenyon Thomas Payne (Ag); Manhattan
*Mary Margaret Pejsa (IM&D);
St. Joseph, Mo.
Sarah Ann Pence (HE); North Topeka
John Wesley Pennington (ME); Wichita
Alonzo Easton Perkins (ME);
Wellington
John Paul Perrier (Ag); Olpe
Lester Leroy Peterie (CE); Kinsley
Grant Waldemar Peterson (C&A); Healy
Lee Richard Peterson (CE); Kingsley
Winzer James Petr (AA); Waterville
Kenneth Osler Pettijohn (Ar); Larned
Wendell John Pfeffer (EE); Clifton
Anna Caroline Pfrang (GS); Goff
*Elizabeth Phelan (IJ); Kansas City, Mo.
Mary Martha Phillips (C); Manhattan
Morris William Phillips (AA); Stockton
*Elton Chester Pieplow (IJ); Hutchinson
James Arthur Pierce (Ar); Manhattan
James Maxwell Pierce (CE); Burden
Eleanor Marion Pincomb (HE);
Overland Park
Staley Leon Pitts (Ag); Willard
Frieda Ann Ploger (HE); Kinsley
Viola Ruth Plush (GS); Penaloza
Helen Louise Poole (HE); Manhattan
Curtis Albert Poppenhouse (VM);
Manhattan
Gerhard Charles Poppenhouse (VM);
Manhattan
Charles Edward Porter (ME);
Junction City
Ruthe Christine Porter (C); Mount Hope
George Elden Powell (C&A); Manhattan
Marcel Ellen Preble (C); Scandia
George Francis Preston (C); Cuba
John Clyde Pretzer (Ag); Elmdale
Albert Paul Price (CE); St. Paul
Norma Lee Quinlan (IJ); Lyons
Guy Arthur Railsback (VM); Langdon
Ruby Randall (HE); Ashland
*George Alfred Randel (AE); Lewis
Leonard James Rawson (ME); Wamego
*Donald Gilbert Reames (C); Independence
Donald Reber (EE); Sabetha
Leondis J. Redwine (ME); Lake City
*Lois Anita Reed (HE); Wichita
Herman J. Reitz (Ag); Belle Plaine
*Robert Arthur Remington (EE);
Hutchinson
Glen Stanley Remsberg (VM); LaHarpe
Frank Lauren Reppert (ME); Bryan, Tex.
Mable Evelyn Ressel (HE); Colony
Cecil Raymond Rhorer (IC); Lewis
*Marvin G. Riddell (GS); McPherson
*Gerald Moore Riley (GS); Concordia
*Frances Susan Ripley (IM&D); Salina
*Eugene Arman Ripperger (CE); Merriam
Clifton Allan Risinger (AA); Neodesha
William Armour Roark (ME); Lake City
Verne Max Robbins (EE); Wichita
Bruce Evert Roberts (CE); Chanute
Charles Pearson Roberts (ChE-1; GS-2);
Manhattan
David Clay Roberts (C); Dodge City
*Ralph Roy Roberts (ME); Downs
Cecil Redford Robinson (Ag); Nashville
Donald Edwin Rodabaugh (VM);
Norborne, Mo.
*Herman Rohrs (SH); Oakley
Verlin Rosenkranz (Ag); Washington
*Floyd Eugene Ross (C&A); Centerville
William Ronald Rostine (CE);
Hutchinson
Louis Rotar (ChE); Kansas City
Marjorie Kathryn Rothfelder (HE);
Axtell
Bernard Bernie Rovner (VM);
Philadelphia, Pa.
Loberta Row (HE); Larned
Lloyd Findley Roy (CE); Wilsey
*Virginia Eleanor Royston (HE);
Newton
Anelda Rich Runnels (GS); Wichita
L. Roberta Rust (HE); Manhattan
*Wayne Allard Rutter (ChE-1; IC-2);
Kensington
Ernest Dale Sadler (MI);
Wagner, S. Dak.
Orville William Saffrey (IJ); Alma
Edwin Rudolph Salzer (EE);
Kansas City, Mo.
Granville Boyd Seanland (ME);
Hutchinson
Marjorie Rose Schattenburg (M);
Riley
Stewart Claude Schell (GS);
West Lawn, Pa.
Charles Eugene Scherzer (CE); Larned
Dallas Glenn Schmidt (EE); Lorraine
Paul Angel Schoonhoven (GS);
Manhattan
Leonard William Schruben (AA); Hoxie
*Lawrence Curtis Schubert (IC);
Hutchinson
Marjorie Eileen Schwalm (GS); Paxico
*Richard Blaine Schwitzgebel (IJ);
Kansas City
Walter O'Daniel Scott (Ag);
Westmoreland
Willa Mae Searl (IM&D); Hutchinson
*Dorothy Alice Sears (HE&A);
Kansas City
Robert Paul Seidel (GS); Morrowville
Lloyd Oliver Selders (AA-1; C-2);
Kansas City, Mo.

JUNIORS—Continued

- Thomas Joseph Sette (CE);
Jackson Heights, N. Y.
Hillard Weston Shaffer (ME); Newton
*James McCabe Shaffer (ME); Humboldt
John Aaron Sheetz (C); Topeka
Robert Baker Shepherd, Jr. (Ag); Alden
Ralph Vernon Sherer (Ag); Mullinville
John Allen Shetlar (Ag); Bayard
Merle Mathias Shilling (CE);
Westphalia
Philip Newton Shrake (EE); Topeka
Harold Davis Shull (Ag); Manhattan
Robert D. Sieg (ChE); Greensburg
Catherine Augusta Siem (PE);
Rochester, Minn.
Woodrow Bryan Sigley (ME); Canton
Carl Simpson (Ag); Milton
Marialice Singleton (HE); Manhattan
Joseph Henry Skinner (SH);
North Topeka
*Ruth Arline Slagg (GS); Wichita
John Clark Slentz (ME); Chase
Samuel Dwight Slentz (Ag); Lewis
*Mildred Gunn Sloan (GS); Manhattan
*Charles Aubert Slocomb (ME);
Kansas City, Mo.
*Ramond Edward Small (ME);
Conway Springs
*Georgia Agnes Smedal (IJ);
Kansas City, Mo.
Edward George Smerchek (AE-1; AA-2);
Garnett
*Frances Claire Smischny (IJ); Winfield
Carlton Smith (EE); Columbus
Clarence William Smith (CE);
Clay Center
Edward Paul Smith (EE); Morrill
George Harmon Smith (ChE); Longford
*Ivan Roland Smith (ChE); Highland
Loren Walter Smith (PE); El Dorado
Mary Isabel Smith (IM&D); Manhattan
*Orville Roland Smith (EE); Neodesha
Pauline Dorothea Smith (HE);
Shreveport, La.
Stephen Milton Smith (ArE); Girard
Morton Smutz (ChE); Manhattan
Don Arnold Snyder (ChE); Elkhart
Bertel Emanuel Soderbloom (Ag); Delphos
Norma Elizabeth Spealman (IJ);
Manhattan
Paul Eugene Spears (C&A); Belle Plaine
Otto Franklin Spencer (Ag); Leavenworth
Betty Spoelstra (GS); Prairie View
Max Raymond Springer (AE-1; MI-2);
Manhattan
Darrell Stanley Steele (VM); Treynor, Iowa
*Thurston Stein (ME); Gypsum
Alfons Alfred Stiebe (A); Rozel
Theda Elizabeth Stine (HE); Glasco
Theodore Edward Stivers, Jr. (MI);
Rome, Ga.
Billy Neil Stone (C); Hiawatha
Clifford William Stone (Ag); El Dorado
Richard Shelley Storer (PE); Herington
*Benjamin J. Stott (C); Kansas City
William Frank Stoudenmire (VM);
DeLand, Fla.
James John Stout (CE); Belvidere, N. J.
Howard Roy Stover (ME); Manhattan
Elwood Malcolm Strom (Ag); Dwight
*Kenneth Lee Stuckey (EE); Kansas City
Edna Evangeline Stullken (IM&D);
Bazine
Barbara Ellen Sturman (HE); Ulysses
John Dennis Sulton (Ar); Manhattan
*Harold Eugene Summers (ME); Pittsburg
Raymond Lyle Surtees (EE); Wichita
John Bennett Sutherland (ChE);
Burlingame
Frank Maynard Sutton (ME); Midian
Adeline Sweeney (MuE); Coldwater
Thiel Holmes Sweet (ArE); Formoso
Donald Dexter Swenson (CE);
Clay Center
George Tanenbaum (VM);
Brooklyn, N. Y.
Donald Eugene Tannahill (GS);
Phillipsburg
Edgar Lewis Taylor (VM);
Henryetta, Okla.
Harold Edward Taylor (GS); Norton
Warren Chalmer Teel (Ag); Moreland
William Theis (CE); Dodge City
Beulah Agness Thomas (IM&D);
Manhattan
*Edmund Clyde Thomas (ME);
Kansas City
James Thomas (MI); Garnett
Mary Eleanora Thomas (IJ); Easton, Pa.
Arthur Henry Thompson (AE); Delia
*Charlotte Thompson (HE); Iola
Dorothy Leah Thompson (HE);
Manhattan
Joe Earl Thompson (CE); Almena
*Kermit Karl Thompson (ME); Wichita
Doris Lee Titus (IM&D);
Cottonwood Falls
Robert Stewart Todd (VM); Tulsa, Okla.
Dwight Seibert Tolle (AA); Norcatur
Floy Frances Toothaker (HE);
Protection
Mabel Ellen Toothaker (HE&N);
Protection
John Elwyn Topliff (Ag); Jewell
*Benjamin Donald Trout (MI);
Boonville, Mo.
Kenneth Wible Tudor (ME); Holton
Gay Stanley Tuis (AA); Fredonia
Robert Lee Turner (AA); Oskaloosa
Elizabeth Jeanne Underwood (HE);
Hoisington
Selma Unruh (HE); Newton
Wilma H. Van Diest (C); Prairie View
Phillip Harris Vardiman (VM);
Salisbury, Mo.
*George Willits Vaught (CE); Iola
Clarence Fred Veach (EE); Salina
Leland Austin Viar (C&A); Dunlap
Elmer Leroy Vinson (EE); Garfield
Roland Emil Vollmar (VM);
Montgomery, Minn.
*Margaret Irene Vollweider (HE); Oxford
William Alvis Wade (AA); Hoxie
Simon Rosson Wagler (EE); Hutchinson
*Dan W. Wagoner (EE); Lenora
*Ella Larine Wait (C); El Dorado
Robert Jefferson Walker (IC);
Dodge City
Ruth Elizabeth Walker (HE&N);
Manhattan
*Carl William Walsten (C); Inman
Clara Maurine Walters (GS); Manhattan
LaRue Wilmer Wangerin (AE);
Kensington
Arlene Lois Waterson (HE); Ness City
Helen McGhee Watson (HE&N);
Shawnee
Johnnie Edward Wenger (GS);
Powhattan
Irving Wangrofsky (Ag);
New York, N. Y.
Homer Triss Wesche (AE); Manhattan
Helen Ruth Westin (HE); Courtland
Gerald Wexler (IJ); New York, N. Y.

JUNIORS—Concluded

- Marcelle Melford Wheatley (GS); Gypsum
John Robert Wheelock (ME);
Chihuahua, Mex.
Richard Wherry (ME); Sabetha
*Alice Marguerite Whetsel (IM&D);
Uniontown, Pa.
*Oren Dale Whistler (AE); Independence
Edith Mary White (GS); Kingsdown
Doris Katherine Wilhelm (HE);
Mount Hope
Josephine Mary Williams (HE);
Meriden
John Herron Williamson (EE); Topeka
Arthur Charles Willis (ChE); Stafford
Morris Willis (EE); Kirwin
Clifford Eli Wilson (ME); Caney
*Marshall Edward Wilson (C);
Kansas City
Wilbert John Wilson (AA); Manhattan
Joe James Winderlin (AA); Scott City
Mary Jo Winer (HE&N); Dresden
Fred Wiruth (CE); Almena
*Kenneth Carman Witt (EE);
Independence
*John Edmond Wolfe (EE); Kansas City
Gordon Harold Woodrow (Ag);
Sharon Springs
James Kelly Woods (IC); Burden
Martha Ann Wright (HE&J); Salina
Carl Edward Wristen (EE); Garden City
Helen Iams Wroten (GS); Keats
Juanita Charlene Wyckoff (HE); Luray
Clinton Volney Young (ME); Salina
John Henry Young (CE); Centralia
Russell John Younkin (GS); Wakefield
Abraham Zatman (ME);
Pittsburgh, Pa.
Edward Bonjour Zickefoose (VM);
Rossville
*Leonard Alfred Zimmerman (ME);
Frontenac

SOPHOMORES

- Gwendolyn Ellen Abbott (IM&D); Alma
*Clara Adelaide Abell (HE&N); Oakley
*Clarence Leaman Abell (CE); Oakley
Edward Linn Abernathy (ArE);
Sharon Springs
Margaret Alice Abt (HE);
Medicine Lodge
Finley Acker (MI-1; C-2);
Philadelphia, Pa.
William Bentley Ackley (Ag); Portis
Betty Margaret Adams (C&A);
Manhattan
John Beal Adams (ME); Osborne
Kirk Eiler Adams (Ag); Oak Mills
Lawrence Douglas Adams (EE);
Mount Hope
Vance Ellsworth Aeschleman (Ag);
Sabetha
Francis George Ahrendes (AH&V);
Miltonvale
*Martha Jane Aines (HE&A);
Kansas City, Mo.
Lois Geraldine Aldous (GS); Manhattan
*Dow Denton Alexander (ME); Atchison
Genevieve Elizabeth Allen (HE);
Manhattan
*Madeline Blanche Anderson (MuE);
Courtland
*Orville John Anderson (Ag); Hope
Vivian Ethel Anderson (HE);
Kansas City, Mo.
Lester Harold Ankenman (AE); Dellvale
Carter Howell Anthony (VM);
LaJolla, Cal.
*Orven Harry Armstrong (EE);
Garden City
Mary Margaret Arnold (HE); Newton
Clarence Lafayette Ash (ME); Wetmore
Wanda Marian Atkins (HE); Manhattan
Ethel Evelyn Avery (HE); Riley
John Sherman Axford (C); Gridley
Dale Deyo Ayers (MI); Sabetha
Fern Bair (C&A); Wamego
Ruth Elizabeth Baldwin (IM&D);
Manhattan
Evans Eugene Banbury (AA); Pratt
Marian Phyllis Barnes (IJ); Manhattan
*Jane Christy Barnett (GS);
Kansas City, Mo.
Lorraine Adelaid Barrett (HE&A); Salina
*Melvin Lester Barrett (MuE);
Dodg City
Eugene Henry Bartell (EE); Topeka
*Tom Bruce Bash (EE);
Kansas City, Mo.
Charles Thomas Baxter (Ag); Circleville
Dale Wesley Baxter (CE); Manhattan
Metta Lucille Baxter (PE); Manhattan
Ross Beach (EE); Hays
Alice Lucille Beal (GS); Eureka
Theo Mason Beard (VM); Emporia
Robert Edwin Beardsley (IC);
Manhattan
Irene Beardwell (HE); Wakeeney
Victor Bernard Beat (VM); Kingman
*Ellwood Herschel Beeson (C); Parsons
William Willington Beezley (Ag);
Girard
George Robert Belt (EE); Lane
Eunice Ione Benjamin (HE); Burlington
*Philip Frank Bennett (CE); Eskridge
William Goddard Bensing (EE);
Baltimore, Md.
Blaine Cooper Bentley (AE); Manhattan
Floyd Willis Berger (IJ); Barnes
Eileen M. Bergsten (Ar); Randolph
*Alfred I. Bernkrant (AH&V);
Brooklyn, N. Y.
Marylee Berry (HE); Kensington
*Clifford Lee Bertholf (AA); Spivey
Cledythe Ethel Bertram (IM&D);
Greensburg
Carl Theodore Besse (CE); Clay Center
Edwin Leroy Betz (AA); Enterprise
Carl Frederick Beyer (ME); Glen Elder
Maxine Beryl Bishop (HE&J); Abilene
Martha Ann Black (IJ); Independence
Charles Wilson Blackburn (AE); Topeka
Jack Blanke (MI); Atchison
Margaret Helen Blevins (IC);
Manhattan
*Kenneth Gardner Blim (EE);
Council Grove
John Kermit Blythe (Ag); White City
John Methew Boalen (GS); Miltonvale
Ralph Arthur Boehner (Ag); Glen Elder
Emory Bond (CE); Burlingame
*Betty Bonnell (HE); Kansas City, Mo.
*Robert Dean Bonnell (EE); Frankfort
George J. Boomer, Jr. (C); Kansas City
Warren Harvey Boomer (C); Portis
Horace Gene Booth (C&A); Topeka
Maurice Eugene Bostwick (C);
Manhattan
Lawrence Ralph Bowdish (ArE); Wichita
Jean Boyle (PE); Topeka

SOPHOMORES—Continued

- Louise Evelyn Boyle (IM&B); Spivey
 Esther May Boys (HE); Linwood
 Andrew Jack Bozarth (Ag); Liberal
 *Mildred Blanche Bozarth (HE); Liberal
 Edward Leo Brady (C&A); Fredonia
 DeVere Emil Brage (EE); Emporia
 Jack Wallace Branson (GS); Belleville
 Albert Wade Brant (Ag); Sawyer
 *Richard Harold Breckenridge (ME);
 Woodston
 *William Ormond Breeden (AA); Quinter
 Raleigha Faye Breeding (IM&D);
 Herkimer
 George Gray Breidenthal (CE);
 Kansas City
 *Margaret Keith Breneman (HE);
 Wichita Falls, Tex.
 Vernon Lee Brensing (CE); Mullinville
 *Harold Brickey (ChE); Emporia
 *Eleanor Stanton Brinton (IM&D);
 DeKalb, Mo.
 James Charles Brock (Ag); Glasco
 John Richard Brock (C); Glasco
 Barbara Brooks (HE); Colusa, Cal.
 Elizabeth Maude Brooks (HE);
 Scott City
 Lois Lee Brooks (HE); Clayton
 Travis Epps Brooks (Ag); Junction City
 Donald Seimer Brose (GS); Clay Center
 Paul Louis Brose (EE); Marion
 Elwood Cameron Brown (EE); Atchison
 Francis Everett Brown (AE); Solomon
 *Francis Richard Brown (AA); Fall River
 Harry Clarence Brown (AE); Oberlin
 James Milton Brown (VM);
 Los Angeles, Cal.
 Lela Madeline Brown (C&A); Alton
 *Lester Forrest Brown (CE); Wakeeney
 Paul William Brown (PE); Manhattan
 Sidney Goodell Browne (EE); Burdett
 *Edith Carey Brownlee (HE); Hutchinson
 *Walter David Bruner (AA); Ramona
 Dorothy May Buchanan (HE);
 Manhattan
 Jean Louise Buchanan (IM&D);
 Manhattan
 John Walton Buckmaster (EE); Topeka
 Pauline Clare Budde (HE); Albert
 Frederick Louis Buente (VM);
 Evansville, Ind.
 Alice Geneva Bulkstra (GS);
 Cawker City
 Richard Melven Bullock (Ag); Glasco
 Lorenz Pope Bunker (GS); Junction City
 *Wesley Lorenzo Borgan (ArE);
 Hoisington
 Jack DeLos Butler (CE); Hutchinson
 *Cornelius Butner (ArE); Topeka
 *Marcelle Elizabeth Butts (HE); Mulvane
 Ruth Eleanor Cadwell (IM&D);
 Marquette
 Ivan W. Cain (ChE-1; GS-2);
 Dodge City
 Tarlton Aura Caldwell (C&A);
 Manhattan
 Walter Jackson Campbell (Ag); Wilsey
 Leonard Walter Canfield (C&A);
 Miltonvale
 *Lester Wendell Canny (ME-1; C&A-2);
 Mound Valley
 Howard Sidney Cantwell (VM);
 Riverside, Cal.
 Fred Granger Carman (ME); St. Francis
 Bill Milton Carnes (VM);
 Henryetta, Okla.
 Henry James Carothers (C&A); Topeka
 Lois Marceil Carr (HE); Goddard
 Charles Otis Carter (Ag); Morrowville
 Richard A. Case (VM); Nickerson
 Harlan Wendell Casper (ME); Clifton
 Esther Ruth Cassity (HE&N); Clifton
 Margaret Bessie Cassity (IM&D); Clifton
 *Margaret Annabelle Caughey (HE&J);
 Manhattan
 James Francis Cavanaugh (Ag);
 Dodge City
 Dorothy Delle Cessna (HE); Ingalls
 Mary Maxine Challenger (HE&J-1;
 IJ-2); Sedgwick
 *Helen Frances Chambers (IJ); Chanute
 *Howard Wendell Channell (C);
 Kansas City
 Norton Spencer Chapin (ME); Wichita
 Clayton Ralph Chartier (C); Concordia
 Morris Thayer Chase (CE); Abilene
 Hersal Dean Chrislip (ME); Turon
 LeRoy A. Christopher (ME); Ellis
 *Doris Winona Christophersen (IJ);
 Garrison
 John York Christy (Ag); Meriden
 *Frank Adelbert Churchill (ME);
 Junction City
 Thaine Alvin Clark (AA); Concordia
 Cecil Eugene Cleland (AA); Eskridge
 *Paul Lawrence Clingman (C); Harlan
 John Leslie Clow (C-1; AA-2);
 Goodland
 *Neva Fern Coble (HE); Sedgwick
 Ruth Elizabeth Cochran (HE); Topeka
 Robert Benson Coder (EE); Manhattan
 Carlos Irving Cole (C&A); Logan
 Dorothy Frances Cole (HE); Fowler
 Robert Scheble Colladay (EE-1; IJ-2);
 Hutchinson
 Robert Lee Collard (C); Leavenworth
 Wayne Robert Colle (AA); Sterling
 Opal Alice Collie (HE); Mankato
 Lee Wilson Collinsworth (Ag); Rosalia
 Stanley Elbert Combs (Ag);
 Wilson, N. C.
 Frances Roberta Condell (HE); El Dorado
 *Henry Lile Constant (ChE); Ottawa
 Louis Wilton Cooper (Ag); Peabody
 Lowell Edwin Cooper (ME); Peabody
 *Barbara Jane Corbett (C); Emporia
 Keller Cordon (ChE); Circleville
 Corinne Ruth Corke (HE); Studley
 *Lucile Mae Cosandier (IM&D); Onaga
 Francis Lee Cosgrove (PE); Marysville
 Carl John Coulter (ME); Leon
 Keith Lundy Cowden (C);
 Kansas City, Mo.
 Donald Kay Cox (ME); Garden City
 James Jacob Cram (CE); St. Francis
 Virgil Eugene Craven (C); Erie
 Myrtle Madena Cranston (HE); Langdon
 Agatha Neoma Crawshaw (HE);
 Maplehill
 John Lewis Creitz (IC); Beloit
 Albert Harvey Crist (C); Tampa
 Edith Marie Crist (HE&N); Brewster
 Don Eldon Crumbaker (Ag); Onaga
 Ray Earl Cudney (Ag); Trousdale
 Rex Edgar Cudney (Ag); Belpre
 Margaret Jane Culbertson (C);
 Long Island
 Marjorie Maureen Curry (HE); Merriam
 Philip Henry Curry (VM); Kansas City
 *Jerry Forest Daniels, Jr. (ME); Wichita
 Paul Stromquist Danielson (Ag);
 Lindsborg
 Clara Marie Darby (MuE); Morrowville
 June Darby (IJ); Wamego
 Charles James Davidson (C); Madison
 Lawrence Roy Davidson (C&A);
 Manhattan

SOPHOMORES—Continued

- Barbara Davis (PE); Holton
 Chester McLean Davis (ME); Holton
 Irma Simpson Davis (HE); Manhattan
 Chester Raymond Dawson (C); Russell
 Dorothy Dean (GS); Manhattan
 John G. Dean (Ag); Baldwin
 Donald Pitman Deibler (IC); Manhattan
 Sara Louise DeLay (Ar); Parsons
 LaRue Eldred Delp (CE); Lenora
 Joseph Ellis DeSpain (IJ); Independence
 Jean Frances DeYoung (HE&A);
 Manhattan
 Virgil Barnard Dial (ME); Topeka
 Clarence Eugene Dickson (CE);
 Manhattan
 Roger Stephen Dildine (IC); Delphos
 Millard Fay Dilsaver (AE); Athol
 Darold Ardale Dodge (AA); Dighton
 Mildred Faith Dodge (HE); Manhattan
 Theodore Orice Dodge (C&A); Dighton
 Bertrand William Doran (AA-1; AE-2);
 Macksville
 Raymond James Dorman (ME);
 Centralia
 William Earl Doty (Ar); Manhattan
 Mary Agnes Doverspike (HE&N);
 Cottonwood Falls
 Merle Edward Dowd (IJ); Wellington
 Stanley James Dowds (VM); St. George
 Merrill Edward Downer (C); Manhattan
 Helen Amelia Droll (MuE); Alta Vista
 Yale Druley (VM); Muncie
 Wilbert William Duitsman (AA);
 Washington
 *Gus Adolph Dumler (CE); Dodge City
 Grace Helen Dunlap (HE); Manhattan
 Iona Marie Dunlap (MuE); Manhattan
 Kirk A. Dutton (GS); Harlan
 Walter Elsworth Dwy (CE);
 Waterbury, Conn.
 John Page Earle (AA); Washington
 Mildred Lucille Ebright (HE); Colby
 Myrton Talmadge Ebright (ME); Lyons
 Joe A. Eckart (MI); Topeka
 Elizabeth Maxine Eddy (HE); Dover
 *Thomas Richard Edgerton (GS); Iola
 Robert Joseph Edwards (GS); Jewell
 William C. Edwards (AA); Jewell
 John Wallace Elling (MI); Manhattan
 *Mary Estelle Elliott (HE); Winfield
 *William Dean Elliott (Ag); Elmo
 *Forest Dee Ellis (ME); Garden City
 Orin Ellgene Ellis (VM); Phillipsburg
 Othal Floyd Else (C); Hollenberg
 *Robert Allen Elwell (ME); Kansas City
 Martha Elnora Emery (HE&A);
 Manhattan
 Harold Edward Engle (GS); Manhattan
 Burt Walter English (VM); Manhattan
 John Henry Eppard (ChE); Kansas City
 Carl Frederick Erickson (VM); Aurora
 *Aren Lamar Eshelman (EE); Abilene
 *James Irvin Evans (ME); Gove
 Richard Cameron Evenson (EE); Claffin
 Harold LeMoine Ewert (ME); Peabody
 Clair Eugene Ewing (CE); Blue Rapids
 Doris Muriel Ewing (C); Sabetha
 *Lottie Caroline Ewing (HE); El Dorado
 John Madison Eyer (EE); Larned
 Margaret Jeannette Eyer (C); Larned
 Paul Fagler (PE); Uniontown, Pa.
 Gustave Edmund Fairbanks (AE);
 Mayetta
 Lyle Willis Falkenrich (ME); Manhattan
 James Madison Fallis (ChE); Luray
 Frank Webster Farley, Jr. (AA);
 Kansas City
 Arthur Anthony Farrell (C); Manhattan
 Marjory James Farrell (GS); Clay Center
 Leora Aliene Fend (C); Haddam
 Robert Clayton Ferris (AA); Conway
 *Claribel Fessenden (HE); Paola
 *Mary Helen Filley (IM&D);
 Kansas City, Mo.
 Marjorie Katherine Fish (IJ); La Crosse
 Betty Lou Fisher (HE&J); Manhattan
 Dean Lewis Fisher (CE); Mankato
 Roy Mac Fisher (IJ); Mankato
 George Howard Fittell (MI); Beloit
 *Mary Helen Fitzgerald (C); Wamego
 Truman Brandon Fleener (VM);
 Tulsa, Okla.
 Margery Anne Floersch (IJ); Manhattan
 Georgia Elizabeth Foltz (HE); Wakarusa
 *Wilbert John Foos (ChE); Garden City
 Marie Annette Forceman (HE); Vliets
 James Robert Foster (AA); Effingham
 John Cotterill Foster (Ar); Manhattan
 *Robert Clare Foulston, Jr. (AA); Wichita
 *Paul Edwin Fowler (Ag); Independence
 *William Larry Fowler (CE); Wakeeney
 Harold Robert Fox (AA); Rozel
 William Henry Frederick (EE); Sterling
 R. Grant Freeman (AE); Tonganoxie
 Wm. B. Freeman (ChE); Manhattan
 *George W. French (AE); Augusta
 Clarence Albert Frese (AE); Hoyt
 *James Phillip Frick (ME); Kansas City
 Francis Loyd Friedli (MI); Roscoe, Ohio
 *LeRoy Frank Fry (AA); Little River
 William Borland Fullerton, Jr. (Ar);
 Independence, Mo.
 Paul Louis Furbeck (AE); Larned
 Janis Leigh Gainey (GS); Manhattan
 Phil McNabb Gainey (EE); Manhattan
 Chester Wilson Gantz (AA); Nickerson
 Frederick James Gardner (Ar);
 Belvidere, N. J.
 Clement Garrelts (CE); McPherson
 *Charles Clay Gatewood (GS);
 Wellington
 Ann Willis Gaumer (HE); Manhattan
 William Burris Geery (ME); McPherson
 Ruth Adelaide Getty (GS); Winchester
 Helen Jean Gibbs (IJ); Kincaid
 Guy Edgar Gibson, Jr. (CE); Kensington
 Elvin Vance Giddings (CE); Utica
 *Paul Gilbert, Jr. (CE); Pawnee Rock
 Frank Glendon Gillett (VM); Wichita
 Donald Thomas Gist (Ar); Manhattan
 Mae Florence Glanville (HE&N);
 Cottonwood Falls
 William Jack Glover (C); Syracuse
 George William Godfrey (CE); Haven
 James Leroy Gould (C); Manhattan
 *Virgil Leo Grace (C); Topeka
 Henry Clifford Graefe (VM); Elwood
 Twylah Felice Grandfield (HE);
 Manhattan
 Madalene Mildred Graves (IM&D);
 Clifton
 Harold Ellsworth Gray (AE);
 North Stonington, Conn.
 *Mary Alexandra Gray (HE); Topeka
 Richard Loy Gray (C); Wichita
 Gaylord George Green (Ag); Whiting
 Gordon Charles Green (Ag); Whiting
 Max Leon Greenberg (VM);
 Camden, N. J.
 Murray Greensaft (VM); Belmar, N. J.
 *Dorothy Helen Greeson (GS); Partridge
 *Ivan Charles Griswold (IJ); Marysville
 Eugenia Louise Grob (HE); Randolph
 John Jacob Groody (GS); Manhattan
 Ralph Lewis Gross (Ag); Oakley
 Raymond Harry Groth (IC); Bushton

* Matriculated 1937-'38.

SOPHOMORES—Continued

- Vernon Preston Grove (ChE); Abilene
 Melvin Ferdanand Gruber (Ag); Hope
 Frank Whaley Gudgell (C); Manhattan
 Alice Ruth Gulick (HE); Olathe
 Ralph Edward Guyton (C); Salina
 Dorothy Elizabeth Hacker (HE); Pratt
 Elmer Loyd Hackney (PE); Oberlin
 Ernest Don Hadsell (IJ); Manhattan
 William Edward Haggard (Ag); Herington
 *Lucille Belle Haley (PE);
 Kansas City, Mo.
 Lester James Hall (EE); Salina
 Marjorie Hall (IJ); Rockford, Ill.
 Glenn C. Halver (VM); Crane, Mont.
 Charles William Ham (C); Manhattan
 Roy Carol Hamilton (ME); Topeka
 Ruth Helen Hammel (GS); Clay Center
 Florence Marie Hammett (HE);
 Manhattan
 James Russell Hammitt (C&A);
 St. John
 Paul V. Hannah (ME); Osborne
 Warren Thomas Hanne (IJ); Bucklin
 Frederick William Hansen (VM);
 Pelican Rapids, Minn.
 Theodore Otto Hanson (Ag);
 White River, S. Dak.
 Rose Eileen Harman (HE&N);
 Indianapolis, Ind.
 *Theron Banco Harmon (C); Arkansas City
 Isaac Keith Harrison (AA); Ottawa
 Everett Erskine Haskell (Ag); Topeka
 Gilbert Marri Hassur (GS); Hanover
 Phyllis Lee Havener (HE); Abilene
 Albert Leo Havlik (VM); Tampa
 *Robert Edward Hays (ArE); Topeka
 Robert Graham Hazell (Ar);
 Kansas City, Mo.
 Howard Gene Hazen (EE); Preston
 Carl Mather Heaton (C); Larned
 *Frank Conrad Hefner (ME-1; C-2);
 Gove
 Richard William Heikes (Ag); Wakefield
 *Charles Eldon Heitz (ME); Fort Scott
 *Dorothy Mary Henderson (HE);
 Bloomington, Neb.
 Lucille Nina Hennigh (IJ); Sabetha
 Albert Raymond Henry (C); Salina
 George Henry Hervey (EE); Hays
 Frederick Allen Heskett (C); Alton, Ill.
 *John Emmett Hesselbarth (ME);
 Abilene
 Harold William Hetzler (ME); Onaga
 *Edith Hewitt (HE); Pleasanton
 Betty Jane Higdon (HE&J); Goodland
 Marjorie Higgins (Ag); Linn
 Marion Ralph Hildman (IJ); Topeka
 Halsey Hines (ME); Salina
 Marcella Genevieve Hobbie (GS-1;
 HE-2); Tipton
 Edward Vaughn Hobbs (ME);
 Manhattan
 *Belle Arvice Hoffman (IM&D); Hope
 Elwin Dean Hoffman (C); Hope
 Charles Edwin Hofmann (VM);
 Manhattan
 Albert Sidney Holbert (ChE-1; GS-2);
 Newton
 *Russell Raymond Helem (ME);
 El Dorado
 Royal George Deitrich Holl (Ag);
 Lincoln
 Charles Harris Holm (AA); Dwight
 Helen Marie Holm (IM&D); Dwight
 Frances Elizabeth Holman (SH);
 Leavenworth
 Helen Elizabeth Hood (HE&J); Salina
 Raymond Hook (ME); Osborne
 Raymond Wells Hopkins (ME);
 River Forest, Ill.
 Alfred Joseph Horn (ME); Horton
 *Dawn Lorraine Hornbaker (IM&D);
 Artesia, N. Mex.
 Gladys Mirriam Hostinsky (HE); Cuba
 Iola Verna Houdek (HE); Cuba
 James Lynn Hourrigan (VM); Langdon
 Horton Kent Howard (VM);
 Canton, N. Y.
 *Walter Roy Howat (Ag); Codell
 Blanche Margaret Howe (C&A); Stockdale
 Katheryn Meda Howell (HE); Marysville
 Howard McCune Hughes (Ag); Formoso
 Dena Everett Huitt (AE); Talmage
 Wilma Vivian Humbert (C); Danville
 *Alice Claire Hummel (IJ); Kanapolis
 Billie Dee Hunt (HE); Boone, Iowa
 Louise Grace Hunt (HE); Blue Rapids
 Thomas Conrad Hutcherson (C);
 Manhattan
 Ann Estella Hutter (HE); Neodesha
 Marjorie Bernice Hutton (HE&N); Beloit
 Jean Maxine Idol (IJ); Kansas City
 Lucille Opal Ifland (HE); Gaylord
 Gerald Howard Ingraham (IC);
 Manhattan
 Margaret Edith Iverson (HE);
 Wilmette, Ill.
 Richard Alonzo Jaccard (Ag); Manhattan
 Clifton Edward Jackson (AA); Elmore
 John James Jackson (PE); Eureka
 Mildred Charolette Jackson (HE&A);
 Reece
 Marie Jaedicke (HE&A); Hanover
 Harold Rolland Jaeger (Ag); Vesper
 Harvey James (AE); Emporia
 Lawrence F. Jarvis (C&A); Winfield
 Morgan Knott Jarvis (VM);
 Minden, Nev.
 Elizabeth Ann Jenkins (HE); Wamego
 *Grace Gladys Jenkins (HE); Jewell
 *Jack Baker Jenkins, Jr. (C); Topeka
 Ross Lyman Jewell (VM); Irving
 Howard Johnson, Jr. (Ag); Manhattan
 Kenneth Lowell Johnson (VM);
 Fresno, Cal.
 Martha Josephine Johnson (HE);
 Simpson
 Ruth Ella Johnston (MuE); Remsen, Iowa
 Helen Henrietta Johnstone (PE);
 Wamego
 *Robert Fones Johntz (ME);
 Winston-Salem, N. C.
 Marjorie Jane Jolly (HE); Wichita
 *Betty Jean Jones (IM&D); Bigelow
 Elgie Gerald Jones (Ag); Tonganoxie
 Harold Eugene Jones (Ag); Concordia
 Robert Harry Joyce (AE); Ulysses
 *Margaret Louise Kagarice (IM&D);
 Hutchinson
 Jean Margaret Kallenberger (IM&D);
 Edna
 *John William Kane (Ar); Topeka
 *Allys Joe Kasten (GS); Washington, D. C.
 Robert Landis Kauffman (ArE-1; C-2);
 Salina
 Eldon C. Kaup (MuE); Holton
 Bill Alpheus Keast (ME); Larned
 Charles Alvin Kennedy (Ag); Kansas City
 Chester Hennesay Kennedy (VM); Chase
 Francis Maxwell Kennedy (VM); Lawrence
 William Thomas Keogh (ChE);
 New York, N. Y.
 Osborn Arthur Kershner (ME); Paola
 Jean Elizabeth Kessler (IM&D);
 Excelsior Springs, Mo.
 George Wendell Kilian (EE); Detroit

SOPHOMORES—Continued

- Kent Kilmer (IA); Belle Plaine
 Perle Everett Kimball (VM); Eskridge
 Mildred King (GS); Minneola
 *Muriel Ruth King (HE&A); Ottawa
 *Robert Glenn King (C); Hutchinson
 Ronald Bishop King (Ag); Manhattan
 *Virginia Lee King (IM&D);
 Kansas City, Mo.
 Jane Elizabeth Kininmonth (M);
 Winfield
 Donald Benton Kinkaid (AA);
 Medicine Lodge
 John Wallace Kirkbride (Ag);
 Medicine Lodge
 Wesley Charles Kirschner (Ag); Humboldt
 Roy Wilber Kiser (Ag); Manhattan
 George William Kleier (Ag); Oxford
 *Donald A. Kliesen (Ag); Dodge City
 Olga Alma Knapp (HE); Topeka
 Karl Knoche (VM); Adrian, Minn.
 Hildegard Charlotte Knopp (IM&D);
 Kansas City
 *Henry A. Kropf (CE); Arkansas City
 Glenn Homer Kruse (AA); Morrill
 Roland Andrew Kruse (Ag); Barnes
 Elward Earl Kunze (MI); Garrison
 Henry Fred Kupfer (SH);
 Kansas City, Mo.
 Robert Glenn Lake (EE); Lake City
 Eleanor Jane Lambert (GS); Hiawatha
 *Oliver Diston Lambirth (ME);
 Elida, N. Mex.
 *Annie Gertrude Lancaster (HE&N);
 Hutchinson
 Albert Elwood Land (IJ); Chanute
 Chris William Langvardt (AA); Alta Vista
 *Robert Byron Lank (AH&V); Kansas City
 Elsie Marie Laue (HE); Lyndon
 Oliver Ned Laurie (EE); Mulvane
 Sidney Jean Lawson (C&A); Sylvan Grove
 Gwendolyn Lucille Lee (GS); Lyons
 Russell Arden LeLeper (VM); Argos, Ind.
 Ernest Wayne Leive (EE); Brookville
 *Dorothea Leland (HE); Manhattan
 Dorothy Merle Lerew (HE); Portis
 Chester Lessenden (GS); Downs
 Max Clarence Leuze (EE); Sabetha
 Carol Byron Lewis (ArE); Salina
 Richard Leon Lewis (MI); Mansfield, Ohio
 Alvina Freida Licht (HE); Ludell
 Ethel Iona Lienhardt (IM&D);
 Manhattan
 Jane Watt Liesenberg (GS);
 Kansas City, Mo.
 Gordon Grigsby Lill (GS); Mount Hope
 Leon Rhinehall Lind (GS); Manhattan
 Charles Ashcom Lindsay (IJ);
 Junction City
 *Freda Ellen Lipper (HE&J); Sterling
 *Ralph Iden Lipper (ArE-1; Ag-2);
 Sterling
 Robert Hewson Lister (CE); Ottawa
 William Allen Ljungdahl (Ag); Menlo
 *Bruno F. Loewen (EE); Newton
 *Wilbert Lloyd Loewen (CE); Goessel
 Dorothy M. Lohmeyer (HE); Halstead
 Harry Wilbur Longberg (AA); Soldier
 Robert Kirkwood Loomis (C);
 Shaker Heights, Ohio
 Calvin Frederic Lorentz (CE); Fredonia
 Paul Torrence Loyd (VM);
 Valley Center
 *Harley Eugene Lucas (CE); Dearing
 Charles Clarence Lucy (EE); Wichita
 *Virginia Ethel Lupfer (GS); Larned
 Glen Wilson Lytle (CE); Narka
 *Margaret Eva McAllister (IM&D);
 Garden City
 Beryle Elizabeth McCammon (IJ); Esbon
 Marjorie Loretta McCaslin (GS);
 Manhattan
 Donald Irvine McCoy (AA); Manhattan
 John Henry McCoy (AA); Manhattan
 *Raedine McCulley (HE); Iola
 Delbert Earl McCune (Ag); Stafford
 Lowell Elvis McCutchen (PE); Kingman
 Leo Melvin McIlvain (ChE);
 Smith Center
 Dorothy Lucille McIntosh (GS); Palmer
 Robert Glenn McKay (ME); Winfield
 Everett James McKee (Ag);
 Manlius, N. Y.
 Wanda Marie McKeeman (GS);
 Manhattan
 George Nolan McKenzie (AA); Solomon
 Carrie McLain (HE); Kansas City
 Gerald Orestes McMaster (AA); Eskridge
 *Homer Eldon McQueen (IA);
 Baxter Springs
 Marcel Dale McVay (Ag); Sterling
 Helen Frances Macan (HE); Edwardsville
 Robert MacDonald (VM);
 Newburgh, N. Y.
 Julius Henry Mai (C&A); Tribune
 *Donald Regis Makin (IJ); Abilene
 Richard Merrill Mall (IJ); Manhattan
 Walter Farrel Maninger (VM); Harper
 Lester Duane Marcum (EE); Manhattan
 Gordon John Marold (VM);
 Saguache, Colo.
 *Harry Eugene Martin (ChE); Herington
 *Maribelle Martin (IM&D); Kinsley
 Maxine Jean Martin (IJ); Manhattan
 *Ruth Eleanor Martin (HE);
 Kansas City, Mo.
 Walter Woodrow Martin (IJ); Pratt
 Grace Elizabeth Mather (HE); Grinnell
 Carl Eugene Mathias (ME); Colby
 Kenneth William Matthews (CE);
 Mullinville
 Betty Lou Maupin (HE); Silver Lake
 John Stephen Maurer (ME); Winfield
 *Howard Bernhardt May (SH); York, Neb.
 Thurmon Adrian Mayhew (GS);
 Trousdale
 *William Arthur Meade (EE); Moline
 Jeanne Eloise Meadows (GS); Gaylord
 Robert Frank Mears (SH); Kansas City
 Henry John Meenen (GS-1; AA-2);
 Clifton
 *Joseph Eugene Meier (C&A); Clay Center
 Raymond Meisenheimer (EE); Hiawatha
 *Ethel Marie Melia (IM&D); Ford
 George Athelston Mellard (ME); Russell
 Vincent William Merrifield (AA); Agra
 Roy Leonard Mesenbrink (VM);
 St. Louis, Mo.
 Carroll Louise Meyer (HE&A);
 Ft. Leavenworth
 Margaret Louise Meyer (HE&A); Jewell
 Virginia Roget Meyer (HE&A);
 Ft. Leavenworth
 Davis Francis Mickey (CE); Junction City
 William Christopher Mierau (ChE);
 Wichita
 Abbie Maurine Miller (HE&J); Agra
 Anna Marie Miller (MuE); Salina
 *Ernest William Miller (CE); Independence
 Robert Dunlap Miller (ChE);
 Junction City
 *Walter Karl Miller (ME); Dodge City
 Alden Borthwick Miner (EE); Ness City
 Albert Peter Mitchell (VM); Osborne
 *Dale Leon Mitchelson (Ag);
 Baxter Springs
 Charles Adam Mohr (Ag); Tulsa, Okla.

* Matriculated 1937-'38.

SOPHOMORES—Continued

- Mary Margaret Mohr (HE); Tulsa, Okla.
 Lucille Eleanor Mollhagen (HE);
 Frederick
 Charles Carson Moore (VM); Louisburg
 Helen Mae Moore (HE); Whitewater
 John William Moore (Ag); Olathe
 Virgil Fred Morford (Ag); Olsburg
 Gladys Marie Morgan (HE); Howard
 *Patrick Exum Morgan (ME); Wichita
 Vera Lorene Morgan (HE); Hugoton
 Wayne Delos Morgan (Ag); Ottawa
 Manuel Morris (Ar); Kansas City
 Margery Byrl Morris (IM&D); Topeka
 Park Lawrence Morse (ChE); Emporia
 Ronald Morton (Ag); Green
 Robert Clark Mossman (AH&V);
 Manhattan
 Leonard Housden Moulden (GS);
 Manhattan
 *Robert Adair Moulthrop (ME);
 Kansas City, Mo.
 William Scott Mowrey (EE); Luray
 Robert Lee Mueller (ChE); Anthony
 William Lloyd Muir (C&A); Norton
 Martha Jean Mullen (HE); Manhattan
 William Minor Murfin (IC); Fort Scott
 Claude Franklin Murphy (VM);
 Conway Springs
 *Robert Carl Murphy (IC); Minneapolis
 Robert Howard Musser (Ag);
 Des Moines, Iowa
 Ellsworth Dale Mustoe (Ag); Rexford
 John Alvin Myers (ME); Edgerton
 Willis Roy Myers (C); Abilene
 Evelyn Victoria Nagel (HE); Wichita
 *Winifred Gene Needles (IM&D); Salina
 *Betty Neill (MuE); Clay Center
 James Thomas Neill (Ag); Miltonvale
 Glenn Russell Nelson (CE); McPherson
 Junior Andrew Nelson (MuE); Gypsum
 Willard Dean Nelson (MI); Haddam
 Anna Mae Nemecek (HE); Abilene
 Rex Alan Neubauer (C); Manhattan
 *Sheryl Arthur Nicholas (Ag); La Harpe
 William Phillip Nichols (PE); Waterville
 Chester Dale Nielson (C); Manhattan
 Albert Louis Niemoller (ME); Wakefield
 Mildred Elsie Nipper (GS);
 Jefferson, Okla.
 *Theo Beatrice Nix (IJ); Kansas City, Mo.
 *James Ancil Nixon (ME); Eureka
 Paul Richard Noller (VM); Mankato
 Pearl Signe Jane Norberg (GS);
 Junction City
 Avery Albert Norlin (ME); McCracken
 John Patrick Nulty (ME); Jewell
 Alice Gretchen Oberhelman (C);
 Randolph
 George Hurbert O'Brien (ME); Iola
 Marvin Alvin Ochsner (MI); Tribune
 LaVerne Maurice Odden (MI);
 Buffalo, N. Y.
 Berlene Doris Oelschlaeger (HE);
 Enterprise
 *Jewell Martin Ogden (GS); Frederick
 Barbara Maria Okerberg (IM&D);
 Ottawa
 Angela Lillian Oliva (HE); Kensington
 *Earl Laverne Olson (IC); Elsmore
 William Henry Onstott (ME); Highland
 Max Charles Opperman (EE-1; C-2);
 Yates Center
 Arlene Octavia Orme (HE); Kansas City
 *Barbara Lucile Osborn (HE&A);
 Medicine Lodge
 Miriam Sophia Ostlund (HE);
 Washington
 Dorothy Frances Ott (GS); Wichita
 *Carolyn Jane Overholt (HE);
 Milwaukee, Wis.
 Margaret Louise Owen (HE); Edson
 Walter Clyde Owen (C); Council Grove
 Carroll Dean Owensby (ChE); Manhattan
 Robert Monroe Owensby (ME);
 Manhattan
 Everett E. Oyster (Ag); Paola
 Donald Solon Paddleford (C); Manhattan
 *Mary Anne Pafford (GS); Salina
 Corliss Athol Paramore (Ag); Delphos
 Rex Lewis Parcels (EE); Hiawatha
 Rosemary Parisa (HE&A); Lansing
 Kenneth Frederick Parsons (Ag);
 Manhattan
 Irene Kathryn Patterson (IJ); Clifton
 Kent Leonard Patton (AA); Chase
 L. Bruce Patton (EE); Solomon
 Roy Junior Payne (GS); Manhattan
 James Russell Peddicord (AA); Belvue
 *Keith Pohl Pendergraft (AE); Emporia
 Grace Pennington (MuE); Manhattan
 Viola Anna Peter (HE); Manhattan
 Joseph Courtney Peterka (C); Wilson
 Gladys Alberta Peterson (HE); Garrison
 Harvey Lee Peterson (Ag); Wellington
 Helen Isabel Peterson (GS); Howard
 Melvin Raymond Peterson (Ag); Riley
 Ralph Edward Peterson (GS); Manhattan
 Carl Lea Pettyjohn (IC); Talmo
 *Eugene Henry Pfeil (EE); Parsons
 Boyd D. Phillips (Ag); Sedgwick
 Paul Edward Phillips (VM); Ottawa
 Robert Alfred Phillips (EE);
 Independence, Mo.
 Buford Doyle Philpy (VM); Manhattan
 Gerald E. Pierce (AA); Garrison
 Mavis Lucille Plattner (MuE); Sabetha
 Melvin Clark Poland (AA); Barnes
 *Maurine Pollom (HE&A); Manhattan
 Charles Grant Pooler (ME); Beloit
 Kathleen Mary Porter (HE); Stafford
 Kenneth Boyd Porter (Ag); Stafford
 *Leland Cyril Porter (CE); Dellvale
 Clarence Arthur Powers (ME); Alta Vista
 Kenneth Herbert Praeger (AA); Claflin
 Frank Robinson Prentice (EE);
 Clay Center
 Glenn Emerson Pribbeno (ME);
 Sharon Springs
 Donald Calvin Pricer (MuE); Hill City
 *Marvin Andrew Pringle (ME); Eskridge
 *Lawrence Elwin Proffitt (AA); Chase
 Rhoda Putzig (HE&A); Sylvan Grove
 Virgil Lyle Pyke (C&A); Enterprise
 Robert Howard Pyle (ME); Wellington
 *Hontas Quarles (IM&D); Claremont, Cal.
 Vassar Edwin Rackley (Ag); Pelham, Ga.
 Rolla Glenn Raines (AA); Manhattan
 Clee Chester Ralston (Ag); Wichita
 Charles Winston Ramey (C); Protection
 *Eleanor Isabelle Rand (IJ); Kansas City
 Kenneth Willard Randall (CE); Haddam
 Laura Virginia Randall (HE); Ashland
 William Harvey Rankin (C); Idana
 John Parke Ransom (ME); Homewood
 Wilbur Abe Rawson (AA); Wamego
 Virginia Ray (HE); Kansas City
 *Florence Arline Raynesford (HE); Salina
 Lucy Josephine Reader (HE); Sterling
 Eric Leroy Reardon (ME-1; C&A-2);
 Minneapolis
 Ralph William Reb (AE); Frankfort
 Matthew Allen Reeder (GS); Sabetha
 Earl Llwyn Redfield (GS); Bucklin
 Joseph James Redmond (EE); Lillis

* Matriculated 1937-'38.

SOPHOMORES—Continued

- *Donald Albert Reed (SH); Greensburg
Thomas Morse Reed (AE-1; AA-2);
Circleville
Harlan Edward Rees (EE); Beloit
*Lois Vivian Reeves (HE); Almena
Ervin Ellis Reid (GS); Manhattan
Ralph Emery Reitz (C&A); Shady Bend
*Mathilda Rempel (HE); Hillsboro
Leon Merle Reynard (PE); Topeka
Helene Margaret Richards (HE&A);
Manhattan
Elizabeth Richardson (HE); Cawker City
Harriett Frances Richardson (HE);
Oswego
Maxine LaJune Richardson (PE);
Sharon Springs
*Claire Rickenbacker (MuE); Turlock, Cal.
James Otto Ridenour (ME); Moscow
Merton Alvin Rietzke (AE);
Kensington
Lawrence Edward Roberts (Ar); Morrill
Joseph Edmond Robertson (MI);
Brownstown, Ind.
Edwin Twiss Robinson (ME);
Independence
Walter Stuart Robinson (Ag);
Nashville
Bernice Robson (IM&D); Abilene
Carl Robert Roehat (IJ); Wiley
Robert Max Roelfs (GS); Bushton
Elmer Rollings, Jr. (ChE); Manhattan
Gwendolyn Frances Romine (IJ); Abilene
Frank Pletcher Root, Jr. (IC);
Manhattan
Martha Barbara Roots (HE&N);
Manhattan
Russel Leon Rose (ME); Kiowa
Nathan Matthew Rosenbaum (VM);
Yonkers, N. Y.
Stephen Francis Rosner (VM);
Bucyrus
William Rosner (VM); Philadelphia, Pa.
James Eddy Rousey (EE); Horton
Brace Donald Rowley (Ag); La Cygne
*Paul Jay Ruckel, Jr. (ChE);
Arkansas City
Orel Dale Rundle (IM&D); Axtell
Irene Emabelle Rush (HE); Neodesha
William Roy Sachse (CE); Lowmont
William Woodrow Sams (MI); Culver
Ralph Emanuel Samuelson (ChE);
Manhattan
*Arthur William Sanderson (ChE);
Arkansas City
Norris Elwood Sayre (CE); Ensign
Walter Schanfeldt, Jr. (IJ); Cimarron
*Paul Crowder Scheer (SH); Merriam
*Donald Schein (GS); Minneapolis, Minn.
Marcine Elizabeth Scheurer (M); Gypsum
*George Walter Schiller (IC); Frankfort
Francis Noel Schlaegel (VM); Olsburg
*Donald George Schmidt (C); Lorraine
*Ethel Florence Schmidt (HE); Elbing
Winston Albert Schmidt (CE); Lyons
Anna Martha Scholz (HE); Huron
Marc Marion Schowalter (ChE);
Halstead
Alice LaVerne Schroeder (HE); Lorraine
Genevieve Eleanor Schroer (IM&D);
Manhattan
George Davis Schumacher (ME); Lyons
Ralph Eugene Schumacher (AA); Jewell
Harold Edward Schwartz, Jr. (ME);
Wichita
Vincent Joseph Schweiger (VM); Lenexa
Myron Carl Scott (C); Newton
Velma F. Scritchfield (C); Westmoreland
*Cleo Marie Sealey (HE&A); Hutchinson
Melvin Harry Seelye (PE); Fort Scott
Edward Frank Sefeik (ME); Cuba
*Henry Martin Seglem (C); El Dorado
William Bain Sellers (ME); Winfield
Ruby Juanita Shamburg (HE);
Scottsville
John Alden Shaver (Ar); Salina
*John Alex Shaw (Ag); Joes, Colo.
William Dean Shearer (MI); Abilene
*Aline Bernice Sheeley (HE); Emporia
Jo Shely (IJ); Fort Leavenworth
*Tasker Bryan Sherrill (GS); Republic
Marvin Roy Shetlar (IC); Bayard
Robert Nurman Shoffner (AA);
Junction City
*Francis Benjamin Shoup (Ag); Udall
George William Shrack (C); Pratt
Harold Klager Shroff (Ar); Concordia
Luther Paul Shuck (ME); Haviland
*Frank Everett Sicks (PE);
Okmulgee, Okla.
Ernest Christian Sieder (ME);
Schenectady, N. Y.
Luella Velva Siek (HE); Hope
Jennings Wilson Sigley (ME); Canton
Ernest Harold Simpson (Ag);
Conway Springs
Mary Margaret Simpson (HE); Barnard
*Virgil Leonard Simpson (ChE); Towanda
Walter Turner Singleton (ME); Tribune
*Damaris Irene Sipes (HE); Neosho Falls
Lenoir Delight Sjogren (IM&D);
Marquette
Ralph Murray Skinner (C); Topeka
*Don Hayes Sloan (Ag); Hutchinson
Fred Victor Small (Ar); Kansas City
Norma Marie Smedley (HE); Kensington
Milan William Smerchek (Ag); Topeka
Agnes Marie Smith (HE); Fredonia
Clarence Paul Smith (ChE); Marysville
Doris Maurine Smith (HE); Atlanta
*Evelyn Avery Smith (HE); Salina
Josephine Frances Smith (HE&A); Chase
Reba Isabel Smith (HE); McFarland
Roscoe Tracy Smith (IJ); El Dorado
William Edgerly Smith (VM);
Fowler, Cal.
Virgil Henry Smyth (ArE); Winfield
Charles Henry Snider (VM);
St. Louis, Ill.
James Wilmeth Speers (MI); Haddam
Ralph Norman Spencer (Ag);
Leavenworth
Roger Guy Spencer (VM); Whiting
William Ernest Spencer (ME);
Concordia
Kenneth Earl Spring (GS); Sabetha
Charles Willis Stafford (GS); Republic
Beverly David Stagg (Ag); Manhattan
Raymond William Stanzel (VM);
La Harpe
Lloyd Arnold Starkweather (C&A);
Clay Center
Allen Edward Starosta (AA); Pomona
Merwin Milton Stearns (AA); Haddam
Herbert Carl Steinhausen (AH&V);
Omaha, Neb.
Evelyn Lucille Stener (GS); Courtland
George Stevens (Ag); Waterbury, Conn.
Chester Adelbert Stewart (EE); Olathe
Raymond Stewart (AA); Manhattan
Robert Paul Stewart (CE); Coldwater
Vivian Lorraine Stewart (IM&D);
Hartford
William Francis Stewart (MI);
Saffordville

SOPHOMORES—Continued

- Arthur Stiebe (Ag); Rozel
 Harry Wayne Stockhoff (ChE);
 White Church
 Harry James Stockman (ME); Wichita
 Melvin Andrew Stoner (GS); Edson
 *Enid Lorraine Stoops (HE); Sawyer
 Arthur Emerson Stoskopf (ME);
 Hoisington
 Warren Wallace St. Pierre (EE); Ames
 George Emil Straten (C&A);
 Overland Park
 Dorothea Mae Stratton (MuE);
 Manhattan
 *Virginia Elizabeth Stratton (HE);
 Minneapolis
 Joseph Jacob Straub (AA); Wathena
 Arliss Evelyn Stringer (C); Goddard
 *Alvan Edlund Stubbs (IA); Wichita
 Keith Philip Studer (Ag); Atwood
 Margaret Carroll Stuewe (HE&J); Alma
 Henry Woodrow Stull (AA); Alton
 *Theodore William Suberkropp (ME);
 Kansas City
 Swanna Lee Suits (IM&D); Odessa, Mo.
 Edward Ethelbert Sullivan (MuE);
 Wichita
 Robert Edward Summers (IJ);
 Manhattan
 Roy William Swafford (IJ); Topeka
 Robert Vernon Swanson (C);
 Waterbury, Conn.
 Ralph Wilson Swearingen (EE);
 Courtland
 Linn Meredith Swenson (EE);
 Council Grove
 Eldon Derry Swing (EE); Wichita
 Fred Scudder Talbot (AA); Manhattan
 Raymond Shields Tanner (AA); St. John
 *Waldo Tate (Ag); Powhattan
 *Howard Robert Taylor (EE); Fall River
 Melvin Elmer Taylor (C); Clifton
 *Richard Helman Taylor (Ag); Wichita
 Scott Manson Taylor (C); Chetopa
 Robert Lansdowne Teeter (ChE);
 McPherson
 Morgan William Temporo (VM);
 Clay Center
 Allis Margaret Terrell (IM&D); Eudora
 Donald Bland Thackrey (IJ);
 Camden, Ark.
 *Elnora Jane Thomas (HE); Salina
 Daniel Max Thompson (MuE); Almena
 Robert Sanders Thornburrow (Ar);
 Wetmore
 *Celeste Jane Throckmorton (HE);
 Manhattan
 Orval Elmer Thrush (Ag); Wakefield
 Robert John Tindall (C); Lakin
 Helen Tipton (IM&D); Paola
 Hobart Tipton (ME); Paola
 Harold George Todd (AA); Longford
 James Gilles Tomson, Jr. (Ag);
 Wakarusa
 Rex Franklin Toomey (ChE); Neodesha
 Dean Eldon Toothaker (GS); Green
 Leland Mark Townsend (C);
 Junction City
 Mary Belle Trapp (HE); Waldo
 Raymond C. Trentman (GS);
 Manhattan
 *Lloyd Bryon Tribble (EE); Soldier
 Maynard James Trott, Jr. (CE); Topeka
 Harden Halleck Tubbs (ME);
 Wilburton
 *Marion Ruth Tucker (HE);
 Kansas City, Mo.
 Dorothy Ann Uhl (HE&A); Smith Center
 Harold Wertz Underhill, Jr. (ArE);
 Wichita
 John Lee Urquhart (MI); Wamego
 Jane LaVerne Utterback (HE);
 Yates Center
 Helen Louise Van Der Stelt (PE);
 Wakefield
 Glenn Benton Van Ness (VM);
 Harrison, Ark.
 Gerald Thomas Van Vleet (AE);
 Danbury, Neb.
 Loren Milford Vaught (Ag); Coats
 Mabel Henrietta Vautravers (HE); Milo
 Marie Melba Vesecky (IJ); Salina
 Victor Theodore Volsky (IJ);
 Pittsfield, Mass.
 William Wafler (CE); White City
 Miriam Lucile Wagaman (HE&A);
 Manhattan
 Howard Oscar Wagner, Jr. (C);
 Wellington
 Walter William Wagner (ME);
 Garden City
 Keith Bennett Wagoner (Ag);
 Blue Rapids
 Ralph John Wahrenbrock (ME);
 Enterprise
 Winston Walker (Ag); McPherson
 Joe Harrison Walser (CE); Manhattan
 James Ernest Walter (IC); Manhattan
 Edna Walters (IM&D); Vining
 Dixon Irving Wands (GS); Manhattan
 Evelyn Elnora Ward (HE); Langdon
 Verna May Ward (HE); St. Joseph, Mo.
 John Henderson Washburne (ME-1;
 C-2); Waterbury, Conn.
 Horace Cledus Watson (AA); Lake City
 Charles Harold Watt (AE); Harper
 *Faith Ella Watts (HE); Havensville
 Robert Earl Weatherholt (ME);
 Augusta
 Charles Elmer Webb, Jr. (ChE);
 Hill City
 Katherine Evelyn Weldon (HE);
 Smith Center
 Elvera Caroline Welk (HE); Pratt
 William Walter Wempe (AH&V);
 Frankfort
 Roma Mae Wenger (HE); Sabetha
 Carol Athene Wentz (GS); Concordia
 Glenn Arnold West (MI); Manhattan
 Arthur Wexler (IJ); New York, N. Y.
 Louis Monroe Wheeler (C); Plevna
 Alfred Marvin White (EE); Topeka
 James Robertson White (Ag);
 Burlington
 Charles Kenneth Whitehair (VM);
 Abilene
 Ray Murrell Whitenack (ChE);
 Manhattan
 Merle Ray Whitlock (Ag); Elmdale
 *Dean Duane Whitmore (Ag); Portis
 Robert Walter Wichser (MI);
 Beardstown, Ill.
 Ruby Ilene Wildman (HE); Manhattan
 Donald Keith Wilkin (EE); Nortonville
 Frances Mildred Wilkins (HE); Chapman
 Harold Luther Williams (EE);
 Council Grove
 *Anna Eileen Willis (HE); Newton
 Louise Joyce Willmeth (HE); Troy
 Alice Margaret Wilson (HE);
 New Cambria
 Evelyn Agnes Wilson (HE); Grantville
 George Edwin Wilson (IJ); Milford
 George Lincoln Wilson (ME); Fredonia

SOPHOMORES—*Concluded*

- Margaret Lucile Wilson (MuE);
Manhattan
Margaret Ruth Wilson (IJ); Topeka
Thomas Wesley Wilson (CE); Lincoln
Harold Leon Winter (CE); Dover
*Leslie Donald Wise (AA); Clearwater
Ronald Cameron Wishart (ME);
Manhattan
Leonard Charles Witt (VM);
Scribner, Neb.
Francis Bamford Woestemeyer (EE);
Bethel
Sylvester Harlan Womer (Ag); Bellaire
Keith Woodard (ME); Glen Elder
*Harry Michael Woolcott, Jr. (IC);
Harrisburg, Ill.
Frank Edward Woolf (PE); Wichita
Norma Geraldine Wunder (HE);
Valley Falls
Vera Lucille Wycoff (MuE); Norcatur
*George Woodrow Wylie (ME);
Arkansas City
James Edwin Yeagley (AA); Marion
Mack Yenzer (Ag); Saffordville
Dale J. Yokum (VM); Colony
Kenneth Morton Yoos (EE); Atwood
George Otis Young (CE); Centralia
*Norman Alfred Young (C&A);
Hutchinson
Doyle Leroy Youngs (EE); Norton
Nellie Leone Yount (HE&N); Bazine

FRESHMEN

- *Eugene Woodrow Abbott (GS);
Phillipsburg
*Harold Seth Abbott (CE); Hutchinson
Norman Floyd Abbott (EE);
Hutchinson
*Merrill Glee Abrahams (Ag); Wayne
*Warren Harlin Acker (ChE);
Junction City
*Charles Henry Adams (AA); Wilsey
*Dean Russell Adams (VM); Clyde
*James Otis Adams (CE); Eureka
*Raymond Voiles Adams, Jr. (EE-1;
GS-2); Manhattan
*Walter Alfred Adams (EE); Leavenworth
*Charles Warren Adcock (ME);
Ft. Leavenworth
*Donald Dwight Adee (PE); Wells
*Louis Fred Akers (PE); Atchison
*Wilfred John Alden (EE); Talmage
*Frank Powers Aldrich (ChE); Atchison
Thomas James Alexander (IJ);
Herington
*Eugene Rothwell Alford (AA); Lawrence
*Richard Carl Allen (EE); Carthage, Mo.
Ruth Elizabeth Allison (HE); Olathe
*Lueva Eleanor Alsop (HE-1; GS-2);
Wamego
*Enid Alene Altwegg (IJ); Junction City
*Loren Edward Amerine (EE); Great Bend
*Charles Cornelius Anderson (ME);
Emporia
*Cleo Wasson Anderson (AE); Dresden
*Eugene Elria Anderson (GS); Greenleaf
*Gene Carlyle Anderson (GS); Manhattan
*Howard Rowles Anderson (EE);
Partridge
*Milton Dale Anderson (ME); Sedan
*Samuel Thomas Anderson (Ag); Reading
*Wilfred Ira Anderson (CE); Clay Center
*Walter Glen Andrea (ME); Holyrood
*Chester Laroy Andres (EE); Newton
*Raymond Glenn Ankenman (EE);
Dellvale
*Mary Louise Arbuthnot (C&A); Haddam
*Robert Arbuthnot (Ag); Haddam
*George Rankin Armstrong (VM);
Gastonia, N. C.
*Oliver Wendell Armstrong (EE-1; C-2);
Mound Valley
*Beverly Junior Asher (ME); Stafford
Leon Lewis Ashton (C); Salina
*Merle James Ashton (GS); Salina
*Carl Edward Asmussen (IJ); Douglass
*Delmar Wallace Atchison (CE);
McPherson
*Richard Elton Atkins (Ag); Manhattan
*Leroy Nichols Atkinson (VM);
Hutchinson
*Ellita Bernice Atwell (HE); Utica
*Mark Donald Aumann (ME);
Arkansas City
*Dorothy Elizabeth Axcell (HE); Chanute
*John Henry Babcock (EE); Manhattan
*Merton Bierman Badenhop (AA);
Kensington
*Lawrence Roy Bain (VM); Pittsburg
*Mary Ann Bair (IJ); Manhattan
Mabel Marcine Baird (HE);
Arkansas City
*Margaret Lucille Baird (HE);
Wellington
*Maxine Grace Baker (MuE); Marysville
*Robert Glen Baker (ME); Burrton
*Maurice Ball (PVM);
Newport, R. I.
*William Deane Ballantyne (ME);
Enterprise
*Quentin Roosevelt Ballentine (IC);
Shawnee
*Earl Edward Balthazar (IJ);
Waterbury, Conn.
*Laurence William Bandt (ChE-1;
GS-2); Phillipsburg
*Jacob William Banks (ChE); Atchison
*Virginia Lee Barnard (IM&D); Belleville
*Willard James Barnes (MuE);
Morrowville
*Maida Levell Barnhart (PE); Fort Riley
*Jean Valjean Barrett (PE); Topeka
*Wallace DeArmond Barry (Ag);
Manhattan
*Clyde Jennings Bateman (ME);
Herington
*Willis Clarke Bateman (Ag); Herington
*Frank Alexander Bates (ME); Topeka
*George Bawden (GS-1; Ag-2);
New York City, N. Y.
*Fremont Harrison Baxter (CE); Larned
*Winifred Jean Bayer (HE); Manhattan
*Annabelle Bays (C&A); Onaga
*Edwin Howard Beach (IC); Marysville
*Eugene Kelly Beal (Ag); Silver Lake
*Harmond Paul Bear (Ag); Abilene
*Marcella Marie Beat (HE); Kingman
*Clarence August Bechtold (AA); Gaylord
Earle Joseph Beck (C);
Hainesburg, N. J.
*Lee Wilson Beck (PVM); Cushing, Okla.
*Maurice Wayne Beichley (C&A); Chase
*Rena Lauretta Bell (HE&N); McDonald
*William Perry Bell (EE); Silver Lake
*Wesley Gale Benda (AA); Achilles
*Welcome A. Bender (HE); Plains
*Bette Mary Benjamin (HE-1; IJ-2);
Nowata, Okla.
*James Gerald Benson (IA); Norcatur

* Matriculated 1937-'38.

FRESHMEN—Continued

- J. Marlin Benson (Ar); Topeka
 Kenneth Keith Berger (AA); Bucklin
 *Maurice Wittry Bergerhouse (C&A); Greeley
 *Minnie Josephine Bergsma (GS); Goodland
 James Grant Betts (VM); Randall
 *Clifford Duane Beyler (Ag); Harper
 Roy Thomas Bird (ME); Great Bend
 *Verne Emil Bistline (EE-1; C&A-2); Topeka
 *Jean Olivia Black (IM&D); Attica
 *Frances Blackert (GS-1; ChE-2); Marysville
 *Bettie Jane Blackman (HE&A); Tulsa, Okla.
 *Pauline Isabel Blackwell (HE); Rozel
 *Dwight Duane Blaesi (AE); Abilene
 *Robert Hale Blair (IJ); Ottawa
 *Victor Ross Blanks (ME-1; IJ-2); Manhattan
 Ralph W. Blazier (VM); Junction City
 *Leon Philip Blender (Ag); Kansas City, Mo.
 *Kathryn Elizabeth Blevins (IC); Manhattan
 *Charlene Suzanne Bock (HE); Cawker City
 *Betty Boehm (HE); Kansas City, Mo.
 *Wayne Columbus Bogard (PVM); Junction City
 *Roy Robey Boisseau (AE); Coldwater
 Lyle Thomas Boley (PVM); Manhattan
 *Roger Carl Bolton (AE); Burlingame
 *Ralph Edwin Bonewitz (Ag); Meriden
 *Edsel Ford Bonser (ChE); South Haven
 Ross W. Booth (ME); Paradise
 *Jay Otto Borth (C); Plains
 *Pauline Marie Borth (HE); Plains
 William Dale Bowerman (VM); Oklahoma City, Okla.
 *William Franklin Bowers (PVM-1; Ag-2); Paola
 *Edward Allan Bowman (IJ); Pawnee Rock
 *Muriel Elaine Bowman (IM&D); Neosho Rapids
 *Harold Henderson Bozarth (ME); Eskridge
 *Carmen Boyd Bradley (C); Sedan
 *Doris Kathleen Bradley (HE); Paxico
 *James Thomas Bradley (EE); Sedan
 *Virginia Lenore Brand (HE); Basil
 *Edward Francis Brenner (AA); Bazine
 *George Daniel Brewer (ME); Wichita
 *David Henry Breuninger (C); Manhattan
 *Albert Bricchell, Jr. (Ag); Florence
 *Cruger Lane Bright (PVM); Junction City
 *James Eugene Bright (PVM); Arlington, N. J.
 *James Hall Brillhart (Ag); Perryton, Tex.
 *Sydney George Bromell (Ag); Leavenworth
 *Richard Harman Brooks (ME); Wichita
 Arthur William Brower (VM); Junction City
 *Jacquelyn Leuore Brower (HE); Attica
 *Arlo Allen Brown (Ag); Ahnena
 *Clarence Bernard Brown (EE); Kansas City
 *Douglas Wilbur Brown (IJ); Abilene
 *Leonard Ardelle Brown (PVM); Smith Center
 *Lester Earl Brown (Ag); Circleville
 *Lloyd N. Brown, Jr. (C); Manhattan
 *Paul Lawson Brown (Ag); Sylvan Grove
 *Sara Davidson Brown (IM&D); Manhattan
 *Vernon Clarence Brown (C&A); Lewis
 Wendell Lewis Brubaker (MI); Manhattan
 *Kenneth Lee Bruce (VM); Orchard, Neb.
 *Harold Gus Brune (Ag); Lawrence
 *Ruth Miller Brunner (IJ); Wamego
 *Robert William Brush (Ag); Wichita
 *Robert Edman Bryant (C); Denver, Colo.
 *Joe Bryske (IC); Mankato
 *Edith Louise Buchholtz (HE); Olathe
 *James Elgin Buck (Ar); Kansas City, Mo.
 *John Gus Buehrle (C); Salina
 *Laurence Theodore Buening (PE); Valley Falls
 *Raymond Martin Bukaty (ME); Kansas City
 *Viola Gertrude Bump (HE); Norcatur
 *Elizabeth May Burchinal (IJ); Formoso
 *Geraldine Jewel Burden (HE&A); Ulysses
 Max Marvin Burger (IA); Randall
 *Edna Louise Burns (C); Wichita
 *William Harold Burns (C&A); Arkansas City
 *Orville Brown Burtis (Ag); Hymer
 *Donald Virgil Burton (SH); Belle Plaine
 *Bernard Busby (VM); Wakefield, Neb.
 *Glenn Morton Busset (Ag); Le Roy
 *Sarah Jane Buster (HE); Larned
 *Irene Butcher (HE&A); Tulsa, Okla.
 *Thomas Louis Byerley (CE); Minneola
 *Cora Byus (IJ); Elwood, Ind.
 *Warren Max Field Cables (MuE); Concordia
 *Wilma Hortense Cade (GS); Manhattan
 Leslie James Callabar (GS); Manhattan
 *Wilbur Edwin Calvin (EE); Winfield
 *Bessie Marie Campbell (HE); Concordia
 *Donald John Campbell (Ag); Hoxie
 *Mary Alice Campbell (HE); Concordia
 *Ralph Ernest Campbell (CE); Wilsey
 *Ruth Pearl Campbell (C-1; HE-2); Lakin
 *George Baldwin Carey (C); Hoyt
 Gilbert Wilson Carl (VM); Hutchinson
 *Doris Virginia Carlson (HE); Osage City
 Lyle Patton Carmony (MI); Manhattan
 *Wilbur Joseph Carpenter (AA); Eskridge
 *James Joseph Carruthers (C); Topeka
 *Aubrey Bernard Carter (PE); Harlan
 Max H. Casebeer (C); Manhattan
 *Robert Dean Cassity (SH); Clifton
 Juan Loza Castillo (PE); Spearville
 *Ward Elmer Cavender (C); Abilene
 *Richard John Cech (ChE); Kansas City
 Severo Jose Cervera (GS-1; Ag-2); Junction City
 *Edward Eldridge Chambers (VM); Parsons
 *Elizabeth Chaney (HE&J); Topeka
 *Donald Jay Chapman (ME); Riley
 *Robert George Chapman (C); Manhattan
 *Rodney Elmer Chapman (Ag); Manhattan
 Dale L. Cherry (VM); Redwood Falls, Minn.
 *Garland Baxter Childers (CE); Augusta
 *Donald Keith Christian (PVM); Leavenworth
 Clara Katharine Chubb (HE&J-1; IJ-2); Topeka
 *Betty Jean Clapp (IM&D); Manhattan

FRESHMEN—Continued

- *Bonnie Lue Clapp (HE&N); Manhattan
 *Charles Kenneth Clark (GS);
 Kansas City
 Homer Laurence Clark (Ag); Paxico
 *Jack Kenneth Clark (C); Manhattan
 James Edward Clark (Ag); Effingham
 *Leon Claude Clark (Ag); Brewster
 *Lowell Warren Clark (MuE); Barnes
 *Margaret Wilma Clark (HE);
 Manhattan
 Robert Hugh Clark (VM); Manhattan
 *David Stillman Clarke (GS);
 Alfred, N. Y.
 *Walter Louis Clarke (PE); Bison
 *John Harold Clay (AA); Meade
 *Donald Ernest Cleland (EE); Eskridge
 *Wilfred Vernon Clements (IJ); Everest
 *Marion Fulton Clevenger (EE); Clifton
 *George Wilson Cochran (Ag); Topeka
 *Charles Edwin Coffman, Jr. (ME);
 Allen
 *Ralph Eldon Cogswell (AA); Topeka
 *Robert Chrislion Colburn (EE);
 Spearville
 *Joyce Mae Collier (C); Hugoton
 *Clark C. Collins (VM); West Point, Neb.
 *Dale Collins (CE); Spivey
 *Jessie Margaret Collins (HE); Dwight
 *Lawrence Keith Collins (AE);
 Junction City
 *Cleve Harris Collinsworth (ME); Rosalia
 *Kenneth Harold Colvin (ME); Topeka
 *Thomas Benjamin Colvin (ME);
 Hutchinson
 Rostine Conner (EE); Hill City
 *Ruth Halena Conway (HE);
 Chicago, Ill.
 *William Francis Conway (GS);
 Dover, N. J.
 Harold Richard Conwill (GS);
 Hutchinson
 *Clarence Edward Cook (ME-1; C-2);
 Agra
 *John Allen Cook (PVM); Larned
 *John Daniel Cook (AA); Abilene
 *Joseph Lawson Cook (AE); St. Francis
 *Norma Elizabeth Cook (MuE);
 Monument
 *Norman Travis Cook (CE); Monument
 *William Frohman Cook (SH);
 Manhattan
 *Carleton Cooper (C); St. John
 *Richard Warren Cope (Ag); Holton
 *LaVon Helen Cornelius (HE);
 Westmoreland
 *Robert Vaile Corns (ME); Greensburg
 *Charles Joseph Correll (C); Manhattan
 *Robert Thomas Cotton (GS);
 Manhattan
 *Arthur LaRue Couch (ME-1; C&A-2);
 Phillipsburg
 *Donald Wallace Coulson (ME); Wichita
 *Florence Etha Courter (HE); Downs
 *Arlene Ruth Cowan (HE); Athol
 Kenneth Clarence Cowan (PVM);
 Wichita
 *Elvin Wayne Cramer (EE); Glasco
 *John Francis Cramer (Ar); Gardner
 *Arthur Joseph Crawford (ChE);
 Clements
 *Glen Thomas Crawford (ME);
 Manhattan
 *Darrell Duane Crawler (AE);
 Phillipsburg
 *Myrtle Pauline Cress (HE&A);
 Manhattan
 *Carl Russell Criger (Ag); Howard
 Joe Celester Crofton (Ag); Kansas City
 *Clinton Elwin Cromwell (C); Lincoln
 James H. Cross (C); Lewis
 *Laurence Crotinger (PE); Bison
 Chester Lee Crofts (AA); Turon
 *Dale Wilson Crouch (EE); Topeka
 *Robert Earhart Crow (IJ); Harper
 *Clyde Cunningham (EE); Cedar Point
 Clark Darwin Currie (ME); Topeka
 *Marshall Jeremiah Currier (ArE);
 Topeka
 *Martha Jane Currier (HE-1; C-2);
 Topeka
 James Huston Curry (Ag); Stilwell
 *Betty Jane Curtis (HE); McPherson
 *Fay Anne Dale (IM&D-1; GS-2);
 Coldwater
 *George Ted Dalziel (PVM);
 Haigler, Neb.
 *Carl Bertil Danielson (Ag); Lindsborg
 *Durward Clair Danielson (ChE); Clyde
 *Frank Dannefer, Jr. (Ag); Rossville
 *Donald Jack Darling (IA); Randall
 *Richard Thomas Darnall (VM);
 Overland Park
 *John Henry Darnell (MI);
 Los Angeles, Cal.
 *John Cecil Dart (GS); Newton
 *Donald Clifton Daum (EE); Eskridge
 *Clayton Cunningham David (AA);
 North Topeka
 *Galen Floyd Davidson (EE); Plevna
 *MacDowell Davidson (C); Manhattan
 *Arthur Edward David (ME-1; Ag-2);
 Salina
 *Duane Richard David (EE); Cawker City
 *Helen Dorothy Davis (HE); Wamego
 *Mildred Elizabeth Davis (HE); Topeka
 *Shirley LeRoy Davis (VM); Fort Scott
 *Thomas Clayton Davis (PVM);
 Thomasville, Ga.
 *Joseph Dale Davison (EE); Newton
 *Max Lawrence Dawdy (Ag); Washington
 *Lail Keith Dawley (PVM); Manhattan
 *Robert Price Dawley (EE); Manhattan
 *Walter Wilson Dawley (GS);
 Lakewood, Ohio
 *Clarence Arthur Day, Jr. (ChE); Ottawa
 *Keith Charles Deaver (Ag); Sidney, Neb.
 *Wayne Xavier Deaver (MI); Sabetha
 *Joseph William DeBord (CE-1; C-2);
 Centralia
 *Warren James Dedrick (VM);
 Kansas City
 Loren Arless Delp (C&A); Lenora
 *Ernest Victor Dennis (C); Sublette
 Monford Otto Dennis (ME); McPherson
 *Walter Eugene Dent (ME); Junction City
 *Frank William Denton (EE); Topeka
 *Fred Denton (ChE); Caldwell
 *Anne Margaret Dewhirst (HE&N);
 Salina
 *Dwain Edward DeWitt (IA); Ogden
 Paul Russell Dice (ME); Neodesha
 *Myron Henderson Dick (IJ); Inman
 *Alma Lorraine Dickerhoof (IM&D);
 Chanute
 *Bruce Lee Dickey (C); Osawatomie
 Lois Florence Diehl (IJ); Manhattan
 *Marvle Dale Dietz (C); Esbon
 *George Edward Dillenbeck (AH&V);
 Poultney, Vt.
 Harry Frederick Dillinger (Ag);
 East St. Louis, Ill.
 *Virgil Olin Dilsaver (EE); Athol
 William Francis Dixon (AE);
 Junction City

FRESHMEN—Continued

- *George Lafayette Doak (Ag); Stockton
 *Francis Eugene Dobbs (GS); Tonganoxie
 *Thello Clarence Dodd (AA); Linn
 Jane E. Dodge (GS); Manhattan
 *Ruth Emily Dodge (HE); Topeka
 *Richard Wilbur Dodrill (AE); Ottawa
 *Charles Merrill Dodson (MI);
 Clay Center
 *Keith Alastair Doggett (Ag); Hopewell
 Howard Vernon Dornon (CE);
 Monument
 *Terryll Dougherty (ME); Manhattan
 *Virgil Eugene Douglas (CE-1; GS-2);
 Hutchinson
 Max Karl Drechsler, Jr. (ME); Holton
 *Murray Edward Dresback (C);
 Wellington
 *Leslie Albert Droge (PE); Seneca
 *John Lincoln Dryden (Ag); Larned
 *Alva Lease Duckwall, Jr. (C); Abilene
 *Leon Richard Dumler (C); Russell
 *Lillian Ruth Dumler (HE); Russell
 *William Emanuel Dumler (AA); Russell
 *John Wallace Dummermuth (Ag);
 Barnes
 *James Deane Dunback (GS);
 Belleville
 Glenn E. Duncan (VM); St. Francis
 *Jane Cuthbert Dunham (HE); Topeka
 *Harry Harold Dunlap (EE); Liberal
 *Richard Donald Dunn (CE); Wichita
 *Wellington John Dunn (AA); Tescott
 *Charles Gordon Durnberger (Ag);
 Valley Falls
 *Max Paul Eaton (ME); Coldwater
 *Zarah Aron Eaton (ME); Chanute
 *Vernon Eberhart (AE); Turon
 *Howard Clayton Eberline (EE);
 Manhattan
 *Lester Everett Ebert (EE); Salina
 Robert Luther Edsall (CE); Stafford
 Owen Richard Edwards (ME);
 Hutchinson
 *Louise Mildred Eggen (C); Sedan
 *Theodore Max Ehlert (ChE-1; Ag-2);
 Neodesha
 *Melvin Leroy Ekstein (Ag); Perry
 *Millie Jennie Elias (GS); Manhattan
 *Vincent Henry Ellis (ME); Leavenworth
 *Keith Eldred Elmore (IJ); Lewis
 *Edward LeRoy Embry (Ag); Topeka
 *Helen Louise Ensign (IM&D); Garrison
 *John Lay Epps (ME); Atchison
 John Ernest Erickson (VM);
 Clairton, Pa.
 *Harry Slater Eshelman (AE); Wichita
 *Loren Dean Eshelman (ArE); Abilene
 *Robert Estes (VM); Kansas City
 *Melvin Eugene Estey (ME); Langdon
 *Lola Grace Evans (HE); Hutchinson
 *Wilma Florine Evans (HE); Hutchinson
 *Lyal Maurice Everhart (ME); Gypsum
 *Calvert Lewis Evins (ME); St. Francis
 *Glenn Edwin Ewing (AA); Olathe
 *Robert Stephenson Eyestone (ME);
 Pittsburg
 *Shirley Frederick Eyestone (EE); Wichita
 *William Blake Eyman (GS); Holton
 *Wallace Aurie Fager (AE); Wakarusa
 *Harry Eugene Fair (Ag); Alden
 *Charles Edward Fairman (PE);
 Manhattan
 Zillah Lee Feleay (GS); Manhattan
 *Albert Wesley Fell (ME); Larned
 *Forrest Joe Ferris (Ar); Junction City
 *John Edward Fieser (Ag); Norwich
 *Lois Maureen Filson (HE&N); Bartlett
 Gene Harold Finnell (Ag); Fontana
 *J. C. Fisk (PE); Goodland
 *Taylor Leland Fitzgerald (Ag)
 Silver Lake
 *Dennis Logan Fleak (IC); Liberal
 *Helen Elaine Fleming (HE); Ottawa
 *Edward Horton Fletcher (ME);
 Council Grove
 *Lynn Dewell Fleury (Ag); Jamestown
 *William Arthur Flory (Ag); Halstead
 *Merle Everett Foland (CE); Alma
 *Herbert Mason Folks (Ag); Lawrence
 *Louis Spencer Foltz (ME); Blue Rapids
 *William Roy Ford (EE); Frankfort
 *Anna Barbara Foster (IJ); St. John
 *Arthur Lloyd Francis (Ag); St. John
 *Alma Jean Frederick (IM&D); Sterling
 *Hobart William Frederick (Ag); Burrton
 *Lawrence Dale Freel (GS); Corning
 *Sam Henry Freeland (Ag); Wichita
 *Carl Eldon Freeman (AE); Kirwin
 *Forrest Elroy Freeman (AE-1; Ag-2);
 Simpson
 *Ray Day Freeman (ME); Paola
 *Samuel Pervin French (GS); Herington
 *Evalyn Mae Frick (HE); Larned
 *William Richard Friedhoff (EE);
 Atchison
 *Waneta B. Fritz (IJ); Silver Lake
 *Frederick Martin Froelich (AA);
 Solomon
 *Mildred Elizabeth Frogge (HE); Reece
 *John Henry Frohm (EE); Manhattan
 *Anne Fry (IM&D); Morrill
 *Bertram Wallace Gardner, Jr. (AA);
 Carbondale
 *Martha Janet Gardner (HE); Winfield
 *Neva Marguerite Garrett (GS);
 Clay Center
 Warr n Harley Garrett (C);
 Manhattan
 *Earl John Garvin (AE-1; GS-2);
 Ogden
 Wm. Samuelson Gaston (VM); Axtell
 *John VanAtta Gates (ME); Goff
 *Lloyd Reed Gebhart (CE); Culver
 *Gerald Geiger (C); Belvidere, N. J.
 *Frank Jackson George (Ag); Lebo
 *Marjorie Ruth George (HE); Manhattan
 *Vera Marie Gerardy (HE); Clay Center
 *Henry Otto German, Jr. (EE); Canton
 *Dale Edsel Gibson (GS); Winchester
 *Gerald Bowen Gibson (C); Kensington
 *Mahlon H. Giffin (ME); Sedgwick
 *Robert Albert Gilles (CE); Kansas City
 *Robert Currie Gilliford (Ag); Garrison
 *John Gifford Gish (VM); El Dorado
 *Jay Edwin Givens (AA); Manhattan
 *Catherine Jane Glass (HE&A);
 Manhattan
 *Charles Richard Goff (EE);
 Kansas City, Mo.
 Anabel Golden (PE); Whitewater
 *Wayne Meredith Gore (ME); Bushong
 *Francis Rex Gorman (GS); Chapman
 *Richard John Gorman (PVM);
 Hartford, Conn.
 *Florence Clarice Gosney (HE&A);
 Mulvane
 *Charles Gene Goss (ME); Osage City
 *Virginia Lee Goss (IM&D); Dwight
 *Kenneth Herbert Graham (PE);
 Framingham, Mass.
 Lowell Glen Graves (ME); Clifton
 *Anita Hale Green (HE); Mankato
 *Charles Francis Green (C); Dalhart, Tex.
 *John Wyeth Green (EE); Mound City

FRESHMEN—Continued

- David Mason Greene (PVM-1; Ag-2); Wichita
 *Frederick Hamilton Greenway (ME); Kansas City
 *Willburt Greer (Ag); Council Grove
 Truman DeRoam Gregory (Ag); Woodston
 Maurice Joseph Greiveldinger (C); Home City
 *Mary Jean Grentner (IJ); Junction City
 David LaMonte Gripton (ME); Smith Center
 *Harold William Grote (Ag); Manhattan
 *Warren Gerald Grubb (ChE); Phillipsburg
 *Kenneth Kimble Gruver (PE); Kirwin
 *David Edward Guerrant (IJ); Manhattan
 Gene Jordan Guerrant (GS); Manhattan
 Richard Ward Gundy (IJ); Manhattan
 *Lyle William Guss (AE); Burlingame
 *Virginia Pearl Gurtler (GS); Summerfield
 James Leslie Guseman (Ag); Coldwater
 *William Cady Guthridge (AA); Duquoin
 *Mary Alice Guy (HE); Longford
 *Florence Verda Gwin (HE); Junction City
 *John Henry Haeberle (ME); Clearwater
 *Richard Henry Hagadorn (GS); Gaylord
 *Warren Moore Hageman (ME); Marysville
 *Robert John Haggerton (ME); Junction City
 *Edgar Leighton Hale (AE); Manhattan
 *Thomas Clyde Haley (IJ); Sabetha
 *Bud Horace Hall (PVM); Gypsum
 Chester Herbert Hall (Ar); Manhattan
 *Freeman Milton Hall (PVM); Kansas City
 *Ethel Dorothy Haller (GS-1; IM&D-2); Alma
 *Charles Morris Hamilton (C); Nickerson
 *Kenneth Blaine Hamlin (EE); Eureka
 *Merrill E. Hamman (AE); Hartford
 *Opal Marjorie Hammond (HE&A); Woodston
 *Neva Perrill Haney (HE); Manhattan
 *William Augustus Hanly (GS); Manhattan
 *Donald Frederick Hansen (ME); Topeka
 *Lois Jeanette Hanson (HE&J); Olsburg
 *Sophie Nora Hantman (IM&D); Brooklyn, N. Y.
 *Irene Elizabeth Hardy (IJ); Great Bend
 *Frances Elizabeth Hargrave (IM&D); Topeka
 *Thomas Herbert Harkness (C); Ness City
 *Caroline Elizabeth Harris (C); Galva
 *Jeanan Harris (IJ); Topeka
 *Wilburma Sarah Harris (C-1; HE-2); Concordia
 *Paul Eugene Harrison (GS); Gridley
 *Evelyn A. Hart (C&A); Blue Rapids
 *Harlan Dayton Harter (ME); St. John
 *Basil Orman Hartwell, Jr. (ME); Drexel, Mo.
 *Donald Edward Hassler (GS); Chapman
 *Jane Louise Hastings (HE); Lakin
 *Margaret Elizabeth Hatcher (HE); Plains
 Otto Ambrose Hauck (EE); New York City, N. Y.
 *Robert Emmett Hauke (PVM); Meriden
 *Edmond Eugene Haun (AE); Larned
 *Joan Elizabeth Hawkinson (IJ); Larned
 *Milruth Hawkinson (C); McPherson
 Pattie Patrice Hay (HE); Eskridge
 *John Norris Haymaker (MI); Manhattan
 *Richard Neil Heaton (C); Norton
 Don C. Heffelbower (VM); Newton
 *Ruth Opal Hefty (HE&N); Valley Falls
 *Eldon Lee Heinschel (ME); Smith Center
 *Sherman Nelson Helm (GS); Abilene
 Doris Pauline Helmkamp (IM&D); Oberlin
 *Elmer Hugh Henderson (AA); Iuka
 *Helen Irene Hennis (HE); Paola
 *William Carl Hentzler, Jr. (PVM); Topeka
 *Richard Thomas Hernlund (Ag-1; IC-2); Chicago, Ill.
 *Laura Elizabeth Herr (HE); Abilene
 Waid Heter (Ag); Manhattan
 *Frank Albert Hetzke (ChE); Moundridge
 *Julius Alexander Heyer (MI); Marysville
 Charles Waldo Heywood (Ar); Topeka
 *Jerry J. Hickey (ME); Russell
 George Pendleton Hickman (VM); Venice, Cal.
 *William Herbert Hickman (C&A); Kirwin
 *Kenneth Willard Hicks (ME); Sterling
 *Thaine Robert High (GS-1; AA-2); Abilene
 *Russell Lacy Hightower (EE); Centralia
 *Charles Rossel Higley (EE); Cummings
 *Harold Marvin Hildwein (AA-1; C-2); Fairview
 *Dalton Stanley Hill (ArE); Burrton
 *Aurella Mae Hilt (C&A); Sabetha
 *John Albert Hineman (CE); Dighton
 *Clesson Leigh Hines (Ag); Kanorado
 *Glyde Elizabeth Hinshaw (HE&J-1; IJ-2); Medicine Lodge
 *William Emmett Hinshaw (Ag); Plevna
 *Wilbur Floyd Hiser (EE); Nortonville
 *James Robert Hoath (GS); Anthony
 Alfred Leverett Hobson (ME); Republic
 Clovis Foreaker Hodgson (AA); Jamestown
 *Eva Mae Hodgson (MuE); Little River
 *Irvin George Hodgson (ChE); Little River
 *Marlian Chas. Hodson (SH); Argonia
 *Robert Earl Hoffman (ChE-1; IJ-2); Manhattan
 *William Maurice Hoge (Ar); Carthage, Mo.
 Ralph Ray Holden (EE); Manhattan
 *Juanita Alpina Holler (HE); Emporia
 *Herbert Dale Hollinger (GS); Chapman
 *Jack Dexter Hollinger (GS); Chapman
 *Gertrude Lucille Hollis (ArE); Holton
 *Norris Everett Holstrom (C&A); Topeka
 Ina Elizabeth Honeycutt (HE); Blue Rapids
 Lynn Charles Hook (Ag); Sabetha
 *Leo Michael Hoover (AA); Greenleaf
 *John Wentworth Hopkins (GS-1; CE-2); McPherson
 *Jack Louis Horacek (ChE); Topeka
 *Charles Kendal Horner (MuE); Abilene
 *Warren Thomas Hornsby (CE-1; C-2); Topeka
 *William Mixon Horton (EE); Wichita
 *LaMonta June Hough (HE); Manhattan
 *Harry Earl House, Jr. (ME); Cheyenne, Wyo.
 *Frank Wilson Howard, Jr. (Ag); Hoxie
 James Thomas Howard (IJ); Kansas City
 *Vaughan Henry Howard (AA); Walkill, N. Y.
 *Dorothy Elizabeth Howat (HE); Wakeeney
 Gordon Clark Howell (VM); Kansas City
 Herbert Winston Howell (VM); Kansas City
 Robert Ernest Howell (PVM); Silver Lake
 *Robert Higgins Hubbell (EE); Topeka
 *LeRoy Lyman Hughes (Ar); Topeka
 Robert Samuel Hughes (IJ); Salina
 Ansel Elvin Hugunin (Ag); Manhattan
 *Harriette Edna Hull (HE); Reece

FRESHMEN—Continued

- *Horace Dale Hull (EE); Hope
 *Stanley Charles Hummel (ChE);
 Belvidere, N. J.
 *Gail Bettis Humphrey (EE); Scandia
 *Dale Craig Hupe (Ag); Perry
 *David Henry Hurst (IC); Kirwin
 *John Chester Huston (ME); Ogden
 *Clarence Imel (Ag); Spearville
 *Robert Donald Inmensschuh (VM);
 San Diego, Cal.
 Newton Kelly Irwin (GS); Highland
 *Elmer Willard Jackson (Ag); Topeka
 *Virginia Lee Jackson (GS); Ness City
 *James Lester Jacobson (MI); Sterling
 *Eldon Lee Roy James (C) McPherson
 *Percy Harold James, Jr. (EE);
 Oklahoma City, Okla.
 *Kenneth Ralph Jameson (AA); Ottawa
 *Kenneth Donald Jenicek (ME); Holyrood
 *Neil Mike Jenkins (PVM); Manhattan
 *Artis Hart Johnson (MuE); Winfield
 *Clara Naomi Johnson (HE); Manhattan
 *Herbert Donald Johnson (Ag); Macksaville
 *Neil Theodore Johnson (ArE); Topeka
 *Paul Clayton Johnson (C); Olsburg
 *Raymond Marion Johnson, Jr. (C);
 McPherson
 *William Pitner Johnson (GS); Manhattan
 *Dale Carl Jones (CE); Simpson
 *Delmar Doyle Jones (Ag); Mulvane
 *Elmer Cloyd Jones (EE-1; C-2);
 Talmadge
 *Gladys Irene Jones (HE); Reading
 *Harold Walter Jones (ME); Tonganoxie
 *Herbert Andy Jones (ME); Mulvane
 *Lloyd Charles Jones (Ag); Frankfort
 *Charles Geiser Jordan (Ag); Beloit
 *Tom Edward Joyce (ME); Ulysses
 Martin Kadets (VM); Natick, Mass.
 *John Pershing Kane (C); Rock Creek
 *Herbert Jack Keene (EE-1; PVM-2);
 Junction City
 *Lew Ambleau Keim (C); Neodesha
 *Walter Marvin Keith (SH); Manhattan
 Edward Jacob Keller (VM); St. Francis
 *Marjorie Ruth Kelly (HE); Manhattan
 *Thomas Grover Kelly (ME); Ada, Okla.
 *Harold Eugene Keltner (ArE);
 Hoisington
 *James Merlin Kendall (IJ); Dwight
 *Ruth Virnita Keys (HE); Winchester
 *Melvin Kiefer (ME); Russell
 *Raymond Lloyd Kieffer (ArE);
 Independence, Mo.
 *James Knight Kilian (ME); Chapman
 *Richard John Kilian (ME); Detroit
 *Lyle Kimsey (GS); Smith Center
 *Lilias Marie Kincaid (HE); Atchison
 *Ruth Ella Kindred (C); Bonner Springs
 *Beatrice Burnette King (PE); Manhattan
 *Leo Floyd King (CE-1; Ag-2); Lewis
 *Theron Lambert King (C&A); Manhattan
 *Virginia Lee King (HE&J); Manhattan
 *William Gregg King (CE); Ft. Dodge
 *Harry Melvin Kingsley (Ag); Hays
 *Arthur Stuart Kininmonth (C); Winfield
 *Alan Dean Kinney (CE);
 Hainesburg, N. J.
 *Arthur Durward Kirk (Ag); Scott City
 *Helen Eunice Kirk (IM&D); Wellington
 *Luther Cleveland Kissick, Jr. (Ag);
 Mount Hope
 *James Boyle Kissinger (ME-1; MuE-2);
 Bennington
 *Marianna Kistler (IJ); Manhattan
 *Doris Marie Kittell (PE); Topeka
 *Wilma Margaret Kjellin (HE-1; MuE-2);
 Garrison
 *Arnold Frank Klahr (C&A-1; AA-2);
 Netawaka
 Frederick John Kleymann (ME); Leoti
 *Erwin Lavon Kline (EE); Eskridge
 *Alva Clyde Knowles (ME); Valley Falls
 *James William Knox (PVM);
 Overland Park
 Katherine Davis Knox (HE); Humboldt
 *Joseph L. Ko (Ag); St. Louis, Mo.
 *Richard Benton Koger (VM); Belvidere
 *Doris Irene Kolling (HE&N);
 Morganville
 *Mavis Koontz (HE); Jetmore
 Louis Daniel Kottmann (ChE); Ellsworth
 *Grace LuAnna Kozak (HE); Silver Lake
 *Bruce Arthur Kramer (GS); Manhattan
 *Anne Marie Kristof (C); Collyer
 *Alfred August Krohe (MI);
 Beardstown, Ill.
 *Thomas Frederick Kropf (ME); Wamego
 *Vernon Benjamin Kruse (ME); Lorraine
 *Laura Lee Kubin (C); McPherson
 *Doris Marie Kubitschek (HE);
 Brookville
 *Albert Fred Kvasnicka (ME); Wakeeney
 *Vincent Henry Lacy (GS); Miltonvale
 *Frank William Ladd (C); Sabetha
 *Lucile Gray Lafferty (HE&A);
 Fort Leavenworth
 *Glover Wilson Laird (VM);
 Kansas City, Mo.
 *Robert Faulkner Lamborn (Ag);
 Leavenworth
 *Charles William Lamer II (GS); Salina
 *Jack Lance (ChE); Lost Springs
 *Philip Roscoe Lane (PE); Manhattan
 *Florence Edith Langenegger (IM&D);
 Burns
 *Josephine Estelle Lann (HE); Axtell
 *George Elbert Lantz (EE); Salina
 *Betty Lou LaPlant (MuE); Minneapolis
 *Robert Dean Laramey (Ar);
 Pueblo, Colo.
 *John Henry Larkins (EE); Le Roy
 *Doyle Wayne LaRosh (Ag); Natoma
 *Harlan Ray Larson (IJ); McDonald
 *Katherine Karin Larson (HE&A);
 Madison
 *Daniel Seward LaShelle (GS);
 Junction City
 *Homer Riale Lathrop (Ag); Casper, Wyo.
 *Carl Ernest Latschar (IC); Meade
 David Robert Laurie (ME); Atchison
 *Dean David Lawellin (Ar); Oswego
 *Fayne Leroy Lawson (AE); Penafosa
 *Robert Hanson Leach (ME); Wellington
 *Kenneth Lebsack (C&A); Hutchinson
 *Ruby Nina Leckron (C); Abilene
 *Carline Dee Lee (HE); Dwight
 *George Edward Lee (AE); Topeka
 *James Kenneth Lee (AA); Dwight
 *Emory John Levin (ChE); Lindsborg
 *Wilma Ruth Lewey (IM&D); Newton
 *Eloise Virginia Lewis (GS); Olathe
 *Ernest Eber Lewis (ME); Mansfield, Pa.
 *Mivin William Libertus (GS); Coolidge
 *Frank Everett Lichlyter (VM); El Dorado
 *Herbert Kreitzer Lichty (Ag); Sabetha
 *Melvin Rex Lindquist (Ag); Brookville
 *Ralph Norman Link (EE-1; IJ-2);
 Chase
 *Donald Victor Linn (ChE); Clyde
 *James Worth Linn (GS); Manhattan
 *Leland LeRoy Linn (PVM); Clyde
 *Mary Josephine Linscott (HE);
 Cumings
 *Campbell Fackler Logan (ME); Paola
 *Benny Lee Lohman (C&A); Lansing

* Matriculated 1937-'38.

FRESHMEN—Continued

- *Kenneth Lee Roy Lohmeyer (GS); Bern
 *Norman Henry Lohmeyer (Ag);
 Washington
 *Frank Robert Lonberger (C); Manhattan
 *Dudley Randolph Londeen (C&A);
 Abilene
 *David Hale Long (Ag); Abilene
 *Roscoe Dean Long (Ag); Drexel
 *William Maurice Long (EE); Wichita
 *Lawrence Edwin Lopp (ChE); Abilene
 *Melvin Clay Lott (PE); Atchison
 *Verl Dean Luehring (C); Leavenworth
 *Homer William Lundine (PVM); Woodbine
 *William Herbert Lyman (ME); Burrton
 *Russell Allen McArdle (GS-1; ME-2);
 Sharon Springs
 Donald Earl McCall (IJ-1; Ag-2);
 Wakeeney
 *Dean McCandless (GS); St. John
 *Emma Cecilia McCandless (HE&N);
 St. John
 *Hugh Anderson McCandless (Ag);
 St. John
 *Loren Mayo McClain (PE); Harlan
 *John Donnely McClurkin (ME);
 Clay Center
 *Robert James McColloch (IC); Manhattan
 *Theron Russell McCollough (EE);
 Minneapolis
 *Richard Lewis McCoun (MI); Winfield
 *John McCool (PE); Leavenworth
 Marjorie Louise McCord (HE); Topeka
 *Donald John McCoy (ME); Kansas City
 *James Eli McCullough (PVM); Solomon
 *Boyd Homer McCune (Ag); Stafford
 *Margaret Ella McCutchan (HE);
 St. George
 *Edward James Peter McDonald (PVM);
 Peabody, Mass.
 Wesley William McDowell (ME); Garfield
 *John Adams McGerty (MuE); Manhattan
 Don Dilts McHugh (ArE); Liberal
 Lorraine Marian McKee (GS); Fairview
 *Noel LeRoy McKee (AA); Havensville
 *Edward Woodward McKelvey (ME);
 Miltonvale
 *Martha Roseline McKenna (IJ); Kingman
 *James King McKie, Jr. (ChE); Salina
 *Ethel Carmen McKnight (C); Oxford
 *Max Massey McLain (C); Sun City
 *Billie Carr McLaughlin (ME);
 Junction City
 V. Keith McMahon (VM); Manhattan
 *Paul Edwin McManis (MI); Manhattan
 *Margaret McMullen (MuE); Courtland
 *William Dwight McMurry (GS); Idana
 *Wilbur Doyle McNeese (CE); Atchison
 *Frieda Lenora McNickle (HE); Zenith
 Raymond Charles McPeck (VM);
 Ramsey, N. J.
 Harold W. McQuown (ME); Walton
 *Jennie Marie Madsen (IJ); Dwight
 *John Joseph Mahan (C); Concordia
 *Kenneth Edwin Makalous (GS-1; Ag-2);
 Cuba
 *Williamette Adele Mall (HE&A);
 Oak Hill
 *John William Mallory (PVM);
 Kansas City, Mo.
 *Arthur Charles Mangelsdorf (ChE);
 Atchison
 David Oscar Manley (VM); Wakarusa
 Robert Drury Manly (GS); Manhattan
 *Milton Lloyd Manuel (Ag); Havensville
 *Virgil Lawrence Marak (EE); Everest
 *Melvin Wayne Marcoux (Ag);
 Havensville
 *Melvin Lloyd Markham (EE); Caldwell
 *Darwin Elton Markwell (C-1; ME-2);
 Kingman
 *Hazel Marguerite Marlow (M);
 Manhattan
 *Esther Wilhelmina Martin (C);
 Denver, Colo.
 *Guy Junior Martin (ChE); Chapman
 *James Lawrence Martin (ME);
 Whitewater
 *Lillie Mae Martin (HE); McDonald
 *Marlin Wray Martin (EE); Hutchinson
 *Dwight Murray Mason (GS); Manhattan
 *Donald Bain Mayhew (Ag); Belpre
 *Noble Lorene Mayhill (VM);
 Arkansas City
 *Waldene Hastings Meadows (GS);
 Gaylord
 *Jack Lewis Medaris (VM); Parsons
 *Lewis Howard Medlin (C); Oakley
 Orval H. Meinecke (VM); Marysville
 *Willard Henry Meinecke (MI); Herkimer
 *Newell Clyde Melcher (AA); Ottawa
 *Howard Kermit Melchert (ME); Lorraine
 *Victor Graham Mellquist (ME);
 Leavenworth
 Bert Meriweather (VM); Chetopa
 *Douglas Neol Merritt (CE); Atchison
 *Richard G. Merryfield (AE-1; AA-2);
 Minneapolis
 *Donald Herman Merten (GS);
 Morganville
 *Eldo Henry Meyer (Ag); Edmond
 *Mary Henrietta Meyer (HE&N);
 Frankfort
 *Kenneth Benton Middletown (PVM);
 De Soto
 *Dorothy Eaton Miller (HE&A);
 Manhattan
 *Frank Miller, Jr. (GS); Milford
 *John William Miller (C-1; EE-2);
 Bethel
 *Jordon Yale Miller (GS); Manhattan
 *Lloyd James Miller (Ag); Morrill
 *Norman Clark Miller (ME); Lyons
 *Orris Keith Miller (AA); Summerfield
 R. Leone Miller (GS); Manhattan
 *Russell Wayne Miller (Ag); Lebanon
 *Orlin Merrill Milliken (Ag); Tecumseh
 *Betty Marion Milne (HE); Oregon, Mo.
 *Maxine Mae Milner (GS); Republic
 *Anders Peter Mindedahl (ME); Bethel
 LeeRoy Mitchell (AA); Manhattan
 *Virginia Belle Monahan (IM&D);
 Leavenworth
 *Dorothy Mae Montgomery (HE); Sabetha
 *Ralph Ungeheuer Moody (EE);
 Mound City
 *Dale Lewis Moore (Ag); Ashland
 *Daniel James Moore (EE); Salina
 *Francis Cecil Moore (Ag-1; C-2);
 Robinson
 *John Richard Moore (C); Atchison
 *Richard Ferdinand Moore (Ag);
 Wellington
 *Marjorie Lucile Moree (MuE); Belleville
 *Bernice Edna Morgan (GS); Manhattan
 *Ray Morrison (AA); Larned
 *Willard Lee Morrison (EE); Liberal
 *Donald Lee Morrow (PVM); Concordia
 *Ruth Eileen Morrow (HE); Larned
 *Marylee Mossman (HE); Manhattan
 *John William Mount (ME); Osawatomie
 *Delores Anna Louise Mueller (HE-1;
 C-2); Topeka
 *Glen Edward Mueller (C); Anthony

FRESHMEN—Continued

- R. Glenn Muhlheim (GS); Ellis
 *John Thomas Muir (C); Norton
 *Earl Lawrence Mundell (VM); Kansas City
 *Donald Lee Munzer (C); Herington
 *Margaret Lucille Munger (HE&N);
 Manhattan
 *Joseph Andrew Murphree (EE);
 Kansas City, Mo.
 *Barbara Beth Murphy (IM&D-1; PE-2);
 Manhattan
 *Danny Murphy (IC); Downs
 *Dennis Everett Murphy (ChE);
 Little River
 *Franklin Lee Murphy (ChE-1; GS-2);
 Anthony
 *George Everett Murphy (Ag); Detroit
 *Mabel Lois Murphy (IM&D); Manhattan
 Ray V. Murphy (Ag); Manhattan
 *Joseph Donald Musil (EE); Manhattan
 *Arthur Thomas Mussett (Ag);
 Leavenworth
 *Barbara Myers (IM&D); Topeka
 *Byron Eugene Myers (EE); Richland
 Robert D. Nafziger (Ag); Narka
 *Barbara Bee Nash (HE&A); Lyons
 *Frank Edmond Naylor (EE); Topeka
 *Jesse Eugene Nease (EE); Jamestown
 *Alice Belle Neilson (IJ); Mankato
 *Edwin Lee Nelson (EE); Allen
 *Jean Maurine Nelson (MuE); Topeka
 *Lucian Earle Nelson (GS); McPherson
 *Donnelle Nesbitt (IM&D); Manhattan
 *Joan June Nethaway (HE&A); Salina
 *Richard Carl Nethaway (C); Salina
 *David Edgar Newman (C); Junction City
 *John Porter Newman (GS); Manhattan
 *Walter Wayne Newsom (GS); Lewis
 *Edwin Percy Nichols (GS); Harlan
 *Udell Nickel (PVM); Timken
 *Reingold Irl Nicolay (ArE); Osage City
 *Elmer LeRoy Nieman (PE); Herkimer
 *Fred Arthur Nims (ME); Topeka
 *John William Nininger (EE); Olathe
 Robt. S. Nixon (AA); Manhattan
 *Norman Lynn Noble (GS-1; CE-2);
 Johnson
 *Louis Etzold Noel (ME);
 Webster Groves, Mo.
 *Lela Geneva Nordeen (HE&A); Dwight
 Richard William Nordeen (MuE);
 Manhattan
 *Phillip Fredrick Novak (EE); Ottawa
 *Charles Novich (GS); Yonkers, New York
 Leland J. Nydegger (C); Parsons
 *Mabel Ruth O'Brien (IM&D); Muscotah
 Bernard James O'Byrne (C); Lyons
 *Frederick Connell Officer (C&A); Topeka
 *Richard Henry Ogle (ME); Scotia, N. Y.
 *Gladys Marguerite Oliver (HE&A);
 Madison
 *Dorothy Ruth O'Loughlin (HE&J); Lakin
 *Albert Willard Olson (Ag); Dwight
 *Kenneth Dill Olson (C&A); Frankfort
 *Walter Wayne Olson (Ag); Dwight
 *Dennis Gordon O'Neill (CE); Ransom
 *Maxine Alma O'Neill (IJ); Manhattan
 *Lloyd Rueben Orrell (AE-1; Ag-2); Peck
 *Robert Earl Orsbern (PVM); Manhattan
 *Ruth Leona Ott (C&A); Wichita
 Ethel Louise Owens (HE); Lane
 *Harvey Owings, Jr. (PVM); DeSoto
 *Aileen Ozment (IM&D); Manhattan
 *Robert Kerr Page (MI); Topeka
 *Erma Lucille Paget (HE&A); Covert
 *Alma Ruby Pallesen (C); Manhattan
 *Orlando Karl Pan-Kratz (ME); Stafford
 *Victor Eugene Parisa (C-1; Ag-2);
 Lansing
 *John Marchbank Parker (GS); Manhattan
 *Comer Lloyd Parks (EE); Chautauqua
 Cecil Lewis Paulsen (VM); Onaga
 *Frank George Paulson (CE); Whitewater
 *James Wilbur Paustian (GS); Manhattan
 Loyal Cobb Payne (VM); Manhattan
 *Carson Stewart Peck (ME); Manhattan
 *Ivan Carlton Peck (AA); Soldier
 *Velva Aldene Peffly (HE&N); Waldron
 *George Henry Peircey (C&A);
 Waterbury, Conn.
 *Kenneth Lee Pemberton (Ar); Meade
 *Clyde Wilson Pence (GS); North Topeka
 *David Vern Pence, Jr. (Ag);
 North Topeka
 *Paul Warren Pennock (EE); Salina
 *Ralph Junior Perkins (Ag); Howard
 Charles Ross Perry (PE); St. George
 *Laura Louise Perry (C); Greenleaf
 *Ralph Hamilton Perry (Ag); Oskaloosa
 *Orland Joseph Peterka (ME); Manhattan
 *George William Peterkord (ME); Greeley
 *Carl Adolph Peterson (GS);
 Kansas City, Mo.
 *Carl Alfred Peterson (EE); Garfield
 *Emily Jean Peterson (GS-1; HE-2);
 Garrison
 *Vernon Hendrick Peterson (EE); Weskan
 *Everett Wendell Pettit (GS); Lyons
 *Cecil Richard Phillips (Ag); North Topeka
 *Maxine Lesta Pickering (HE&J);
 Greensburg
 LeRoy Albert Pierce (VM); Manhattan
 *Robert Stevens Pierce, Jr. (SH); Topeka
 Clara Margarite Piercy (GS); Lenexa
 *Helen Leona Pilcher (IM&D); Gridley
 *Bernice Lillie Ploger (HE); Kinsley
 *Ray Hamlin Pollom, Jr. (GS); Manhattan
 *John Germann Poole (Ag); Manhattan
 *Robert Ralph Pooler (ME); Topeka
 *Cheryl Gertrude Poppen (GS); Burr Oak
 *Harriet Elizabeth Port (M-1; HE&N-2);
 Cheyenne, Wyo.
 Rodney I. Port (VM); Cheyenne, Wyo.
 *Raymond Wilson Porter (PVM); Zenith
 *Winfred Laurine Porter (HE-1; IJ-2);
 Belleville
 *Herman Albert Praeger (AA); Claffin
 *Tony Joseph Prasnikar (PVM); Mulberry
 Elwin Raymond Prather (VM); Eureka
 *Louis Arthur Prehal (EE); Omaha, Neb.
 *Cecil LaVerne Prentice (Ag); Osawatimie
 Dale Clarke Prentice (Ag); Manhattan
 *William Earl Pretzer (ME); Elmdale
 *Donna Jean Priddy (IJ); North Topeka
 *Hubert Glen Priddy (ME); Topeka
 *Marvin Hans Prinds (PVM);
 Overland Park
 *Dorothy Wynne Pritchard (IJ); Hiawatha
 *Vinton Wylie Puckett (C&A); Garrison
 Tom Chas. Pulley (Ag); Lansing
 *Louis Earl Raburn (EE); Manhattan
 *Donald Henry Raine (GS); Maplehill
 *Harold Edward Rall (Ag); Menlo
 Marion A. Ramage (ArE-1; PE-2);
 Manhattan
 *Cloda Doris Rambo (IM&D); Paola
 *Wallace Edward Rankin (ChE);
 Manhattan
 *Robert Rathbone (ChE); Manhattan
 *Frank De Vere Ratliff (PVM); Portis
 *William Joseph Ratliff (MI); Manhattan
 *Lowell Robert Ray (GS); Wilsey
 *Mary Campion Redner (GS); Fort Riley
 Myron Dale Reed (VM); Smith Center
 *Arden Reiman (Ag); Byers
 *Wilma Mae Remus (HE-1; IJ-2);
 Cawker City

FRESHMEN—Continued

- *James Theodore Renfro (VM);
Kansas City
Charles Dixon Renfrow (VM);
West Plains, Mo.
- *Gerald Dale Ressel (GS-1; Ag-2); Colony
- *Melvin Ranson Reust (EE-1; IJ-2);
Frankfort
Opal Elnora Rhoads (GS); Goodland
- *Doris Louise Rice (C); Smith Center
- *Royal LaVarne Rice (GS); Cawker City
- *Vivian Pauline Rice (HE); Greensburg
- *Frank Edgar Rickel (GS); Manhattan
- *Walter Loren Ridenour (Ag); Moscow
- *Doris Ethelyn Riley (HE); Stafford
- *Oliver Virgil Riley (EE); Stafford
- *Charles William Rindom (ME); Liberal
- *Martha Louise Riordan (C); Solomon
- *Jerry Burr Risely, Jr. (C&A); Stockton
- *Lloyd Henry Rissman (C); Abilene
- *Margaret Kathleen Roberts (GS-1;
IM&D-2); McPherson
- *Marshall Samuel Robinson (C&A);
Topeka
- *Millicent Roderick (HE); Lakin
- Alice Harriet Rodkey (HE); Manhattan
- *Mary Alice Roe (HE&J); Manhattan
- *Clifford Abert Rogers (CE-1; C&A-2)
Caldwell
- *Robert Rex Rogers (IJ); Wamego
- *William Maurice Rogers (Ag);
Junction City
- *John Richard Ronig (ChE);
Bethany, Mo.
- *Twila Geraldine Roof (HE); Ellis
- *Virginia Belle Rooks (HE&A);
Manhattan
- *Bueford Talmage Roper (MuE);
Atchison
- *Lyle Kenneth Rose (Ag); Kiowa
- *Margaret Frances Roseman (HE);
New Cambria
- *Donald Lee Rousey (ME); Horton
- *Mare Crawford Rucker (Ag); Burdett
- *Eugene Elroy Ruff (ME-1; GS-2);
Russell
- *Frances Lillian Ruhl (IJ); Hiawatha
- *Ruth Roberta Ruhlen (HE); Moline
- *James Fredrick Rumford (ME); Jetmore
- *Wayne Winston Rumold (GS); Elmo
- *Fred Lafayette Melvin Rumsey (Ag);
Kinsley
- *Robert Truman Rush (MI); Neodesha
- *Wilbur Lee Rush (ME); Marysville
- *George Harold Russell (PVM); Paola
- *Eula Jean Rutherford (IM&D); Anthony
- *Ruth Elaine Salisbury (GS); Manhattan
- *Ruth Elizabeth Salley (HE); Silver Lake
- Moutrie Wilbur Salter (Ag); Wakefield
- *Ivan Wilbur Salts (AE); Mayetta
- *Paul Everett Sanford (Ag); Milford
- *Alice Mary Santner (HE); Gaylord
- *Ruth Eloise Santner (HE); Gaylord
- Richard Victorian Sardou (ME); Topeka
- *Harold Elwood Saum (C&A); Oberlin
- *Clemon Luvester Sawyer (EE); Wichita
- *John William Saylor (VM); Hutchinson
- *Charles Paul Schafer (GS); Vermillion
- *Genevieve Estella Scheier (IM&D);
Everest
- Samuel Arthur Schendel (VM); Pomona
- *Keith Merrill Schmedemann (C&A);
Junction City
- *August Mangelsdorf Schmeling (EE);
Atchison
- *Frances Maxine Schmidt (MuE);
Lorraine
- *Virginia Helene Schmidt (HE); Raymond
- *Bernard Lee Schmith (ME); Powhattan
- *Fred McCreary Schneider (PVM);
Albuquerque, N. Mex.
- Ruth Lillian Scholer (HE); Manhattan
- *William Henry Schroeder (Ar); Colby
- *Francis William Schruben (IJ);
Stockton
- *Alma Eileen Schwandt (GS); Wamego
- *Daniel Ralph Scott (ChE); Garfield
- *Jean Jewett Scott (HE); Manhattan
- *John Neill Scott (IA); Neosho Falls
- *Ruth Eleanor Scott (GS); Tulsa, Okla.
- *George Junior Scott (ChE); White City
- *Glen Eugene Sedlacek (AH&V);
Fairview, Mont.
- *George Ralph Seitz (C); Allen
- *Richard Joe Seitz (Ag); Leavenworth
- *Elizabeth Ann Selig (HE);
Ft. Lauderdale, Fla.
- *Helen Marie Sellens (IM&D); Hoisington
- *Kenneth Ira Sellens (CE); Hoisington
- *Bert Eugene Sells (ME); Wichita
- *Marvin Dale Severtson (GS); Galva
- *Manette Sexson (HE); Goodland
- *Lester Seyfert (EE); Preston
- *Emerson Hugh Shade (ChE); Rantoul
- *Ben Shambaugh, Jr. (PVM); Ottawa
- *Mildred Adele Shannon (HE-1; GS-2);
Hiawatha
- *Donald Henry Sharp (C); Hutchinson
- *Ophelia Deborah Sharp (HE); Great Bend
- *Max Ronnell Shea (C); Beloit
- *Jack Sheets (EE); Cozad, Neb.
- *Lloyd Burton Sheetz (EE-1; C&A-2);
Topeka
- *Claude Wesley Shenkel (C&A); Lyons
- *Helen Aileen Shepard (HE); Erie
- *Lorraine Gladys Shepardson (HE);
Junction City
- *Kathleen Olive Sheppard (IM&D);
Manhattan
- *Leander Raymond Sherlock (CE);
Wamego
- *Lois Mae Sherman (HE&A); Grantville
- *ValGene K. Sherrard (MuE); Great Bend
- *Grant Burks Sherwood (CE);
Independence
- *Kenneth Arthur Simms (GS); Republic
- *Ethel Christine Simons (HE);
Leavenworth
- *Robert Edward Sink (EE); Culver
- *Harry C. Sipe (ME); Wichita
- *Paul Lafayette Sisson (IC-1; ME-2);
Bennington
- *Leland Richard Skaggs (GS); Salina
- *Donald Arthur Skinner (GS); Mankato
- Haley Skinner (ME); Sabetha
- *George Sklar (ChE); Manhattan
- *Laurence Oscar Slief (EE); Greensburg
- *Gordon Russell Slimmer (AA);
Circleville
- *Irene Eloise Sloan (HE); Manhattan
- *Robert Milton Smickle (ME);
Belvidere, N. J.
- *Henry Joseph Smies (Ag); Courtland
- Charles Combie Smith (VM);
Kansas City, Mo.
- *Charles Lewis Smith (VM); Harveyville
- Floyd Elmer Smith (GS-1; ME-2);
Marceline, Mo.
- *John Francis Smith (PE-1; AA-2);
Summerfield
- *Loren Wayne Smith (PVM); Topeka
- *Merlin Lee Smith (A); Hutchinson
- *Paul Albert Smith (Ag); Lebanon
- *Vernon Eugene Smith (Ag);
Bloomington
- *Allen Ellwood Smoll (EE); Wichita
- *Preston Arthur Snapp (CE); Newton

FRESHMEN—Continued

- *Frederick Robert Snyder (PE); Junction City
 *Veryl Edwin Snyder (CE); Mayetta
 Gilbert Lyle Sollenberger (CE); Hutchinson
 *Ralph Andrew Sunday (CE); Sharon Springs
 Jack Clifford Sorenson (VM); Kansas City
 *Maxine Mildred Sours (C); Hutchinson
 *Mary Pauline Spain (HE); Beloit
 *Hazel Aldine Spessard (IM&D); Junction City
 Leonard Lewis Sramek (Ag); McDonald
 *Margaret Elaine Sramek (HE&N); McDonald
 *Duane Gerald Stafford (CE); Belleville
 *Herman Richmond Standley (Ag); Lucas
 Myrl Merritt Start (C); Turon
 *Rollin Max Starosta (Ag); Pomona
 *Clifford Belden Starr (ME); Valley Falls
 *Ray Virgil Stauffer (ChE); Onaga
 Richard Lloyd Stawitz (EE); Topeka
 *Robert Charles Stephens (Ag); Manhattan
 *Dudley Harrison Stephenson (GS); Clements
 *Nelle Hattie Stephenson (HE); Clements
 *Mary Louise Stevenson (PE-1; HE-2); Waterville
 *Jamie B. Stewart (ChE); Wilburton
 *Katharine Celestia Stewart (GS-1; HE-2); Talmage
 *Kathleen B. Stewart (HE); Stockton
 *Ross Merritt Stewart (ChE); Wilburton
 Marvin Dean Stitt (VM); Clearwater
 *James Wilbur Stockwell (ME); Yates Center
 Corinne Evelyn Stoskopf (IM&D); Hoisington
 *John Quentin Stratton (ME); Minneapolis
 Charles Lyman Streeter (AA); Milford
 *Raymond Edward Streeter (ME); Hutchinson
 *Ethyle Ruth Strike (HE&A); Fort Riley
 Anita Marion Strand (HE); Kansas City
 *Max William Struble (EE); Girard
 *Donald Niel Strunk (C); Manhattan
 Ralph Eugene Strunk (Ar); Topeka
 *Floyd Jay Stryker (ME); Blue Rapids
 *Dorothy Miles Sumner (Ag); Fort Riley
 *George Lester Clifford Sundgren (Ag); Coldwater
 *Charles Adelbert Surprise (AA); Wakeeney
 *David Marcus Suss (PVM); Bronx, N. Y.
 *Ernestine Alice Sutter (HE); Leon
 *Wallace Albert Swanson (GS); Sharon Springs
 *Elmer Henry Swart (PE); Seneca
 Richard William Swart (VM); Manhattan
 *Cecil LeRoy Sweeney (GS); Coldwater
 Jay Carlyle Symms (PVM); Hutchinson
 *Perrin Kent Symms (Ag); Atchison
 Louis Virgil Taggart (C); Meriden
 *Harold Willard Tanner (Ag); St. John
 *Arlene Grace Taylor (HE); Enterprise
 *Harry Turbet Taylor (CE); Larned
 *Maribelle Teichgraeber (HE); Eureka
 Robert Arthur Teichgraeber (MI); Marquette
 *Benjamin Wickham Tempero (Ag); Clay Center
 Duane Robert Tepfer (ME); Ft. Dodge, Iowa
 *James Dow Thackrey (ME); Camden, Ark.
 *John Otis Thisler (IM); Chapman
 *Bette Louise Thomas (HE&A); Portis
 *Donald James Thomas (VM); Oswego
 *Elmo William Thomas (IJ); Wellington
 *Harold William Thomas (AE); Narka
 *John William Thomas (ME); Wichita
 *Paul Edgar Thomas (Ag); Clay Center
 *Walter Ross Thomas (GS); Belleville
 Clarence Henry Thompson, Jr. (VM); Ozawie
 Harley Franz Thompson (C); Kinsley
 *Wilbur Gerald Thompson (ME); Goff
 *Constance Patricia Thurston (HE); Elmdale
 *Vernon Burton Tibbetts (AA); Seneca
 Torrence Ness Tibbutt (Ag); Hutchinson
 *Franklin LeRoy Tiers (Ag); Longford
 Edward Wayne Tilton (Ag); Beloit
 *Elizabeth Lurene Titus (HE); Cottonwood Falls
 *Clell Finch Todd (IJ); Topeka
 *Jack William Tompkins (C); Salina
 *Richard Allen Toole (PE); Goodland
 *Raymond Dwayne Topham (Ag); Wichita
 *Theodore Junior Torkelson (EE); Everest
 *Beatta Elizabeth Totten (HE); Clifton
 *Mary Kibbe Towne (GS); Dayton, Ohio
 Earl Clair Toynton (VM); Fort Scott
 *Eleanor Earlene Trekell (HE&A); Manhattan
 *Frederick Cecil Trippel (AE); Burrton
 W. Gerald Trostle (VM); Hope
 *Carl Norman Turner (ME); Manhattan
 *George Kendrick Turner (GS); Waterville
 *Robert Warren Turner (ME); Kansas City, Mo.
 *William Leonard Turner (PVM); Plevna
 *Donald Radell Tutchter (ME); Overbrook
 *R. V. Tye (GS); Hanover
 *Charles Samuel Tyler (C); Osawatomie
 *Donald Dean Urquhart (AE); Wamego
 Wilbur David Van Aken (PVM); Lyons
 *Steve Douglas Van Buren (ArE); Haven
 Wm. Henry Vanderbilt (VM); Eureka
 *Cornelius John Vanderwilt (ME); Solomon
 *Bernice Ann Vanicek (IJ); Omaha, Neb.
 *Doris Van Landingham (HE); Kingman
 Robert Lloyd Van Meter (EE); Ada
 *Curtis K. Van Pelt (C); Salina
 *Loren Loeffler Van Petten (Ag); Washington
 *Dorothy Mae Van Tuyl (HE); Basehor
 *Andrew Joseph Vaughn (CE); Kansas City
 *Blossom Rose Vaughn (HE); Newton
 *Robert Jack Vaughn (ChE); Piedmont
 *Roberta Viola Vawter (HE); Oakley
 Carl Joseph Voelker (PVM); Manhattan
 *Ramon Earl Vollweider (GS); Oxford
 *David Roland von Riesen (IC); Marysville
 *Katherine Jean Wadley (HE); Silver Spring, Md.
 *Arthur Edgar Wagar (EE); Watervliet, N. Y.
 *Ralph Edward Waggoner (C); Osawatomie
 *Gerald Sigurd Wagstad (MI); Sumner, Wis.
 *Betty Jane Wahl (HE); Topeka
 *Merribel Wahl (HE); Wheaton
 *Norma Irene Waits (PE); Wichita
 *Carolee Walker (HE); Kansas City, Mo.
 *Ruth Marie Wall (GS); Mahaska
 *Dee Mott Wallace (Ag); Eureka
 *Durland Lee Wallace (AE); Winchester

FRESHMEN—*Concluded*

- *Frieda Faye Wallace (HE-1; C-2);
Douglass
- *Keith Wallingford (M); Manhattan
- *Gerald Winston Walter (ME-1; IJ-2);
Courtland
- *John Austin Walters (CE); Manhattan
- *Lois Nadyne Ward (HE); Le Roy
- *Guy Edward Warner, Jr. (EE); Bucklin
- *Jack Winfred Warner (EE); Clay Center
- *Robert Buchanan Washburn (EE);
Manhattan
- *LeRoy Richard Waterman (IJ);
Morrowville
- *Edna Maxine Watkins (C&A);
Manhattan
- *Edward Ernest Watkins (AA);
Wellington
- *Bruce Cornell Watson (PVM); Shawnee
- *Lindley Eugene Watson (Ag); Peck
- *Richard Yates Watson (Ag); Havensville
- *Garold Benjamin Way (EE); Wichita
- *John Franklin Weary (EE);
Junction City
- *Maxine Clara Weaver (HE); Beattie
- *Kenneth Wilson Webb (GS);
Sharon Springs
- Robert Mason Webb (AH&V);
Neodesha
- *Vanora Arlene Weber (HE); Caldwell
- *Ralph Henry Wedd, Jr. (PE);
Spring Hill
- *Bernard Morris Weiner (PVM);
Irvington, N. J.
- *Paul Albert Weirich (ME); White City
- *Robert Edward Wellborn (ME); Wamego
- *Jack Sloan Welfelt (ChE); Winfield
- *Oliver Rex Wells (ChE-1; GS-2);
Marysville
- *William Henry Wells (GS); Colony
- *Charles Maurice Wempe (Ag); Seneca
- *Leo Theodore Wendling (AE); Halstead
- *Cecil Monroe Wenkheimer (SH);
Hutchinson
- *Morris Windfred Werner (Ar); Corning
- *Leland Wertz (GS); Manhattan
- Burton Burge West (AA); Meriden
- *Percival Thomas Westmacott (ChE);
Chase
- *Kathryn Wheeler (GS); Sterling
- *Ira M. White (GS); Effingham
- *Kenneth Thaine White (C); Mount Hope
- *Orville Wayne White (ChE); Partridge
- *Roby Byron White, Jr. (EE); Neodesha
- *Richard Victor Whiteside (CE); Topeka
- *Ivan L. Whitmore (EE); Manhattan
- Don Oliver Whitney (VM)
Phillipsburg
- *Joyce Aileen Wick (IJ); Hutchinson
- *Dan Hamilton Wicker (EE); Manhattan
- *Elaine Wicker (PE); Manhattan
- *Wallace Frank Wiehe (MI); Piper
- *Margaret Ann Wilkerson (GS);
Smith Center
- *George Theodore Wilkie (ChE); Topeka
- *Nancy Patricia Wilkins (MuE); Wichita
- *Edward Earle Williams (C); Garrison
- *Ernest Merle Williams (CE); Winfield
- *LaVerne Chiles Williams (Ag); Hill City
- *Leland Hutchinson Williams (AE);
Kansas City
- *Mercedes Jane Williams (HE);
White City
- *Ralph Edward Williams (MI);
Lenoir City, Tenn.
- *Robert Dean Williams (GS); Manhattan
- *Walter Jack Williams (ME); Liberal
- *Mary Catharine Williamson (HE); Glasco
- *Thomas Philip Williamson (C); Topeka
- *Ruth LaNelle Willis (IJ); Manhattan
- *Abbie Jeanette Wilson (HE); Manhattan
- *Byron Kimble Wilson (AA); Manhattan
- *Harry Turner Wilson (CE); Emporia
- *John Albert Wilson (EE); Webber
- *John Hoffman Wilson (AE); Augusta
- *Mark Francis Wilson (AH&V); Ashland
- *Seth Frederick Wilson, Jr. (EE);
Asherville
- *William Horn Wilson (ME); Augusta
- *Marjorie B. Windhorst (GS); Glasco
- *Blanche Maida Winkler (HE); Riley
- *William Howard Winner (AA); Topeka
- *Robert Winston (Ag); Stilwell
- *John Stanley Winter (Ag); Dresden
- Otto William Winterhalter (ME);
Wichita
- John Edward Winters (GS); Manhattan
- Merrill Marvin Winters (EE); Frankfort
- *Albert Bismark Witoschik (ChE);
Atchison
- *Wallace Wayne Wittenberger (ChE);
Marysville
- *Carlyle Philip Woelfer (MI);
Chicago, Ill.
- *Vernon Winfield Woestemeyer (AE);
Bethel
- *Betty Catherine Wolf (PE-1; HE-2);
McPherson
- *Edna Joy Wolffing (HE&N); Manhattan
- Frank Hugh Wonner (C); Wakeeney
- *Thomas Richard Woods (GS); Burden
- *Quinton Jackson Woolley (Ag); Osborne
- *Martha Jane Wreath (HE); Manhattan
- *Elizabeth Barclay Wright (HE); Salina
- *Jean Frances Wright (IJ); Manhattan
- *Merritt Max Wright (GS); Wakefield
- *Paul Edward Wyland (GS); Kirwin
- *Maxine Rohrs Yale (GS); Hiawatha
- *Ben Colby York (C); Manhattan
- *Ralph Edgar York (EE); Dunlap
- *Huth Marie York (HE&N); Dunlap
- *Evelyn Ernestine Yost (HE); Downs
- *Lela Deane Yost (IM&D);
Kansas City, Mo.
- *Burneta Lucile Young (HE); Cheney
- *Albert Warren Yoxall (Ag); Woodston
- Dale Edwin Zabel (IA); Westmoreland
- *Joseph Brewer Zahn (GS); Miltonvale
- *Robert Melvin Ziegler (ME); Salina
- *Irene Frances Zink (C); Turon
- *Lawrence Ray Zoberst (AA); Gem
- Henry Godfrey Zumbrunn, Jr. (AA);
Chapman

* Matriculated 1937-'38.

SPECIAL STUDENTS

- *Vina Clifford Anderson (HE);
Rankin, Miss.
- *Quintin Algat Applequist (IA); Smolan
- *Edward D. Auchard (GS); Corning
- *Bruce Walter Ball (GS); Topeka
- *Alice Ethel Beaty (GS); Lakin
- Jean Kennedy Bell (GS); Abilene
- Edric Lee Bonebrake (GS); Concordia
- *Maxine Victoria Boucher (GS);
Concordia
- Edith Anna Boys (GS); Linwood
- *Sealy Mark Brown (GS); Manhattan
- Thomas Frank Brown (Ag); Fall River
- Oran Frank Burns (GS); Manhattan
- *Robert G. Cameron (Ag);
Englewood, Colo.
- *Esther Catherine Clover (HE); Jewell
- Howard Lyle Dickson (GS); Carbondale
- *Don D. Dodge (IA); Manhattan
- Thomas Doryland (GS); Manhattan
- *Grace Maxine Drew (HE); Great Bend
- Charles S. Dronberger (GS); Manhattan
- Leslie Ruel Edrington (GS); Manhattan
- *Mildred Rose Eubanks (HE); Holton
- *Wilma Bahr Farney (GS); Gridley
- *Miriam Gorham Foster (GS); Gorham
- Louise Ann Frank (GS); Colby
- Octavio Augusto Giammattei (Ag);
El Salvador, Central America
- *Gena Marjorie Graves (HE); Greensburg
- *James H. Guard (GS); Manhattan
- *Jene Hinton Hall (GS); Larned
- Wyndon Vernus Hurlock (ME);
St. Francis
- Vincent Rodford Hurst (GS);
Manhattan
- Maxine Huse (GS); Manhattan
- Caroline Augusta Janssen (GS); Lorraine
- Catherine Elizabeth Janssen (HE);
Lorraine
- *Julia Ellen Kleven (HE); Superior, Neb.
- *Roberta Laurene Kolterman (GS);
Wamego
- *Elizabeth May Lyman (HE);
Northfield, Minn.
- Doris Josephine McCammon (HE);
Esbon
- Howard Hutcheson McGee (Ag); Olathe
- *John W. McGuire (GS); Neodesha
- Eldon Jay Mayhew (GS); Belpre
- *Mildred Moore (HE); Manhattan
- Margaret Jo Mullen (HE); Manhattan
- *Shige Namba (HE); Tokyo, Japan
- Julius Francis Nedwed (GS);
Westmoreland
- Vernon Alfred Ostendorf (GS);
Manhattan
- *Alvin Raymond Otte (IA); Herington
- Pauline Gwendolyn Paddelford (HE);
Manhattan
- Elizabeth M. Parrish (HE); Fort Scott
- *Bette Mary Peltier (GS); Manhattan
- *James Lindsey Pennington (GS);
Oak Mills
- Harry F. Plotkin (Ag); Swissvale, Pa.
- Nancy Elizabeth Poole (HE); Manhattan
- Audrey Elanor Emert-Reynolds (GS);
Chetopa
- Noel Neville Robb (Ag); Dodge City
- *Lloyd Edwin Robbins (GS); Belleville
- *Ralph Foster Roper (AE); Barnes
- Ada Marie Ruff (GS); Manhattan
- *Lillian Ellen Sandelin (Ar); Fort Riley
- Marion Pearl Sherrard (GS); Great Bend
- Esra Ervin Stockebrand (Ag);
Leonardville
- *Samuel Morrison Swartz (GS); Winfield
- *R. Hugh Uhlmann (Ag);
Kansas City, Mo.
- *Constance Eloise Utterback (GS);
Oberlin
- *Harold Burton Vernon (Ag); Simpson
- LaVerne Rosemarie Weekly (HE); Girard
- *DeLaura Vivian Whipple (GS);
Manhattan
- John L. Wray (CE); Norton

* Matriculated 1937-'38

Summer School Students

Nine-week Summer School

JUNE 1 to JULY 31, 1937

GRADUATE STUDENTS

Hattie Julia Abbott; Moscon, Idaho	Otis Benton Glover; Manhattan
Robert Francis Adams; Wellington	Earl Todd Goodfellow; Wells
Mildred Laura Ahlstrom; Reading	Arthur E. Goodwin; Concordia
Ellen Hall Ambler; Cheney	Margaret R. Goodyear; Wichita
Edith Evelyn Ames; Brewster	Guilford B. Grant; Dozier, Ala.
Kling LeRoy Anderson; Turlock, Cal.	Edison Greer; Council Grove
Ross Harris Anderson; Richland	Edward William Grigg; Chanute
Margaret Louise Ballard; Topeka	Thomas Conrad Groody; Manhattan
Viola Frances Barron; Kensington	Roland Edward Gunn; Waverly
Esther Kathryn Beachel; Norcatur	Virgil Lee Haas; Severy
Glenn Hans Beck; Aberdeen, Idaho	Minnie Rosie Hahn; Inman
Max Bickford; Phillipsburg	Walter Roy Harder; Chanute
Marje Lorraine Blythe; White City	Merle Preston Haymond; Plevna
Mary Grace Boone; Lansing	Loren Bryce Hefling; Manhattan
Francis Woodrow Boyd; Phillipsburg	Leo Aloysius Hellmer; Olpe
† Dorothy Bradbury; Chickasha, Okla.	James E. Herbertson; Wichita
F. Roberta Bradley; Haviland	Elmer George Heyne; Wisner, Neb.
Hale H. Brown; Manhattan	John Clair Higginbotham; Herington
† Joseph Oscar Brown; Hill City	Madge D. Hildreth; Parsons
Virgil Lester Brown; Woodbine	Frederick William Hill; Sharon Springs
Ray James Bryan; Longton	Wilma Marguerite Hilt; Sabetha
Hazel Eirene Buck; Derby	Zelma E. Hockett; Manhattan
Dorothy Helen Burnet; Maize	Mildred Irene Hofmann; Manhattan
Jean Durand Burt; Manhattan	Phyllis Wheatley Honesty; Kansas City
Harold Robert Callahan; Junction City	LeRoy William Horne; Alma
Ernest Vernon Carson; Emporia	Maurice Wilson Horrell; Manhattan
Merle Vernon Chase; Sabetha	Dolores D. Horton; Abbyville
Jean Chih Ying Chen; Futsing, China	Marion R. Hottell; Americus
Ralph Durland Churchill; Junction City	Lois Elda Howard; Belfry, Mont.
Mary Josephine Coffman; Sedgwick	Eugene Everett Howe; Stockdale
Charlia Vurnnette Cole; Austin, Tex.	Walter Henry Hukriede; Lewis
Hildred Ann Cooper; Lyons	Geraldine Jones Hurd; Junction City
Majel Muriel Coopridner; Wichita	Dolf Jesse Jennings; Burlingame
Donald Risdon Cornelius; Westmoreland	Ernest DeWayne Jessup; Wichita
Owen Raymond Corwin; Waldo	Arline Johnson; Frankfort
Grace Lillian Cox; St. Paul	Mable Joan Jones; Cody, Wyo.
Hazel Sophie Cox; Blue Mound	Ethel H. Keith; Attica
Frank Gillette Craft; Galva	Althea Leonore Keller; Enterprise
† Chevalier F. Crandell; Kansas City, Mo.	Clara Bess King; Manhattan
Golda Mildred Crawford; Manhattan	Dale Franklin King; Auburn, Ala.
Madelyn Crawford; Spring Hill	Homer Dale Kirgis; Cawker City
L. E. Croy; Cottonwood Falls	Zelda M. Kleven; Superior, Neb.
Lyle S. Dougherty; Dodge City	Marguerite Beatrice Knudson; Everest
Lucile Florence Dauner; Junction City	Everett J. Kreizinger; Bellwood, Neb.
Aubrey Elbert Davidson; Miltonvale	Leonard Ben Kropp; Tulsa, Okla.
Benjamin Ammon Davis; Seneca	John Theodore Kroulik; Bellville, Tex.
Vaughn Eugene DeGeer; Lake City	Mary Pauline Lair; Topeka
E. Faye Dennis; St. John	Ralph Richard Lashbrook; Alma
Raymond J. Doll; Manhattan	Henry H. Lee; Chanute
Dorothy Rosenerans Donnelly; Manhattan	Greta Velma Leece; Formoso
Myrtle Dougherty; Manhattan	Ellen Ruth Lindstrom; Nebraska
H. Frederick Dudte; Newton	Alice Charlotte Linn; Clyde
Ralph Henry Eaton; Wilson	Eva Elizabeth Lisk; Manhattan
Avery Gilbert Eddy; Onaga	Sarah Jo Lister; Wamego
Doris E. Ekstrom; Dodge City	Charles H. Lockhart; Junction City
Leonard Hubert Elwell; Climax, Mich.	Marjorie Agnes Lomas; Princeton
Charles Clifford Eustace; Wakefield	Daisy Ferne McMullen; Norton
Evelyn Pauline Ezell; Pratt	Alexander Brown Mackie; Salina
Alva Smith Fatzer; Fellsburg	Nelle Ruth MacQueen; Manhattan
Lorena Catherine Foreman; Hutchinson	Elbert Bonebrake Macy; Woodston
Alva Everett Freeman, Jr.; Tulsa, Okla.	Charles Mantz; Medicine Lodge
Harry F. Freeman; Kansas City	Calvin J. Medlin; Manhattan
Olive Ruth Gage; LaCygne	Russell Floyd Mellies; Wellington
Emma T. Galbraith; Cottonwood Falls	Leonard Fred Miller; Agra
Alice Chapman Gaston; Downs	Victor P. Morey; Westmoreland
Mary Louise Gephart; Peabody	Ward Leonard Neel; Kansas City
Willard LeRoy Gilmore; Eskridge	Nevlyn Richard Nelson; Belle Plaine
Dora Eloise Gilmore; Chetopa	Dorothy Emma Nichols; Pittsburg
Clarence Lee Gish; Manhattan	Bertha Elizabeth Nixon; Manhattan

† In absentia.

GRADUATE STUDENTS—*Concluded*

Fern Marie Oline; Sterling
 Carl Gerhardt Ossmann; Concordia
 Betty Ozment; Manhattan
 Donald Baker Parrish; Lyons
 Oliver Pearson; Lindsborg
 Paul C. Perry; Little River
 Roland Winfield Peterson; Riley
 Wilfred Harold Pine; Lawrence
 Mila Margaret Pishney; Cleburne
 Luella May Reeve; Winfield
 Pearl Florence Reeve; Winfield
 Chas. Edward Reitz; Riley
 Jane Frances Remington; Hutchinson
 Mott Luther Robinson; Manhattan
 Ralph Rogers; Manhattan
 Dale S. Romine, Oswego
 Marion Freedlun Rychel; Alma
 Robert Jacob Rychel; Alma
 Olga Barbara Saffry; Alma
 Janet Anabel Samuel; Manhattan
 Alan M. Schaible; Fairview
 Ella Schalansky; Bunker Hill
 William Henry Schindler; Winchester
 Luke M. Schruben; Manhattan
 Louis Charles Schwanke; Alma
 Clare Liggett Shellenberger; Manhattan
 Emma Frances Shepek; Narka
 Otho Wilbur Shoemaker; Logan
 Sister Regina Marie Dickman; Salina
 Sister Mary Catherine Floersch;
 Leavenworth

Sister M. Bonaventure McKenna.
 O. S. B.; Atchison
 Sister Rose Ellen O'Neil; Leavenworth
 Elvon Gilbert Skeen; Linn
 Lydia Elizabeth Skeen; Linn
 Daphne Vivian Smith; Manhattan
 Geo. Lee Smith; Prairie View, Tex.
 Grace Louise Smith; Kansas City
 Pearl Fay Snyder; Osborne
 Ruth Alberta Specht; Randolph
 Mable A. Steiner; Moundridge
 Mary Marjorie Stevenson; Sterling
 Charles Raymond Stumbo; Manhattan
 William Woodrow Templer; Moline
 Irene Tolliver; Charles City, Iowa
 Alice Mary Towson; Topeka
 Katherine Ann Tucker; Topeka
 Marguerite V. Harper Umberger;
 Manhattan
 Irvin Wendell Wagner; Cherryvale
 Charles Philip Walters; Manhattan
 Ernest Sherman Wild; Wilsey
 Oral Martin Williamson; Kansas City
 Laura B. Nixon Willison; Wichita
 Helen Mildred Wilmore; Halstead
 Ralph Ernest Wilson; Paxico
 Mildred Dean Wiruth; Alma
 Chester Stanley Wood; Pratt
 Joe Nate Wood; Manhattan
 Abbie Downey Wright; Manhattan
 Catharine Eva Zink; Lincoln

UNDERGRADUATE STUDENTS

Harry Thomas Adamson; Keats
 Lawrence S. Alwin; Morrowville
 Earl Preston Anderson; Manhattan
 John Alden Angold; Bethel
 Mary R. Anthony; Wayne
 John Dean Armstrong; Hutchinson
 Martha Virginia Armstrong; Centralia
 Ralph W. Armstrong; Manhattan
 Richard Elliott Armstrong; Riley
 Cynthia Elizabeth Askren; Manhattan
 Emma Jane Ausherman; Abilene
 Georgiana Martha Avery; Coldwater
 Ruth Avery; Concordia
 Helena Elizabeth Ayers; Sabetha
 Gladys Irene Babb; Broughton
 Nora Alice Babb; Broughton
 Corinne Frances Baker; Manhattan
 Joe Wendell Baker; Ozawie
 Grace Morris Baldwin; Miltonvale
 Glen Barleen; Scandia
 Katheryn Elizabeth Baugh;
 Mt. Vernon, Mo.
 Arlene Betty Bauman; Bern
 Virginia Faye Baxter; Manhattan
 Robert Edward Beck; Manhattan
 Nancy Elizabeth Bedford; Osawatomie
 Donald W. Beeler; Mankato
 Howard Hayden Belew; El Dorado
 Corinne Bell; Potter
 Gladys Irene Bellinger; Americus
 Clara Henrietta Benne; Washington
 Edna Merle Bennett; Washington
 Philip Frank Bennett; Eskridge
 Hazel Emma Benson; Hollis
 William Edmond Bentley; Manhattan
 Frances Mildred Berggren; Morganville
 Minnie Louise Bergsma; Lucas
 Max Besler; Manhattan
 Ruth Evelyn Betz; Enterprise
 Leonard William Bird; Hill City
 Ruth Helen Bishop; Muscotah
 Victor Ross Blanks; Manhattan
 Edna Florence Blaser; Marysville
 Lola Hilda Blaser; Marysville
 Adzanna Mary Blochinger; Concordia
 Arthur Randolph Blythe; White City

Z. Elaine Bonar; Washington
 Gertrude Louise Boone; Newton
 Earl Clarence Borgelt; Zenda
 William Samuel Bork; Miltonvale
 Marjorie Mae Bouska; Haddam
 Belle Bowen; Arnold
 Lola Mae Bradshaw; Westmoreland
 Norman G. Branson; Belleville
 John Emerson Brazee; Iola
 Robert Allen Briggs; El Dorado
 Wilma Louise Brooks; Green
 Helen Martin Brown; Manhattan
 Lola Lucille Brown; Centralia
 Sara Davidson Brown; Manhattan
 Wilma Alene Brown; Mildred
 Virgil Richard Bryan; Woodbine
 Harry Copley Buchholtz; Olathe
 Edward Arnold Buchmann; Clay Center
 Nelson Lewis Buck; Dover, N. J.
 Alice Geneva Buikstra; Manhattan
 Ben S. Burdo; New York, N. Y.
 H. Dale Burkholder; Wamego
 Elwin Matthew Burnmaster; Ellsworth
 Mary Eliza Burt; Manhattan
 Beatrice Allene Burton; Kansas City, Mo.
 Donald Virgil Burton; Belle Plaine
 MarBeth Busch; Manhattan
 Wilma Hortense Cade; Manhattan
 Jasper R. Calcara; Kanopolis
 Tarlton Aura Caldwell; Manhattan
 A. B. Cameron; Smith Center
 Jewell C. Campbell; Rossville
 Lavone M. Carlson; Morganville
 Helene Z. Carswell; Manhattan
 Mary Ellen Carter; Morrowville
 Richard A. Case; Nickerson
 Paul Wendell Cassell; Salina
 Robert Junior Cassidy; Sylvia
 Harold Gray Canfield; McPherson
 Edna Neetta Chapin; Augusta
 Nettie Evelyn Chavey; Clyde
 Marjorie Paulene Cherry; Manchester
 Esther I. Chitwood; Meriden
 Hyle Keith Claffin; Lawrence
 Julia Ellen Clark; Miltonvale
 Margaret Wilma Clark; Manhattan

UNDERGRADUATE STUDENTS—Continued

Pauline Rae Clark; Isabel
 Robert Hugh Clark; Manhattan
 T. Stanley Clark; Penokee
 Howard W. Cleveland; Muscotah
 James Wendell Coate; Miltonvale
 Lawrence Donaldson Colburn; Manhattan
 Alice Rosalind Coldren; Oberlin
 Ralph Elias Cole; Alton
 Don W. Collins; Junction City
 Wayne Devere Collins; Marysville
 Delbert C. Collister; Salina
 Minnie Karstetter Colvin; Junction City
 Kenneth Clinton Cooper; Nickerson
 Audrey Marie Corcoran; Onaga
 Fay Dorothy Cornelius; Lane
 Mildred Kathryn Cornell; Princeton
 Amy Laurie Correll; Fort Riley
 Thomas Cantwell Cory; Parsons
 Francis Lee Cosgrove; Oketo
 Robert Geo. Cotten; Kansas City
 Deane Hadley Cousins; Talmo
 Una I. Coutermarsh; Bala
 Glorine Fay Craig; Protection
 LaVone Merle Crawford; Green
 Lucile Waniece Crites; Glen Elder
 Mary Elizabeth Crocker; White City
 Walter Francis Cronin; McCune
 Mary Eva Crosson; Minneapolis
 Maurice Crouch; Kansas City
 Palmer Howard Crow; Denison
 Wilbur R. Crowley; Burden
 Philip Burdette Dale; Atchison
 Mary Margaret Dalton; Manhattan
 Audrey Marie Davidson; Miltonvale
 June Juanita Davidson; Miltonvale
 Ruth Elizabeth Davidson; Miltonvale
 Eugene Price Davies; Winchester
 I. Harold Davies; Lebo
 Irma Simpson Davis; Clyde
 Margaret Elaine Davis; Alma
 William Barry Davis; Burr Oak
 Robert Price Dawley; Manhattan
 Dorothea Day; Glen Elder
 Ernal Irene Dearborn; Manhattan
 Edna May Decker; Holton
 Georgine Decker; Holton
 Myron Winterstein DeGeer; Lake City
 Irene E. Deschner; Beloit
 Gladys L. Devore; Narka
 Darrell Dean Dicken; Winfield
 Mary Beatrice Dickson; Washington
 Max R. Diller; Morrowville
 William Roy Dillingham; Salina
 Vivian Aline Doak; Kansas City
 Dorothy Gertrude Dodson; Clay Center
 Rachel Marie Donabauer; Glen Elder
 Thomas Doryland; Manhattan
 William Earl Doty; Manhattan
 Avis A. Downey; Manhattan
 Fern Louisa Downs; Wakefield
 Helen Amelia Droll; Alta Vista
 Yale Druley; Muncie
 Ruth E. Duck; Longford
 Helen Lucille Dunbar; Arkansas City
 Dale Leroy Duncan; St. Francis
 James J. Dunlop; Detroit
 Margaret Elizabeth Dunn; Alta Vista
 Grace Eadie; Kansas City
 Margaret Elden Easton; Beattie
 Verla Lucile Easton; Beattie
 Norma Mae Ebright; Courtland
 Nina Edublute; Manhattan
 A. Thornton Edwards; Junction City
 Karl D. Edwards; Milford
 Paul Arnold Ehrlsam; Enterprise
 Nora Pauline Eisenhut; Milford
 Maurice L. Elder; Manhattan
 Millie Jennie Elias; Manhattan
 John W. Elling; Manhattan
 Theodore Franklin Emerson; Wellington
 Donald Leroy Engle; Manhattan
 Harold Edward Engle; Manhattan
 Thaine Engle; Abilene
 John L. Engler; Chapman
 Burt Walter English; Manhattan
 Bob Estes; Kansas City
 Anne Cordelia Everett; Salina
 Ralph Leroy Everett; Longford
 Henry Horatio Farrar; Beattie
 Edna Elva Farren; Garnett
 Merle LeRoy Farris; Ottawa
 Mary Rachel Fast; El Dorado
 Willis Bert Faulkender; Holton
 Isabel G. Fell; Fellsburg
 Everett Leroy Fiedler; Enterprise
 Lucile Margaret Fincham; Blue Rapids
 Beatrice Mildred Fischli; Speed
 Leslie E. Fitz; Wilmette, Ill.
 Harry M. Flagler; Manhattan
 Jack L. Flynn; Independence
 Robert Odos Fosome; Kansas City
 Dolores Coraleen Foster; Manhattan
 Mary Guthrie Franklin; Macon, Mo.
 Annie Elizabeth Fraser, Manhattan
 Ruth Genevieve Freed; Scandia
 Helen Ann Freeman; Tonganoxie
 Lena K. Freeman; Tonganoxie
 R. Grant Freeman; Tonganoxie
 Sylvester Thaine Freeman; Severy
 Caroline Ruth French; Lyndon
 Ara Nelsene Froman; Wichita
 Florence Mae Froman; Wichita
 Alma Deane Fuller; Courtland
 Evelyn Dorothy Fuller; Courtland
 Virgil Geo. Fulmer; La Harpe
 Paul Gabler; Salina
 Erma Katherine Gamby; Everest
 Verna Belle Garey; St. George
 Jess Dudley Garinger; Harveyville
 Louis McDonald Gasche; Hartford
 Gilbert Lee Gaumer; Gypsum
 Everett Nelson George; Garnett
 Catherine Marie Gerardy; Hanover
 Lois Getty; Winchester
 Merle Eleanor Glass; Manhattan
 Helen Virginia Goff; Arkansas City
 Mary Margaret Golden; Whitewater
 Henry Clifford Graefe; Elwood
 Maurice Alfred Grant; Scott City
 Margaret Clarissa Greene; Beverly
 Dorothy Helen Greeson; Partridge
 Evelyn Mae Gress; Tonganoxie
 Bernice Inez Griffie; Blue Rapids
 Leo Raymond Griffing; Riley
 Robert L. Griffith; Bogue
 Imogene Kemp Griffiths; Clay Center
 Rosethel Grimes; Manhattan
 Norma LaVern Grob; Randolph
 †Loren Dwight Grubb; Phillipsburg
 Mildred Joyce Gurtler; Summerfield
 Grace Mary Gustafson; Manhattan
 Waneta Beulah Guthrie; Fort Scott
 LaVern Evelyn Hahn; Clay Center
 Bess Blanche Haile; Neodesha
 Avis Charlotte Hall; Agra
 Pauline Louise Hallman; Danville
 Charles William Ham; Manhattan
 M. Evalyn Hammels; Phoenix, Ariz.
 Mary R. Hanson; Marysville
 John Robert Harclerode; Sycamore
 Ethel Dale Harkness; Ness City
 Harold Hall Harris; Grinnell
 Robert LeRoy Harris; Topeka
 Helen Maxine Hart; Goff
 Mary Elizabeth Hatcher; Wamego
 Margaret Cecilia Hedlund; Clay Center
 Paul Milton Hefty; Valley Falls
 Lillian Ann Heinen; Cawker City

† In absentia.

UNDERGRADUATE STUDENTS—Continued

Florence B. J. Heizer; Manhattan
 George Anthony Hellmer; Olpe
 Clara M. Hesse; St. Marys
 Audrey Fern Hewitt; Pleasanton
 Kenneth M. Heywood; Marysville
 Helen Vivian Higbee, Eureka
 Lucile Adele Hiller; Lewis
 Wilma Marguerite Hobbie; Tipton
 Paul William Hodler; Beloit
 Edel Marie Hoelscher; Hutchinson
 Ruth M. Hofsess; Partridge
 James Leonard Hollis; Holton
 Wilma Draper Hollis; Westmoreland
 Margene V. Holmes; Manhattan
 Ina Elizabeth Honeycutt; Blue Rapids
 Janie Mae Hood; Washington
 Juanita Cleo Hoopes; Havana
 Leo M. Hoover; Greenleaf
 Miriam Roberta Hoover; Detroit
 Louis John Horn; Horton
 Charles Fred Horne; Alma
 Richard Eugene Hotchkiss; Manhattan
 Betty Ruth Houser; Grainfield
 Nannie Agnes Wesley Hoy; Beloit
 Leora B. Hubbell; Fredonia
 Robert H. Hubbell; Fredonia
 Lela Ethel Huber; Manhattan
 Alice Rose Huckstadt; Holcomb
 Hazel Gertrude Huey; Louisvillle
 Veal N. Huff; Norton
 Irene Bernice Hughes; Oak Hill
 Lucille Jeanette Humes; Glen Elder
 Albert G. Hunt; Manhattan
 Donald Munro Hunt; Manhattan
 Margaret Anne Hyde; Manhattan
 Ruth Bernice Ihde; Hope
 Virla Alice Ihde; Hope
 Mildred Mae Ince; Wamego
 Gerald Howard Ingraham; Manhattan
 Willa Velma Irving; Manhattan
 Mary Elizabeth Iserman; Topeka
 Virginia Ruth Jacques; Hutchinson
 Verland Thomas Jahnke; Woodbine
 Robert Milton Jay; Kansas City, Mo.
 Lloyd B. Jeffers; Manhattan
 Esther Elizabeth Jenkins; Jewell
 Mark Edwin Jennings; Oakley
 Alma Isabell Jenson; Goodland
 Doris Elizabeth Jensen; Cawker City
 Florence E. Jensen; Manhattan
 Mary Helen Jerard; Manhattan
 Frank Alfred Jilka; Salina
 M. Maxine Johnson; Manhattan
 Robert Bruce Johnson; Vermillion
 Zara Walter Johnson; Beeler
 Robert Compton Johnston; Manhattan
 Murl Melvin Jones; Manhattan
 Mary Christine Jorgenson; Manhattan
 Eunice Ruth Justis; Washington
 Alma Belle Karns; Bucklin
 Helen Anna Karns; Bucklin
 H. Bud Keller; Enterprise
 Mary Margaret Keller; Clyde
 Edith Kelley; Baldwin
 Grace Lea Kellogg; Lecompton
 Chester Hennessy Kennedy; Chase
 Anita M. Kensler; Manhattan
 Eula Jane Kepley; Redfield
 Wendell Robert Kerr; Mahaska
 Ruth Virnita Keys; Winchester
 Lewis Andrew Kidder; Pittsburg
 Fred V. Kilian; Detroit
 Lawrence Keeney King; Fort Scott
 Mildred King; Minneola
 Edward Fred Klahr; Topeka
 Florence Evelyn Kinesteadt; Home
 Irma Norma Kinesteadt; Home
 Ethel Louise Knight; Glen Elder
 May Belle Marie Knight; Parker
 Norma Louise Knoch; Courtland
 Helen Irene Knowles; Bushton
 Jack Haynes Koster; Salina
 Harold A. Krieg; Manhattan
 Lucy Grace Kroth; Havensville
 Katherine Kruse; Haviland
 D. Maxine Kubin; McPherson
 Gladys Elvira Kunze; Garrison
 Boyda Jo Lacy; Everest
 Mabel Luvina Lambotte; Rossville
 Velma Celesta Lambotte; Rossville
 Aaron Joseph Lane; Manhattan
 Willard Hamilton Larson; Sharon Springs
 Jessie Lee Latt; Portales, N. Mex.
 Elizabeth Christine Lechner; Salina
 Chung Keun Lee; Seoul, China
 Margaret Elizabeth Leger; Manhattan
 Delma Joyal Leidig; Washington
 Hulda Mildred Leiszler; Clifton
 Irene Lily Leiszler; Clifton
 Dorothea Leland; Manhattan
 Eula Mae Lech; Topeka
 Sidney Levine; New York
 Ellen Belle Levis; Burr Oak
 Ethel Jona Leinhardt; Manhattan
 Helen L. Lillibridge; Hutchinson
 Violet Eleanor Linville; Chase
 Glenn Orville Lloyd; Oak Hill
 Jess Robert Lockett; Coldwater
 Robert Emil Loeback; Kansas City
 Eleanor Emma Long; Stockton
 Frances Margaret Loomis; Jewell
 Robert Kirkwood Loomis; Cleveland, Ohio
 Harold G. Lortscher; Sabetha
 John Wilson Lov; Chanute
 Lucile Lund; Manhattan
 Ruth Maxine Lund; Green
 Elvera Lundine; Woodbine
 Verda Lenore Lundine; Woodbine
 James William Lutz; Sharon Springs
 Edith Elizabeth Lyness; Walnut
 Viola Mae Lyons; Haddam
 Mayme Catherine McCawley; Hollenberg
 Olive Mae McConnell; Clay Center
 Max McCord; Manhattan
 Edmund Burke McCormick; Manhattan
 Mary Mabel McCoy; Iola
 Emilie Angelina McDonald; Bremen
 Luella Ann McDonald; Bremen
 Marybelle McDonald; Bremen
 Annetta Jane McKinney; Junction City
 Patrick James McLean; Concordia
 Reva McNeil; Miltonvale
 Doris McVey; Hill City
 Avis Loretta Mack; Clay Center
 Alvin Arthur Maddy; Ransom
 Lillian Gladys Maddy; Stockton
 Manoutchehre Mahin; Iran Teheran
 Arthur Emil Malacky; Peabody
 Clara Creta Marcy; Fall River
 Ethel Mae Marcy; Fall River
 Gordon John Marold; Saguache, Colo.
 Joseph Ralph Marshall; Manhattan
 Margaret Ruth Martin; Solomon
 Evelyn Laura Mathies; McFarland
 Ann Carolyn Matkins; Enterprise
 Minnie Isobel Matthias; Atchison
 Dorothy Louise Meek; Holton
 Henry John Meenen; Clifton
 Elnora Catherine Meier; Hanover
 Raymond L. Meisenheimer; Hiawatha
 Alvah Thornton Menhusen; Randall
 Frances Elizabeth Mergenmeier; Seneca
 Laura Hamlin Merrill; Manhattan
 Dolores Ann Meyer; Frankfort
 Edith Lenora Meyer; Leonardville
 Paul Wesley Meyer; Kansas City
 Lois Alma Michelstetter; Hutchinson
 Abbie Maurine Miller; Agra
 Carl Miller; Louisa, Kentucky
 Esther Iola Miller; Walton

UNDERGRADUATE STUDENTS—*Continued*

- Hans David Oliver Miller; Manhattan
 Irwin Alvin Miller; Oberlin
 Walter Karl Miller; Dodge City
 John J. Minnis; Manhattan
 Edric Moate; Courtland
 Dorothy H. A. Modin; Olsburg
 Gertrude Margaret Moeka; Cawker City
 Fiona Grace Monaghan; Trousdale
 Naomi Monaghan; Trousdale
 Mary Margaret Montgomery;
 Sedalia, Mo.
 Paul J. Montgomery; Topeka
 Tom Allen Montgomery; Hill City
 Iris Ellen Moore; Dresden
 A. Maxine Morey; Narka
 Joseph Wade Morey; Narka
 L. George Morgan; Topeka
 Mary Katheleene Morrison; Iola
 Ethel Clarine Morton; Coldwater
 Leonard Housden Moulden; Manhattan
 Elmer Ernest Mueller; McFarland
 Earl Lawrence Mundell; Kansas City
 Helen Augusta Mundell; Nickerson
 Blanche Louise Murdock; Centralia
 Imogene Murphy; Kansas City
 Lyle Moyer Murphy; Manhattan
 Mabel Lois Murphy; Manhattan
 Elizabeth F. Nabours; Manhattan
 Leonard George Nehring; Harveyville
 Ben A. Neill; Miltonvale
 Joe P. Neill; Miltonvale
 Dorothy Leona Nelson; Manhattan
 Ruth Eleanor Newell; Junction City
 Aileen Nicolay; Osage City
 Dorothea Marie Nielson; Marysville
 Clara Wilhelmina Niemoller; Wakefield
 Jean Marie Nixon; Manhattan
 Beryl E. Noland; Lenora
 Agnes Linnea Nordell; Clyde
 Marie Esther Nordstrom; Clay Center
 Oretta Mae Oble; Home
 Irene Wilhelmina Oelke; Hoyt
 Ethel Ohr; Portales, N. Mex.
 Margaret Lucile Oldweiler; Mayetta
 Celoa May Oleson; Speed
 Frances Marie Olsen; Clay Center
 Annette Olson; Manhattan
 Elaine Olson; Manhattan
 Ethel Margaret Olson; Glen Elder
 Kathryn Irene Olson; Axtell
 Lillian Audrey Olson; Glen Elder
 Tom Raymond O'Neill; Ogden
 Vernon Alfred Ostendorf; Manhattan
 Leonard R. Ottman; Washington
 Carroll Dean Owensby; Manhattan
 Aileen Ozment; Manhattan
 June Ozment; Manhattan
 Donald Solon Paddleford; Manhattan
 Cecil H. Pankratz; Whitewater
 Wilma Adelia Parrack; Haddum
 Elizabeth May Parrish; Fort Scott
 Leota May Pascal; Morrowville
 Charles Alfred Patterson; Kansas City
 Lora Marguerite Patterson; Kansas City
 Richard Donald Patton; Newton
 Cecil Lewis Paulsen; Onaga
 Eugene Payer; Westphalia
 Clifford Marvin Payne; Formoso
 R. J. Payne; Manhattan
 Mary Louise Peery; Randall
 Grace Breeden Pennington; Manhattan
 Elvera Esther Peterson; Brantford
 J. Donald Peterson; Enterprise
 Leona C. Peterson; Junction City
 Lois Maurine Peterson; Garrison
 Velma Irene Peterson; Waterville
 Carl Lea Pettyjohn; Talmo
 Ruth Evelyn Petty; Altamont
 Martha Virginia Peyton; Topeka
 Paul Edward Phillips; Ottawa
 Ethel Marie Pierce; Clay Center
 Sylvia Beryl Plymire; Beloit
 Hyman Pogorelsky; New York
 Lester Winner Pollom; Topeka
 Gerald Powell; Hamlin
 Lucile Ann Pralle; Bremen
 William M. Proudfit; Powhattan
 R. Glenn Raines; Manhattan
 Kenneth Edwin Rall; Wichita
 Mae Irene Ramsey; Beloit
 Ruby Randall; Ashland
 Amy Rasher; Solomon
 John Gilbert Reel; Manhattan
 Anellen Reiter; Marysville
 Anna Hilkea Remmers; Riley
 Jennie Fee Richards; Wamego
 Maxine Roberta Roberts; Cawker City
 Jeanne Constance Robinson;
 Moberly, Mo.
 Harold D. Rodabaugh; Manhattan
 Lois Josephine Rodgers; Concordia
 Pauline Rogers; Concordia
 Eugene Curtis Roe; Manhattan
 Mary M. Rolfe; Fairview
 Virginia Belle Rooks; Manhattan
 Frank Pletcher Root, Jr.; Manhattan
 Nathan Matthew Rosenbaum;
 Yonkers, N. Y.
 Ethel Agnes Rosey; Junction City
 Louis Rotar; Kansas City
 Clare Irene Roth; Alma
 Vera Dorothy Ruetti; Irving
 Bertha Virginia Ruhl; Hiawatha
 Orel Dale Rundle; Axtell
 Edward Allen Russell; Manhattan
 Louise Rust; Manhattan
 Ellen Elizabeth Sage; Dover
 Ruth Elaine Salisbury; Manhattan
 Andy John Sargent; Colton, Cal.
 Julia Sawtell; Topeka
 Kathryn Patrica Scheier; Everest
 Rosemary Grace Scheier; Everest
 Francis Noel Schlaegel; Olsburg
 Ethel Irene Schmedemann; Dwight
 Vida Mae Schmidler; Manhattan
 Louis Howard Scholl; Kansas City, Mo.
 Ruth Mildred Schooley; Clay Center
 Merwin Ellenwood Schoonover; Topeka
 Genevieve Eleanor Schroer; Manhattan
 Thelma M. Schroth; Concordia
 George Albert Schutter; Silver Lake
 Letha LaVonne Schutter; Paxico
 Hazel Marie Scott; Manhattan
 Marjorie Marie Scott; Altoona
 Marjorie Pauline Scott; Hanover
 Dorothy A. Sears; Kansas City
 Deane Robert Seaton; Abilene
 Aurelia Amelia Seeberger; Hanover
 Maxine Elizabeth Seeberger; Hanover
 Edith Alfreda Sellberg; McPherson
 Allan Eugene Settle; Strong City
 Bernice Cecilia Shaffer; Barnes
 Maxine M. Shaffer; Beloit
 LaGrande Clarence Shaw; Manhattan
 Roger T. Shepherd; Rexford
 Willard J. Sherar; Latham
 Mary Sherwood; Concordia
 Vernice Shipman; Kansas City
 Patricia Walsh Shoaf; Topeka
 Winifred Louise Shoyer; Soldier
 Gerald E. Simms; Republic
 Harriette C. Simpson; Fort Leavenworth
 Lois Frances Simpson; Dresden
 Ruth Simpson; Leonardville
 Wilbert Homer Simpson; Bala
 Frances Ellen Singleton; Tribune
 Gordon R. Skiver; Burr Oak
 Clarence William Smith; Clay Center
 Elvera M. Smith; Waterville
 Faye Marcelle Smith; Randall

UNDERGRADUATE STUDENTS—*Concluded*

- Margaret E. Smith; Oketo
 Marjorie Nan Smith; El Dorado
 Mary Isabel Smith; Manhattan
 Roy Ivan Smith; Lincoln
 Stephen Milton Smith; Girard
 Morton Smutz; Manhattan
 Christel Lorene Sobey; Galt, Cal.
 Chester H. Somers; Clay Center
 Jack Clifford Sorenson; Kansas City
 W. G. Spear, Jr.; Manhattan
 Meredith Earl Sperline; Sabetha
 Herbert August Sperling; Inman
 Melvin Lloyd Spitze; Kinsley
 Eleanor Stahlman; Potwin
 Frieda May Steckel; Virgil
 Gordon K. Steele; Columbus
 Robert J. Steele; Manhattan
 Carl Fred Steinhauser;
 Mountain Lake, Minn.
 Elden Russell Stensaas; Concordia
 Mary M. Stephenson; Little River
 Charlesanna Dorothea Stewart; Hutchinson
 † Mary Luella Stewart; Topeka
 Alice Mary Stockwell; Manhattan
 Evelyn Emma Stout; Lone Elm
 Hattie Helen Strauss; Chapman
 Wm. R. Strieby; Council Grove
 Donald Dexter Swenson; Clay Center
 Opal Lorena Tabler; Wamego
 C. O. Tackwell; Manhattan
 Birdye Princess Taliaferro; Frankfort
 Ethel Spiers Tempero; Keats
 Beulah Agness Thomas; Manhattan
 Buford Lewis Thomas; Kansas City
 Willard C. Thorsness; Longford
 Margaret E. Tillinghast; Clifton
 Mary Adeline Todd; Clay Center
 Alice Verle Torgeson; Council Grove
 Hazel Marie Torgeson; Council Grove
 Edgel Nadean Trusler; Junction City
 Lois Belle Turner; Kiowa
 Edith Mary Ikena; Leona
 Pauline E. Umberger; Manhattan
 Francis Edna Vautravers; Centralia
 Viva Louise Vautravers; Centralia
 Rose Marie Vesely; Blue Rapids
 Bessie Oretta Vopata; Marysville
 Evelyn Maxine Walker; El Dorado
 William H. Walker; Junction City
 Edna Walters; Vining
 Harold Walters; Wetmore
 Mildred Berniece Walters; Vining
 Alta Grace Ward; Seneca
 Theresa Mae Ward; Langdon
 Lloyd Robert Ware; Liberal
 Robert Charles Warner; Wichita
 Irene M. Wassmer; Garnett
 Arlene Lois Waterson; Ness City
 Olatha Pearlina Watson; Rolla
 Clarence Hale Weaver; Clay Center
 Gwendolyn Jay Weaver; Beattie
 Merle A. Webb; Manhattan
 Evelyn Jeannette Wehling; Hollenberg
 Guy Justin Wells; Morrowville
 Don Oliver Whitney; Phillipsburg
 Herbert Wiebe; Hillsboro
 Curtis Wieland; Linn
 John Bennett Wilcox; Manhattan
 Robert Mark Wiley; Fredonia
 Leona Margaret Wilkerson; McFarland
 Wilma Grace Wilkins; Milford
 Francis Imogen Willhof; Oak Hill
 Josephine Mary Williams; Meriden
 Marjorie Ellen Williams; Marysville
 John Huron Williamson; Topeka
 Wilson A. Willis; Manhattan
 Velma Louise Wilsey; Washington
 Elizabeth Wilsman; Burr Oak
 Daisy Mae Wilson; Irving
 Elaine M. Wilson; Towanda
 Evelyn Ruth Wilson; Towanda
 Margaret Alleyne Wilson; Valley Center
 Victoria H. J. Wilson; Manhattan
 Norman D. Wilttrout; Logan
 Harry Lester Wimmer; Robinson
 Elmer H. Windscheffel; Smith Center
 Joseph Lewis Wissman; Parsons
 Wayne Ross Witter; Brookfield, N. Y.
 Agnes Viola Woellhof; Clay Center
 Max Wolf; Manhattan
 Tit Wong; Canton, China
 Frank Hugh Wonner; Wakeeney
 Catherine Louise Wood; Wakefield
 Harry A. Woodbury; Abilene
 Everett Wilson Woodward; Salina
 Iola May Wright; Beattie
 Jack Frederic Wynne; Salina
 Millard F. Yantzi; Kansas City
 Dewey Herman Young; Clay Center
 Gladys Katherine Young; Haddam
 Russell John Younkin; Wakefield
 Mildred Margaret Zach; Morrowville
 Edward B. Zahn; Miltonvale
 Abraham Zatman; Pittsburg, Pa.
 James Elias Ziegler; Junction City
 Katherine Zimmerman; Simpson
 Susan Luella Zimmerman; Simpson
 Ruth Virginia Zirkle; Jamestown

Four-week Summer School

JULY 5 to JULY 31, 1937

GRADUATE STUDENTS

Thomas Glen Betts; Wellsville
Roy Elmer Bonar; Alta Vista
Francis Edward Carpenter; Topeka
Blaine Crow; Beloit
Vernett Edward Flecher; Woodston
Albert A. Haltom; Reading
J. Willis Jordon; Williamsburg
Alden H. Loomis; Paxico
G. A. Merkey; Portis

Clarke Carlyle Milligan; Linn
Harold Alfred Noyce; Auburn
W. Newell Page; Sabetha
Fred C. Schopp; Tampa
Fred Henry Schultis; Inman
Lewis Ivan Thomas; Wakeeney
Mannie Ray Wilson; Manhattan
Clemens Harry Young; Beverly

UNDERGRADUATE STUDENTS

Wesley Wayne Richardson; Erie
Lee Edward Shirley; Lucas

Verne R. Wilcox; Agenda

Students by States, Foreign Countries and Kansas Counties

STATES

Alabama.....	2	Louisiana.....	1	Oklahoma.....	28
Arizona.....	1	Maryland.....	2	Oregon.....	1
Arkansas.....	6	Massachusetts.....	4	Pennsylvania.....	16
California.....	20	Michigan.....	2	Rhode Island.....	1
Colorado.....	13	Minnesota.....	8	South Dakota.....	3
Connecticut.....	10	Mississippi.....	2	Texas.....	16
District of Columbia...	2	Missouri.....	99	Utah.....	1
Florida.....	2	Montana.....	4	Vermont.....	1
Georgia.....	3	Nebraska.....	24	Virginia.....	1
Idaho.....	2	Nevada.....	1	Washington.....	2
Illinois.....	20	New Jersey.....	21	Wisconsin.....	4
Indiana.....	12	New Mexico.....	5	Wyoming.....	5
Iowa.....	10	New York.....	39		
Kansas.....	4,275	North Carolina.....	3	Total.....	4,683
Kentucky.....	2	Ohio.....	9		

FOREIGN COUNTRIES

Central America.....	1	Japan.....	1	Puerto Rico.....	1
China.....	6	Korea.....	1		
Iran (Persia).....	1	Mexico.....	1	Total.....	12
				Grand total.....	4,695

KANSAS COUNTIES

Allen.....	24	Greenwood.....	31	Pawnee.....	39
Anderson.....	18	Hamilton.....	4	Phillips.....	39
Atchison.....	43	Harper.....	22	Pottawatomie.....	100
Barber.....	23	Harvey.....	55	Pratt.....	27
Barton.....	31	Haskell.....	3	Rawlins.....	11
Bourbon.....	15	Hodgeman.....	4	Reno.....	122
Brown.....	51	Jackson.....	47	Republic.....	68
Butler.....	61	Jefferson.....	38	Rice.....	64
Chase.....	22	Jewell.....	55	Riley.....	629
Chautauqua.....	7	Johnson.....	34	Rooks.....	15
Cherokee.....	11	Kearney.....	7	Rush.....	14
Cheyenne.....	11	Kingman.....	23	Russell.....	23
Clark.....	14	Kiowa.....	19	Saline.....	91
Clay.....	87	Labette.....	36	Scott.....	9
Cloud.....	74	Lane.....	3	Sedgwick.....	136
Coffee.....	18	Leavenworth.....	54	Seward.....	13
Comanche.....	22	Lincoln.....	22	Shawnee.....	187
Cowley.....	58	Linn.....	11	Sheridan.....	9
Crawford.....	20	Logan.....	12	Sherman.....	13
Decatur.....	19	Lyon.....	45	Smith.....	53
Dickinson.....	132	McPherson.....	53	Stafford.....	32
Doniphan.....	11	Marion.....	27	Stanton.....	1
Douglas.....	15	Marshall.....	101	Stevens.....	2
Edwards.....	34	Meade.....	8	Sumner.....	50
Elk.....	9	Miami.....	25	Thomas.....	14
Ellis.....	11	Mitchell.....	44	Thos.....	11
Ellsworth.....	26	Montgomery.....	23	Wabaunsee.....	50
Finney.....	18	Morris.....	52	Wallace.....	12
Ford.....	41	Morton.....	9	Washington.....	100
Franklin.....	30	Nemaha.....	66	Wichita.....	1
Geary.....	79	Neosho.....	21	Wilson.....	30
Gove.....	10	Ness.....	20	Woodson.....	7
Graham.....	16	Norton.....	35	Wyandotte.....	135
Grant.....	4	Osage.....	22		
Gray.....	5	Osborne.....	34	Total.....	4,275
Greeley.....	6	Ottawa.....	27		

Record of Registration and Degrees Conferred, 1863-1938

YEAR	Summer school	Housekeepers' short course	Dairy Mfg. short course	Dairy short course	Farmers' short course	Apprentice	Special	Preparatory	Subfreshman	Vocational school	Freshman	Sophomore	Junior	Senior	Graduate	Counted twice	Net total	Graduated	Advanced degrees
1863-'64*								92			14						106		
1864-'65								91			14	8	1				114		
1865-'66								99			21	3	5				128		
1866-'67								118			11	7	1	5			142	5	
1867-'68								103			6	5	1				115		1
1868-'69								137			10	10	2		1		160		
1869-'70								119			10	12	1				142		
1870-'71								118			13	5	4	5			145	5	5
1871-'72								129			20	11	3	5	2	2	168	3	1
1872-'73																	173	2	1
1873-'74								137			24	14	3	6			184	5	
1874-'75																	143	2	1
1875-'76																	238	5	
1876-'77																	232	9	1
1877-'78																	152	4	
1878-'79																	214	9	2
1879-'80							1				166	61	35	11	2		276	7	2
1880-'81							6				178	48	24	9	2		267	8	
1881-'82							5				227	50	19	11			312	9	2
1882-'83							4				241	60	30	12			347	12	3
1883-'84							2				255	92	26	18	2		395	17	
1884-'85							2				271	71	36	16	5		401	14	1
1885-'86							1				273	91	35	24	4		428	21	2
1886-'87											303	100	44	24	10		481	21	5
1887-'88											305	92	46	27	2		472	22	1
1888-'89											266	103	41	28	7		445	25	1
1889-'90							1				307	105	63	28	10		514	27	2
1890-'91											343	135	50	53	12		593	52	2
1891-'92											336	139	62	37	10		584	35	
1892-'93											339	110	66	43	29		587	39	9
1893-'94											275	141	72	42	25		555	39	6
1894-'95							5				276	108	89	64	39		572	57	3
1895-'96							3				353	121	67	71	32		647	66	4
1896-'97							6				321	163	69	62	46		734	55	8
1897-'98				6		9	15	77			316	174	77	82	57	10	803	68	10
1898-'99				26		35	40	110			306	177	92	65	40	21	870	54	10
1899-1900		24		57		47	50	32	162		376	163	109	69	27	22	1,094	58	3
1900-'01		47		72	109	79	23	318			348	183	80	74	40	52	1,321	60	9
1901-'02		41		66	125	87	19	298			396	206	120	65	32	59	1,396	52	3
1902-'03		63		38	123	78	36	342			471	229	141	86	24	57	1,574	55	
1903-'04	17	51		16	122	72	33	443			403	206	161	114	20	36	1,605	102	1
1904-'05	15	88		24	99	12	30	500			289	198	122	117	26	43	1,462	107	2
1905-'06	18	92		28	118		46	598			373	214	145	110	30	64	1,690	96	4
1906-'07	18	134		23	179		48	144	511		411	269	149	133	24	88	1,937	119	5
1907-'08	29	188		26	173		42	134	528		450	357	202	148	26	82	2,192	116	4
1908-'09	25	168		18	197		42	134	521		491	381	243	171	28	86	2,308	146	12
1909-'10	22	152	4	111	124		87	89	453		456	417	286	170	26	70	2,305	141	2
1910-'11	31	160	9	26	285		107		364		533	412	288	248	34	59	2,407	219	2
1911-'12	94	160	14		280		85		580		337	461	288	261	44	81	2,523	231	6
1912-'13	282	175	11		289		129		654		444	432	355	268	55	166	2,928	230	4
1913-'14	370	149	12		223		112		658		516	431	324	327	64	159	3,027	283	8
1914-'15	472	127	18		199		120		560		575	368	383	321	48	200	3,089	223	6
1915-'16	536	85	17		207		188	175	484		605	454	305	401	76	219	3,314	342	18
1916-'17	586	103	14		228		191	172	422		693	471	378	282	68	279	2,340	197	13
1917-'18	481	84			119		135	138	231		483	349	294	238	36	190	2,406	215	17
1918-'19	519	25	5		160		400	199	216		810	322	254	201	34	144	2,991	167	7
1919-'20	415	57	3		117		362	271	224		894	400	297	273	44	167	3,376	260	11
1920-'21	604	30	10		96		278	270	280		878	602	318	273	42	294	3,395	248	14
1921-'22	820	19	10		59		173	221	297		931	628	422	296	125	813	3,560	271	28
1922-'23	884	19	8		55		83	163	220		1004	656	460	401	118	457	3,626	341	31
1923-'24	978	12	7		43		57	161	167		1160	657	458	413	171	475	3,812	342	43
1924-'25	1120	14	14		55		54	139	47		1391	679	467	347	185	486	4,031	335	52
1925-'26	947	12	11		41		29	89			1494	725	512	344	182	384	4,019	341	51
1926-'27	959		18		52		71		19		1311	854	509	411	179	300	4,083	357	77

RECORD OF REGISTRATION AND DEGREES CONFERRED, 1863-1938—*Concluded*

YEAR	Summer school.....	Housekeepers' short course.....	Dairy Mfg. short course.....	Dairy short course..	Farmers' short course.....	Apprentice.....	Special.....	Preparatory.....	Subfreshman.....	Vocational school...	Freshman.....	Sophomore.....	Junior.....	Senior.....	Graduate.....	Counted twice.....	Net total.....	Graduated.....	Advanced degrees..
1927-'28...	966	.....	20	.....	57	.....	88	.....	7	.....	1039	819	584	500	167	418	3,878	429	70
1928-'29...	920	.....	18	.....	51	.....	57	.....	9	.....	1084	743	584	537	197	321	3,879	461	84
1929-'30...	902	.....	13	.....	59	.....	70	.....	9	.....	1128	787	581	554	432	548	3,987	469	91
1930-'31...	995	.....	24	.....	52	.....	50	.....	7	.....	1077	790	605	528	506	589	4,045	424	91
1931-'32...	1059	.....	12	.....	2)	.....	54	.....	.....	.....	933	752	633	572	572	688	3,928	486	119
1932-'33...	995	.....	.....	.....	.....	.....	72	.....	.....	.....	666	596	552	590	518	630	3,359	523	118
1933-'34...	655	.....	.....	.....	.....	.....	61	.....	.....	.....	707	558	520	522	327	422	2,928	423	70
1934-'35...	722	.....	.....	.....	.....	.....	52	.....	.....	.....	1081	616	548	557	316	456	3,436	470	52
1935-'36...	989	.....	.....	.....	.....	.....	69	.....	.....	.....	1330	820	660	574	391	572	4,261	478	72
1936-'37...	917	.....	.....	.....	.....	.....	64	.....	.....	.....	1323	947	774	623	440	634	4,457	521	90
1937-'38...	890	.....	.....	.....	.....	.....	67	.....	.....	.....	1297	972	810	787	409	537	4,695	.....	.....

* Figures previously published for the years 1863-1879 are here revised to conform to records recently found by Dr. J. T. Willard, College historian.

† Figures above this column include neither graduate students in summer session, nor undergraduate students pursuing graduate work.

College Registration, 1937-1938

THE DIVISIONS.	Men.	Women.	Total.
The Division of Agriculture	756	5	761
Graduate students.....	43	1	44
Seniors.....	130	.....	130
Juniors.....	146	1	147
Sophomores.....	187	2	189
Freshmen.....	241	1	242
Special students.....	9	.....	9
The Division of Veterinary Medicine	280	.....	280
Graduate students.....	1	.....	1
Seniors.....	43	.....	43
Juniors.....	67	.....	67
Sophomores.....	58	.....	58
Freshmen.....	61	.....	61
Preveterinary.....	50	.....	50
The Division of General Science	849	400	1,249
Graduate students.....	67	27	94
Seniors.....	161	83	244
Juniors.....	156	69	225
Sophomores.....	170	86	256
Freshmen.....	279	116	395
Special students.....	16	19	35
The Division of Home Economics.....	.....	769	769
Graduate students.....	.....	43	43
Seniors.....	.....	141	141
Juniors.....	.....	138	138
Sophomores.....	.....	212	212
Freshmen.....	.....	219	219
Special students.....	.....	16	16
The Division of Engineering	1,161	9	1,170
Graduate students.....	13	.....	13
Seniors.....	228	2	230
Juniors.....	240	2	242
Sophomores.....	272	2	274
Freshmen.....	402	2	404
Special students.....	6	1	7
Totals.....	3,046	1,183	4,229
Counted twice.....	82	25	107
Net totals	2,964	1,158	4,122
The Summer School (1937)	395	495	890
Totals.....	3,359	1,653	5,012
Counted twice.....	192	125	317
Net grand totals	3,167	1,528	4,695
The Division of Graduate Study	243	166	409
Graduate students in regular session.....	124	71	195
Graduate students in summer school.....	119	95	214
Counted twice.....	28	11	39
Net (in summer school only).....	91	84	175
Graduate students in absentia (included in above figures).....	15	5	20
Undergraduates carrying graduate work.....	28	11	39

Degrees Conferred in the Year 1937

DIVISION AND CURRICULUM (OR MAJOR STUDY).	Men.	Women.	Total.
Division of Agriculture (B. S.)	97	2	99
Agriculture.....	91	2	93
Milling Industry.....	6		6
Division of Engineering (B. S.)	132		132
Agricultural Engineering.....	13		13
Architecture.....	5		5
Architectural Engineering.....	5		5
Landscape Architecture.....	1		1
Chemical Engineering.....	21		21
Civil Engineering.....	22		22
Electrical Engineering.....	30		30
Mechanical Engineering.....	35		35
Division of General Science (B. S.)	77	85	162
Commerce.....	25	13	38
General Science.....	20	39	59
Industrial Chemistry.....	11		11
Industrial Journalism.....	13	19	32
Musical Education.....		9	9
Physical Education.....	8	5	13
Division of Home Economics (B. S.)		94	94
Home Economics.....		94	94
Division of Veterinary Medicine (D. V. M.)	34		34
Veterinary Medicine.....	34		34
Total of undergraduate degrees	340	181	521
Division of Graduate Study (M. S.)	57	23	80
Agricultural Economics.....	5		5
Agricultural Engineering.....	1		1
Agronomy.....	1		1
Animal Husbandry.....	1		1
Applied Mechanics.....	2		2
Bacteriology.....	2		2
Botany.....	2		2
Chemistry.....	5		5
Chemical Engineering.....	1		1
Child Welfare and Euthenics.....		1	1
Clothing and Textiles.....		1	1
Education.....	20	1	21
Electrical Engineering.....	1		1
English.....		2	2
Entomology.....	1	1	2
Food Economics and Nutrition.....		7	7
General Home Economics.....		3	3
History.....		1	1
Horticulture.....	2		2
Household Economics.....		2	2
Industrial Journalism.....	1		1
Institutional Management.....		2	2
Milling Industry.....	1		1
Physics.....		1	1
Physiology.....		1	1
Poultry Husbandry.....	1		1
Psychology.....	3		3
Zoology.....	7		7
Division of Graduate Study (Ph. D.)	2		2
Genetics.....	1		1
Organic Chemistry.....	1		1
Professional Degrees	6		6
Architect.....	1		1
Civil Engineering.....	2		2
Electrical Engineering.....	3		3
Honorary Degrees	1	1	2
Doctor of Science.....	1	1	2
Total of degrees conferred in 1937	406	205	611

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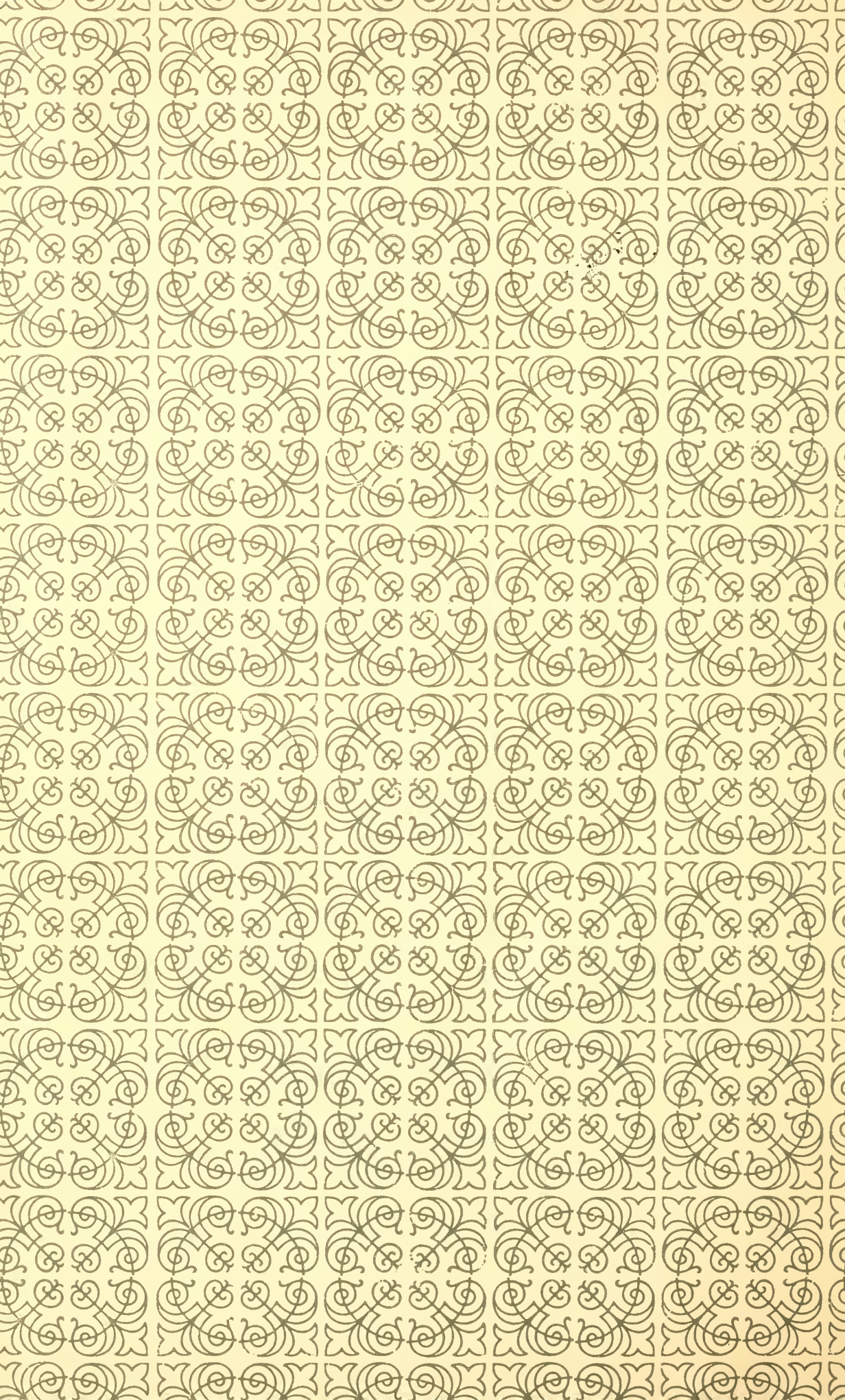
Analysis of Registration, 1937-1938

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* Including 50 preveterinary.

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Kansas. State college of agri.
and applied science.
Catalogue. 1937/38.

V. A. Kraft

L. B. Kraft

Iowa St Coll

Dec. 9, 1943

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