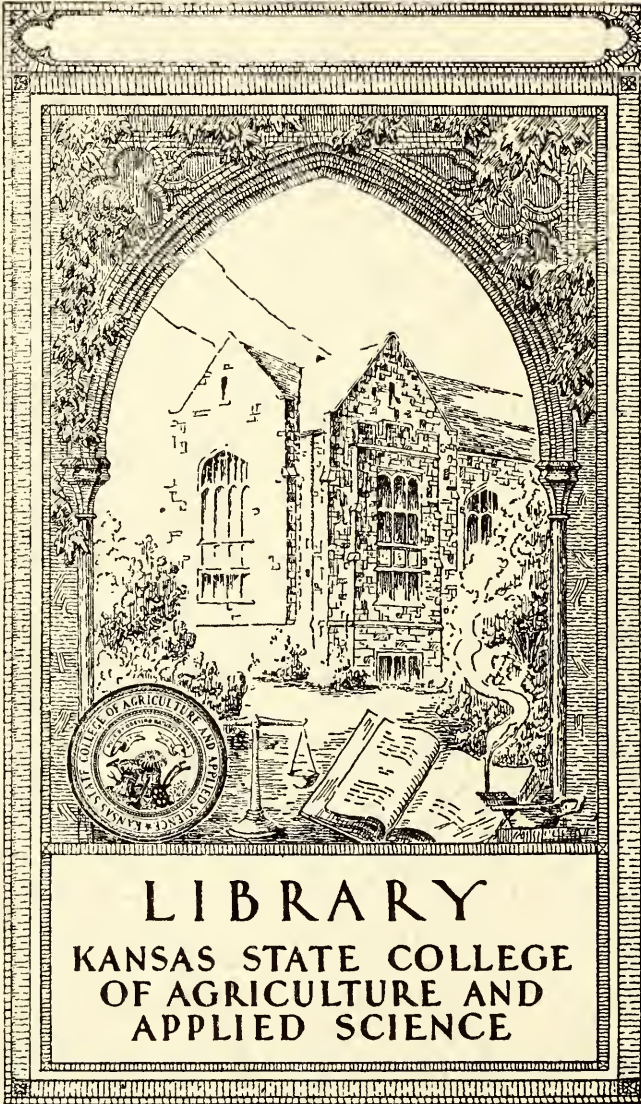
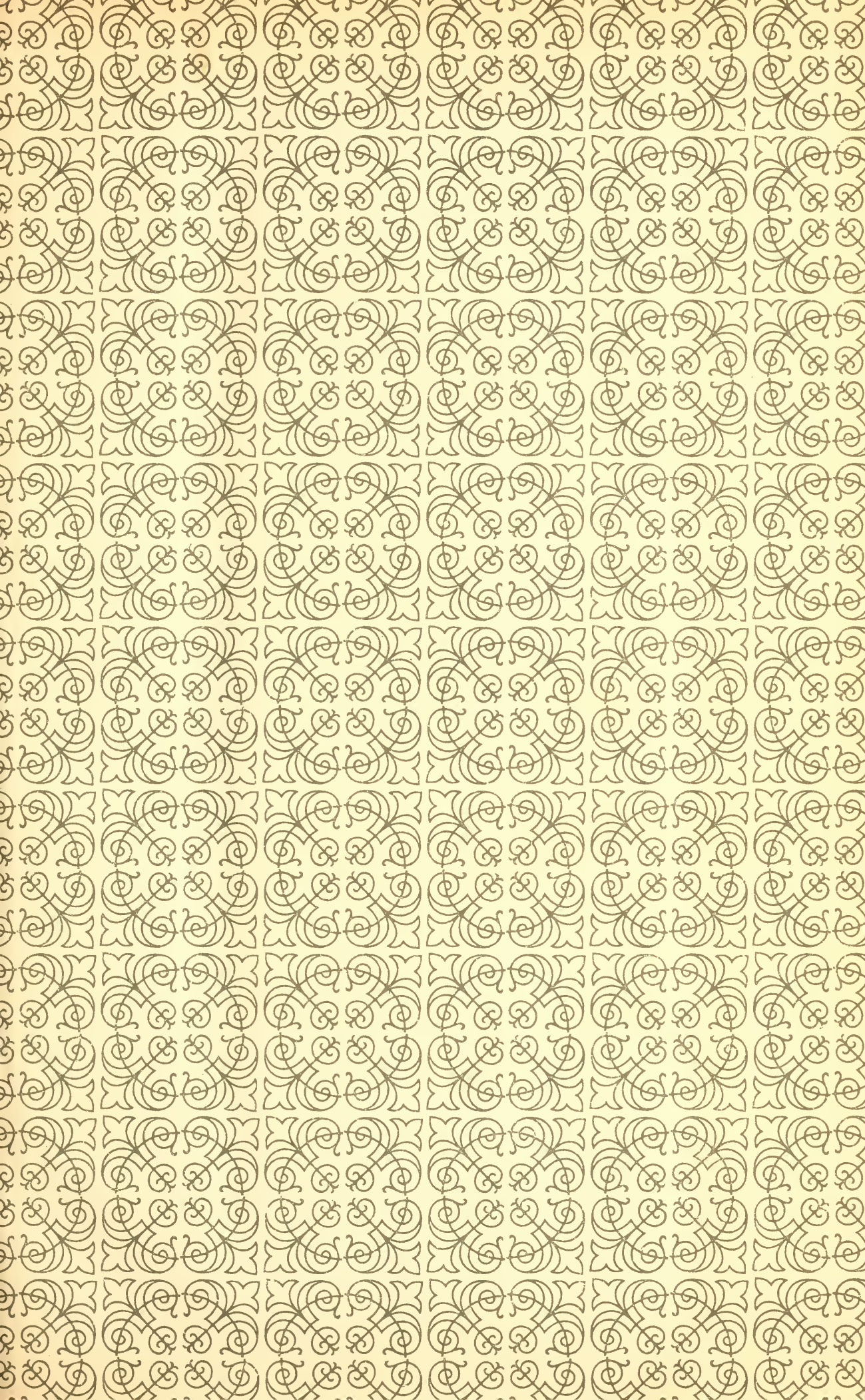


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KANSAS STATE COLLEGE BULLETIN

VOLUME XXIV

JUNE 15, 1940

NUMBER 6

COMPLETE CATALOGUE NUMBER

SEVENTY-SEVENTH SESSION

1939-1940



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 1940
18-4569

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1939/40
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KANSAS STATE COLLEGE BULLETIN

VOLUME XXIV

FEBRUARY 1, 1940

NUMBER 3

CATALOGUE NUMBER

SEVENTY-SEVENTH SESSION, 1939-1940

ANNOUNCEMENTS FOR THE SESSION OF 1940-1941



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OF AGRICULTURE AND APPLIED SCIENCE

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CALENDAR

1940														1941													
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
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7	8	9	10	11	12	13	7	8	9	10	11	12	13	5	6	7	8	9	10	11	6	7	8	9	10	11	12
14	15	16	17	18	19	20	14	15	16	17	18	19	20	12	13	14	15	16	17	18	13	14	15	16	17	18	19
21	22	23	24	25	26	27	21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26
28	29	30	31	..	..	..	28	29	30	31	..	..	..	26	27	28	29	30	31	..	27	28	29	30	31	..	..
FEBRUARY							AUGUST							FEBRUARY							AUGUST						
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4	5	6	7	8	9	10	4	5	6	7	8	9	10	2	3	4	5	6	7	8	3	4	5	6	7	8	9
11	12	13	14	15	16	17	11	12	13	14	15	16	17	9	10	11	12	13	14	15	10	11	12	13	14	15	16
18	19	20	21	22	23	24	18	19	20	21	22	23	24	16	17	18	19	20	21	22	17	18	19	20	21	22	23
25	26	27	28	29	..	..	25	26	27	28	29	30	31	23	24	25	26	27	28	..	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..
MARCH							SEPTEMBER							MARCH							SEPTEMBER						
..	..	..	..	1	2	..	1	2	3	4	5	6	7	..	..	..	..	..	1	..	1	2	3	4	5	6	
3	4	5	6	7	8	9	8	9	10	11	12	13	14	2	3	4	5	6	7	8	7	8	9	10	11	12	13
10	11	12	13	14	15	16	15	16	17	18	19	20	21	9	10	11	12	13	14	15	14	15	16	17	18	19	20
17	18	19	20	21	22	23	22	23	24	25	26	27	28	16	17	18	19	20	21	22	21	22	23	24	25	26	27
24	25	26	27	28	29	30	29	30	..	..	..	..	..	23	24	25	26	27	28	29	28	29	30	..	..	..	..
31	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..	..	..	..	..	..	..	..
APRIL							OCTOBER							APRIL							OCTOBER						
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7	8	9	10	11	12	13	6	7	8	9	10	11	12	6	7	8	9	10	11	12	5	6	7	8	9	10	11
14	15	16	17	18	19	20	13	14	15	16	17	18	19	13	14	15	16	17	18	19	12	13	14	15	16	17	18
21	22	23	24	25	26	27	20	21	22	23	24	25	26	20	21	22	23	24	25	26	19	20	21	22	23	24	25
28	29	30	..	..	..	..	27	28	29	30	31	..	..	27	28	29	30	..	..	..	26	27	28	29	30	31	..
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MAY							NOVEMBER							MAY							NOVEMBER						
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5	6	7	8	9	10	11	3	4	5	6	7	8	9	4	5	6	7	8	9	10	2	3	4	5	6	7	8
12	13	14	15	16	17	18	10	11	12	13	14	15	16	11	12	13	14	15	16	17	9	10	11	12	13	14	15
19	20	21	22	23	24	25	17	18	19	20	21	22	23	18	19	20	21	22	23	24	16	17	18	19	20	21	22
26	27	28	29	30	31	..	24	25	26	27	28	29	30	25	26	27	28	29	30	31	23	24	25	26	27	28	29
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	..	..	..	..	..	..
JUNE							DECEMBER							JUNE							DECEMBER						
..	..	..	..	..	..	1	1	2	3	4	5	6	7	1	2	3	4	5	6	7	..	1	2	3	4	5	6
2	3	4	5	6	7	8	8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
9	10	11	12	13	14	15	15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
16	17	18	19	20	21	22	22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
23	24	25	26	27	28	29	29	30	31	..	..	..	..	29	30	..	..	..	..	..	28	29	30	31	..	..	..
30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

THE COLLEGE CALENDAR

SUMMER SCHOOL, 1940

May 29, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.
May 29, Wednesday.—Examination for students deficient in entrance subjects, 8 a. m. to 5 p. m.
May 29 to July 27, Wednesday to Saturday.—Nine-week Summer School in session.
May 30, Thursday.—Memorial Day, holiday.
June 3 to 8, Monday to Saturday.—4-H Club Round-up.
June 27, Thursday.—Scholarship deficiency reports to students and deans are due.
July 1 to 27, Monday to Saturday.—Four-week Summer School in session.
July 4, Thursday.—Independence Day, holiday.
July 26, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.
July 27, Saturday.—Summer School closes at 5 p. m.
Aug. 3, Saturday.—Reports of all grades for Summer School are due in registrar's office.

FIRST SEMESTER, 1940-1941

Aug. 16, Friday.—All preparatory school credentials and college credentials should be filed with the vice-president of the College not later than this date.
Sept. 5, Thursday.—Assigners meet with committee on schedule at 2 p. m. in W 115, and with deans at 3 p. m.
Sept. 6, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Sept. 6, Friday.—Registration and assignment of freshmen.
Sept. 7, Saturday.—Induction exercises for freshmen. ✓
Sept. 9 and 10, Monday and Tuesday.—Induction exercises for freshmen.
Sept. 9 and 10, Monday and Tuesday.—Registration and assignment of all other students. ✓
Sept. 11, Wednesday.—Classes meet according to schedule, beginning at 8 a. m.
Sept. 11, Wednesday.—Opening convocation at 11 a. m.
Sept. 27, Friday.—Annual All-College Mixer, 8 p. m.
October 5, Saturday.—Examinations to remove conditions.
October 12, Saturday.—Scholarship deficiency reports to students and deans are due.
Nov. 8, Friday.—Mid-semester scholarship deficiency reports to students and deans are due.
Nov. 11, Monday.—Armistice Day, holiday.
Nov. 27, Wednesday.—Thanksgiving vacation begins at 12 m.
Nov. 30, Saturday.—Thanksgiving vacation closes at 6 p. m.
Dec. 21, Saturday.—Christmas vacation begins at 6 p. m.
Jan. 4, 1941, Saturday.—Christmas vacation closes at 6 p. m.
Jan. 21 to 25, Tuesday 1 p. m. to Saturday 12 m.—Examinations at close of semester.
Jan. 25, Saturday.—First semester closes at 12 m.
Jan. 25, Saturday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.

SECOND SEMESTER, 1940-1941

Jan. 27, Monday.—Assigners meet with committee on schedule at 2 p. m. in W 115.
Jan. 27, Monday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Jan. 28 and 29, Tuesday and Wednesday.—Registration and assignment of all students.
Jan. 30, Thursday.—Classes meet according to schedule, beginning at 8 a. m.
Feb. 1, Saturday.—Reports of all grades for first semester are due in registrar's office.
Feb. 4 to 7, Tuesday to Friday.—Farm and Home Week.
Feb. 16, Sunday.—Founders' Day. The College was located at Manhattan on February 16, 1863.
Feb. 21, Friday.—Examinations to remove conditions.
Feb. 22, Saturday.—Washington's Birthday, holiday.
Mar. 1, Saturday.—Scholarship deficiency reports to students and deans are due.
Mar. 29, Saturday.—Midsemester scholarship deficiency reports to students and deans are due.
April 10, Thursday.—Easter vacation begins at 6 p. m.
April 14, Monday.—Easter vacation closes at 6 p. m.
May 14 to 20, Wednesday to Tuesday.—Examinations for seniors graduating May 26.
May 22 to 26, Thursday to Monday.—Examinations at close of semester.
May 24, Saturday.—Alumni Day. Business meeting at 2 p. m.; banquet at 6 p. m.
May 25, Sunday.—Baccalaureate services at 7:30 p. m.
May 26, Monday.—Seventy-eighth annual Commencement at 7:30 p. m.
May 27, Tuesday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.
May 31, Saturday.—Reports of all grades for second semester are due in registrar's office.

SUMMER SCHOOL, 1941

May 28, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.
May 28, Wednesday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
May 28 to July 26, Wednesday to Saturday.—Nine-week Summer School in session.
May 30, Friday.—Memorial Day, holiday.
June 2 to 7, Monday to Saturday.—4-H Club Round-up.
June 26, Thursday.—Scholarship deficiency reports to students and deans are due.
June 30 to July 26, Monday to Saturday.—Four-week Summer School in session.
July 4, Friday.—Independence Day, holiday.
July 25, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.
July 26, Saturday.—Summer School closes at 5 p. m.
Aug. 2, Saturday.—Reports of all grades for Summer School are due in registrar's office.

FIRST SEMESTER, 1941-1942

Aug. 16, Saturday.—All preparatory school credentials and college credentials should be filed with the vice-president of the College not later than this date.
Sept. 4, Thursday.—Assigners meet with committee on schedule at 2 p. m. in W 115, and with deans at 3 p. m.
Sept. 5, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Sept. 5, Friday.—Registration and assignment of freshmen.
Sept. 6, Saturday.—Induction exercises for freshmen.
Sept. 8 and 9, Monday and Tuesday.—Induction exercises for freshmen.
Sept. 8 and 9, 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 1940-1941, arranged according to the initial letters of their last names:

FIRST SEMESTER

SCHEDULE FOR FRESHMEN STUDENTS

FRIDAY, SEPTEMBER 6, 1940

College Auditorium, 7:30 a. m.

General Meeting for All Freshmen

<i>Hours</i>	<i>Initial letters</i>
8:00 to 8:45 a. m.	J, N, O, W
8:45 to 9:30 a. m.	I, K, M, Y
9:30 to 10:15 a. m.	H, R, X, Z
10:15 to 11:00 a. m.	D, S, U
12:15 to 1:00 p. m.	C, E, G, Q
1:00 to 1:45 p. m.	A, F, P, T
1:45 to 3:00 p. m.	B, L, V and any freshmen students who failed to report during the period provided for their group.

SCHEDULE FOR ALL OTHER STUDENTS

MONDAY, SEPTEMBER 9, 1940

<i>Hours</i>	<i>Initial letters</i>
7:45 to 8:30 a. m.	Wa-Wi
8:30 to 9:15 a. m.	Wj-Wy, J, N, O
9:15 to 10:00 a. m.	Ma-Mi
10:00 to 10:45 a. m.	Mj-My, I, K, Y
12:00 to 12:45 p. m.	Ha -Hol
12:45 to 1:30 p. m.	Hom-Hy, R, X, Z
1:30 to 2:15 p. m.	Sa-Sm
2:15 to 3:00 p. m.	Sn-Sz, D, U

TUESDAY, SEPTEMBER 10, 1940

7:45 to 8:30 a. m.	Ca-Con
8:30 to 9:15 a. m.	Coo-Cz, E, G, Q
9:15 to 10:00 a. m.	A, F
10:00 to 10:45 a. m.	P, T
12:00 to 12:45 p. m.	Ba-Bra
12:45 to 1:30 p. m.	Bre-By, L, V
1:30 to 3:00 p. m.	Special students and any students who failed to report during the period provided for their group.

SECOND SEMESTER

SCHEDULE FOR ALL STUDENTS

TUESDAY, JANUARY 28, 1941

<i>Hours</i>	<i>Initial letters</i>
7:45 to 8:30 a. m.	Ba-Bra
8:30 to 9:15 a. m.	Bre-By, L, V
9:15 to 10:00 a. m.	Ca-Con
10:00 to 10:45 a. m.	Coo-Cz, E, G, Q
12:00 to 12:45 p. m.	A, F
12:45 to 1:30 p. m.	P, T
1:30 to 2:15 p. m.	Sa-Sm
2:15 to 3:00 p. m.	Sn-Sz, D, U

WEDNESDAY, JANUARY 29, 1941

7:45 to 8:30 a. m.	Ha-Hol
8:30 to 9:15 a. m.	Hom-Hy, R, X, Z
9:15 to 10:00 a. m.	Ma-Mi
10:00 to 10:45 a. m.	Mj-My, I, K, Y
12:00 to 12:45 p. m.	Wa-Wi
12:45 to 1:30 p. m.	Wj-Wy, J, N, O
1:30 to 3:00 p. m.	Special students and any students who failed to report during the period provided for their group.

The State Board of Regents

Name and address	Term expires December 31
FRED M. HARRIS, <i>Chairman</i> , Ottawa.....	1940
LESTER MCCOY, Garden City.....	1940
W. T. MARKHAM, Topeka.....	1941
MRS. DONALD MUIR, Anthony.....	1941
DR. H. L. SNYDER, Winfield.....	1941
DREW McLAUGHLIN, Paola	1942
GROVER POOLE, Manhattan	1942
MRS. ELIZABETH REIGART, Baxter Springs.....	1942
RALPH T. O'NEIL, Topeka.....	1943

HUBERT BRIGHTON, Topeka, *Secretary of the Board of Regents*
B. H. JOHNSON, Topeka, *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.

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 204.
- ERWIN ABMEYER, Assistant Professor of Horticulture in Charge of Northeastern Kansas Experiment Fields (1934, 1936).
B. S., K. S. C., 1933. Atchison. 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 101.
- ANNA TESSIE AGAN, Assistant Professor of Household Economics (1930, 1938).
B. S., University of Nebraska, 1927; M. S., K. S. C., 1930. T 203.
- 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 110.
- 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 102A.
- HARRY STARKEY ALDRICH, Capt., C. A. C., U. S. A.; Assistant Professor of Military Science and Tactics (1937).
B. S., Michigan College of Mines, 1917; E. M., *ibid.*, 1917; Graduate, Battery Officers Course, Coast Artillery School, 1925. N 102.
- 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 104.
- JAMES SIRCOM ALLEN, Associate Professor of Physics (Sept. 1, 1939).
B. A., University of Cincinnati, 1933; Ph. D., University of Chicago, 1937. W 204.
- 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 104A.

* 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)	N—Nichols Gymnasium
Bks—Barracks	(Phys. Ed., Mil. Sci., Music)
C—Calvin Hall (Home Ec.)	P—Stock Judging Pavilion
CH—College Hospital	PP—Power, Heat, and Service Building
D—Dickens Hall (Hort., Botany)	R—Farm Machinery Hall
E—Engineering Hall	S—Engineering Shops
EA—Extension Annex	T—Thompson Hall (Cafeteria)
E. Ag—Waters Hall (Agriculture)	V—Veterinary Hall (Vet. Med., Bact.)
F—Fairchild Hall (Hist., Zoöl., Ent.)	VH—Veterinary Hospital
G—Education Hall (Educ., Publ. Spkg.)	VRL—Veterinary Research Laboratory
I—Illustrations Hall	VZ—Van Zile Hall (Girls' Dormitory)
K—Kedzie Hall (Journalism, English)	W—Physical Science Building (Chem., Physics)
L—Library	W. Ag—Waters Hall (Agriculture)
M—Auditorium (Music)	X—Mathematics Hall
	XX—Chemical Engineering Hall

‡ 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.

ANNETTE ALSOP, Graduate Assistant in Zoölogy (1938).

B. S., K. S. C., 1938.

F 112.

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

B. S., Kansas State Teachers College, Emporia, 1916; M. S., University of Kansas, 1920.

F 213.

DONALD JULES AMEEL, Instructor in Zoölogy (1937).

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

F 303.

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

B. S., K. S. C., 1902.

K 104.

WILLIAM GERALD AMSTEIN, Associate Professor of Horticulture, Division of College Extension (1927; July 1, 1939).

B. S., Massachusetts Agricultural College, 1927; M. S., K. S. C., 1928.

EA 202B.

HILDING A. ANDERSON, Graduate Research Assistant in Agricultural Economics (Sept. 1, 1939).

B. S., K. S. C., 1939.

W. Ag 308.

JAMES RUSSELL ANDERSON, (Temporary) Instructor in Applied Mechanics (1939).

B. S., University of California, 1937.

E 113.

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

B. S., K. S. C., 1932; M. S., *ibid.*, 1933.

E. Ag 101A.

KLING LEROY ANDERSON, Assistant Professor of Pasture Improvement (1936, 1938).

B. S., University of California, 1936; M. S., K. S. C., 1938.

E. Ag 206A.

ARTHUR CLINTON ANDREWS, Assistant Professor of Chemistry (1926, 1938).

B. S., University of Wisconsin, 1924; M. S., K. S. C., 1929; Ph. D., University of Wisconsin, 1938.

W 20.

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 108B.

CLIFF ERRETT AUBEL, Professor of Animal Husbandry (1919, 1938).

B. S., Pennsylvania State College, 1915; M. S., K. S. C., 1917; Ph. D., University of Minnesota, 1935.

E. Ag 12A.

MADALYN AVERY, Assistant Professor of Physics (1928).

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

W 201A.

J. DEWEY AXTELL,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1938).

E. Ag 207A.

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 122B.

HARRY CHARLES BAIRD, Assistant Professor of Agricultural Extension; District Supervisor, Division of College Extension (1920, 1934).

B. S., K. S. C., 1914.

EA 105.

CLARENCE POTTER BAKER, (Temporary) Instructor in English (1937).

B. S., Haverford College, 1933; A. M., Harvard University, 1936.

A 223.

GLADYS BAKER, Head Cataloguer in Library (1935, 1938).

B. L. S., University of Illinois, 1924.

L 202.

- NORA ELIZABETH BARE,⁴ Instructor in Home Economics Education (1927, 1937).
B. S., K. S. C., 1925; M. S., *ibid.*, 1939. G 107.
- DOROTHY BARFOOT, Professor and Head of Department of Art (1930, 1935).
A. B., State University of Iowa, 1922; A. M., Columbia University, 1928. A 221A.
- EDGAR LEE BARGER, Associate Professor of Agricultural Engineering (1930, 1938).
B. S., K. S. C., 1929; M. S., *ibid.*, 1934. E 216.
- 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. W 23.
- MARK ALFRED BARMORE,¹ Agent, Bureau of Plant Industry, U. S. D. A.; Cereal Chemist, Agricultural Experiment Station (1938).
A. B., Whittier College, 1927; M. A., Stanford University, 1929; Ph. D., *ibid.*, 1931. E. Ag 102.
- JANE WILSON BARNES, Assistant to the Dean, Division of Home Economics; Instructor in Household Economics (1928; July 1, 1939).
B. S., K. S. C., 1912; M. S., *ibid.*, 1932. C 216.
- ROBERT JOHN BARNETT, Professor of Horticulture (1907-1911; 1920); Head of Department of Horticulture, 1930-1938.
B. S., K. S. C., 1895; M. S., *ibid.*, 1911. D 104.
- ELLEN MARGARET BATCHELOR, Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1917, 1938); on leave Sept. 22, 1939.
B. S., K. S. C., 1911. EA 105.
- JAMES CHARLES BATES, Instructor in Botany (1935).
A. B., University of Kansas, 1927; A. M., *ibid.*, 1934; Ph. D., *ibid.*, 1935. D 204.
- LAURA FALKENRICH BAXTER, Assistant Professor of Home Economics Education (1927, 1934).
B. S., K. S. C., 1915; M. S., *ibid.*, 1930. G 103A.
- MABEL GERTRUDE BAXTER, Assistant in Charge of Continuations, College Library (1916, 1918). L 101.
- EDWARD GEOFFREY BAYFIELD, Professor and Head of Department of Milling Industry (Aug. 15, 1939).
B. S. A., University of Alberta, 1923; M. S., McGill University, 1924; Ph. D., Ohio State University, 1931. E. Ag 110.
- BUELL WESLEY BEADLE, Assistant Chemist, Agricultural Experiment Station (1935).
B. S., K. S. C., 1935; M. S., *ibid.*, 1938. W 31.
- H. ERNEST BECHTEL, Associate Professor of Dairy Husbandry (Sept. 1, 1939).
B. S., Pennsylvania State College, 1931; M. S. Michigan State College, 1933; Ph. D., *ibid.*, 1935. W. Ag 106.
- GLENN HANSE BECK, Instructor in Dairy Husbandry (1936, 1937).
B. S., University of Idaho, 1936; M. S., K. S. C., 1938. W. Ag 106.
- RUSSELL JAMES BEERS, Instructor in Chemistry (1935).
B. S., University of Nebraska, 1933; M. S., *ibid.*, 1935. W 310.
- FLOYD WAYNE BELL, Professor of Animal Husbandry, in Charge of Advanced Judging (1918, 1921).
B. S., Cornell University, 1911. E. Ag 12B.

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

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

- JOHN GREGORY BELL, Assistant Professor of Farm Crops, Division of College Extension (1933, 1937).
B. S., K. S. C., 1932. EA 202B.
- LAWRENCE RAYMOND BERG, Graduate Assistant in Poultry Husbandry (Sept. 1, 1939).
B. S., State College of Washington, 1939. W. Ag 209.
- CLYDE OWEN BIGFORD, Dairy Farm Foreman, 1917. Dairy Barn.
- 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 5A.
- 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 5C.
- CHARLES JOHN BIRKELAND, Graduate Research Assistant in Horticulture (July 1, 1939).
B. S., Michigan State College, 1939. D 110A.
- 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. EA 105.
- JAMES A. BLODGETT, Graduate Research Assistant in Agronomy (1938).
B. S., University of Oregon, 1939. Plant Research Lab.
- ROBERT EDMUND BOCK, Custodian (1936, 1937). PP 110.
- CLARA BOGUE, (Temporary) Instructor in English (1921-1929; 1938).
B. S., Kansas State Teachers College, Emporia, 1919; M. A., University of Chicago, 1921. A 52.
- BERNARD BENJAMIN BOHREN, Assistant in Poultry Husbandry (July 15, 1939).
B. S., University of Illinois, 1937. W. Ag 210.
- MARY ELSIE BORDER, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1929, 1936).
B. S., Ohio State University, 1926; M. A., Columbia Teachers College, 1939. A 111A.
- MARION LOUISE BOZENHARD, Instructor in Physical Education for Women (Sept. 1, 1939).
B. S., Alabama College, 1935., M. S., University of Wisconsin, 1939. N 3.
- WILLIAM RAYMOND BRACKETT, Associate Professor of Physics (1919, 1923).
A. B., University of Colorado, 1905. W 318.
- JULIA STOREY BRADLEY, Assistant in Animal Husbandry (Aug. 1, 1939).
E. Ag 8.
- BOYD BERTRAND BRAINARD, Professor of Mechanical Engineering (1923, 1938).
B. S. in M. E., University of Colorado, 1922; S. M., Massachusetts Institute of Technology, 1931. E 109.
- GEORGE FRANCIS BRANIGAN, Assistant Professor of Engineering Drawing and Descriptive Geometry (1927, 1936).
B. S. in C. E., University of Nebraska, 1927; M. S., K. S. C., 1933. E 209.
- AUGUSTIN WILBER BREEDEN, Associate Professor of English (1926).
Ph. B., University of Chicago, 1924; A. M., *ibid.*, 1925. A 203.
- JESSE LAMAR BRENNEMAN, Professor of Electrical Engineering (1920, 1928).
B. S., University of Chicago, 1908; E. E., University of Wisconsin, 1913. E 121.

- HUBERT ROSS BREUNINGER, (Temporary) Instructor in Economics (Sept. 15, 1939).
B. S., K. S. C., 1939. W. Ag 206.
- EVERETT ERNEST BROWN, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1938).
Graduate, Infantry School, 1926; Graduate, Command and General Staff School, 1938. N 102.
- GERALD JAMES BROWN,¹ Instructor in Agricultural Economics, Division of College Extension (1936; June 15, 1939).
B. S., K. S. C., 1936. EA 202B.
- HALE H. BROWN,⁴ Instructor in Vocational Education (1937); resigned Aug. 31, 1939.
B. S., K. S. C., 1928; M. S., *ibid.*, 1937. G 103B.
- HELEN MARTIN BROWN,⁴ Assistant in Education (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 218.
- NINA MYRTLE BROWNING, Assistant Professor of Food Economics and Nutrition (1930, 1937).
B. S., K. S. C., 1923; M. S., *ibid.*, 1927. C 118.
- HOWARD W. BRUBAKER, Professor of Analytical Chemistry (1913, 1922).
B. S., Carleton College, 1899; Ph. D., University of Pennsylvania, 1904. W 107.
- LOREN ALDRO BRYAN, Graduate Assistant in Chemistry (1937); resigned Sept. 1, 1939.
B. S. in Ed., Kansas State Teachers College, Emporia, 1937; B. A., *ibid.*, 1937.
- HARRY RAY BRYSON, Assistant Professor of Entomology (1924-1929); Assistant Entomologist, Agricultural Experiment Station (1924).
B. S., K. S. C., 1917; M. S., *ibid.*, 1924. F 204.
- FRANK SHERMAN BURSON, Instructor in Agricultural Economics, Division of College Extension (1935; April 10, 1939).
B. S., K. S. C., 1934. EA 202B.
- 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 107.
- MARJORIE BURTON, Graduate Assistant in Child Welfare and Euthenics (1938).
B. S., Iowa State College, 1933. 311 N. 14th.
- 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 205.
- FRANK BYRNE, Assistant Professor of Geology and Paleontology (1930; Sept. 1, 1939).
B. S., University of Chicago, 1927. F 1A.
- MARION JOHN CALDWELL, Instructor in Chemistry (1932, 1934).
B. S., K. S. C., 1931; M. S., *ibid.*, 1933. W 212.

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

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

- 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.
- JAMES PHILLIP CALLAHAN, Associate Professor of English (1924, 1930).
B. S., Kansas State Teachers College, Hays, 1919; A. M., University of Kansas, 1926. K 201.
- MILDRED CAMP, Head of Circulation Department, College Library (1927).
A. B., Eureka College, 1912; B. L. S., University of Illinois, 1924. L.
- JAMES KIRKER CAMPBELL, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1937).
Graduate, Culver Military Academy, 1905; Graduate, Infantry School, 1926. N 102.
- ALVIN BOYD CARDWELL, Professor and Head of Department of Physics (1936, 1937).
B. S., University of Chattanooga, 1925; M. S., University of Wisconsin, 1927; Ph. D., *ibid.*, 1930. W 103.
- IDA ALFREDA CARLSON, (Temporary) Instructor in Mathematics (Oct. 1, 1939).
B. S., K. S. C., 1913; M. S. in Eng., *ibid.*, 1927; M. S. in Math., *ibid.*, 1929. X 102.
- 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 211.
- RALPH BOYD CATHCART, Assistant Professor of Animal Husbandry (1935, 1937).
B. S., K. S. C., 1933; M. S., University of Nebraska, 1934. E. Ag 6A.
- WILBUR JOHN CAULFIELD, Assistant Professor of Dairy Husbandry (1927, 1930).
B. S., University of Minnesota, 1924; M. S., Pennsylvania State College, 1926. W. Ag 107.
- HARRY WINFIELD CAVE, Professor of Dairy Husbandry, (1918, 1926); resigned Sept. 15, 1939.
B. S. A., Iowa State College, 1914; M. S., K. S. C., 1916. W. Ag 108.
- DENA C. CEDERQUIST, Technician in Food Economics and Nutrition (1937).
B. S., Iowa State College, 1931; M. S., *ibid.*, 1937. C 107B.
- ERNEST KNIGHT CHAPIN, Associate Professor of Physics (1923, 1932).
A. B., University of Michigan, 1918; M. S., *ibid.*, 1923. W 321.
- JAMES PERCY CHAPMAN, Assistant Extension Editor (1936).
B. S., K. S. C., 1932. EA 306.
- JOSEPH RUDOLPH CHELIKOWSKY, Instructor in Geology (1937).
B. A., Cornell University, 1931; M. A., *ibid.*, 1932; Ph. D., *ibid.*, 1935. F 1A.
- ROBERT FREDERICK CHILDS,² Road Materials, Engineering Experiment Station (1931).
B. S., K. S. C., 1929. E 230.
- ALFRED LESTER CLAPP, Professor of Agronomy, in Charge of Coöperative Experiments (1920; July 1, 1939).
B. S., K. S. C., 1914; M. S., *ibid.*, 1934. E. Ag 201A.
- FRANCIS EUGENE CLARK,¹ Associate Bacteriologist, U. S. D. A.; Soil Microbiology Investigations, Agricultural Experiment Station (1937).
B. A., University of Colorado, 1932; B. D. E., *ibid.*, 1933; M. A., *ibid.*, 1933; Ph. D., *ibid.*, 1936. V 103.

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

2. In coöperation with the Kansas State Highway Department.

- EUGENE ARTHUR CLEAVINGER, Assistant Professor of Farm Crops, Division of College Extension (1926, 1931).
B. S., K. S. C., 1925. EA 202B.
- OWEN LOVEJOY COCHRANE, Instructor in Physical Education (1939).
B. S., K. S. C., 1931. N 110.
- MAYNARD HENRY COE, Professor and State Club Leader, Division of College Extension (1922, 1927).
B. S., University of Minnesota, 1917. A 111B.
- ALICE COLE, Nurse, Department of Student Health (1938).
R. N., Bethany Methodist Hospital School of Nursing, 1937. CH.
- 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. W 211.
- DORIS COMPTON, Instructor in Recreation, Division of College Extension (1937, 1938).
B. S., Northwestern University, 1937. EA 104.
- LAURENCE LAUR COMPTON, Assistant Professor of Soils, Division of College Extension (1930, 1935).
B. S., K. S. C., 1930. EA 202B.
- ROBERT WARREN CONOVER, Professor of English (1915, 1920).
A. B., Wesleyan University, 1911; A. M., *ibid.*, 1914. K 203.
- WILLIAM JOSEPH CONOVER, Assistant Professor of Agricultural Economics, Division of College Extension (1934, 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.
- 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 37.
- 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, Kingman, Kan.
- MERLIN DENVER COPEN, (Temporary) Graduate Assistant in Civil Engineering (Sept. 1, 1939).
B. S., Utah State Agricultural College, 1939. E 122.
- LLOYD MARION COPENHAFFER, Instructor in Landscape Gardening, Division of College Extension (1938).
B. S., K. S. C., 1933; M. S., *ibid.*, 1936. EA 202B.
- ESTHER MARGARET CORMANY, Assistant Professor of Clothing and Textiles (1936).
B. S., K. S. C., 1926; M. S., *ibid.*, 1932. C 219.

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

- 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 211 and A 122A.
- 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.
- INA FOOTE COWLES, Associate Professor of Clothing and Textiles (1902, 1918).
B. S., K. S. C., 1901; M. S., University of Wisconsin, 1931.
C 219.
- RUFUS FRANCIS COX, Associate Professor of Animal Husbandry (1930, 1935).
B. S., Oklahoma Agricultural and Mechanical College, 1923; M. S., Iowa State College, 1925.
E. Ag 8A.
- RUTH ESTHER CRAWFORD, (Temporary) Instructor in Home Furnishings, Division of College Extension (Aug. 28, 1939).
B. S., K. S. C., 1932.
EA 104.
- 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.
- DON BAKER CREAGER, Instructor in Botany (1937); resigned Sept. 30, 1939.
B. S., Miami University, 1927; M. S., State University of Iowa, 1929; Ph. D., Harvard University, 1937.
D 205.
- CORNELIA WILLIAMS CRITTENDEN, Associate Professor of Modern Languages (1926, 1929).
A. B., University of Nebraska, 1918; A. M., *ibid.*, 1926.
A 224.
- MINERVA MARIE CRON, Graduate Assistant in Chemistry (Sept. 1, 1939).
B. A., Mary Hardin-Baylor College, 1939.
W 213.
- MARTHA REBECCA CULLIPHER, Assistant Loan Librarian (1928).
A. B., Indiana University, 1926; B. S. in L. S., University of Illinois, 1928; M. S., Columbia University, 1939.
L.
- ALFRED CHARLES CURTISS, Graduate Assistant in Entomology (1939).
A. B., Southwestern College, 1937.
F 304B.
- ROSE MARIE DARST, Assistant Professor of Art (1933, 1938); on sabbatic leave 1939-1940.
B. S., Ohio State University, 1926; A. M., Columbia University, 1927.
A 221B.
- ROBERT DODDS DAUGHERTY, Assistant Professor of Mathematics (1930, 1932).
Ph. B., Iowa Wesleyan College, 1910; M. S., State University of Iowa, 1930.
X 103.
- ALLAN PARK DAVIDSON, Professor of Vocational Education (1919, 1930).
B. S., K. S. C., 1914; M. S., *ibid.*, 1925.
G 103C.
- FLOYD EWING DAVIDSON, Assistant in Agronomy, Southeastern Kansas Experiment Fields (1934).
B. S., K. S. C., 1933.
R. F. D. 3, Parsons, Kan.
- KENNETH WAYNE DAVIDSON, (Temporary) Assistant Professor of Journalism (Feb. 1, 1940).
B. A., College of Emporia, 1920; B. Lit., Columbia University, 1923; M. S., Columbia University, 1924.
K 102.

3. In coöperation with the Kansas Agricultural Experiment Station.

- CHARLES DEFOREST DAVIS, Associate Professor of Farm Crops (1921; July 1, 1939).
B. S., K. S. C., 1921; M. S., *ibid.*, 1926. E. AG 305A.
- ELIZABETH HAMILTON DAVIS, Reference Librarian (1920).
A. B., MacMurray College for Women, 1909; B. L. S., University of Illinois, 1914. L 201.
- 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 204A.
- WILMER ELSA DAVIS, Professor of Plant Physiology (1909, 1927).
Graduate, Ohio Normal University, 1894; A. B., University of Illinois, 1903. D 303.
- EARLE REED DAWLEY,² Professor of Engineering Materials (1920, 1933); Acting Materials Testing Engineer, Engineering Experiment Station (1920, 1939).
B. S., University of Illinois, 1919; M. S., K. S. C., 1927. E 135.
- 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 201.
- THOMAS DEAN, Herdsman, Department of Animal Husbandry (1931).
- SAMUEL WESLEY DECKER, Associate Professor of Horticulture (1937).
B. S., K. S. C., 1924; M. S., University of Illinois, 1927. D 12.
- GRACE EMILY DERBY, Associate Librarian (1911, 1918).
A. B., Western College for Women, 1905. L 205.
- ARTHUR DEVOR, Graduate Assistant in Chemistry (1936).
B. S., McPherson College, 1935; M. S., K. S. C., 1937. W 121.
- KENNETH WILCOX DIKE, Graduate Assistant in Bacteriology (Sept. 1, 1939).
B. S., University of Vermont, 1936; M. S., University of Maine, 1939. V 204.
- ROSE GERALDINE DILLER, Class Reserves Assistant in Library (1938). L 1.
- PAUL LAWRENCE DITTEMORE, Editorial Assistant in the Agricultural Experiment Station (1939); Assistant Instructor in Journalism (July 1, 1939).
B. S., K. S. C., 1932. E. Ag 105.
- RAYMOND JOSEPH DOLL, Instructor in Agricultural Economics (1935, 1936).
B. S., K. S. C., 1935; M. S., *ibid.*, 1938. W. Ag 309.
- 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. EA 202B.
- CARL ALFRED DORF, Instructor in Chemistry (1931, 1935).
A. B., Bethany College, 1920; M. S., K. S. C., 1932. W 207.
- 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 105.
- LESTER HENRY DRAYER, Chief Engineer, Heat and Power Department (1916, 1927). E 3.
- LILLIAN STRNAD DUNCAN, Head Hospital Nurse (1937, 1938).
R. N., Halstead Hospital, 1934. CH.

2. In coöperation with the Kansas State Highway Department.

- MERRILL AUGUSTUS DURLAND, Professor of Machine Design (1919, 1928); Assistant Dean, Division of Engineering (1926).
B. S., K. S. C., 1918; M. E., *ibid.*, 1922; M. S., *ibid.*, 1923. E 115.
- RALPH R. DYKSTRA, Dean of Division of Veterinary Medicine (1919); Professor of Surgery (1911, 1913).
D. V. M., Iowa State College, 1905. V 105.
- SAMUEL ALLEN EDGAR, Technician and Instructor in Zoölogy (1937, 1938).
A. B., Sterling College, 1937; M. S., K. S. C., 1939. F 105.
- ROBERT JOHN EGGERT, Assistant Professor of Agricultural Economics (1938).
B. S., University of Illinois, 1935; M. S., *ibid.*, 1936. W. Ag 301C.
- HAL FIELD EIER, Instructor in Rural Engineering, Division of College Extension (1934, 1935).
B. S., K. S. C., 1936. E 131.
- HAROLD RUSSELL EKROTH, (Temporary) Instructor in Architecture (1939); resigned July 31, 1939.
B. S., University of Illinois, 1938. E 223.
- HELEN ELIZABETH ELCOCK, Associate Professor of English (1920, 1926).
A. B., College of Emporia, 1907; A. M., University of Chicago, 1921. A 202.
- CARL G. ELLING, Associate Professor of Animal Husbandry, Division of College Extension (1918, 1921).
B. S., K. S. C., 1904. EA 202B.
- MARY MYERS ELLIOTT, (Temporary) Instructor in Public Speaking (1929-'33; Sept. 1, 1939).
A. B., University of Kansas, 1926; M. S., K. S. C., 1934. G 205A.
- OTTO HERMAN ELMER, Associate Professor of Botany and Plant Pathology (1927, 1937).
B. S., Oregon Agricultural College, 1911; M. S., *ibid.*, 1916; Ph. D., Iowa State College, 1924. D 207.
- 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.
- 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 PAGE 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).
Graduate, New York School of Fine and Applied Art, 1916; B. S., Columbia University, 1925; A. M., *ibid.*, 1926. A 206A.
- WILLIAM LAWRENCE FAITH, Professor and Head of Department of Chemical Engineering (1933, 1939).
B. S., University of Maryland, 1928; M. S., University of Illinois, 1929; Ph. D., *ibid.*, 1932. XX 105A.
- HERMAN FARLEY, Associate Professor of Pathology (1929, 1938).
D. V. M., K. S. C., 1926; M. S., *ibid.*, 1934. V 211.
- LUCY EMSLIE FARMAN, Housekeeper, College Hospital, Department of Student Health (1937).
B. S., K. S. C., 1912. CH.

3. In coöperation with the Kansas Agricultural Experiment Station.

- FRANCIS DAVID FARRELL, President of the College (1918, 1925).
B. S., Utah Agricultural College, 1907; Agr. D., University of Nebraska, 1925. A 106.
- MAE FARRIS, Instructor in Home Furnishings, Division of College Extension (1939).
B. S., Oklahoma Agricultural and Mechanical College, 1933; M. S., *ibid.*, 1936. EA 104.
- JACOB OLIN FAULKNER, Professor of English (1922, 1927).
A. B., Washington and Lee University, 1907; A. M., Pennsylvania State College, 1920. K 212.
- RALPH FREDERICK FEARN, Graduate Assistant in Mechanical Engineering (Sept. 1, 1939).
B. S., University of Illinois, 1938. E 104.
- WALTER T. FEDERER,¹ Research Assistant in Agronomy, Agricultural Experiment Station (July 1, 1939).
B. S., Colorado State College, 1939. E. Ag 302.
- 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. D 2.
- LEE SHRIVER FENT, Graduate Assistant in Zoölogy (1938).
B. S., K. S. C., 1938. F 112.
- FREDERICK CHARLES FENTON, Professor and Head of Department of Agricultural Engineering (1928).
B. S., Iowa State College, 1914; M. S., *ibid.*, 1930. E 214.
- JOHN MOSES FERGUSON, Instructor in Farm Machinery, Division of College Extension (1937).
B. S., K. S. C., 1934. E 131.
- 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. D 2.
- GEORGE ALBERT FILINGER, Associate Professor of Pomology (1931, 1937); Assistant Pomologist, Agricultural Experiment Station (1931).
B. S., K. S. C., 1924; M. S., *ibid.*, 1925; Ph. D., Ohio State University, 1931. D 107.
- ALVA L. FINKNER, Graduate Research Assistant in Agronomy, Agricultural Experiment Station (1938).
B. S., Colorado Agricultural College, 1938. Plant Research Lab.
- KARL FREDERICK FINNEY,¹ Agent, Bureau of Plant Industry, U. S. D. A.; Baking Technologist, Agricultural Experiment Station (1938).
A. B., Kansas Wesleyan, 1935; B. S., K. S. C., 1936; M. S., *ibid.*, 1937. E. Ag 102.
- EMORY D. FISHER, Instructor in Chemistry (1935).
B. S., Dakota Wesleyan University, 1931; Ph. D., University of Wisconsin, 1935. W 309.
- 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 5A.
- HAZEL MARIE FLETCHER, Assistant Professor of Clothing and Textiles (1937).
A. B., Indiana University, 1922; A. M., *ibid.*, 1927; Ph. D., *ibid.*, 1929. C 203.
- MARY GENEVIEVE FLETCHER, Assistant Professor of Foods and Nutrition, Division of College Extension (1936; July 1, 1939).
B. S., K. S. C., 1928; M. S., *ibid.*, 1934. EA 104.

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

- 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.
- EUSTACE VIVIAN FLOYD, Professor of Physics (1911, 1921).
B. S., Earlham College, 1903. W 320A.
- 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 202.
- KENNEY LEE FORD, Alumni Secretary (1928).
B. S., K. S. C., 1924; M. S., *ibid.*, 1932. A 116.
- HELEN GERTRUDE FORNEY, Instructor in Food Economics and Nutrition (1937).
A. B., Manchester College, 1927; A. M., Columbia University, 1936. C 103.
- HELEN FOSTER, Graduate Assistant in Institutional Economics (Sept. 1, 1939).
B. S., North Dakota State College, 1935. VZ.
- SINA FAYE FOWLER, Instructor in Institutional Management (1935); on leave July 1, 1939, to June 30, 1940.
B. S., Northeast Missouri State Teachers College, 1927; M. S., K. S. C., 1933. T 103.
- DONALD B. FRANE, Assistant College Physician (1938).
B. S., University of Minnesota, 1935; M. B., *ibid.*, 1937; M. D., *ibid.*, 1938. A 209.
- EDWARD RAYMOND FRANK, Professor of Surgery (1926, 1935).
B. S., K. S. C., 1918; D. V. M., *ibid.*, 1924; M. S., *ibid.*, 1929. VH 202.
- 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 102.
- JUSTUS CARL FRANKENFELD,¹ Associate Entomologist, Agricultural Experiment Station (1939).
B. S., University of Illinois, 1925; M. S., *ibid.*, 1927. U. S. Lab., 1204 Fremont.
- FORREST FAYE FRAZIER, Professor of Civil Engineering (1911, 1922).
C. E., Ohio State University, 1910. E 124.
- JOHN CARROLL FRAZIER, Assistant Professor of Plant Physiology (1936; July 1, 1939).
A. B., DePauw University, 1925; A. M., University of Nebraska, 1926; Ph. D., University of Chicago, 1939.
- EDWIN JACOB FRICK, Professor of Medicine (1919, 1926); Head of Department of Surgery and Medicine (1935).
D. V. M., Cornell University, 1918. VH 203.
- LYMAN FRICK, Graduate Research Assistant in Zoölogy, Agricultural Experiment Station (1938).
A. B., University of Kansas City, 1937. F 112.
- ROY FRED FRITZ, Assistant Entomologist, Agricultural Experiment Station (1939).
B. S., K. S. C., 1937; M. S., *ibid.*, 1939. Garden City, Kan.
- WESLEY LEONARD FRY, Professor of Physical Education (1934, 1935).
LL. B., State University of Iowa, 1926. Stadium.
- 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.

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

PERCY LEIGH GAINES, Professor of Bacteriology (1914, 1922); Soil Bacteriologist, Agricultural Experiment Station (1914).

B. Agr., North Carolina Agricultural and Mechanical College, 1908; M. S., *ibid.*, 1910; A. M., Washington University, 1911; Ph. D., *ibid.*, 1927. V 101.

JACK JAMES HAMLIN GARDNER, Assistant Professor of Physical Education and Athletics (Sept. 1, 1939).

B. S., University of Southern California, 1932. N 109.

ANNABEL ALEXANDER GARVEY, Assistant Professor of English (1920, 1927); on leave Sept. 1, 1939, to Jan. 31, 1940.

A. B., Wellesley College, 1912; A. M., University of Kansas, 1914.

FRANK CALEB GATES, Professor of Plant Taxonomy and Ecology (1919, 1928).

A. B., University of Illinois, 1910; Ph. D., University of Michigan, 1912. D 301A.

STEPHEN ARNOLD GEAUQUE, Custodian Emeritus (1918; July 1, 1939).

OSCAR STRAND GELLEIN, (Temporary) Instructor in Economics (Sept. 1, 1939).

B. S., Southeastern Teachers College, 1932; M. S., Oklahoma Agricultural and Mechanical College, 1939. W. Ag 206.

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 5B.

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.

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.

DORA LOIS GILMORE, Instructor in Clothing and Textiles (Sept. 1, 1939).

B. S., Kansas State Teachers College, Pittsburg; 1926; M. S., K. S. C., 1939. C 201A.

LESTER ODELL GILMORE, Associate Professor of Dairy Husbandry, Division of College Extension (Aug. 1, 1939).

B. S., University of Minnesota, 1932; M. S., K. S. C., 1933; Ph. D., University of Minnesota, 1939. W. Ag 110.

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 203.

CLARENCE LEE GISH, Superintendent of Poultry Farm (1934).

B. S., K. S. C., 1934; M. S., *ibid.*, 1939. Poultry Farm, R. F. D. 1.

KINGSLEY WALTON GIVEN, Associate Professor of Public Speaking (1930); resigned Aug. 31, 1939.

A. B., Park College, 1926; A. M., State University of Iowa, 1928.

OTIS BENTON GLOVER, Assistant Professor of Agricultural Extension; District Supervisor, Division of College Extension (1929, 1934).

B. S., K. S. C., 1915. EA 105.

CHARLES M. GOOD, JR., Graduate Research Assistant in Zoölogy, Agricultural Experiment Station (July 1, 1939).

B. S., K. S. C., 1939. Insectary.

2. In coöperation with the Kansas State Highway Department.

ARTHUR LEONARD GOODRICH, JR., Assistant Professor of Zoölogy (1929, 1938).

B. S., College of Idaho, 1928; M. S., University of Idaho, 1929; Ph. D., Cornell University, 1938. F 303.

STANLEY DOUGLAS GRALAK, JR., Instructor in Machine Design (1937).

B. S., University of Illinois, 1936; M. S., *ibid.*, 1937. S 201A.

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 206B.

EDWARD GRANT, Instructor in Foundry (1913); Foreman of Foundry (1913).

S 115.

JOHN WILLARD GREENE, Assistant Professor of Chemical Engineering (1937).

B. S., University of Washington, 1926; M. S., Carnegie Institute of Technology, 1927; Ph. D., University of Pittsburg, 1930. XX 105B.

TOM GREER, Herdsman, Department of Animal Husbandry (1917).

GEORGE A. GRIES, Graduate Research Assistant in Botany, Agricultural Experiment Station (1938).

A. B., Miami University, 1938. D 103.

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 311A.

HAROLD T. GROSS, Assistant Physician, Department of Student Health (Oct. 1, 1939).

B. S., Northwestern University, 1934; M. B., *ibid.*, 1938; M. D., *ibid.*, 1939. A 215.

HILDA ROSE GROSSMAN, Assistant Professor of Voice (1927, 1932).

B. Mus., Chicago Musical College, 1925; B. S. in Music Ed., K. S. C., 1932; A. M., Stanford University, 1938. N 301B.

LAMOTTE GROVER, Assistant Professor of Applied Mechanics (1938); resigned Aug. 14, 1939.

B. S. in C. E., K. S. C., 1924.

LOREN DWIGHT GRUBB, Graduate Assistant in Chemistry (1937); resigned Sept. 1, 1939.

B. S. in Ch. E., K. S. C., 1937; M. S., *ibid.*, 1938.

ALBERT WENDELL GRUNDMANN, Research Assistant in Entomology (June 12, 1939).

B. A., University of Utah, 1937; M. A., *ibid.*, 1939. Vet. Research Lab.

MYRTLE ANNICE GUNSELMAN, Associate Professor of Household Economics (1926, 1937).

B. S., K. S. C., 1919; A. M., University of Chicago, 1926. T 204.

HERBERT FRANK HAAS, Graduate Assistant in Bacteriology (Sept. 1, 1939).

B. S., K. S. C., 1938. V 204.

CHARLES W. HADLEY, (Temporary) Instructor in Mathematics (1938).

A. B., Southwestern College, 1938. X 103.

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. EA 202B.

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. W 205.

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

LAWRENCE FENER HALL,⁴ Assistant Professor of Vocational Education (1929, 1931).

B. S., K. S. C., 1923; M. S., *ibid.*, 1927.

G 103B.

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.

ALBERT R. HANKE, Instructor in Chemistry (Sept. 7, 1939).

B. S., University of Illinois, 1933; M. S., *ibid.*, 1936; Ph. D., *ibid.*, 1939.

W 307.

JACQUELINE HANLY, (Temporary) Graduate Assistant in Art (Sept. 1, 1939).

B. S., K. S. C., 1938.

A 307.

FLOYD JOSEPH HANNA, College Photographer (1922, 1930).

I.

MURVILLE JENNINGS HARBAUGH, Assistant Professor of Zoölogy (1929, 1930).

A. B., University of Montana, 1926; A. M., *ibid.*, 1930.

F 113.

LEONARD BEATH HARDEN, Instructor in Agricultural Economics, Division of College Extension (1928; April 10, 1939).

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

Holton, Kan.

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

A. B., Indiana University, 1907; A. M., *ibid.*, 1909; Ph. D., *ibid.*, 1912.

F 115.

CHARLES HAL HARNED, Graduate Assistant in Geology (1938).

B. S., K. S. C., 1938.

F 3.

MEADE CECIL CHARLES HARRIS, Research Fellow in Milling Industry (Sept. 1, 1939).

B. S., K. S. C., 1939.

E. Ag 111.

VIDA AGNES HARRIS, Assistant Professor of Art (1927, 1931); on sabbatic leave 1939-40.

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

A 206A.

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

Graduate, State Normal School, Peru, Neb., 1908; B. S., K. S. C., 1917; M. S., *ibid.*, 1919.

W 213.

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 320.

RUTH HARTMAN, Assistant Professor of Music (1924).

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

M 206.

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

A 105.

WARD HILLMAN HAYLETT, Associate Professor of Physical Education for Men (1928; Sept. 1, 1939).

A. B., Doane College, 1926.

Stadium.

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.

D 205.

HENRY MILES HEBERER, Associate Professor of Public Speaking (1925, 1930).

A. B., University of Illinois, 1922; A. M., Stanford University, 1938.

G 201A.

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

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

- J. ELDRED HEDRICK, Instructor in Chemical Engineering, (1936).
B. A., Illinois College, 1931; M. S., State University of Iowa, 1932; Ph. D., *ibid.*, 1934.
XX 105B.
- 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 108.
- JOHN FREDERICK HELM, JR., Professor of Freehand Drawing and Painting (1924, 1938).
B. D., Syracuse University, 1924. E 305.
- JOHN VERN HEPLER,¹ Assistant Professor of Agricultural Extension; District Agricultural Agent, Division of College Extension (1921, 1930).
B. S., K. S. C., 1915. EA 105.
- EARL HOWARD 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.
- KATHERINE JANE HESS, Associate Professor of Clothing and Textiles (1925, 1931); on sabbatic leave Sept. 1, 1939, to April 30, 1940.
B. S., K. S. C., 1900; M. S., *ibid.*, 1926. C 203.
- ELMER GEORGE HEYNE,¹ Junior Agronomist, U. S. D. A.; Plant Breeder, Agricultural Experiment Station (1936, 1938).
B. S., University of Nebraska, 1936; M. S., K. S. C., 1938. E. Ag 303.
- JOHN CLIFFORD HIDE, Assistant Professor of Soils (1935, 1937).
B. Sc., University of Alberta, 1930; M. S., University of Minnesota, 1932; Ph. D., *ibid.*, 1935. E. Ag 207A.
- 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 205B.
- 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 307B.
- RAYMONA MAYME HILTON, Assistant in Institutional Economics (Sept. 1, 1939).
B. S., University of Nebraska, 1937. T 201A.
- LORA VALENTINE HILYARD, Instructor in Clothing and Textiles, Division of College Extension (1930, 1936).
B. S., K. S. C., 1930. EA 104.
- JULIAN ADAIR HODGES, Associate Professor of Agricultural Economics (1923, 1936).
B. S. in Agr., University of Kentucky, 1917; M. S., *ibid.*, 1923; Ph. D., Harvard University, 1938. W. Ag 309.
- MARY ELIZABETH HOFF, Head of Documents Department, College Library (1928).
A. B., Friends University, 1925; B. S. in L. S., University of Illinois, 1928. L 101.
- MARY ECK HOLLAND, Instructor in Art (1938).
B. F. A., Ohio State University, 1937; M. A., *ibid.*, 1938. A 221B.
- HILTON DELOS HOLLEMBEAK, Assistant in Agronomy, in charge of Coöperative Experiments (1936, 1937).
B. S., K. S. C., 1937. E. Ag 202A.

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

THOMAS R. HOLMES, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1938).

B. S., St. John's College, Annapolis, Md., 1917; Graduate, Infantry School, 1927. N 102.

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. X 102.

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 102B.

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 118D.

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

B. S., McPherson College, 1925; M. S., K. S. C., 1932; Ph. D., *ibid.*, 1938. W 304.

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

A. B., University of Nebraska, 1917; M. S., Northwestern University, 1926. K 103B.

MIRIAM HILL HOUSTON, (Temporary) Assistant in Clothing and Textiles (Sept. 1, 1939).

B. S., University of Wisconsin, 1936; M. S., K. S. C., 1939. C 203.

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 307A.

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

B. S., K. S. C., 1921; M. S., *ibid.*, 1935. C 201A.

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

B. S., Kansas State Teachers College, Pittsburg, 1923; M. S., K. S. C., 1930. W 38.

JOSIAH SIMSON HUGHES, Professor of Biochemistry (1910, 1920); in charge of Animal Nutrition, Agricultural Experiment Station (1937).

B. S., Ohio Wesleyan University, 1908; M. S., *ibid.*, 1909; A. M., Ohio State University, 1910; Ph. D., *ibid.*, 1917. W 106.

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

B. S. in E. E., State College of Washington, 1923; M. S., K. S. C., 1930. E 127.

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

A. B., University of Kansas, 1921; B. S., University of Minnesota, 1925; M. D., *ibid.*, 1928. A 208.

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

A. B., University of Kansas, 1912; A. M., University of Chicago, 1916. X 108.

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

B. S., University of Wisconsin, 1912; M. S., *ibid.*, 1913; Ph. D., *ibid.*, 1916. E. Ag 15.

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

A. B., University of Kansas, 1905; A. M., *ibid.*, 1905. F 207.

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

B. S., K. S. C., 1926. EA 202B.

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

- 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 214.
- WILLIAM CHARLES JANES, Assistant Professor of Mathematics (1922, 1926).
B. S., Northwestern University, 1919; A. M., University of Nebraska, 1922. X 103.
- ALICE CLAYPOOL JEFFERSON, Assistant Professor of Piano (1925, 1927); on leave 1939-'40.
Graduate, American Conservatory of Music, 1921; B. Mus., *ibid.*, 1929.
- RICHARD ROSLYN JESSON, Assistant Professor of Music (1929, 1931); on leave 1939-'40.
B. Mus., Oberlin College, 1929.
- EDGAR ABNER JOHNSON, Graduate Assistant in Horticulture (Sept. 1, 1939).
B. S., Colorado State College, 1939. D 110A.
- EVELYN STONER JOHNSON, (Temporary) Assistant in Botany (Sept. 11, 1939).
A. B., University of Kansas, 1929. D 202.
- JOHN HAROLD JOHNSON, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1927, 1935).
B. S., K. S. C., 1927. A 111A.
- 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. D 204.
- 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 106.
- ELMER THOMAS JONES,¹ 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.
- LOUIS MARK JORGENSEN, Associate Professor of Electrical Engineering (1925, 1935).
B. S., K. S. C., 1907; M. S., *ibid.*, 1930. E 127.
- ROBERT WILLIAM JUGENHEIMER,¹ Agent, U. S. D. A.; Corn Breeder, Agricultural Experiment Station (1938).
B. S., Iowa State College, 1934; M. S., *ibid.*, 1936. E. Ag 301A.
- 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. C 104.
- ROSAMOND KEDZIE, Instructor in Art (1938).
B. S., Michigan State College, 1906; M. A., University of California, 1937. A 205.
- VIRGINIA VOIGT KEIM, Instructor in Child Welfare and Euthenics (1937; Sept. 1, 1939).
B. S., University of Nebraska, 1937. 311 N. 14th.
- EDGAR TALBERT KEITH, Professor of Industrial Journalism and Printing (1912, 1925).
B. S., K. S. C., 1912. K 101.
- ERNEST BAKER KEITH, Professor of Chemistry (1918, 1938).
B. S., K. S. C., 1913; Ph. D., University of Chicago, 1924. W 308.
- LEONE BOWER KELL, Associate Professor of Child Welfare and Euthenics (1927, 1938).
B. S., K. S. C., 1923; M. S., *ibid.*, 1928. C 214.

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

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.
EA 202B.

RUSSELL MARION KERCHNER, Professor of Electrical Engineering (1922, 1934).

B. S., University of Illinois, 1922; M. S., K. S. C., 1927. E 121.

ALICE DAY KIMBALL, Technician in Veterinary Pathology (1935).

B. S., K. S. C., 1935. V 209.

MARY KIMBALL, First Assistant to the Registrar (1918).

B. S., K. S. C., 1907. A 105.

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. W 112.

RALPH WILLCOX KINGMAN, Col., Inf., U. S. A.; Professor and Head of Department of Military Science and Tactics (1937); resigned Aug. 31, 1939.

B. S. in C. E., University of Tennessee, 1902.

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

B. S., North Dakota Agricultural College, 1926; M. S., K. S. C., 1931. D 202.

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

V. M. D., University of Pennsylvania, 1918; M. S., K. S. C., 1927. V 211.

GLENN CHARLES KLINGMAN, Graduate Assistant in Agronomy (1939).

B. S., University of Nebraska, 1939. E. Ag 305A.

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 119.

KATHLEEN KNITTLE, Assistant to the Dean of Women (1931).

B. S., K. S. C., 1923; M. A., Columbia University, 1938. A 118B.

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.

JAMES MICHAEL KOEPPER, Graduate Assistant in Botany (1939).

B. A., DePauw University, 1939. D 207.

RUFUS ALEXANDER KOERTING, Graduate Assistant in Machine Design (Sept. 1, 1939).

B. S., University of Nebraska, 1939. S 201A.

MARVIN KOGER, Graduate Assistant in Dairy Husbandry (Sept. 1, 1939).

B. S., New Mexico College of A. & M. A., 1939. W. Ag 106.

GEORGE ROBERT KRAMER, Graduate Assistant in Chemistry (Sept. 1, 1939).

B. S., K. S. C., 1939. W 23.

HILLIER KRIEGHBAUM, Assistant Professor of Industrial Journalism (1938).

B. A., University of Wisconsin, 1926; M. S., Northwestern University, 1939. K 103C.

BERNICE LYDIA KUNERTH, Assistant Professor of Food Economics and Nutrition (1932; July 1, 1939); on leave 1939-'40.

B. S., Iowa State College, 1932; M. S., K. S. C., 1933.

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.

RAYMOND JOHN LADD, Instructor in Shop Practice (1938).

B. S., Iowa State College, 1933.

S 209.

RUSSELL LAMAN, Instructor in English (1935).

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

A 203.

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

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

Wathena, Kan.

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

B. S., K. S. C., 1925; M. S., *ibid.*, 1926; Ph. D., Stanford University, 1934.

G 108.

RALPH KENNETH LARMOUR, Professor of Milling Industry (1938); resigned July 15, 1939.

B. S., University of Saskatchewan, 1923; M. S., *ibid.*, 1925; Ph. D., University of Minnesota, 1927.

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

Stadium.

GEORGE HERBERT LARSON, Graduate Research Assistant in Agricultural Engineering (Sept. 1, 1939).

B. S., K. S. C., 1939.

E 217.

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

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

W 308.

RALPH RICHARD LASHBROOK, Associate Professor in Industrial Journalism and Printing (1934, 1938).

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

K 206.

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

B. S., K. S. C., 1919; M. S., *ibid.*, 1928.

C 205.

HILMER HENRY LAUDE,¹ 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.

ALVIN GEORGE LAW,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1938).

B. S., K. S. C., 1938.

Plant Research Lab.

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

D. V. M., K. S. C., 1923; M. S., *ibid.*, 1930.

V 109.

DONALD G. LEE, Instructor in Anatomy (Feb. 1, 1940).

V. M. D., University of Pennsylvania, 1936.

V 108.

THOMAS DOYLE LETBETTER, Instructor in Accounting (1938).

B. B. A., University of Texas, 1933.

W. Ag 206.

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

A. B., University of Denver, 1913; M. S., K. S. C., 1925.

X 104.

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 224.

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

RUTH LINDQUIST, Professor and Head of Department of Household Economics (1938).

B. S., University of Minnesota, 1916; M. A., University of Chicago, 1922; Ph. D., University of North Carolina, 1931. C 215.

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

B. Mus., Cosmopolitan School of Music and Dramatic Art, Chicago, 1925. M 108.

ELEN LINDSTROM, Assistant Professor of Home Management, Division of College Extension (1937; July 1, 1939).

B. S., University of Nebraska, 1928; M. S., K. S. C., 1937. EA 104.

ROGER P. LINK, Instructor in Veterinary Physiology (1935).

D. V. M., Iowa State College, 1934; M. S., K. S. C., 1938. V 109.

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

B. S., K. S. C., 1915. W. Ag 110.

SARAH JOSEPHINE LISTER, Instructor in Child Welfare and Euthenics (1937, 1938).

A. B., University of Kansas, 1937. 311 N. 14th.

GLENN WESLEY LONG, (Temporary) Instructor in Economics and Sociology (1938).

A. B., Baker University, 1926. W. Ag 327.

SAM LONG, Graduate Assistant in Chemistry (1938); resigned Oct. 1, 1939.

B. S. in Ch. E., K. S. C., 1937; M. S., K. S. C., 1939.

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

B. S., University of Wisconsin, 1925; M. S., *ibid.*, 1926. EA 306A.

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

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

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

D. V. M., K. S. C., 1910; M. S., *ibid.*, 1930. V 107.

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

S 111B.

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

A. B., Phillips University, 1911; M. S., *ibid.*, 1923. W 203.

WALDO HIRAM LYONS, Associate Professor of Mathematics (1924, 1926); deceased Oct. 21, 1939.

A. B., University of Denver, 1912; A. M., *ibid.*, 1916.

JESSIE McDOWELL MACHIR, Registrar (1913).

A 105.

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

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

EUGENE JOSEPH MACKEY, Instructor in Architecture (1937).

B. Arch., Carnegie Institute of Technology, 1936; M. Arch., Massachusetts Institute of Technology, 1939. E 223.

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.

HOWARD SPENCER MACKIRDY, Maj., C. A. C., U. S. A.; Associate Professor of Military Science and Tactics (Aug. 20, 1939).

B. A., Wesleyan University, 1914.

N 102.

DOROTHY MANCHESTER, Instructor in Clothing and Textiles (1938); resigned Aug. 31, 1939.

B. S., University of Washington, 1934; M. A., *ibid.*, 1937.

ORRIN J. MARCY, Graduate Research Assistant in Agricultural Economics (Sept. 1, 1939).

B. S., University of Nebraska, 1939.

W. Ag 308.

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

B. S., Oklahoma Agricultural and Mechanical College, 1926; M. A., Columbia Teachers College, 1939.

EA 105.

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 207.

RACHEL MARTENS, (Temporary) Assistant Instructor in Art (1936; Aug. 28, 1939).

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

A 206.

EDGAR MARTIN, (Temporary) Assistant Professor of Animal Husbandry (Sept. 1, 1939).

B. S., K. S. C., 1919; M. S., University of Wisconsin, 1925.

E. Ag 15.

MARLIN CLACK MARTIN, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (June 29, 1939).

A. B., Henderson-Brown, 1913; Graduate, Infantry School, 1926; Graduate, Command and General Staff School, 1939.

N 102.

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; Advanced Study, Michael Press.

N 301A.

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

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

W. Ag 108D.

WILLMIMA PEARL MARTIN, Instructor in Home Health and Sanitation, Division of College Extension (1919).

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

EA 104.

JAMES WARREN MATHER, Assistant Professor of Agricultural Economics, Division of College Extension (1936; July 1, 1939).

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

EA 202B.

CHARLES WALTON MATTHEWS, Professor of English (1920, 1925).

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

K 204.

FRED WALTER MATTING, Instructor in Mechanical Engineering (1938).

B. S., University of California, 1937.

E 104.

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

A. M., University of Michigan, 1920.

W 321.

NELLIE MAY, Postmistress (1911).

A 120.

LORRAINE MAYTUM, Assistant Professor of Physical Education for Women (1931, 1935).

B. S., University of Wisconsin, 1926; M. S., *ibid.*, 1939.

N 1.

MARJORIE SELLERS MCCALL, Graduate Assistant in Institutional Management (Sept. 1, 1939).

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

T 201A.

THOMAS MARK MCCALLA, Instructor in Bacteriology (1937).

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

V 103.

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 8C.

GEORGE REEVES McCAULEY, Assistant Professor of Structural Design (1937).

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

E 223.

MAX ELTON McCLUGGAGE,¹ Agent, Bureau of Plant Industry, U. S. D. A.; Milling Technologist, Agricultural Experiment Station (1937).

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

E. Ag 102.

STERLING MCCOLLUM, Instructor in Shop Practice (1930).

S 106.

FRANK JAMES MCCORMICK, Instructor in Applied Mechanics (Sept. 1, 1939).

B. S., Iowa State College, 1927; M. S., *ibid.*, 1931.

E 135.

ELIZABETH MCCrackEN, Instructor in Botany (1938; Sept. 1, 1939).

B. A., Wellesley College, 1929; M. A., *ibid.*, 1932; Ph. D., University of California, 1937.

D 202.

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

N 102.

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 309.

CARL FISH MCKINNEY, Lt.-Col., Inf., U. S. A.; Professor and Head of Department of Military Science and Tactics (Sept. 1, 1939).

B. S., U. S. M. A., 1911; Graduate, Infantry School, 1921; Graduate, Command and General Staff School, 1923; Graduate, Army War College, 1926.

N 102.

FLORENCE ELIZABETH MCKINNEY, Assistant Professor of Household Economics (1937).

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

C 216.

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

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

V 108.

EVA MYRTLE McMILLAN, Associate Professor of Food Economics and Nutrition (1930; July 1, 1939); Assistant Dean of Division of Home Economics (1937).

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

C 113.

JAMES HOWARD McMILLEN, Professor of Physics (1937; Sept. 1, 1939).

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

W 224.

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

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

C 103.

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

EA 306.

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

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.

D 208.

ALICE MAUDE MELTON, Assistant to the Dean, Division of General Science (1900, 1919).

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

A 122.

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

B. S., University of Maine, 1907.

W 31.

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.

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

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

C 107B.

EDWIN CYRUS MILLER, Professor of Plant Physiology (1910, 1919).

A. B., Lebanon College, 1906; A. B., Yale University, 1907; Ph. D., *ibid.*, 1910.

D 102.

JOHN ORVILLE MILLER, Instructor in Plant Pathology, Division of College Extension (1935, 1936).

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

E. Ag 202B.

KATHARINE KILMER MILLER, (Temporary) Instructor in English (Mar. 1, 1939-May 31, 1939).

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

KENNETH WILLIAM MILLER,¹ Research Assistant in Agricultural Economics, Agricultural Experiment Station (1936, 1937).

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

W. Ag 308.

LEONARD FRED MILLER, Instructor in Agricultural Economics (1936); on leave Oct. 15, 1939, to June 30, 1940.

B. S., K. S. C., 1936; M. S., *ibid.*, 1938.

MERNA BEATRICE MILLER,⁴ Assistant in Education (Sept. 1, 1939).

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

T 201A.

REBA CLARE MILLER, Assistant to the Vice-President (1937); resigned Sept. 23, 1939.

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

CLIFFORD MERRILL MOELLER, Instructor in Civil Engineering (Feb. 16, 1939).

B. S., University of Nebraska, 1936.

E 220.

MAURICE CHARLES MOGGIE, Assistant Professor of Education (1933, 1937).

B. S., K. S. C., 1929; M. S., *ibid.*, 1931.

G 102A.

CONRAD STEPHEN MOLL, Assistant Professor of Physical Education for Men (1929, 1937).

Graduate, Concordia College, Fort Wayne, Ind., 1918; B. P. E., George Williams College, 1925; M. S., K. S. C., 1933.

N 107A.

S. IRENE MONSON, Graduate Research Assistant in Zoölogy (July 1, 1939).

B. A., Concordia College, Moorhead, Minnesota, 1936.

F 5.

GEORGE MONTGOMERY, Associate Professor of Agricultural Economics (1925, 1938).

B. S., K. S. C., 1925; M. S., *ibid.*, 1927.

W. Ag 301A.

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

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

- RUTH MONTGOMERY-SHORT, Assistant College Physician (1938).
B. S., Washburn College, 1932; M. D., University of Kansas, 1937. A 210.
- DORIS LEOTA MOON, Instructor in Piano (1937).
B. Mus., Illinois Wesleyan University, 1937; M. Mus., *ibid.*, 1938. N 301D.
- 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 229.
- GEORGE RUSSELL MOORE, Instructor in Surgery and Medicine (1938).
A. B., Central Michigan State Teachers College, 1928; D. V. M., Michigan State College, 1938. VH 203.
- LEO ALBERT MOORE, Instructor in Shop Practice (1935, 1937).
B. S., K. S. C., 1925. S 101A.
- CHARLES CLEON MORRILL, Associate Professor of Pathology (1935, 1938); resigned Aug. 31, 1939.
D. V. M., Michigan State College, 1933; M. S., *ibid.*, 1935.
- 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 205.
- JOHN DONALD MORRISON, (Temporary) Instructor in Music (Sept. 1, 1939).
B. Mus., Northwestern University, 1938; M. Mus., *ibid.*, 1939. M 204.
- MARGUERITE JANE MORRISON, (Temporary) Instructor in Institutional Management (1938); resigned Sept. 30, 1939.
B. S., Ohio University, 1935; M. S., K. S. C., 1936.
- REED FRANKLIN MORSE, Assistant Professor of Civil Engineering (1929, 1934); on sabbatic leave 1939-'40.
A. B., Cornell College, 1921; B. S., Iowa State College, 1923; M. S., K. S. C., 1933. E 220.
- THIRZA ADALINE MOSSMAN, Assistant Professor of Mathematics (1922, 1926); on sabbatic leave 1939-'40.
A. B., University of Nebraska, 1916; A. M., University of Chicago, 1922.
- BETH LOUISE MOTTER, Secretary to Dean of Agriculture (1923). E. Ag 106.
- JEPHTHA JERRY MOXLEY, Assistant Professor of Animal Husbandry, Division of College Extension (1925, 1927).
B. S., K. S. C., 1922. EA 202B.
- CLYDE WILLIAM MULLEN, Associate Professor of Agronomy; Assistant to the Dean, Division of Agriculture; Assistant to the Director, Agricultural Experiment Station (1937).
B. S., Oklahoma Agricultural and Mechanical College, 1915; M. S., K. S. C., 1917. E. Ag 105.
- IVA MANILLA MULLEN, Instructor in Food Economics and Nutrition (1936, 1937).
B. S., K. S. C., 1925; M. S., Iowa State College, 1928. C 7.
- ANNA NEAL MULLER, Assistant Cataloguer in Library (1929, 1938).
B. S., K. S. C., 1921; B. S. in L. S., University of Illinois, 1937. L 202.
- HAROLD HAWLEY MUNGER, Graduate Research Assistant in Applied Mechanics (Aug. 1, 1939).
B. S., K. S. C., 1939. E 112.
- GEORGE COLIN MUNRO, Assistant Professor of Mathematics (1937).
B. S., Acadia University, 1927; Ph. D., University of Michigan, 1930. X 104.

- ERMA MARTZ MURRAY, Secretary of the Young Women's Christian Association (Sept. 1, 1939).
A. B., Washburn College, 1937. A 112.
- FRANK LEWIS MYERS, Assistant to the Director of Athletics (1926).
B. Mus., K. S. C., 1925. N 110.
- GLADYS MYERS, Instructor in Home Management, Division of College Extension (1930; Aug. 15, 1939).
B. S., K. S. C., 1929; M. S., Cornell University, 1939. EA 104.
- HAROLD EDWIN MYERS, Associate Professor of Soils (1929, 1937).
B. S., K. S. C., 1928; M. S., University of Illinois, 1929; Ph. D., University of Missouri, 1937. E. Ag 207A.
- 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 104.
- ARTHUR LESLIE NEAL, Instructor in Chemistry (1937).
B. S., Monmouth College, 1934; M. S., University of Illinois, 1935. W 212.
- LEONARD FAY NEFF, District Supervisor, Division of Extension (Sept. 5, 1939).
B. S., Purdue University, 1922. EA 105.
- CARL LEROY NELSON, Assistant Professor of Economics (1935).
B. B. A., University of Minnesota, 1931. W. Ag 307B.
- FRANK EUGENE NELSON, Assistant Professor of Bacteriology (1937); Dairy Bacteriologist, Agricultural Experiment Station (1937).
B. S., University of Minnesota, 1932; M. S., *ibid.*, 1934.; Ph. D., Iowa State College, 1936. V 103.
- MARGARET ALICE NEWCOMB, Assistant Professor of Botany (1925, 1935).
B. S., K. S. C., 1925; M. S., *ibid.*, 1927. D 202.
- 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 121.
- ELVA LAVINA NORRIS,⁵ Seed Analyst, Department of Agronomy (1938).
A. B., Nebraska Wesleyan University, 1915; A. M., University of Wisconsin, 1924; Ph. D., University of Nebraska, 1938. E. Ag 307A.
- LEO V. NOTHSTINE, Graduate Assistant in Applied Mechanics (Sept. 1, 1939).
B. S., Michigan State College, 1938. E 113.
- PAULINE NUTTER, Assistant Professor of Food Economics and Nutrition (1938).
B. S., Nebraska State Teachers College, 1932; M. S., University of Arizona, 1934; Ph. D., University of Rochester, 1938. C 108A.
- FLORENCE JAMES OFELT, Assistant Professor of Institutional Management; Director of Food Services (1934; July 1, 1939).
B. S., K. S. C., 1931; M. A., Mills College, 1932. T 102.
- ALLEN LESLIE OLSEN, Instructor in Chemistry (1935).
B. A., St. Olaf College, 1929; M. S., University of Nebraska, 1931; Ph. D., *ibid.*, 1934. W 310.
- CHARLES K. OTIS, Instructor in Agricultural Engineering (1936).
B. S. in Agr., University of Wisconsin, 1932; B. S. in M. E., *ibid.*, 1933. E 217.

5. In coöperation with the Kansas State Board of Agriculture.

MERTON LOUIS OTTO, Instructor in Agricultural Economics, Agricultural Experiment Station (1934; Sept. 1, 1939).

B. S., K. S. C., 1921.

W. Ag 310.

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

Diploma in Piano, Hardin College, 1919; Diploma, New England Conservatory of Music, 1932.

M 201.

REGINALD HENRY PAINTER, Associate Professor of Entomology, Associate Entomologist, Agricultural Experiment Station (1926, 1930).

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

F 302.

JASPER EARL PALLESEN,¹ Junior Agricultural Statistician, U. S. D. A.; Agricultural Experiment Station (1937).

B. S., University of Wyoming, 1932.

Plant Research Lab.

EUNICE ANDERSON PARDEE, Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1937; June 1, 1939).

B. S., Michigan State College, 1929; M. S., *ibid.*, 1936.

EA 105.

HARRIET SHIPLEY PARKER, Assistant Professor of English (1924, 1927); on leave 1939-'40.

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

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 304C.

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; Ph. D., Yale University, 1938.

F 211.

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

B. S., K. S. C., 1932; M. S., *ibid.*, 1934.

W. Ag 301B.

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

B. S., Oklahoma Agricultural and Mechanical College, 1934.

N 109.

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 5C.

CLAUDE KINGSFORD PAUL, Graduate Assistant in Agricultural Economics (Sept. 1, 1939).

B. S., Oklahoma Agricultural and Mechanical College, 1939.

W. Ag 308.

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

PP 103.

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

B. S., Oklahoma Agricultural and Mechanical College, 1912; M. S., K. S. C., 1925.

W. Ag 207.

CLINTON ELLICOTT PEARCE, Professor and Head of Department of Machine Design (1917, 1922); Director of Civilian Pilot Training (Sept. 1, 1939).

S. B., Massachusetts Institute of Technology, 1913; M. S., Cornell University, 1937.

E 210.

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

FREDERICK ADAMS PEERY, Instructor in English (1935).

B. S., K. S. C., 1933; M. S., *ibid.*, 1936.

A 223.

THERESA PELTIER, Nurse, Department of Student Health (1938).

R. N., Kansas City General Hospital, Kansas City, Missouri, 1937.

CH.

MARION HERFORT 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 301E.

ROYCE OWEN PENCE, Associate Professor of Milling Industry (1927; July 1, 1939).

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

E. Ag 101A.

HENRY JAMES PEPPLER, Instructor in Bacteriology (Sept. 1, 1939).

B. S., University of Wisconsin, 1936; M. S., *ibid.*, 1937; Ph. D., *ibid.*, 1939.

V 204.

ALFRED THOMAS PERKINS, Professor of Chemistry (1925, 1938); Soil Chemist, Agricultural Experiment Station (1937).

B. S., Pennsylvania State College, 1920; M. S., Rutgers College, 1922; Ph. D., *ibid.*, 1923.

W 11.

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

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

N 104.

EARL HERMAN PETERSON, Assistant Professor of English (Sept. 1, 1939).

A. B., University of Colorado, 1923; M. A., State College of Washington, 1928.

S 205.

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

A. B., University of Utah, 1913; Ph. D., University of Chicago, 1917.

G 104B.

MAURICE L. PETERSON,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1938).

B. S., University of Nebraska, 1938.

Plant Research Lab.

WALTER JOHN PETERSON, Assistant Professor of Chemistry (1935; July 1, 1939). Assistant Chemist in Animal Nutrition, Agricultural Experiment Station (1936).

B. S., Michigan State College, 1930; M. S., *ibid.*, 1933; Ph. D., State University of Iowa, 1935.

W 33.

DOROTHY BRADFORD PETTIS, Associate Professor of Modern Languages (1927, 1938).

A. B., University of Nebraska, 1919; A. M., *ibid.*, 1924; Diploma, Sorbonne of University of Paris, 1930; Diploma, Institut de Phonétique of University of Paris, 1939.

A 225.

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

G 102.

LUCILE PHILLIPS, Nurse, Department of Student Health (1938).

R. N., Kansas City General Hospital, Kansas City, Missouri, 1938.

CH.

PHOEBE ELVA PHILLIPS, Clerk of the Division of Veterinary Medicine (1917).

V 104.

GERALD PICKETT, Associate Professor of Applied Mechanics (1929, 1938).

B. S., Oklahoma Agricultural and Mechanical College, 1927; M. S., K. S. C., 1931; Ph. D., University of Michigan, 1938.

E 113.

WILLIAM FRANCIS PICKETT, Professor and Head of Department of Horticulture, (1917, 1938); Horticulturist, Agricultural Experiment Station (1938).

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

D 109.

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

WILFRED HAROLD PINE, Assistant Professor of Agricultural Economics (1934, 1938).

B. S., K. S. C., 1934; M. S., *ibid.*, 1938.

W. Ag 309.

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

B. S., University of Illinois, 1936.

E 105.

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.

C 114.

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

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

Goddard, Kan.

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

A 106.

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 206.

WILLIAM MORROW PROUDFIT, Graduate Assistant in Chemistry (1938); resigned Sept. 1, 1939.

B. S., K. S. C., 1938.

X 29A.

RHODA SELMA PUTZIG, (Temporary) Graduate Assistant in Art (Sept. 7, 1939).

B. S., K. S. C., 1939.

A 307.

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.

D 8.

GEORGE ELLSWORTH RABURN, Professor of Physics (1910, 1920); on leave 1939-'40.

A. B., University of Michigan, 1907; M. S., *ibid.*, 1913.

W 103.

MARGARET ELIZABETH RAFFINGTON, Assistant Professor of Child Welfare and Euthenics (1938); Assistant to the Dean of the Division of Home Economics (July 1, 1939).

B. S., K. S. C., 1924; M. S., *ibid.*, 1928.

C 112.

ROBERT RAWHOUSER, (Temporary) Instructor in Mathematics (1938).

B. S., Lebanon Valley College, 1932.

X 118.

LEONARD JAMES RAWSON, Graduate Research Assistant in Shop Practice (Sept. 1, 1939).

B. S., K. S. C., 1939.

S 209.

ADDISON DOYLE REED, (Temporary) Instructor in Agricultural Economics (Sept. 5, 1939).

B. S., K. S. C., 1938.

W. Ag 306.

GEORGE NATHAN REED, Instructor in Chemistry (1929).

B. S., Oklahoma Agricultural and Mechanical College, 1922; M. S., University of Oklahoma, 1924; Ph. D., K. S. C., 1938.

W 211.

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 111A.

LOUIS POWERS REITZ, Associate Professor of Agronomy (1939).

B. S., K. S. C., 1930; M. S., University of Nebraska, 1937.

E. Ag 301C.

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

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

X 108.

NINA MARY RHOADES, Social Director, Van Zile Hall (1926).

VZ.

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

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

A 202.

CLARENCE WALTER RICE, Graduate Research Fellow in Animal Husbandry (1938).

B. A., Kalamazoo College, 1938.

E. Ag 15.

M. VESTA RICHMOND, Assistant to the Dean, Division of Extension (1936); resigned Oct. 15, 1939.

JULES HENRY ROBERT, Professor of Applied Mechanics and Hydraulics (1916, 1925); Acting Head of Department of Applied Mechanics (Feb. 1, 1939).

B. S., University of Illinois, 1914.

E 112.

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

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

E 216.

MARY EILLEN ROBERTS, Documents Cataloguer in Library (1938).

B. S., K. S. C., 1930; B. S. in L. S., University of Illinois, 1938.

L 101.

STEPHEN J. ROBERTS, Instructor in Surgery and Medicine (1938).

D. V. M., Cornell University, 1938.

VH 202.

VIRGINIA M. ROBERTSON, Secretary, Department of Student Health (1937).

A 216.

MOTT LUTHER ROBINSON,¹ Assistant Professor of Agricultural Economics, Division of College Extension (1923; July 1, 1939).

B. S., K. S. C., 1923; M. S., *ibid.*, 1938.

EA 202B.

NOBLE WARREN ROCKEY, Professor of English (1921).

A. B., Ohio State University, 1905; A. M., *ibid.*, 1916.

K 202.

LEE MILES RODERICK, Professor and Head of Department of Pathology (1928).

D. V. M., Ohio State University, 1915; M. S., North Dakota State College, 1922; Ph. D., University of Chicago, 1926.

V 210.

CHARLES ELKINS ROGERS, Professor and Head of Department of Industrial Journalism and Printing (1919, 1926); resigned Dec. 31, 1939.

A. B., University of Oklahoma, 1914; M. S., K. S. C., 1926; A. M., Stanford University, 1932.

K 102.

GERTRUDE ISSABELLA ROSKIE, Instructor in Vocational Homemaking (Sept. 1, 1939).

B. S., South Dakota State College of Agriculture and Mechanic Arts, 1929; M. S., Colorado State College of Agriculture and Mechanic Arts, 1938.

G 106.

MINA LOUISE ROSS, Graduate Assistant in Child Welfare and Euthenics (Sept. 11, 1939).

B. S., K. S. C., 1938.

311 N. 14th.

KATHERINE ROY, Professor and Head of Department of Child Welfare and Euthenics (Sept. 1, 1939).

B. S., Columbia Teachers College, 1927; M. S., *ibid.*, 1932; Ph. D., Cornell University, 1939.

C 213.

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

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 103A.

OLGA BARBARA SAFFRY, (Temporary) Instructor in Food Economics and Nutrition (1937, 1938).

B. S., K. S. C., 1928; M. S., *ibid.*, 1937. C 13.

ADELBERT BOWER SAGESER, Associate Professor of History and Government (1938; Sept. 1, 1939).

A. B., State Teachers College, Wayne, Neb., 1925; M. A., University of Nebraska, 1930; Ph. D., *ibid.*, 1934. F 209.

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.

EDWIN EUGENE SAUNDERS, Graduate Assistant in Horticulture (Sept. 1, 1939).

B. S., University of Missouri, 1939. D 110A.

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 301C.

JESSE MCKINLEY SCHALL, Associate Professor of English, Department of Home Study, Division of College Extension (1930, 1937).

A. B., Southeast Missouri State Teachers College, 1927; A. M., University of Missouri, 1930. A 5A.

JEAN WILLARD SCHEEL, Extension Editor, Division of College Extension (1934; July 1, 1939).

B. S., K. S. C., 1934. EA 306B.

CHARLES HENRY SCHOLER,² Professor and Head of Department of Applied Mechanics (1920, 1922); Materials Testing Engineer, Engineering Experiment Station (1920); on leave Feb. 1, 1939, to Aug. 31, 1940.

B. S., K. S. C., 1914.

WILLIAM GEORGE SCHRENK, Instructor in Chemistry (1938).

A. B., Western Union College, 1932; M. S., K. S. C., 1936. W 20.

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

B. S., K. S. C., 1933; M. S., *ibid.*, 1939. EA 202B.

E. ROBERT SCHWARTZ, Assistant Physician, Department of Student Health (1938); resigned Aug. 31, 1939.

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

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

E 115.

HAROLD MARTIN SCOTT, Associate Professor of Poultry Husbandry (1928, 1931).

B. S., Oregon Agricultural College, 1924; M. S., K. S. C., 1927; Ph. D., University of Illinois, 1938. W. Ag 210.

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

B. S., K. S. C., 1921; A. M., Stanford University, 1928. A 204.

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

B. S. in Agr., University of Missouri, 1924. EA 202B.

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.

2. In coöperation with the Kansas State Highway Department.

- GABE ALFRED SELLERS, Professor of Metallurgy and Metallography (1919, 1928).
B. S., K. S. C., 1917; M. S., *ibid.*, 1929. S 105.
- HARNER SELVIDGE, Assistant Professor of Electrical Engineering (1938).
S. B., Massachusetts Institute of Technology, 1932; S. M., *ibid.*, 1933; M. S., Harvard University, 1934; D. Sc., *ibid.*, 1937. E 22.
- ALFRED O. SHAW, Assistant Professor of Dairy Husbandry (Aug. 15, 1939).
B. S., University of Idaho, 1932; M. S., *ibid.*, 1932; Ph. D., Pennsylvania State College, 1935. W. Ag 108A.
- 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. W 205.
- ROWENA HAMMONS SHERRILL, (Temporary) Assistant in Art (Sept. 7, 1939).
A. B., University of Kansas, 1930. A 221B.
- CHRISTIANA MARIE SHIELDS,⁴ Assistant in Education (1931, 1937).
B. S., K. S. C., 1929. Capitol, Topeka, Kan.
- RAYMON SHOBE, (Temporary) Instructor in Mathematics (1938).
B. S., Kansas State Teachers College, Emporia, 1936. X 104.
- KARL GARDNER SHOEMAKER,¹ Instructor in Agricultural Economics, Division of College Extension (1936; June 5, 1939).
B. S., K. S. C., 1936. EA 202B.
- CLARA MAGDALENE SIEM, Financial Secretary, Division of College Extension (1920, 1924).
A 109B.
- DANIEL TELL SIGLEY, Assistant Professor of Mathematics (1938).
A. B., University of Kansas, 1927; A. M., *ibid.*, 1928; Ph. D., University of Illinois, 1932. X 118.
- 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.
- LAURENCE NELSON SKOLD,¹ Research Assistant in Agronomy, Agricultural Experiment Station (1938).
B. S., Colorado Agricultural College, 1938. E. Ag 302.
- LELAND MILTON SLOAN, Superintendent, Garden City Branch Agricultural Experiment Station (1938).
B. S., K. S. C., 1932. Garden City, Kan.
- ROBERT FRED SLOAN, Assistant in Pasture Improvement (1938).
B. S., K. S. C., 1938. E. Ag 206A.
- ARTHUR BOURNE SMITH, College Librarian (1911).
Ph. B., Wesleyan University, 1900; B. L. S., University of Illinois, 1902. L 106.
- LLOYD FRANCIS SMITH, Associate Professor of Forestry (1935); State Forester (1936).
A. B., University of Kansas, 1930; M. F., Yale University, 1932; Ph. D., *ibid.*, 1938. D 110A.
- MABEL RACHEL SMITH, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1929, 1931).
B. S., K. S. C., 1926. A 111A.
- 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 204.

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

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

- 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 36.
- MARY L. SMULL, (Temporary) Instructor in Institutional Management; Manager of Cafeteria (Oct. 1, 1939).
B. A., University of Southern California, 1925; M. S., *ibid.*, 1932. T 102.
- GEORGIANA H. 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 102.
- FLOYD ALONZO SMUTZ, Professor of Engineering Drawing and Descriptive Geometry (1918, 1934).
B. S. in Arch., K. S. C., 1914. S 203.
- ARTHUR BRADLEY SPERRY, Professor of Geology (1921, 1927).
B. S., University of Chicago, 1920. F 3A.
- MARY ASHMAN STALDER, Instructor in Art (1936); on leave 1939-'40.
A. B., Ohio University, 1929; M. A., *ibid.*, 1931. A 221B.
- FLORENCE MARGARET STEBBINS, Assistant in Genetics, Department of Zoology (1931).
B. S., K. S. C., 1923; M. S., *ibid.*, 1928. Insectary.
- ELIZABETH A. STEWART, Instructor in Food Economics and Nutrition (1937, 1938).
A. B., Southwestern College, 1922; M. A., Columbia University, 1924. C 7.
- HARRY MARTIN STEWART, Associate Professor of Accounting (1926, 1934).
A. B., University of Kansas, 1920; M. B. A., *ibid.*, 1926. W. Ag 206.
- THOMAS BRUCE STINSON, Superintendent, Tribune Branch Agricultural Experiment Station (1924).
B. S., K. S. C., 1924. Tribune, Kan.
- ALICE MARY STOCKWELL, Assistant Postmistress (1938).
B. S., K. S. C., 1938. A 120.
- HAROLD EARL STOVER, Instructor in Rural Engineering, Division of College Extension (1936).
B. S., K. S. C., 1929. E 131.
- CHARLES WILLIAM STRATTON, Assistant Professor of Piano (1927, 1930).
B. Mus., K. S. C., 1926; M. S., *ibid.*, 1933. M 205.
- WILLIAM TIMOTHY STRATTON, Professor and Head of Department of Mathematics (1910, 1937).
A. B., Indiana University, 1906; A. M., *ibid.*, 1913; Ph. D., University of Washington, 1931. X 105.
- VIVAN LEWIS STRICKLAND, Professor of Education (1917, 1922).
A. B., University of Nebraska, 1906; A. M., *ibid.*, 1915; Ph. D., *ibid.*, 1925. G 102C.
- CHARLES RAYMOND STUMBO,¹ Agent, U. S. D. A., Soil Microbiology Investigations, Agricultural Experiment Station (July 1, 1939).
B. S., K. S. C., 1936; M. S., *ibid.*, 1937. V 103.
- ANNA MARIE STURMER, Associate Professor of English (1920, 1926).
A. B., University of Nebraska, 1917; A. M., *ibid.*, 1920. A 222.
- LEROY STUTZMAN, Graduate Research Assistant in Chemistry (Sept. 1, 1939).
B. S., Purdue University, 1939. XX 103.

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

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 105.

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

B. S. in M. E., Harvard University, 1936.

S 201A

HARRISON BOYD SUMMERS, Professor of Public Speaking (1923, 1930); on leave Sept. 1, 1939, to Jan. 31, 1940.

A. B., Fairmount College, Wichita University, 1917; A. M., University of Oklahoma, 1921; Ph. D., University of Missouri, 1931. N 303.

JOHN SUTHERLAND, Graduate Assistant in Chemistry (Sept. 1, 1939).

B. S., K. S. C., 1939.

XX 3C.

HUGH M. SWANEY, Assistant Physician, Department of Student Health (Sept. 1, 1939).

A. B., University of Kansas, 1933; M. D., St. Louis University, 1938.

A 216A.

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 of Milling Industry (1906, 1923); Head of Department of Milling Industry (1923-1939).

A. B., Carleton College, 1899; M. Agr., University of Minnesota, 1905; Ph. D., Cornell University, 1922. W. Ag 9.

SARAH AMELIA SWEET, Instructor in Clothing and Textiles (Sept. 1, 1939).

Graduate, Mechanics Institute, 1918; B. S., Columbia University, 1938; M. A., *ibid.*, 1938. C 201A.

LILLIAN JULIETTE SWENSON, Assistant Reference Librarian (1927).

A. B., Colorado College, 1924; S. B., Simmons College, 1927; A. M. in L. S., University of Michigan, 1939. L 201.

MARY B. SWYERS, Stenographer, Office of the Vice-President (1920).

A 121.

DELOS CLIFTON TAYLOR, Instructor in Applied Mechanics (1931).

B. S. in C. E., K. S. C., 1925; M. S., *ibid.*, 1937.

E 14.

EARL HICKS TEAGARDEN, Assistant Professor of Agricultural Extension, District Agent, Division of College Extension (1929, 1934).

B. S., K. S. C., 1920.

EA 105.

CHARLES RAY THOMPSON, Associate Professor of Economics (1929, 1937).

A. B., University of Kansas, 1927; A. M., *ibid.*, 1928.

W. Ag 308.

FRANK JAMES THOMPSON, Instructor in Physical Education (1937).

B. Ed., Minnesota State Teachers College, Mankato, 1934; B. S., Springfield College, 1935; M. Ed., *ibid.*, 1936. N 107.

WALTER W. THOMPSON, Assistant Professor of Pathology (1936, 1937).

D. V. M., Michigan State College, 1929.

VH 201.

THOMAS THOMSON, Graduate Assistant in Chemistry (Sept. 13, 1939).

B. S., University of California, 1939.

W 121.

WILLIAM T. THOMSON, Instructor in Applied Mechanics (1937).

B. S., University of California, 1933; M. S., *ibid.*, 1934; Ph. D., *ibid.*, 1938.

E 135.

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

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.

ELEANOR TIBBETTS, Assistant to the Vice-President (Sept. 24, 1939).

B. S., K. S. C., 1938.

A 121.

GALEN M. TICE, Consulting Radiologist, Department of Student Health (Sept. 1, 1939).

A. B., McPherson College, 1922; M. D., University of Kansas, 1929.

University of Kansas Hospital, Kansas City, Kan.

FRANCIS LEONARD TIMMONS,¹ 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.

SUE TOWNSEND, Assistant Professor of Modern Languages (1934, 1938).

B. S., Kansas State Teachers College, Emporia, 1923; M. A., University of Colorado, 1927.

A 225.

ANGUS CAMPBELL TREGIDGA, Instructor in Electrical Engineering (Sept. 1, 1939).

B. A., University of British Columbia, 1932; B. A. Sc., *ibid.*, 1933; M. A., *ibid.*, 1935; Ph. D., California Institute of Technology, 1939.

E 19.

WILSON TRIPP, Assistant Professor of Mechanical Engineering (1936, 1938).

B. S., University of California, 1930; M. S., *ibid.*, 1933.

E 105.

WILLIAM CHILTON TROUTMAN, Associate Professor of Public Speaking (1937; Sept. 1, 1939).

A. B., University of Illinois, 1917; M. A., *ibid.*, 1918.

G 205C.

ALONZO FRANKLIN TURNER,¹ Associate Professor, Field Agent, Division of College Extension (1917, 1920).

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

EA 105.

MARVIN JOHN TWIEHAUS, Instructor in Bacteriology (1937).

D. V. M., K. S. C., 1936.

V 203.

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 217.

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

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

A 109A.

GLADYS ELLEN VAIL, Associate Professor of Food Economics and Nutrition (1927, 1938).

A. B., Southwestern College, 1924; M. S., University of Chicago, 1927; Ph. D., University of Minnesota, 1939.

C 118.

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.

W 304.

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 118B.

ROBERT PHILLIP WAGERS, Assistant Professor of Pathology (1937; Sept. 1, 1939).

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

V 207A.

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

GEORGE B. WAGNER,¹ 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.

JESSIE MAY WAGNER, Assistant Postmistress (1920).

B. S., K. S. C., 1900.

A 120.

KAROLYN MARGARET WAGNER, Graduate Assistant in Art (Sept. 7, 1939).

B. A., State College of Washington, 1936.

A 307.

HERBERT HALDEN WALKDEN,¹ 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.

CARROLL KRAMER WARD, Assistant Professor of Economics and Sociology (1935; July 1, 1939); on leave 1939-'40.

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

W. Ag 308.

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 130.

JOSEPH THOMAS WARE, Assistant Professor of Architecture (1929, 1935); on leave Feb. 1, 1939, to Jan. 31, 1940.

B. S., Georgia School of Technology, 1929.

E 223.

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

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

E 130.

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 209.

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

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

EA 306.

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 107A.

EUGENE WASSERMAN, (Temporary) Instructor in Architecture (Sept. 1, 1939).

B. S., University of Illinois, 1937; M. S., *ibid.*, 1939.

E 223.

ARTHUR D. WEBER, Professor of Animal Husbandry (1931); on sabbatic leave 1939-'40.

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

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

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

G 205A.

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.

GEORGE H. WELLINGTON, Graduate Research Assistant in Animal Husbandry (1938).

B. S., Michigan State College, 1937.

E. Ag 3.

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

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

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

Hays, Kan.

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

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

T 202.

GERTRUDE ALICE WHEELER, Secretary to Assistant Dean of Agriculture (1925).

E. Ag 105.

JOHN ELWOOD WHERRY, (Temporary) Graduate Assistant in Civil Engineering (Sept. 1, 1939).

B. S., Colorado State College, 1939.

E 220.

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

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

X 107.

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

A 102.

HUGH ERWIN WHITE, Graduate Research Assistant in Agricultural Engineering (1938).

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

E 217.

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.

JOHN HENDRICK WHITLOCK, Assistant Professor of Pathology (1934, 1938).

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

V 111.

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 21.

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.

MARY CHRISTINE WIGGINS, Instructor in Clothing and Textiles, Division of College Extension (1931, 1934).

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

EA 104.

DONALD ALDEN WILBUR, Assistant Professor of Entomology (1928); Assistant Entomologist, Agricultural Experiment Station (1928).

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

F 304D.

JULIUS TERRASS WILLARD, College Historian (1883, 1926); 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 108.

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

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

G 103B.

DWIGHT WILLIAMS, Professor of History and Government (1926; Sept. 1, 1939).

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

F 210.

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

N 102.

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

- JENNIE WILLIAMS, Associate Professor of Child Welfare and Euthenics (1932; July 1, 1939).
B. S., K. S. C., 1910; R. N., University of Michigan Hospital, 1924; M. S., K. S. C., 1933. C 214.
- LOUIS COLEMAN WILLIAMS, Professor of Horticulture (1915, 1926); Assistant Dean and Assistant Director, Division of College Extension (1937).
B. S., K. S. C., 1912; B. S., *ibid.*, 1922. EA 202B.
- SAM L. WILLIAMS, (Temporary) Graduate Assistant in Animal Husbandry (Sept. 1, 1939).
B. S., North Carolina State College, 1938. E. Ag 13.
- STANLEY L. WILLIAMSON, Associate Professor of Physical Education (1935, 1938).
B. S., in Ed., University of Southern California, 1932. Stadium.
- 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. EA 202B.
- CHARLES PEAIRS WILSON, Instructor in Agricultural Economics (1938).
B. S., K. S. C., 1938. W. Ag 301A.
- MANNIE RAY WILSON, Associate Professor of Shop Practice (1936).
B. S. in E. E., K. S. C., 1925. S 110A.
- ROY ELMER WILSON, Staff Sergt., D. E. M. L., U. S. A.; Instructor in Military Science and Tactics (1921).
N 104.
- EDWARD JOSEPH WIMMER, Associate Professor of Zoölogy (1928, 1937).
A. B., University of Wisconsin, 1925; A. M., *ibid.*, 1927; Ph. D., *ibid.*, 1928. F 114.
- TEMPLE FAY WINBURN,¹ Junior Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Stored Grain and Flour-mill Insects (1938).
B. S., K. S. C., 1929; M. S., *ibid.*, 1931. U. S. Lab., 1204 Fremont.
- LAURA I. WINTER, (Temporary) Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1925; Nov. 1, 1939).
Cornell University, 1916. EA 105.
- JOE NATE WOOD, Instructor in Machine Design (1936).
B. S. in E. E., State University of Iowa, 1936. E 209.
- LEVELLE WOOD, Associate Professor of Institutional Management (1928; Sept. 1, 1939).
B. S., Oregon State College, 1921; M. S., Columbia University, 1928. VZ.
- EARL BOOTH WORKING, Professor of Milling Industry (1923; July 1, 1939).
A. B., University of Denver, 1917; A. M., *ibid.*, 1919; Ph. D., University of Arizona, 1922. E. Ag 111.
- GLADYS WYCKOFF,⁴ Instructor in Education (1935).
B. S., Central Missouri State Teachers College, 1920; M. A., University of Missouri, 1928. Capitol, Topeka, Kan.
- JOHN HENRY YOUNG, Graduate Research Assistant in Applied Mechanics (July 1, 1939).
B. S. in C. E., K. S. C., 1939. E 135.
- JAMES WALTER ZAHNLEY,⁵ Associate Professor of Farm Crops (1915, 1921).
B. S., K. S. C., 1909; M. S., *ibid.*, 1926. E. Ag 308.
- MYRTLE EVELYN ZENER, Secretary to the Vice-President (1918).
A 105.

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

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

5. In coöperation with the Kansas State Board of Agriculture.

COUNTY AGRICULTURAL AGENTS**Division of College Extension**

- HENRY JOSEPH ADAMS, Republic county (1934). Belleville.
B. S., K. S. C., 1917.
- SAMUEL EDWARD ALSOP, Haskell county (1937, 1938). Sublette.
B. S., K. S. C., 1935.
- MILBURN CLINTON AXELTON, Jackson county (1929, 1935). Holton.
B. S., K. S. C., 1928.
- KIMBALL LINCOLN BACKUS, Wyandotte county (1932). Kansas City.
B. S., K. S. C., 1931.
- CLARENCE E. BARTLETT, Jewell county (1937). Mankato.
B. S., University of Nebraska, 1929.
- HAROLD ANDREW BORGELT, Edwards county (1937). Kinsley.
B. S., K. S. C., 1937.
- LEE JUSTIN BREWER, Greeley county (1935, 1936). Tribune.
B. S., K. S. C., 1935.
- RICHARD HENRY CAMPBELL, Jefferson county (1935; April 10, 1939). Oskaloosa.
B. S., K. S. C., 1935.
- SYLVESTER ULRIC CASE, Crawford county (1934). Girard.
B. S., K. S. C., 1923.
- FRANCIS WILLARD CASTELLO, Ellsworth county (1935). Ellsworth.
B. S., K. S. C., 1933.
- CARL CLARENCE CONGER, Pawnee county (1934, 1938). Larned.
B. S., K. S. C., 1933.
- LAWRENCE EDWARD CRAWFORD, Pratt county (1937). Pratt.
B. S., K. S. C., 1928.
- FRED B. CROMER, Kingman county (1936). Kingman.
B. S., K. S. C., 1916.
- WILBUR R. CROWLEY, Morton county (1938; July 1, 1939). Elkhart.
B. S., K. S. C., 1938.
- HAROLD AMOS DAILY, Stafford county (1935, 1938). St. John.
B. S., K. S. C., 1933.
- WALTER JONES DALY, Cowley county (1925, 1937). Winfield.
B. S., K. S. C., 1925.
- LAURENCE ROBERT DANIELS, Rooks county (1934). Stockton.
B. S., K. S. C., 1933.
- ELMER A. DAWDY, Saline county (1938, 1939). Salina.
B. S., K. S. C., 1938.
- JOHN WILLIAM DECKER, Wabaunsee county (1935, 1937). Alma.
B. S., K. S. C., 1930.
- MARION MAXWELL DICKERSON, Leavenworth county (1937; May 15, 1939).
Leavenworth.
B. S., K. S. C., 1937.
- CARL EMMERT ELLING, Scott county (1934). Scott City.
B. S., K. S. C., 1932.

- CARL MUDGE ELLING, Hodgeman county (1938). Jetmore.
B. S., K. S. C., 1937.
- ROLAND BAKER ELLING, Franklin county (1938). Ottawa.
B. S., K. S. C., 1938.
- KERMIT VERNON ENGLE, Kearny county (1936). Lakin.
B. S., K. S. C., 1931.
- RALEIGH BORDNER FLANDERS, Rawlins county (1936). Atwood.
B. S., Colorado Agricultural College, 1928.
- GEORGE WILLIS GERBER, Osage county (1936, 1937). Lyndon.
B. S., K. S. C., 1936.
- RALPH FRIEDLY GERMANN, Russell county (1935, 1937). Russell.
B. S., K. S. C., 1931.
- JOE MYRON GOODWIN, Linn county (1919, 1937). Mound City.
B. S., K. S. C., 1914.
- ELMER OSCAR GRAPER, Thomas county (1929, 1938). Colby.
B. S., K. S. C., 1913.
- WILLIAM ELLSWORTH GREGORY, Harper county (1934, 1936). Anthony.
B. S., K. S. C., 1929.
- PAUL WILSON GRIFFITH, Decatur county (1935, 1937). Oberlin.
B. S., K. S. C., 1934.
- PAUL BERNARD GWIN, Geary county (1921, 1925). Junction City.
B. S., K. S. C., 1916.
- ROY ELMER GWIN, Wichita county (1921, 1934). Leoti.
B. S., K. S. C., 1914.
- FRANK ALEXANDER HAGANS, Marion county (1930). Marion.
B. S., K. S. C., 1925.
- CHARLES ADRIAN HAGEMAN, Wilson county (1936, 1939). Fredonia.
B. S., K. S. C., 1936.
- PRESTON ORIN HALE, Shawnee county (1929, 1934). Topeka.
B. S., K. S. C., 1916.
- CHARLES TOMAS HALL, Johnson county (1934; April 10, 1939). Olathe.
B. S., K. S. C., 1932.
- HAROLD BYRON HARPER, Harvey county (1932, 1933). Newton.
B. S., K. S. C., 1933.
- A. EUGENE HARRIS, Seward county (1938). Liberal.
B. S., K. S. C., 1938.
- EDWIN HEDSTROM, Clay county (1935). Clay Center.
B. S., K. S. C., 1924.
- JOHN ALBERT HENDRICKS, Anderson county (1920, 1924). Garnett.
B. S. A., Iowa State College, 1916.
- HARVEY J. HENSLEY, Cloud county (1936, 1937). Concordia.
B. S., K. S. C., 1936.
- SHERMAN STANLEY HOAR, Barton county (1929). Great Bend.
B. S., K. S. C., 1928.

- ROLLA B. HOLLAND, Chautauqua county (June 1, 1939). Sedan.
B. S., K. S. C., 1937.
- CLARENCE ATHEL HOLLINGSWORTH, Bourbon county (1937, 1939). Fort Scott.
B. S., K. S. C., 1931.
- RAY MITCHELL HOSS, Woodson county (1935). Yates Center.
B. S., K. S. C., 1930.
- DONALD WALTER INGLE, Reno county (1930, 1934). Hutchinson.
B. S., University of Missouri, 1929.
- ZARA W. JOHNSON, Stevens county (1938; June 24, 1939). Hugoton.
B. S., K. S. C., 1938.
- OLIVER WILLARD KERSHAW, Smith county (1935, 1939). Smith Center.
B. S., K. S. C., 1935.
- ARTHUR WILLIAM KNOTT, Montgomery county (1927). Independence.
B. S., University of Wisconsin, 1917.
- REUBEN CARL LIND, Marshall county (1933; May 28, 1939). Marysville.
B. S., K. S. C., 1923.
- PHILIP WARNER LJUNGDAHL, Chase county (1936; April 24, 1939). Cottonwood Falls.
B. S., K. S. C., 1936.
- CHARLES ENOCH LYNESS, Doniphan county (1923). Troy.
B. S., K. S. C., 1912.
- VERL EPHRIAM McADAMS, Barber county (1934). Medicine Lodge.
B. S., K. S. C., 1928.
- RALPH WALDO McBURNEY, Mitchell county (1930). Beloit.
B. S., K. S. C., 1927.
- FRANCES DEAN McCAMMON, Ford county (1934, 1936). Dodge City.
B. S., K. S. C., 1932.
- EVERETT LYNN McCLELLAND, Sheridan county (1936, 1937). Hoxie.
B. S., K. S. C., 1928.
- JOHN EDWIN MCCOLM, Meade county (1936, 1938). Meade.
B. S., K. S. C., 1936.
- DEWEY ZOLLIE McCORMICK, Morris county (1925). Council Grove.
B. S., K. S. C., 1921.
- ERNEST LEE McINTOSH, Lyon county (1920, 1937). Emporia.
B. S., K. S. C., 1920.
- EARL THOMAS MEANS, Allen county (1935, 1936). Iola.
B. S., K. S. C., 1922.
- WILMER ABELE MEYLE, Atchison county (1934). Effingham.
B. S., K. S. C., 1931.
- JOHN DELMONT MONTAGUE, Sedgwick county (1926, 1930). Wichita.
B. S., K. S. C., 1920.
- LAWRENCE DALE MORGAN, Sherman county (1933). Goodland.
B. S., K. S. C., 1935.
- HAROLD LEWIS MURPHEY, Comanche county (1930, 1936). Coldwater.
B. S., K. S. C., 1928.

HOWARD CECIL MYERS, Elk county (1938, 1939). Howard.

B. S., K. S. C., 1938.

LEONARD NEFF, Washington county (1925, 1930); resigned Sept. 5, 1939. Washington.

B. S. A., Purdue University, 1922.

PAUL HAROLD NELSON, Phillips county (1936, 1937). Phillipsburg.

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

CHARLES HERMAN OLSON, Pottawatomie county (1938; Feb. 14, 1939). Westmoreland.

B. S., K. S. C., 1938.

ROBERT THOMAS PATTERSON, Cherokee county (1928). Columbus.

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

LEONARD WILLIAM PATTON, Graham county (1933, 1937). Hill City.

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

JOHN P. PERRIER, Ellis county (1939; June 15, 1939). Hays.

B. S., K. S. C., 1939.

ALLISON GLEN PICKETT, Kiowa county (1935). Greensburg.

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

ROBERT LOUIS RAWLINS, Nemaha county (1931). Seneca.

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

LEONARD ABBOTT REES, Riley county (1936, 1937). Manhattan.

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

OREN J. REUSSER, Finney county (1938; Mar. 1, 1939). Garden City.

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

VERLIN F. ROSENKRANZ, Hamilton county (1939; Aug. 16, 1939). Syracuse

B. S., K. S. C., 1939.

ARTHUR EUGENE SCHAFER, Norton county (1937). Norton.

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

LESTER SHEPARD, Neosho county (1928). Erie.

A. B., University of Iowa, 1913; B. S., Iowa State College, 1916.

GEORGE W. SIDWELL, Rice county (1913, 1937). Lyons.

A. B., Fairmount College, 1915.

DEAL D. SIX, Douglas county (1935). Lawrence.

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

JOSEPH DANIEL SMERCHEK, Sumner county (1933, 1937). Wellington.

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

ORIN GROVER STEELE, Lincoln county (1938; May 28, 1939). Lincoln.

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

ALVIN HOWARD STEPHENSON, Dickinson county (1935, 1936). Abilene.

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

HARVEY J. STEWART, Cheyenne county (1929). St. Francis.

B. S., K. S. C., 1928.

RAYMOND LUTHER STOVER, Brown county (1927, 1930). Hiawatha.

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

VICTOR FRED STUEWE, Ottawa county (1934, 1937). Minneapolis.

B. S., K. S. C., 1915.

- BYRON J. TAYLOR, Logan county (1937, 1938). Page City.
B. S., K. S. C., 1916.
- JOHN EDWARD TAYLOR, Grant county (1930). Ulysses.
B. S., K. S. C., 1930.
- LOT FORMAN TAYLOR, Butler county (1935; April 10, 1939). El Dorado.
B. S., K. S. C., 1931
- OBED LEE TOADVINE, JR., Ness county (1934). Ness City.
B. S., K. S. C., 1932.
- DWIGHT S. TOLLE, Osborne county (1939; June 1, 1939). Osborne.
B. S., K. S. C., 1939.
- JAMES FREDERICK TRUE, JR., Coffey county (1935). Burlington.
B. S., K. S. C., 1929.
- HAROLD OSMOND WALES, Stanton county (1936, 1937). Johnson.
B. S., North Dakota Agricultural College, 1934; M. S., K. S. C., 1936.
- WILLIS R. WENRICH, Gray county (1939; May 1, 1939). Cimarron.
B. S., K. S. C., 1939.
- HERMAN W. WESTMEYER, Lane county (1936). Dighton.
B. S., University of Missouri, 1936.
- EARL LAVERNE WIER, McPherson county (1934). McPherson.
B. S., K. S. C., 1931.
- CARL WILLIAMS, Clark county (1935). Ashland.
B. S., K. S. C., 1932.
- RICHARD GORDON WILTSE, Miami county (1938). Paola.
B. S., K. S. C., 1938.
- WILLIAM ALEXANDER WISHART, Greenwood county (1935, 1938). Eureka.
B. S., K. S. C., 1935.
- MAURICE IVAN WYCKOFF, Labette county (1935). Altamont.
B. S., K. S. C., 1935.
- FRANK ZITNIK, Rush county (1931, 1934). LaCrosse.
B. S., K. S. C., 1931.
- JOSEPH ZITNIK, Wallace county (1936, 1937). Sharon Springs.
B. S., K. S. C., 1936.

ASSISTANT COUNTY AGRICULTURAL AGENTS

Division of College Extension

- DALE ALLEN, (1935). Seneca.
B. S., K. S. C., 1922.
- ROLLA E. BAUSMAN, (1935). Parsons.
- H. A. BISKIE, (1928; Sept. 1, 1939).
B. S., University of Nebraska, 1917.
- JOHN R. BRAINARD, JR., (1939). Dodge City.
B. S., K. S. C., 1939.
- FREDERICK M. COLEMAN, (June 26, 1939).
B. S., K. S. C., 1937.
- EARL C. COULTER, (Aug. 1, 1939). Marion.
B. S., K. S. C., 1933.

DALE E. HALBERT, (1936). Hutchinson.

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

CHARLES C. JONES, (1939). Hiawatha.

KENNETH E. JOHNSON, (June 1, 1939).

B. S., K. S. C., 1939.

EUGENE F. KEAS, (1938). McPherson.

RALPH E. KRENZIN, (June 12, 1939). Wellington.

B. S., K. S. C., 1939.

KENNETH E. KRUSE, (June 1, 1939).

B. S., K. S. C., 1939.

ARTHUR F. LEONHARD, (June 1, 1939). Burlington.

B. S., K. S. C., 1939.

ROBERT F. McNITT, (1934; Feb. 6, 1939). Marysville.

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

M. NEAL McVAY, (June 1, 1939).

B. S., K. S. C., 1939.

EMORY L. MORGAN, (Sept. 11, 1939). Hiawatha.

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

RUSSELL C. NELSON, (1936); resigned Sept. 9, 1939. Hiawatha.

VICTOR E. PAYER, (June 1, 1939). Effingham.

B. S., K. S. C., 1939.

EDWARD W. PITMAN, (1938). Kingman.

B. S., K. S. C., 1938.

CLYDE C. REED, Coffey county (1938); resigned Aug. 15, 1939. Burlington.

B. S., K. S. C., 1938.

DONALD R. RICE, (1939). Iola.

CECIL E. RICHARDS, (1935). Iola.

C. ALLAN RISINGER, (July 1, 1939).

B. S., K. S. C., 1939.

WALTER O. SCOTT, (Aug. 16, 1939). Council Grove.

B. S., K. S. C., 1939.

DEANE R. SEATON, (June 1, 1939). Abilene.

B. S., K. S. C., 1938.

JOHN A. SHETLAR, (Aug. 1, 1939); resigned Oct. 31, 1939.

B. S., K. S. C., 1939.

HAROLD D. SHULL, (July 5, 1939).

B. S., K. S. C., 1939.

HAROLD C. STEVENS, (1936). Fredonia.

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

FRANK B. STUCKEY, (1936; Mar. 1, 1939). Leavenworth.

WARREN C. TEEL, (Mar. 13, 1939). Oskaloosa.

B. S., K. S. C., 1939.

CHESTER G. THOMPSON, (1936); resigned July 31, 1939. Florence.

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

MERLE B. THOMSON, (1937). Topeka.

ABRAM B. THUT, (1936). Anthony.

FRANCIS J. TURNER, (1936). Manhattan.

RAY H. WHITENACK, (1937). Olathe.

B. S., K. S. C., 1916.

ROBERT L. ZILLIOX, (1939). Smith Center

COUNTY CLUB AGENTS

Division of College Extension

WILLIAM G. ALSOP, Rice county (1939; Nov. 1, 1939). Lyons.

B. S., K. S. C., 1939.

IVOR HAROLD DAVIES, Wyandotte county (1937, 1938). Kansas City.

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

WAYNE EWING, Sedgwick county (1936, 1937). Wichita.

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

JOHN BONAR HANNA, Butler county (1935, 1939). El Dorado.

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

CLAUDE LEWIS KING, Shawnee county (1934, 1936). Topeka.

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

RICHARD FRANKLIN KING, JR., Crawford county (1938, 1939). Girard.

B. S., K. S. C., 1938.

ALBERT ARNOLD PEASE, Rice county (1935, 1937); resigned Sept. 28, 1939. Lyons.

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

HOME DEMONSTRATION AGENTS

Division of College Extension

MILDRED BEIL, Cloud county (1936, 1937); resigned July 26, 1939. Concordia.

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

HELEN M. BLYTHE, Cloud county (1939; Oct. 16, 1939). Concordia.

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

GRACE DOROTHY BRILL, Labette county (1936; June 20, 1939). Altamont.

B. S., K. S. C., 1931; M. S., *ibid.*, 1932.

ELLEN BROWNLEE, Bourbon county (1939; July 1, 1939). Fort Scott.

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

PAULINE CRAWFORD, Stafford county (1938, 1939). St. John.

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

RUTH ESTHER CRAWFORD, Harper county (1934); resigned Aug. 28, 1939.
Anthony.

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

ELEANOR DALES, Wabaunsee county (1938, 1939). Alma.

B. S., K. S. C., 1938.

- MARIE ANTRIM DAVIES, Wyandotte county (1935); resigned Aug. 15, 1939.
Kansas City.
B. S., K. S. C., 1934.
- PAULINE DRYSDALE, Smith county (1938, 1939). Smith Center.
B. S., K. S. C., 1938.
- VERA MAY ELLITHORPE, Cherokee county (1938; Nov. 1, 1939). Columbus.
B. S., K. S. C., 1935; M. S., *ibid.*, 1939.
- VERNETTA FAIRBAIRN, Butler county (1928; Nov. 1, 1939). El Dorado.
A. B., University of Kansas, 1927.
- ERMINA J. FISHER, Barton county (1938). Great Bend.
B. S., K. S. C., 1938.
- MARJORIE FORBES, Barber county (1938, 1939). Medicine Lodge.
B. S., K. S. C., 1938.
- EMMA FREEHLING, Osborne county (1937). Osborne.
B. S., University of Nebraska, 1933.
- ISABEL GALLEMORE, Franklin county (1937). Ottawa.
B. S., K. S. C., 1928; M. S., *ibid.*, 1932.
- MAE GORDON, McPherson county (1935, 1936). McPherson.
B. S., K. S. C., 1934.
- GERTRUDE GREENWOOD, Atchison county (1936, 1937). Effingham.
B. S., K. S. C., 1936.
- GERSILDA GUTHRIE, Lyon county (1937; Mar. 1, 1939). Emporia.
B. S., K. S. C., 1936.
- AVIS HALL, Kiowa county (1938, 1939). Greensburg.
B. S., K. S. C., 1938.
- MAXINE HOFMANN, Saline county (1936; Feb. 11, 1939). Salina.
B. S., K. S. C., 1936.
- MILDRED I. HOFMANN, Marion county (1938, 1939). Marion.
B. S., K. S. C., 1936.
- RUTH HOFSESS, Montgomery county (1938). Independence.
B. S., K. S. C., 1938.
- IVA LUELLA HOLLADAY, Leavenworth county (1929). Leavenworth.
B. S., K. S. C., 1929.
- MARY ALICE HOWARD, Cherokee county (1937, 1938); resigned Sept. 30, 1939.
Columbus.
B. S., K. S. C., 1937.
- RUTH KATHRINA HUFF, Doniphan county (1931; Oct. 12, 1939). Troy.
B. S., K. S. C., 1924.
- VELMA GOOD HUSTON, Harvey county (1935, 1937). Newton.
B. S., K. S. C., 1931.
- AGNES JENKINS, Comanche county (1938). Coldwater.
B. S., K. S. C., 1938.
- ALICE JENNINGS, Greenwood county (1937). Eureka.
B. S., K. S. C., 1923; M. S., *ibid.*, 1936.

- NAOMI JOHNSON, Neosho county (1938). Erie.
B. S., K. S. C., 1932.
- EDITH KELLEY, Cheyenne county (1938, 1939). St. Francis.
B. S., Baker University, 1937.
- FLORENCE LOVEJOY, Ellsworth county (1939; July 1, 1939). Ellsworth.
B. S., K. S. C., 1939.
- MARY McCROSKEY, Miami county (1937, 1938). Paola.
B. S., K. S. C., 1931.
- ELLA MABEL MEYER, Rice county (1932). Lyons.
B. S., K. S. C., 1907.
- ESTHER I. MILLER, Pratt county (1939; Oct. 1, 1939). Pratt.
B. S., K. S. C., 1939.
- MURIEL MORGAN, Pawnee county (1938). Larned.
B. S., K. S. C., 1934.
- IRENE MORRIS, Morris county (1937, 1938). Council Grove.
B. S., K. S. C., 1934.
- EULA MAY NEAL, Johnson county (1930, 1936); resigned Aug. 31, 1939 Olathe.
B. S., State Teachers College, Kirksville, Mo., 1927.
- EDYTHE LAVERNE PARROTT, Crawford county (1936, 1937). Girard.
B. S., K. S. C., 1929.
- MINNIE BELLE PEEBLER, Sumner county (1932, 1937). Wellington.
B. S., University of Oklahoma, 1924; M. S., University of Colorado, 1929.
- KATHRYN PETERMAN, Ford county (1937). Dodge City.
B. S., K. S. C., 1936.
- FLORENCE PHILLIPS, Rawlins county (1936, 1937). Atwood.
B. S., K. S. C., 1936.
- MARY AGNES RADELL, Wyandotte county (1939; Oct. 5, 1939). Kansas City.
B. S., Kansas State Teachers College, Pittsburg, 1937.
- EVELYN E. REBER, Wilson county (1939; April 1, 1939). Fredonia.
B. S., K. S. C., 1934.
- JUANITA LOUISE RILEY, Chase county (1939; Feb. 20, 1939). Cottonwood Falls.
B. S., K. S. C., 1939.
- ELIZABETH RONIGER, Allen county (1936). Iola.
B. S., K. S. C., 1933.
- ANNA RUESCHHOFF, Dickinson county (1936, 1937). Abilene.
B. S., K. S. C., 1936.
- BERNIECE E. SLOAN, Johnson county (1935; Sept. 1, 1939). Olathe.
B. S., K. S. C., 1928; M. S., *ibid.*, 1939.
- MARY ETHEL STEWART, Finney county (1938, 1939). Garden City.
B. S., K. S. C., 1938.
- LEONA ZOE TIBBETTS, Cowley county (1938, 1939). Winfield.
B. S., K. S. C., 1938.
- MARGUERITE WHITTEN, Reno county (1938). Hutchinson.
B. S., K. S. C., 1936.

LAURA B. WILLISON, Sedgwick county (1937; Nov. 1, 1939). Wichita.
B. S., K. S. C., 1911.

ANNA MARION WILSON, Doniphan county (1936, 1938); resigned Sept. 27, 1939.
Troy.
B. S., K. S. C., 1931.

LAURA I. WINTER, Sedgwick county (1925); resigned Nov. 1, 1939. Wichita.
Cornell University, 1916.

ABBIE D. WRIGHT, Harper county (1939; Oct. 1, 1939). Anthony.
B. S., K. S. C., 1936.

MARY DUNLAP ZIEGLER, Shawnee county (1928, 1930). Topeka.
B. S., K. S. C., 1916.

ASSISTANT HOME DEMONSTRATION AGENTS

Division of College Extension

RUTH AVERY, (June 1, 1939). Osborne.
B. S., K. S. C., 1939.

DOROTHY G. BLAESI, (Aug. 1, 1939). Lyons.
B. S., K. S. C., 1939.

FRANCES A. DAVIS, (June 1, 1939). Kinsley.
B. S., K. S. C., 1939.

ALICE C. LINN, (1937; Aug. 1, 1939); resigned Aug. 7, 1939. Manhattan.
B. S., K. S. C., 1931; M. S., *ibid.*, 1939.

ELEANOR M. PINCOMB, (June 1, 1939). Dodge City.
B. S., K. S. C., 1939.

MARIALICE SINGLETON, (June 1, 1939). Paola.
B. S., K. S. C., 1939.

BESSIE SPARKS, (June 1, 1939). Topeka.
B. S., K. S. C., 1932.

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, R. R. Lashbrook.

CATALOGUE: S. A. Nock, I. V. Iles, J. O. Faulkner.

COMMUNITY CHEST EXECUTIVE: F. L. Parrish, H. T. Hill, Mary P. Van Zile, F. D. Farrell, A. A. Holtz, Jessie McD. Machir, Erma Muray.

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, Helen Saum, Stanley L. Williamson.

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, W. M. McLeod, Margaret Raffington.

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. R. W. Conover.

REINSTATEMENT: R. I. Throckmorton, W. M. McLeod, J. H. Robert, E. C. Miller, Bessie Brooks West.

RELATIONS WITH JUNIOR COLLEGES AND ARTS COLLEGES: George Gemmell, R. R. Dykstra, M. A. Durland, F. L. Parrish, G. A. Filing, Eva McMillan.

RESIDENCE STATUS: S. A. Nock, W. F. Pickett, R. M. Kerchner, Martha S. Pittman, R. R. Dykstra, A. B. Sperry.

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, Emma Hyde, R. M. Kerchner, Gladys E. Vail, W. M. McLeod, F. W. Atkeson.

SELECTION OF VETERINARY STUDENTS: R. R. Dykstra, S. A. Nock, J. H. Burt, E. J. Frick, L. M. Roderick.

STUDENT HEALTH: L. E. Conrad, L. D. Bushnell, Mary P. Van Zile, M. F. Ahearn, M. W. Husband.

STUDENT HONORS: M. W. Furr, R. W. Conover, B. L. Remick, R. F. Morse, A. B. Cardwell, W. F. Pickett.

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.

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.

PURPOSES

Kansas State College has three purposes, of which the first is to give to the young men and women of Kansas undergraduate and graduate training in agriculture, engineering and architecture, home economics, general science, and veterinary medicine, and to encourage sound thinking and good citizenship.

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, 1882, and 1884. 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 Francis 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, 1866; 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 (1858-1938), 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.

Physical Science Building. To be named Willard Hall in honor of Julius Terrass Willard (1862—), assistant in chemistry, 1883-1887; assistant chemist, or chemist, agricultural experiment station, 1888-1918, director, 1900-1906; professorial rank in chemistry staff, 1891-1918; dean, Division of General Science, 1909-1930; vice-president, 1918-1935; college historian, 1936—. Completed, 1939. Cost, with equipment, \$700,000.

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 nutritions 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, 1926. Cost, \$200,000.

Veterinary Hall. Erected, 1908. Cost, \$70,000. Division of Veterinary Medicine.

Veterinary Hospital. Erected, 1923. Cost, \$100,000.

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 are required. These requirements are made on the supposition that high schools are institutions in which the courses should be adapted to the needs of 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. Admission to certain curriculums is conditioned as noted in the paragraphs following the tabulated statement of required high-school units.

As enrollment in the curriculum in Veterinary Medicine is limited, persons desiring admission to that curriculum should read the statement entitled "Veterinary Enrollment Limited," under Division of Veterinary Medicine.

In order to carry one of the several curriculums, a student must have completed the following subjects:

ENGLISH, 3 UNITS; ALGEBRA, 1 UNIT; GEOMETRY, 1 UNIT; SCIENCE, PHYSICAL OR BIOLOGICAL, 1 UNIT, FOR

- Agriculture (4 years)
- Agricultural Administration (4 years)
- Applied Music (4 years)
- Business Administration (4 years)
- Business Administration with special training in Accounting (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, FOR

- General Science (4 years)
- Milling Industry (4 years)
- Specialized Horticulture (4 years)

ENGLISH, 3 UNITS; ALGEBRA, 1½ UNITS; GEOMETRY, 1½ UNITS; SCIENCE, PHYSICAL OR BIOLOGICAL, 1 UNIT, FOR

- 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, except in the Division of Engineering and Architecture.

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 must, during his first semester of attendance, enroll in algebra by correspondence study. 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
SCIENCE	*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 } 1 unit two of these, eighteen weeks each }

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
COMMERICAL	Commercial geography, one-half unit
SUBJECTS	Commercial law, one-half unit
	Salesmanship, one-half unit
	*Shorthand and typewriting, one-half or one unit each

Every undergraduate student matriculating in Kansas State College must have a complete physical examination. This examination will be given by the department of student health at a specified time. No new registration is complete without this physical examination. Students who do not meet the requirement will be dropped from the college rolls.

METHODS OF ADMISSION

ADMISSION BY CERTIFICATE. The applicant must ask the vice-president of the College for an information blank, to be properly filled in and returned; on it he must specify the curriculum in which he wishes to enroll. The vice-president will then ask the applicant's high-school principal for an official transcript of record. Shortly before the opening of the semester the registrar will send the student a permit to register, but not unless the student has chosen a curriculum. Students who present such permits at the registration room in Nichols Gymnasium will not have to meet the Committee on Admission, as must others. High-school transcripts received later than one week before enrollment cannot be acted upon before the opening of College. An applicant from another state will be accepted on certificate, provided—

1. He is a graduate of a high school accredited by the recognized accrediting agency of that state; or
2. He has completed the subjects required for graduation from an accredited Kansas high school; and
3. He has been recommended by the principal of the preparatory school where the majority of his work was taken as fully qualified to pursue the course for which he is applying.

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 units 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. Because 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

* 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.

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 ask the vice-president of the College for an information blank, to be properly filled in and returned; on it he must designate all other institutions in which he has been enrolled, and specify the curriculum in which he wishes to enroll in the College. The vice-president will then get proper transcripts of record from the student's former institutions. Any fees charged for such transcripts must, of course, be paid by the student, who should at the time of application make the necessary arrangements with his former institutions. College catalogues covering the periods of attendance at other institutions should be sent with the information blank. 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.

In order that credentials may be properly evaluated, all transcripts must be in the office of the vice-president at least three weeks before date of enrollment. The Committee on Advanced Credit cannot act on transcripts received later than this date in time for the student to enroll without serious inconvenience and perhaps delay which will necessitate payment of the \$2.50 fee for late registration.

In general, no student will be admitted to the College unless he is eligible to return to the college or university he last attended.

SUMMARY

The following credentials must be in the hands of the Committee on Advanced Credit at least three weeks before enrollment:

1. An official transcript of high-school work;
2. An original complete transcript of the work done at each college or university attended;
3. An official statement that the student is eligible to return to the college or university last attended;
4. A properly completed information blank, on which the curriculum chosen must be specified.

NOTE: Transcripts of credits must come to the Committee on Advanced Credit directly from the institution concerned. Others will not be accepted.

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 INDUCTION

Freshmen enrolling for the first time in Kansas State College must meet in the Auditorium 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 have the entire attention of the assigners, and opportunity to get desirable class schedules. Their deans and faculty advisers meet them in small groups to discuss their work and plans, 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 the Manhattan 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 physical examinations and their personality and aptitude tests, and the benefit of other induction activities. They 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

Municipal Junior College, Arkansas City
 Chanute Junior College, Chanute
 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
 Highland Junior College, Highland
 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
 Sacred Heart, Wichita
 Saint John's College, Winfield
 Saint Joseph's College, Hays
 Tabor Academy and College, Hillsboro

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. Except in summer school, 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 fewer 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 and courses completed by special examination. 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 additional 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 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 Business Administration (Business Administration; Business Administration and Accounting)
- Bachelor of Science in Chemical Engineering
- Bachelor of Science in Civil Engineering
- 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

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 College 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.

DUTIES AND PRIVILEGES

In the informal and democratic life of the College, every student is very largely his own preceptor. 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.

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. After September 1, 1940, graduate students may pay this fee, and 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 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. In the nine-week summer school, every student pays a student-activity fee of one dollar.

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	\$47.50	\$37.50

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	\$107.50	\$87.50

DEFINITION OF RESIDENCE. The residence of students entering Kansas State College is determined by an act of the legislature (L. 1938, Special Session, ch. 70, sec. 1), which reads as follows:

Persons entering the state educational institutions who if adults have not been, or, if minors, whose parents have not been residents of the state of Kansas for six months prior to matriculation in the state educational institutions, are nonresidents for the purpose of the payment of matriculation and incidental fees: *Provided further*, That no person shall be deemed to have gained a residence in this state for the aforesaid purpose while or during the elapse of time attending such institution as a student, nor while a student of any seminary of learning, unless, in the case of a minor, his parents shall have become actual residents in good faith of the state of Kansas during such period, or unless, in the case of a minor, he has neither lived with nor been supported by his parents or either of them for three years or more prior to enrollment and during said years has been a resident in good faith of the state of Kansas.

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 and in the first of the four professional years of the curriculum in Veterinary Medicine. 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	\$20.55	\$10.75
Agricultural Engineering	19.50	15.00
Agriculture	20.55	10.75
Applied Music (not incl. sheet music and private lesson)	10.00*	5.00*
Architectural Engineering	17.00	13.50
Architecture	10.50	7.00
Business Administration	10.00*	5.00*
Business Administration and Accounting	10.00*	5.00*
Chemical Engineering	19.50	14.50
Civil Engineering	18.00	12.00
Electrical Engineering	19.50	17.50
General Science	20.00*	17.00*
General Science Preveterinary	18.00*	16.00*
Home Economics	16.35	9.60
Home Economics and Art	16.35	9.60
Home Economics and Institutional Management and Dietetics	16.35	9.60
Home Economics and Nursing	15.85	6.60
Industrial Arts	22.00	16.50
Industrial Chemistry	18.00*	13.00*
Industrial Journalism	17.00*	6.00*
Mechanical Engineering	22.00	14.50
Milling Industry	16.65	7.50
Music Education (not incl. sheet music and private lesson)	8.00*	5.00*
Physical Education for Men	19.75	6.75
Physical Education for Women	12.75	6.75
Specialized Horticulture	18.80	5.75
Veterinary Medicine	22.80	5.00

LATE ASSIGNMENT FEES. Except in summer school, 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.

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 may have one transcript and one carbon copy without charge.
2. Each additional transcript with one carbon copy costs 25¢ for each year's record.

No student may receive his degree or obtain transcripts of record if he is financially indebted to the College or any of its departments or subsidiaries.

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 chosen. A freshman may reckon with an expenditure of about \$20 for new textbooks during his first semester, and of about \$15 during his second semester. Certain curriculums require books costing slightly more than these figures; most curriculums require books costing slightly less. For many courses secondhand books will be satisfactory.

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. To insure the return of this uniform, a \$5 deposit is required of each basic course student, the deposit to be refunded to the student when the complete uniform is returned to the military department in good condition. The money value of any missing articles will be deducted before the refund is made. For advanced courses an allowance is made by the War Department toward the cost of the uniform used.

ROOMS. Van Zile Hall is a residence for 130 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.

APTITUDE TESTS FOR FRESHMEN

Aptitude tests are designed to ascertain what features of the students' mental endowment and attainment are strongest. The results are helpful to deans and advisers in judging the intellectual progress of students, and in giving counsel concerning occupational aptitudes, as well as 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, if the average of his grades the preceding semester was below B, and under no circumstances if he was deficient in any subject.

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.

WITHDRAWAL FROM COLLEGE

A student who withdraws from college must secure an official withdrawal permit from his dean. Withdrawals become effective on the dates the permits are issued. In no case will they be antedated. To find rules concerning refund of fees, see Index.

AUDITING CLASSES

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 courses are offered, with the approval of the head of the department. Laboratory courses may not be audited.

SCHOLARSHIP DEFICIENCIES**Probation**

Any student in his first year of enrollment in this institution, 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 student in his first year of enrollment in this institution, 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 privileges 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 student 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. Unless he has reënrolled in the course, 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. (See College Calendar for dates.)

Permission for special examination in subjects not taken in class, or to make up failures, must be obtained, on recommendation of the head of the department in which the course is given, from the dean of the division in which the student is assigned. Such permission is granted only if the student has prepared for the examination under an approved tutor. The examination must be taken under the immediate supervision of the head of the department in which the course is given. A special examination may be given only to a matriculated student during a period of enrollment in resident work.

Examinations in high-school subjects for admission to the College are held at the beginning of each semester and of the summer school. (See College Calendar.) Students desiring such examinations should consult the registrar in advance.

REQUIRED PHYSICAL EXAMINATIONS

There is a prospective intimate relationship between human health and students in education, home economics, and veterinary medicine. For this reason all students who wish to enroll in teaching participation must pass a physical examination before they are permitted to do so; and all seniors in home economics and all fourth-year veterinary students must take a physical examination before they may be graduated. These examinations are given by the Department of Student Health, and the records of them become part of the permanent college records of the students. Under no circumstances will a student be deprived of his degree because of the results of a physical examination. Such physical examinations are optional for all other seniors, to whom they are recommended.

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 a 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, and Inc, 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 students, and the student's assigner. A special 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.

HONORS

In each division of the College *sophomore honors* are awarded to not more than five percent of the members of the sophomore class having the highest standing. Such honors are to be reckoned only on courses completed at this institution, combining the work of the freshman and sophomore years.

Similarly, at both commencement programs *senior honors* are awarded to not more than ten percent of the members of the senior class having the highest standing. Such honors are to be determined only on courses completed at this institution, combining the work of the 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."

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 toward graduation by satisfactorily participating in certain extracurricular activities. These activities, and the maximum of semester hours of credit allowed, are as follows:

Subject	Per semester	Total
Orchestra	1/2	4
Band	1/2	4
Choral Ensemble	1/2	4
Debate	2	4
Oratorical Contest	2	4
Kansas State Collegian journalism.....	1	4
Agricultural Student journalism.....	1	4
Kansas State Engineer 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.

COLLEGE ASSEMBLY

The College Assembly is held one hour fortnightly. Students and faculty gather in the College auditorium for the exercises, which 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.

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 yearbook, 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.

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 offices may have their mail delivered there. Mail arrives from the Manhattan post office twice a day. The College post office sells stamps, but not money orders, and insures and registers mail. Its chief purpose, however, is to facilitate intercommunication of College departments and communication of faculty with students. All students should call for their mail at least once every two days, and preferably every day.

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.

BOARDING AND ROOMING HOUSES

Students who are not residents of Manhattan live in rooming houses approved by the College administration. The Department of Student Health inspects the rooms and the Faculty Council on Student Affairs 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 130 women students, is located on the campus. It is a beautifully furnished, well-equipped fireproof 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, which will be refunded in case of a change in plans, if 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 about the residence hall should be addressed to the dean of women.

SELF-SUPPORT

Students of limited means are encouraged as much as possible; but if they have to give much time to self-support they should take lighter assignments of college work and extend their courses. A student ought to have money for the first semester, as he will need some time to make acquaintances and 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 Custodian. Students of exceptional ability are sometimes employed in special duties about the College. Many students get 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.

The College does not guarantee student employment. The Y. M. C. A., however, has an employment bureau for men students; and the Y. W. C. A., in coöperation with the office of the Dean of Women, has an employment bureau for women students.

The National Youth Administration makes available each year an allotment of federal funds to enable the College to employ, part time, a limited number of students who cannot attend college without this aid. Undergraduate students on this program can earn not to exceed \$20 a month; graduate students can earn not to exceed \$30 a month. While the qualifications for appointment to this work vary somewhat from year to year, need for the assistance and high scholarship records are always essential requirements. Requests for NYA application blanks should be addressed to the College NYA committee before August 1 preceding the academic year in which the appointment is desired.

College Organizations

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 of 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

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.

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.....	Business
Alpha Zeta	Agriculture
Blue Key	Senior Men
Dynamis	All School
K Fraternity	Athletics
Kappa Eta Kappa	Electrical Engineering
Mortar and Ball.....	Military
Mortar Board	Senior Women
Mu Phi Epsilon.....	Music
Phi Alpha Mu.....	General Science, Women
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.

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.

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.

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 Klub meets on the second and fourth Tuesdays of each month. Membership is open to all students and members of the agronomic 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 members and outside speakers appear on the programs.

The Poultry Club meets each Tuesday during the fall semester and irregularly during the spring semester. Membership is open to all students majoring in poultry husbandry and to members of the faculty teaching or carrying on research in poultry husbandry. The object of the club is the promotion of interest in poultry husbandry in the college and state. Problems of current interest in the field of poultry husbandry are discussed by the students and faculty. Some social meetings are also held.

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.

POPENOE CLUB

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 CLUB

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 MEDICAL ASSOCIATION

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.

COLLEGIATE 4-H CLUB

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.

THE COLLEGE BANDS

The three college bands, the Concert Band, the Varsity Band, and the Military Band, are student organizations, membership in which is voluntary. The Concert Band is limited in membership to men only, meets for rehearsal or drill three times a week, plays a number of concerts, and performs for various functions on and off the campus.

The Varsity Band is in part a training unit for the Concert Band. It is open to the entire student body, women being admitted after December 1, when the outdoor drill season closes. It meets three times a week for drill or rehearsal, plays several concerts, and performs for various functions on the campus.

From the opening of school in the fall until December 1 the two bands are drilled together to form a marching band, which plays for football games and other outdoor spectacles.

The Military Band is a strictly military organization, made up of Basic Course R. O. T. C. members who are assigned to Military Band duties in lieu of drill and technical military instruction. It is limited in its membership, and attendance of the members upon its exercises is obligatory.

Membership in all band units is determined by competitive tryouts. Regular assignment to Concert Band or Varsity Band may carry one-half hour of credit a semester.

Men pay a membership fee of 50¢ for the Concert and Varsity bands and a deposit of \$2.

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.

ATHLETIC ORGANIZATIONS

Kansas State College gives complete physical training. 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. 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.

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

There is in the College a chapter of the Association of Cosmopolitan Clubs in Universities and Colleges of America. The active membership consists of foreign and American students, both men and women. The objective of the club is to promote international understanding through friendship among students of various nationalities.

Loan Funds

All student loan activities are coördinated in the office of the executive secretary of the Kansas State College Alumni Association, Anderson Hall. A student wishing to apply for a loan from any fund listed below should address his request to Kenney L. Ford, Secretary, K. S. C. Alumni Association.

The State Board of Regents has established rules governing the administration of student loan funds. These rules include the following:

1. A student loan is made only when a note is signed by the borrower and one other responsible person, preferably the borrower's parents or guardian. This endorser must be recommended by his bank as of good financial standing and otherwise satisfactory as an endorser.

2. In general, 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.

3. The maximum total amount loaned from all loan funds to one individual usually shall not exceed \$250.

ALUMNI LOAN FUNDS

THE ALUMNI LOAN FUND. 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 for membership, they may obtain joint membership by paying \$75. The fund so created, about \$73,800, 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 August 28, 1939, the following alumni have completed payments for life membership: Harold W. Batchelor, John G. Bell, C. A. Byers, Charles B. Downer, Martin Dupray, James B. Edwards, Richmond K. Elliott, Rena Faubion, Paul L. Fetzer, Martin Fritz, Wilbert Fritz, Josie Griffith, Carl D. Gross, Hilda Grossman, L. T. Hagadorn, Kathleen Hamm, Vera McCoy Holtz, Arthur J. McCleery, George L. McColm, W. A. Meyle, Florence Mirick, Helen Monsch, Iva M. Mullen, J. A. Munro, Florence James Ofelt, Ellen Payne Paullin, Florence Phillips, A. Doyle Reed, June Roberts, Frank D. Ruppert, Vera Chubb Russell, Mae Schermerhorn, V. Dale Simmons, Libbie Smerchek, S. Roger Stewart, Dean Swift and Rita Brown Swift, Chester D. Tolle, N. Maude Vedder, Carl S. Warner, F. G. Warren, Charles J. West, C. A. Willis, C. Peairs Wilson, Guy E. Yerkes and M. C. Zimmerman. This list brings the total of paid-up life members to 936.

GIFTS, MEMORIALS, AND BEQUESTS

The Alumni Association of Kansas State College is incorporated under the laws of Kansas to administer gifts and bequests to the college. Any person wishing information about making such gifts or bequests may communicate with Kenney L. Ford, secretary of the Alumni Association. The following gifts and bequests are now administered by the Alumni Association as units in the Alumni Loan Fund:

ALBERT DICKENS, '93, MEMORIAL. \$1,922.70, contributed by friends, alumni, and faculty members.

J. M. WESTGATE, '97, MEMORIAL. \$1,250. \$1,000, a bequest of J. M. Westgate; \$250 given in memory by Mark W. and Philip J. Westgate.

J. CHESTER ALLEN, '82, MEMORIAL. \$1,000, given by E. A. Allen, '87, in memory of his brother.

FRANCES M. ALLEN MEMORIAL. \$1,000, given by E. A. Allen, '87, in memory of his wife.

VILONA CUTLER, '17, ENDOWMENT MEMBERSHIP. \$1,000; a loan to relatives of the donor and, upon repayment, to other students.

J. U. HIGINBOTHAM, '86, and MRS. HIGINBOTHAM, \$1,000.

NELLIE SAYWER KEDZIE, '76, UNIT. \$801.60, contributed by friends and former students.

SAMUEL AND ELEANOR THACKREY MEMORIAL. \$731.75, given by their descendants.

KARY C. DAVIS, '91, MEMORIAL. \$500, given by his widow, Fanny Waugh Davis, '91.

RUTH STOKES SEARS, '92, MEMORIAL. \$500, given by her husband, Fred C. Sears, '92.

LYDIA GARDINER WILLARD FUND. \$500, given by her husband, J. T. Willard, '83.

VENUS KIMBLE WILSON, '08, MEMORIAL. \$400, given by her husband, Bruce Wilson, '08.

ALBERT DIETZ, '85, \$125.16.

E. A. ALLEN, '87, \$100, on the fiftieth anniversary of his graduation.

CLARA F. CASTLE, '94, MEMORIAL. \$100.

JACOB LUND, '83, MEMORIAL. \$70.

C. H. STILES, f.s. '81, MEMORIAL. \$50, given by his widow, Nellie Cottrell Stiles, '87.

E. C. TREMBLY, '95, MEMORIAL. \$50.

ETHEL ARNOLD, '18, MEMORIAL. \$26, contributed by her students.

OTHER UNITS IN THE ALUMNI LOAN FUND

MANHATTAN CHAMBER OF COMMERCE. \$3,023.72.

4-H CLUB. Approximately, \$1,500, loaned in units of \$50 to former successful 4-H Club members. Created by the Collegiate 4-H Club by publishing "Who's Whoot," annual 4-H Club Book of Kansas.

AG FAIR UNIT. \$850, a temporary loan from the Ag Fair Board for aid to students in the Division of Agriculture.

COSMOPOLITAN CLUB. \$700, for foreign members of the Cosmopolitan Club.

K FRATERNITY UNIT. \$400, for any student of junior or senior classification.

KLOD AND KERNEL KLUB UNIT. \$350, for students in the Department of Agronomy.

FUTURE FARMERS UNIT. \$180, from high-school vocational agriculture students and teachers.

PHI KAPPA PHI. \$150, for members or pledges of Phi Kappa Phi.

SIGMA DELTA CHI. \$150, for students in Industrial Journalism.

CLASSES :

Class of 1916, \$100.	Class of 1923, \$76.16.
Class of 1919, \$660.37.	Class of 1926, \$9.13.
Class of 1922, \$106.39.	Class of 1927, \$3.10.

Contributions to the Chimes Fund, at present used in the Alumni Loan Fund:

Class of 1929, \$715.17.	Class of 1935, \$57.50.
Class of 1930, \$686.72.	Class of 1936, \$111.50.
Class of 1931, \$528.45.	Class of 1938, \$127.30.
Class of 1932, \$715.44.	Architectural Unit, \$20.

LOAN FUNDS ADMINISTERED BY THE COLLEGE

LOCKHART STUDENT LOAN SCHOLARSHIPS. The Lockhart Loan Fund is derived from a bequest to the college by the late George N. Lockhart, and was devised as "a fund to assist male students through college by means of loans, at a reasonable rate of interest . . ."

1. Seven loan scholarships are available each year to male graduates of Kansas high schools entering the freshman class in Kansas State College, one scholarship to be awarded each year in each of the seven congressional districts of the state if such distribution is practicable.

2. Ten loan scholarships are available each year to male students transferring with advanced credit from other Kansas colleges.

3. The fund is administered by the Lockhart Student Loan Fund Committee, W. E. Grimes, chairman, to whom correspondence may be addressed.

FANNIE J. HAMILTON. \$6,000 bequeathed by John O. Hamilton, in memory of his wife.

HENRY JACKSON WATERS. Royalties received from sales in Kansas during the first five years after publication of *The Essentials of Agriculture*, by former President Waters; augmented by gifts from Senator Arthur Capper and L. R. Eakin, and others. More than \$5,000 available for emergency loans of \$50 to \$150.

EFFIE C. HARBORD. \$5,000, given by James G. Harbord, '86, as a memorial to his mother.

SOCIAL CLUB. \$3,000, loaned by the Kansas State College Social Club.

BELLE SELBY CURTICE, '82. \$1,000, available to women in the curriculum in Home Economics.

D. A. R. \$750, available to men and women students.

STUDENT EMERGENCY. \$540, available for short-term loans not in excess of \$15.

FRANKLIN LITERARY SOCIETY. More than \$300.

WOMAN'S CLUB OF MANHATTAN. Available to both men and women.

HOUSEMOTHERS' CLUB. Available to undergraduates.

LOAN FUNDS NOT ADMINISTERED BY THE COLLEGE

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN. Maintained by the Manhattan branch of the Association and available to a graduate woman student.

STATE FEDERATION OF WOMEN'S CLUBS. For women students.

WOMEN'S PAN-HELLENIC. For women students.

P. E. O. For women students.

MASONIC. Established by the Knights Templar Commandery, available to junior and senior men and women. Applicants should seek recommendations from the commandery with whose members they may be acquainted.

ORDER OF THE EASTERN STAR. For members and sons and daughters of members if juniors or seniors. Applications are passed on in August for the first semester and in January for the second, but should be filed considerably earlier. For information address the Grand Secretary, The Order of the Eastern Star, National Reserve Building, Topeka.

REBECCA DUBBS, '28, MEMORIAL. Established by members of her family to assist students in any college in Kansas who are graduates of any high school in Ness, Lane, Scott, Wichita, Greeley, or Gove counties. For information address Mr. C. G. Hays, Ransom, Kan.

Scholarships and Assistantships

SCHOLARSHIPS

CAPPER. \$300. The annual gift of Senator Arthur Capper, divided equally between the boy and the girl standing highest in the 4-H leadership project in Kansas.

CARL RAYMOND GRAY. Formerly the "Union Pacific" scholarships, the name was changed in the fall of 1939, in honor of the late president of the Union Pacific Railroad, who initiated the award in 1921.

Scholarships of \$100, awarded each year by the Union Pacific Railroad Company to one student in vocational agriculture and one member of a 4-H Club in each of the thirty-six counties in Kansas served by the railroad. Awards are made by a local committee in each county, and are based on quality and quantity of project work, records kept, character, interest, and scholastic standing. The scholarships may be used to enroll for a full-year course in agriculture or home economics at Kansas State College, but not for other courses.

SEARS, ROEBUCK. Fifteen scholarships of \$150, the annual gift of Sears, Roebuck and Company to leading high-school graduates who have distinguished themselves in 4-H Clubs or in vocational agriculture, and whose attendance at college is dependent on such an award. From the holders of these scholarships a student is selected at the end of the freshman year to receive an additional award of \$200, to apply on the expenses of his sophomore year.

LAVERNE NOYES. About twenty scholarships annually of \$50 each from funds from the estate of LaVerne Noyes, to deserving and necessitous students who served in the army or the 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 overseas, prearmistice service was rendered. The student's dean must have all applications for these scholarships by 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.

Prizes and Medals

PRIZES

KLUD AND KERNEL KLUB. Cash prizes, trophies, merchandise, and subscriptions to farm papers; for grain judging.

DEPARTMENT OF POULTRY HUSBANDRY. Prizes to the value of \$100; for poultry judging.

DEPARTMENT OF ARCHITECTURE. Books to leading freshmen, sophomores, and juniors in architecture.

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS. A certificate of merit to the sophomore in chemical engineering ranking highest in his freshman year.

AMERICAN SOCIETY OF CIVIL ENGINEERS. Payment of the initiation fee into the American Society of Civil Engineers; to the civil engineer ranking highest during his senior year.

CAPPER. The leading student in agricultural journalism each year has his name engraved upon one of the several small shields surrounding a larger shield bearing the 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."

CHI OMEGA. By the Kappa Alpha Chapter; \$25 to the woman ranking highest in sociology at the end of the first semester.

MARGARET RUSSEL SCHOLARSHIP AWARD. By Phi Alpha Mu; \$25 to the junior woman enrolled in the Division of General Science ranking highest at the close of the second semester of her sophomore year. To be eligible a student must have done her sophomore work in the Division of General Science in Kansas State College.

PHI BETA KAPPA. \$10; to the highest ranking eight-semester senior in the curriculum in general science.

QUILL CLUB. \$10; for the best short story in the annual contest.

OMICRON NU SCHOLARSHIP AWARD. \$10; to the highest ranking freshman in the Division of Home Economics.

PRIZES IN VETERINARY MEDICINE

Dr. Benjamin F. Pfister, '21, and Dr. Earl F. Hoover, '24. \$15 and \$10; as alumni prizes in general efficiency; to seniors.

Dr. C. W. Bower, '18. \$10 and \$5; to seniors leading in work in the small-animal clinic.

Dr. O. M. Franklin, '12. \$10 and \$5; to seniors ranking highest in pathology.

Dr. N. D. Harwood, '18. \$10 and \$5; to sophomores ranking highest in physiology.

Alumni of the suspended Kansas City Veterinary College. \$10 and \$5; to juniors ranking highest in therapeutics.

MEDALS

BLOCK AND BRIDLE CLUB. Gold, silver, and two bronze; for stock judging.

STUDENT DAIRY CLUB. Gold, silver, and bronze; for dairy judging.

ALPHA RHO CHI. To the graduating senior in the Department of Architecture selected for leadership and professional merit.

AMERICAN INSTITUTE OF ARCHITECTS. To the leading senior architect.

ELECTRICAL ENGINEERING. Gold and silver; to seniors who have made the best records in twenty semester hours of required subjects in electrical engineering. Gold and silver; to the highest ranking juniors who have completed at least eighty semester hours of the required curriculum in electrical engineering.

SIGMA TAU SCHOLARSHIP AWARD. To three sophomore engineering students ranking highest in their freshman year.

ALPHA KAPPA PSI. By the Alpha Omega Chapter; a scholarship medallion to the highest ranking junior man enrolled in the Curriculum in Business Administration.

ORATORY. By the literary societies through the Inter-Society Council; three cash and medal prizes in the Inter-Society Oratorical Contest.

By the Missouri Valley Oratorical Association; cash and medal awards in its annual contest.

Student Health

Head Physician HUSBAND
Assistant Physician FRANE
Assistant Physician MONTGOMERY-SHORT
Assistant Physician SWANEY
Consulting Radiologist G. M. TICE
Head Dispensary Nurse UMBERGER

Head Hospital Nurse DUNCAN
Nurse COLE
Nurse PELTIER
Nurse PHILLIPS
Technician BROWN

The Department of Student Health is supported by the student-health fee fund. There are five full-time physicians, five nurses, and a technician in the department. The College Hospital has a capacity of fifty beds.

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, but patients are admitted 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-week 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
Head Cataloguer BAKER
Assistant Cataloguer MULLER
Documents Cataloguer ROBERTS
Continuations Assistant BAXTER
Class Reserves Assistant DILLER

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, 1939, the Library contained 122,653 bound volumes, besides much unbound material. It receives currently about 1,300 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*

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 register, obtain their assignments from the dean of the division, and pay their fees during the regular registration periods.

FEES*

Graduate students are subject to the same fees as other students, except that (1) they pay the student-activity fee in summer school only;† (2) after September 1, 1940, graduate students enrolled for 10 or more semester hours of college work during the regular academic year or for 6 or more semester hours of college work during the summer session may elect to pay the regular student-health fee and to receive the regular student-health service provided that the election is made and the fee paid at the time of enrollment; and (3) the fee for problem or research work pursued *in absentia* or for vacation credit 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.

GRADES‡

A candidate for an advanced degree must 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.

* See section headed Fees, under General Information.

† Graduate students may have the student-activity benefits by paying the regular student-activity fee.

‡ See section headed Grades, under General Information.

DEGREES

Of the advanced academic degrees, the College confers the degrees Master of Science and Doctor of Philosophy. Degrees are conferred at the end of the second semester and of the summer school. Candidates for advanced academic degrees are required to be present at commencement exercises 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. Candidates for 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, which 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 are 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 students' 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 the basis of the formal assignment to courses at the beginning of each semester and of the summer school.

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.

REQUIREMENTS FOR THE DEGREE MASTER OF SCIENCE

Major work leading to the degree Master of Science is offered in the following departments or major fields:

DIVISION OF AGRICULTURE:

Agricultural Economics
Agronomy
Animal Husbandry
Dairy Husbandry
Horticulture
Milling Industry
Poultry Husbandry

DIVISION OF ENGINEERING:

Agricultural Engineering
Applied Mechanics
Architecture
Chemical Engineering
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
Mathematics
Physics
Psychology
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. Thirty semester hours of work, including a thesis, must be satisfactorily completed.

LANGUAGE REQUIREMENTS. A reading knowledge of two modern foreign languages is 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.

A candidate for the master's degree is subject to an 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 semester 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.

* In graduate work in education, major emphasis is placed upon rural and vocational education.

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 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 written and oral preliminary examinations over the entire field of study. When the student has passed the language examinations and the preliminary ones, 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 acceptable 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.

VACATION CREDIT

Two semester hours of graduate credit in problem or research work may be earned between the close of the summer school and the beginning of the first semester, provided that permission to do so is secured in advance from the major instructor and from the dean of the Division of Graduate Study.

On completion the credit so earned will be included on the student's next 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 industrial fellowships are sometimes available. The 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
Animal Husbandry	1
Art	3
Bacteriology	2
Botany	1
Chemistry	5
Child Welfare	2
Civil Engineering	2
Dairy Husbandry	1
Entomology	1
Geology	1
Horticulture	1
Institutional Management	2
Machine Design	1
Mechanical Engineering	1
Poultry Husbandry	1
Zoölogy	2

Graduate research assistantships, as listed below, usually are maintained in the departments named. Holders of these positions assist in conducting the regular research work in the institution.

<i>Subject</i>	<i>Number</i>
Agricultural Economics	1
Agricultural Engineering	1
Agronomy	2
Animal Husbandry	2
Applied Mechanics	1
Botany	1
Horticulture	1
Shop Practice	1
Zoölogy	4

Industrial assistantships and fellowships:

<i>Subject</i>	<i>Number</i>
Agricultural Economics	2
Agronomy	5
Applied Mechanics	1
Chemical Engineering	1
Chemistry	1
Entomology	1
Milling Industry	1

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 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 in advance with the dean of the Division of Graduate Study.

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.

GRADUATE CALENDAR

SUMMER SCHOOL, 1940

- May 29, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.*
- June 8, Saturday.—Preliminary reports on Masters' theses are due.
- June 11, Tuesday.—Lecture on thesis preparation. 4:00 p. m. W 101.
- June 26, Wednesday.—Doctors' theses are due.
- June 28, Friday.—Masters' examinations may begin. Abstracts of thesis due one week before examination.
- July 13, Saturday.—Masters' theses approvals are due.
- July 20, Saturday.—Final copies of Masters' theses are due.
- July 23, Tuesday.—Last day for Masters' examinations.
- July 26, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.

FIRST SEMESTER, 1940-1941

- Sept. 9 and 10, Monday and Tuesday.—Registration and assignment of graduate students.*
- Oct. 22, Tuesday.—Lecture on thesis preparation. 4:00 p. m. W 101.
- Dec. 7, Saturday.—Programs of study are due from candidates for the Masters' degree in 1941.

SECOND SEMESTER, 1940-1941

- Jan. 28 and 29, Tuesday and Wednesday.—Registration and assignment of graduate students.*
- Feb. 18, Tuesday.—Lecture on thesis preparation. 4:00 p. m. W 101.
- March 14, Friday.—Preliminary reports on Masters' theses are due.
- April 14, Monday.—Masters' examinations may begin. Abstracts of theses due one week before examination.
- April 26, Saturday.—Doctors' theses are due.
- May 10, Saturday.—Masters' theses approvals are due.
- May 17, Saturday.—Final copies of Masters' theses are due.
- May 20, Tuesday.—Last day for Masters' examinations.
- May 25, Sunday.—Baccalaureate services at 7:30 p. m.
- May 26, Monday.—Seventy-eighth annual Commencement at 7:30 p. m.

SUMMER SCHOOL, 1941

May 28, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.*

June 7, Saturday.—Preliminary reports on Masters' theses are due.

June 10, Tuesday.—Lecture on thesis preparation. 4:00 p. m. W 101.

June 25, Wednesday.—Doctors' theses are due.

June 27, Friday.—Masters' examinations may begin. Abstracts of thesis due one week before examination.

July 12, Saturday.—Masters' theses approvals are due.

July 19, Saturday.—Final copies of Masters' theses are due.

July 22, Tuesday.—Last day for Masters' examinations.

July 25, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.

* 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. 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 modern conveniences. 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 a degree in Agriculture must have had at least six months of farm experience approved by the dean of the Division of Agriculture. Students in dairy manufactures or specialized horticulture may substitute practical experience in their respective industries for farm experience.

Candidates for a degree in Milling Industry must have had at least three months of practical experience in the field of milling or related fields.

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: agricultural services, 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.

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 for 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 the time of assignment in the first semester of their freshman year in order to be assigned to proper chemistry courses.

Students who bring credits to this College from some other college or university, and who choose the curriculum in Milling Industry, should indicate in which of the three fields in milling they expect to major.

Any candidate for a degree in Milling Industry must have had at least three months' experience in a wheat elevator, flour mill, bakery, or cereal chemistry laboratory, or equivalent, before graduation.

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. Application should be made before August 15. Application blanks may be obtained from the dean of the Division of Agriculture.

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, Shop 147.....	3
Farm Blacksmithing I, Shop 157.....	1
Farm Blacksmithing II, Shop 158.....	1
Farm Shop Methods, Shop 175.....	3
Total	32

AGRICULTURE IN THE SUMMER SCHOOL

All departments in the division usually offer courses in the Summer School. Some 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(2-3) <i>or</i>
El. of Dairying, Dairy Husb. 101..	3(2-3)
Freshman Lect., Gen. Agr. 102....	1(2-0)
Infantry I, Mil. Sc. 101.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

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) <i>or</i>
El. of An. Husb., An. Husb. 125..	3(2-3)
Library Methods, Lib. Ec. 101....	1(1-0)
Infantry II, Mil. Sc. 102.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 17

SOPHOMORE

FIRST SEMESTER

El. of Horticulture, Hort. 107.....	3(2-3)
Organic Chemistry, Agr., Chem. 125,	3(3-0)
Anat. and Physiol., Anat. 131.....	3(2-3) <i>or</i>
Plant Physiology I, ³ Bot. 208.....	3(3-0)
Soils, Agron. 130.....	4(3-2, 1) <i>or</i>
Farm Crops, Agron. 101.....	4(2-6)
Farm Poul. Pro., Poul. Husb. 101,	2(1-2, 1)
Infantry III, Mil. Sc. 103.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

SECOND SEMESTER

Prin. of Feeding, An. Husb. 152 ² ..	3(3-0)
Economics I, Econ. 101.....	3(3-0)
Farm Crops, Agron. 101.....	4(2-6) <i>or</i>
Soils, Agron. 130.....	4(3-2, 1)
General Zoölogy, Zoöl. 105.....	5(3-6)
Infantry IV, Mil. Sc. 104.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

JUNIOR

FIRST SEMESTER

Genetics, An. Husb. 221.....	3(3-0)
Plant Pathology I, Bot. 205.....	3(2-3)
Farm Organization, Agr. Ec. 106..	3(2-3)
Elective	7
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

SECOND SEMESTER

Gen. Econ. Entomology, Ent. 203..	3(2-3)
Agr. Microbiology, Bact. 105 ⁴	3(2-3)
Agr. Journalism, Ind. Jour. 160...	3(2-3)
Elective	7
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

SENIOR

FIRST SEMESTER

Elective	16
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

SECOND SEMESTER

Agr. Relationships, Gen. Agr. 105,	R(1-0)
Elective	16
Agr. Seminar, ¹ Gen. Agr. 103.....	R

Total 16

Number of hours required for graduation, 129.§

* 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 (Anat. 131).

4. Students expecting to take additional work in bacteriology, either for advanced work in soils or dairying, will take General Microbiology instead of Agricultural Microbiology.

§ Seniors must meet the graduation requirement in points as well as in hours. See section headed: The Point System.

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.

SUBSTITUTION 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(2-3) <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(2-3)
Infantry I, Mil. Sc. 101.....	1(1-2)	Library Methods, Lib. Ec. 101....	1(1-0)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Infantry II, Mil. Sci. 102.....	1(1-2)
Agr. Seminar,* Gen. Agr. 103.....	R	Phys. Education M, Phys. Ed. 103,	R(0-2)
		Agr. Seminar,* Gen. Agr. 103.....	R
Total	16	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Organic Chemistry, Agr., Chem. 125,	3(3-0)	El. of Hort., Hort. 107.....	3(2-3)
Economics I, Econ. 101.....	3(3-0)	Feeding L. S., An. Husb. 172.....	3(3-0)
General Algebra, Math. 108.....	5(5-0)	General Psychology, Educ. 184....	3(3-0)
Soils, Agron. 130.....	4(3-2, 1) <i>or</i>	Soils, Agron. 130.....	4(3-2, 1) <i>or</i>
Farm Crops, Agron. 101.....	4(2-6)	Farm Crops, Agron. 101.....	4(2-6)
Infantry III, Mil. Sci. 103.....	1(1-2)	Farm Poul. Pro., Poul. Husb. 101,	2(1-2, 1)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Infantry IV, Mil. Sci. 104.....	1(1-2)
Agr. Seminar,* Gen. Agr. 103.....	R	Phys. Education M, Phys. Ed. 103,	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, (6) agricultural service, and (7) agricultural education.

Students who bring credits to this College from some other college or university, and who choose the curriculum in Agricultural Administration, must indicate whether or not they expect to enter the field of agricultural education.

SEMESTER HOURS OF ELECTIVES REQUIRED FOR VARIOUS FIELDS

GROUP	Hours in fields 1, 2, 3, 4, 5, 6	Hours in field 7
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.

* Four meetings each semester.

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)
Chemistry I, Chem. 101.....	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. 102 (men)...	1(1-2)
Infantry I, Mil. Sc. 101 (men)...	1(1-2)	Phys. Education M, Phys. Ed. 103, R(0-2)or	
Phys. Education M, Phys. Ed. 103, R(0-2)or		Phys. Education W, Phys. Ed. 151, R(0-3)	
Phys. Education W, Phys. Ed. 151, 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(3-2, 1)	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. 103 (men)...	1(1-2)	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Phys. Education M, Phys. Ed. 103, R(0-2)or		Phys. Education M, Phys. Ed. 103, R(0-2)or	
Phys. Education W, Phys. Ed. 151, R(0-3)		Phys. Education W, Phys. Ed. 151, 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. 102.....	3(2-3)	Plant Materials II, Hort. 103.....	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.

Electives in Landscape Gardening

Engg. Drawing, Mach. Des. 101...	2(0-6)	Domestic Arch., Arch. 124.....	2(2-0)
Freehand Draw. I, Arch. 111.....	2(0-6)	Freehand 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. Engg. 151, 155,	3(2-3)
Surveying I, Civ. Engg. 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.

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.

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)	Org. Chemistry, Agr. Chem. 124..	3(3-0)
Landscape Gardening I, Hort. 125,	3(3-0)	Business Management, Econ. 126..	2(2-0)
Genetics, An. Husb. 221.....	3(3-0)	Applied Floriculture, Hort. 212....	3(2-3)
Forest Nursery Prac., Hort. 120...	3(2-3)	Plant Physiology III, Bot. 211....	3(3-0)
Plant Genetics, Agron. 208.....	3(3-0)	Credits and Collections, Econ. 223,	2(2-0)
Accounting I, Econ. 133.....	3(2-3)	Extem. Speech I, Pub. Spk. 106..	2(2-0)
Engg. Draw., Mach. Des. 101.....	2(0-6)	Horticulture Seminar, Hort. 235...	1(1-0)
Modern Language	3(3-0)	El. of Vegetable Gard., Hort. 133,	3(2-3)
Meterology, Phys. 133.....	3(3-0)	Literature of Hort., Hort. 208....	2(2-0)
Botanical Microtechnic, Bot. 217..	3(1-6)	Modern Language	3(3-0)
		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(1-2, 1)	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)	Library Methods, Lib. Ec. 101....	1(1-0)
Freshman Lect., Gen. Agr. 102....	1(2-0)	Current History, Hist. 126.....	1(1-0)
Surv. of Mill. Ind., Mill. Ind. 102,	1(1-0)	Engg. Drawing, Mach. Des. 101...	2(0-6)
Artillery I, Mil. Sc. 113.....	1(1-2)	Flow Sheets, Mill. Ind. 103.....	2(0-6)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Artillery II, Mil. Sc. 114.....	1(1-2)
Milling Seminar ¹	R	Phys. Education M, Phys. Ed. 103,	R(0-2)
		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)	Milling Entomology, Ent. 117....	2(2-0)
Artillery III, Mil. Sc. 115.....	1(1-2)	Artillery IV, Mil. Sc. 116.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Phys. Education M, Phys. Ed. 103,	R(0-2)
Milling Seminar ¹	R	Milling Seminar ¹	R
Elective ²	5	Elective ²	6
Total	16	Total	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Mkt. Grading Cereals, Agron. 115,	3(1-4, 2)	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		SECOND SEMESTER	
Milling Seminar ¹	R	Milling Seminar ¹	R
Elective ²	16	Agr. Relationships, Gen. Agr. 105..	R
		Elective ²	16
Total	16	Total	16

Number of hours required for graduation: 128—basic courses, 62 hours;
elective courses, 66 hours.

Electives for Students in Milling Administration

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122.....	5(3-6)	Mktg. of Farm Prod., Econ. 202..	3(3-0)
General Psychology, Educ. 184....	3(3-0)	Grain Marketing, Econ. 203.....	3(3-0)
Extm. Speech I, Pub. Spk. 106... 2(2-0)or		Money and Banking, Econ. 116...	3(3-0)
Public Speaking, Pub. Spk. 107*..	2(2-0)	Business Law I, Hist. 163.....	3(3-0)
Extm. Speech II, Pub. Spk. 108,	2(2-0)	Business Law II, Hist. 164.....	3(3-0)
Coml. Correspondence, Eng. 122...	3(3-0)	Prin. of Advertising, Ind. Jour. 178,	4(4-0)
Writ. and Oral Salesmanship, Engl.		Economics II, Econ. 104.....	3(3-0)
123	3(3-0)	Business Org. & Fin., Econ. 215...	3(3-0)
Accounting I, Econ. 133.....	3(2-3)		
Accounting II, Econ. 134.....	3(2-3)	Total	49

MINOR ELECTIVES: A total of 17 hours of minor electives completes the work of the curriculum.

* For juniors and seniors.

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 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. Engg. 120, 125.....	3(2-3)
Des. Geom., Mach. Des. 106.....	2(0-6)	Elec. Engg. C, Elec. Engg. 102, 106,	3(2-2, 1)
Mechanism, Mach. Des. 121.....	3(3-0)	Oxyacetylene Welding, Shop 171, 1(0-2, 1)or	
Mach. Drawing I, Mach. Des. 111,	2(0-6)	Arc Welding, Shop 172.....	1(0-2, 1)or
Mill. Tech. I, Mill. Ind. 201.....	2(0-6)	Sheet Metal Work, Shop 173.....	2(0-6)
Mill. Tech. II, Mill. Ind. 202.....	2(0-6)		
		Total	47 or 48

MINOR ELECTIVES: A total of 18 or 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. 236,	3(3-0)
Plane Anal. Geometry, Math. 110,	4(4-0)	Experimental Baking, Mill. Ind. 207,	4(2-6)
Calculus I, Math. 114.....	4(4-0)	Colloidal Chemistry, Chem. 213...	2(2-0)
Physiological Chemistry, Chem. 231,	5(3-6)	Adv. Wheat and Flour Testing, Mill.	
Quan. Analysis A, Chem. 250.....	3(1-6)	Ind. 210	2(0-6)
Quan. Analysis B, Chem. 251....	3(1-6)	Chemical Microscopy, Chem. 245,	1(0-3)
Gen. Microbiology, Bact. 101.....	3(1-6)		
Wheat, Flour Test, Mill. Ind. 205,	3(0-9)		
Physical Chemistry I, Chem. 206..	5(3-6)	Total	52

MINOR ELECTIVES: A total of 14 hours of minor electives completes the work of the curriculum.

Electives for Students of Agriculture Majoring 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:

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)
Prin. of Advertising, Ind. Jour. 178,	4(4-0)		

Agricultural Economics

Section of

ECONOMICS AND SOCIOLOGY

Professor GRIMES
 Professor HOWE
 Professor HILL
 Associate Professor HODGES
 Associate Professor MONTGOMERY
 Assistant Professor PARSONS
 Assistant Professor EGGERT

Assistant Professor PINE
 Instructor DOLL
 Instructor MILLER
 Instructor WILSON
 Instructor OTTO
 Instructor REED

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. Those courses listed here have 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. Pine, Doll.

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. 101. Montgomery, Wilson.

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.

212. CONSERVATION OF AGRICULTURAL RESOURCES. 2(2-0); II. Prerequisite: Econ. 101; junior standing. Howe, Miller.

218. LAND ECONOMICS. 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.

226. MARKET PRICES. 3(3-0); I and II. Prerequisite: Econ. 101. Staff.
Explanation of price analysis and forces determining prices.

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. 101. Eggert, Wilson.

Livestock marketing services, functions, and prices.

* 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.

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. 101. Parsons.

Factors affecting prices; 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.

FOR GRADUATE STUDY

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.

FOR GRADUATE AND UNDERGRADUATE CREDIT

256. ADVANCED RURAL SOCIOLOGY. 3(3-0); II. Prerequisite: Econ. 156. Hill. A continuation of Econ. 156.

FOR GRADUATE STUDY

350. RESEARCH IN RURAL SOCIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Econ. 156.

Agronomy

Professor THROCKMORTON
Professor LAUDE
Professor CLAPP
Associate Professor ZAHNLEY
Associate Professor REITZ
Associate Professor METZGER
Associate Professor MYERS
Associate Professor MULLEN

Associate Professor DAVIS
Assistant Professor HIDE
Assistant Professor ANDERSON
Assistant HOLLEMBEAK
Seed Analyst NORRIS
Graduate Assistant KLINGMAN
Graduate Research Assistant BLODGETT

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. (Also summer of 1941.) Prerequisite: Bot. 101. Davis, Klingman.

Economic significance of important grain and forage crops. Deposit, \$4.

105. SEED IDENTIFICATION AND WEED CONTROL. 2(1-3); I. Prerequisite: Agron. 101. Zahnley, Norris.

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(1-4, 2); I. Prerequisite: Mill. Ind. 101. Zahnley, Mullen. 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. Reitz.

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. Charge, \$1.

207. PASTURE IMPROVEMENT I. 3(2-3); II. Prerequisite: Bot. 105 and Agron. 101. Anderson.

Study of management practices designed to improve Kansas pastures. Charge, \$1.

208. PLANT GENETICS. 3(3-0); I. Prerequisite: An. Husb. 221. Reitz.

An advanced course dealing with genetic principles as applied to plant species.

209. GENETICS SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructors. Nabours, Reitz, Warren, Ibsen, Jugenheimer.

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 1939-'40 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 1940-'41 and alternate years thereafter. Anderson.

Experimental methods; selection and breeding of pasture plants.

216. AGRONOMIC LITERATURE. 2(2-0); I. Prerequisite: Senior standing. Staff.

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(3-2, 1); I and II. (Also summer of 1941.) Prerequisite: Chem. 101 and Geol. 103. Throckmorton, Myers, Hide, Metzger.
Fundamental principles underlying the management of soils. Charge, \$3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

231. DRY-LAND FARMING. 2(2-0); I and II. 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. Charge, \$1.

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); I and 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. 103. 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
Professor AUBEL
Associate Professor MACKINTOSH
Associate Professor COX

Assistant Professor CATHCART
Assistant BRADLEY
Temporary Assistant Professor MARTIN
Graduate Assistant WILLIAMS
Graduate Research Assistant RICE
Graduate Research Assistant WELLINGTON

The courses in the Department of Animal Husbandry give the student special instruction in the selection, breeding, feeding, marketing, and management of all classes of livestock.

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.

FOR UNDERGRADUATE CREDIT

125. ELEMENTS OF ANIMAL HUSBANDRY. 3(2-3); I and II. (Also summer of 1941.) Staff.

A survey of the field of animal husbandry, with special emphasis on the importance of livestock as a major phase of agriculture, and the origin, history,

and adaptability of the different breeds to different environments. Type, conformation, quality, 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. One field trip required. 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. 125. Open to students in the curriculum in Agriculture. Cox.

The digestive system and processes of nutrition; origin, chemical analysis, and feeding values of different feeds; nutritive requirements for maintenance, growth, and production of farm animals.

154. BEEF-CATTLE PRODUCTION. 3(3-0); II. Prerequisite: An. Husb. 152 or 172. Weber. One field trip.

157. SWINE PRODUCTION. 3(3-0); II. Prerequisite: An. Husb. 152 or 172. Aubel. One field trip.

160. SHEEP PRODUCTION. 3(3-0); 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. 125 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 H. E. 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. McCampbell. 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. Charge, 50 cents.

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, Reitz, 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.
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 MARTIN
Associate Professor BECHTEL

Assistant Professor CAULFIELD
Assistant Professor SHAW
Instructor BECK
Graduate Assistant KOGER

The activities of the Department of Dairy Husbandry are 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 150 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.

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. Bechtel.

105. DAIRY CATTLE JUDGING. 2(0-6); II. Prerequisite: Dairy Husb. 101. Shaw.

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. 101. 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. 101. 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 processing 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. Shaw.

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. 101 and Bact. 101. Offered in 1941-'42 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 Bact. 101. Offered in 1940-'41 and alternate years thereafter. Martin, Caulfield.

Laboratory.—Manufacture of ice cream and ices. Charge, \$3.

135. CHEESE MAKING. 3(2-3); II. Prerequisite: Dairy Husb. 106 and Bact. 101. Offered in 1941-'42 and alternate years thereafter. Caulfield.

Laboratory.—Manufacture of 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, Martin.

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 1940-'41 and alternate years thereafter. Shaw.

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 1941-'42 and alternate years thereafter. Bechtel.

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, 105, and 108, and An. Husb. 152. Atkeson, Bechtel, Shaw.

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. 110. Offered in 1940-'41 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, Bechtel, Shaw.

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 PICKETT
Professor BARNETT
Professor QUINLAN
Associate Professor SMITH
Associate Professor FILLINGER

Associate Professor DECKER
Assistant Professor ABMEYER
Assistant KENWORTHY
Graduate Assistant BEAUMONT

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, II, and SS. 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. 103 or equivalent. Pickett, Filinger.

Spray machinery; chemical properties; insecticides; fungicides; spray dates; fumigation.

Laboratory.—Spray materials, residue determinations, fumigants; spray machinery and accessories. Charge, \$2.

208. LITERATURE OF HORTICULTURE. 2(2-0); II. Open only to junior, senior, and graduate students in horticulture. Offered in 1940-'41 and alternate years thereafter. Filinger.

Books and publications are reviewed and bibliographies prepared.

235. HORTICULTURE SEMINAR. 1(1-0); I and II. Open only to junior, senior, and graduate students in horticulture. 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, II, and SS. Prerequisite: Consult instructor. 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. 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. Charges, \$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

102. PLANT MATERIALS I. 3(2-3); I. Prerequisite: Bot. 105. Quinlan. Perennials and annuals for general ornamental planting; planting plans.

103. PLANT MATERIALS II. 3(2-3); II. Prerequisite: Hort. 102. Quinlan. Trees, shrubs, vines for ornamental planting; planting plans and reports.

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 1941-'42 and alternate years thereafter. Quinlan.

Growth and development of cities and towns; land subdivision. Charge, \$1.

227. LANDSCAPE CONSTRUCTION. 3(2-3); I. Prerequisite: Civ. Engr. 151, 155. Offered in 1940-'41 and alternate years thereafter. Quinlan.

Topographic maps; grading plans; structures, sewage, water supply, lighting, and drainage on the private estate. Charge, \$1.

228. PLANTING DESIGN. 2(0-6); I. Prerequisite: Hort. 103. Offered in 1940-'41 and alternate years thereafter. Quinlan.

The use of plants in landscape composition. Perspective and elevational sketches and plans.

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 1941-'42 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. 103, 238, and 243. 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

109. SMALL FRUITS. 3(2-3); II. Prerequisite: Bot. 105. Filing. Filing.

Growing, harvesting, and marketing small fruits. Charge, \$2.

111. SYSTEMATIC POMOLOGY. 3(2-3); I. Prerequisite: Hort. 107. Filing. 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. 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 1941-'42 and alternate years thereafter. Barnett.

Geography and culture of subtropical fruits.

205. ADVANCED POMOLOGY. 3(2-3); I. Prerequisite: Hort. 111. Pickett, Filing. Filing.

A course in the fundamentals of orcharding.

COURSES IN VEGETABLE GARDENING AND FLORICULTURE

FOR UNDERGRADUATE CREDIT

127. GREENHOUSE CONSTRUCTION AND MANAGEMENT. 3(3-0); II. Decker. Decker.

Greenhouse maintenance, heating, ventilation, soils, and water.

130. SCHOOL GARDENING. 2(2-0); SS. Decker.

Soils, pests, and machinery as related to vegetable culture.

133. VEGETABLE GARDENING. 3(2-3); II. Decker.

Principles underlying vegetable production for the home or local market, special attention given to farm gardens.

Laboratory.—Varieties, planting schedules, and crop rotations. Charge, \$2.

135. FLORAL ARRANGEMENT I. 2(1-3); I. Decker. Consult instructor for prerequisites.

The commercial flower shop, source of supplies, sales.

Laboratory.—Arrangement of flowers for various occasions. Charge, \$2.

136. FLORAL ARRANGEMENT II. 2(1-3); II. Decker. Consult instructor for prerequisites. Continuation of Hort. 135.

Laboratory.—Care of cut flowers, packing, delivery, and arrangement. Charge, \$2.

140. COMMERCIAL FLORICULTURE I. 3(2-3); I. Prerequisite: Hort. 127. Decker.

Principles underlying the culture of greenhouse crops. Charge, \$2.

141. COMMERCIAL FLORICULTURE II. 3(2-3); II. Prerequisite: Hort. 140. Decker.

Continuation of Hort. 140. Charge, \$2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

210. MARKET GARDENING. 3(2-3); I. Prerequisite: Agron. 130 and Hort. 133. Decker.

Competitive areas, market requirements, harvesting, grading, and costs.

Laboratory.—Grading and packing, sources of market supplies, and prices. Charge, \$2.

214. HORTICULTURAL CASH CROPS. 2(2-0); I. Prerequisite: Agron. 130 and Hort. 133. Decker.

Vegetable crops grown in Kansas principally as cash crops; potatoes, sweet potatoes, watermelons, and cantaloupes.

Milling Industry

Professor BAYFIELD
Professor SWANSON
Professor WORKING

Associate 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.

FOR UNDERGRADUATE CREDIT

101. ELEMENTS OF MILLING. 2(1-2,1); I and II. Anderson.

Elementary milling and work on experimental mills. Charge, \$2.

102. SURVEY OF MILLING INDUSTRY. 1(1-0); I. Bayfield.

A general survey of the milling industry field given primarily for freshmen.

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. Working.

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: Mill. Ind. 111, Mach. Des. 111 and 121. Pence.

205. WHEAT AND FLOUR TESTING. 3(0-9); I. Prerequisite: Chem. 122 and 251. Working.

Special quantitative tests of cereals and their products; methods of analysis and interpretation of results. Deposit \$7.50.

207. EXPERIMENTAL BAKING. 4(2-6); II. Prerequisite: Chem. 122. Working.

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.

Physiochemical and other methods used in testing wheat and flour. Deposit, \$2.50 per hour.

212. THE QUALITIES OF WHEAT AND FLOUR. 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 (½-0); I and II. Staff.

Discussion of problems of general interest to all students in milling industry. Charge, 75 cents.

FOR GRADUATE CREDIT

301. RESEARCH IN MILLING INDUSTRY. Credit to be arranged; I, II, and SS. Prerequisite: Consult staff.

Research may be used as basis for the master's thesis.

Poultry Husbandry

Professor PAYNE
Professor WARREN
Associate Professor SCOTT

Assistant BOHREN
Graduate Assistant BERG
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.

FOR UNDERGRADUATE CREDIT

101. FARM POULTRY PRODUCTION. 2(1-3); I and II. Payne, Scott, Bohren. Charge, \$2.

103. FARM POULTRY PRODUCTION. 3(2-3); SS. Bohren.

A general introductory course dealing with poultry problems on the farm. Charge, \$2.

109. POULTRY JUDGING. 3(1-6); I. Prerequisite: Poult. Husb. 101. Scott. 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 1941-'42 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 fewer than 8 weeks, at hours outside the regular schedule); II. Prerequisite: Poult. Husb. 101 and Zoöl. 105. Scott.

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 in 1941-'42 and alternate years thereafter. Scott.

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. 218.

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, Scott. 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, Scott.

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 years 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 part of what was originally the Fort Hays military reservation. A bill was approved by congress March 28, 1900, 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.

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 them, but each such substitution must have the approval of the head of the department in which the curriculum is administered, the head of the 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 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 includes all 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 they 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.

Students should get 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.

Curriculum in Architecture

The curriculum in Architecture, while stressing 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.

Students should get 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, for instance, those processing petroleum, rubber, foods, leather, and those manufacturing cement, glass, soap, paints and varnishes, pulp and paper.

Curriculum in Civil Engineering

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. Provision is made for class and laboratory work in mechanical and electrical engineering. Because of the growing importance of municipal problems, such as paving, sewerage, and water supply, the curriculum 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 graduate from the curriculum in Electrical Engineering 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.

The student must 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. Technical training begins with a course in the first year, followed by one 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 training and experience in shop work and drafting, preparatory to entering industrial shops.

Curriculum in Mechanical Engineering

The curriculum in Mechanical Engineering is designed to prepare students for research, design, production, operation, and sales positions in industries that produce or use power and machinery. The field of mechanical engineering is necessarily very broad, including practically every industry. To permit specialization by students in particular phases of mechanical engineering, the curriculum provides optional and elective courses in the junior and senior years, covering industrial engineering, power production, air conditioning, petroleum production, aeronautical engineering, and machine design.

Students should spend at least two summers in some shop or commercial plant.

ENGINEERING AND ARCHITECTURE IN THE SUMMER SCHOOL

The division offers summer courses in freehand and mechanical drawing, water-color and oil painting, manual training and shop practice for high-school and grade-school teachers, as well as various courses required in the several curriculums. Therefore teachers who wish to take an engineering or architectural curriculum can get a considerable start on the work during their summer vacations, and College students who are irregular may 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	
Chemistry E-I, Chem. 107.....	4(3-3)	Chemistry E-II, Chem. 108.....	4(3-3)
College Algebra,* Math. 104.....	3(3-0)	Plane Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101...	3(3-0)	Agr. Mach. and Con., Agr. Engg.	
College Rhetoric I, Engl. 101.....	3(3-0)	122	2(1-3)
Engg. Drawing, Mach. Des. 101...	2(0-6)	College Rhetoric II, Engl. 104....	3(3-0)
Oxyacetylene Welding, Shop 171...	1(0-2, 1)	Desc. Geometry, Mach. Des. 106..	2(0-6)
Artillery I, Mil. Sc. 113.....	1(1-2)	Foundry Production, Shop 161....	1(0-3)
Engg. Lectures, Gen. Engg. 101...	R	Artillery II, Mil. Sc. 114.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Engg. Lectures, Gen. Engg. 101...	R
		Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Total	17	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Surveying I, Civ. Engg. 102.....	2(0-6)	Surveying II, Civil Engg. 111....	2(0-6)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	Mechanism, Mach. Des. 121.....	3(3-0)
El. of An. Husb., An. Husb. 125..	3(2-3)	General Geology, Geol. 103.....	3(3-0)
Artillery III, Mil. Sc. 115.....	1(1-2)	Artillery IV, Mil. Sc. 116.....	1(1-2)
Engg. Assembly, Gen. Engg. 105..	R	Engg. Assembly, Gen. Engg. 105..	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Total	17	Total	18

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat., Ap. Mech. 211, 220..	6(5-3)
Field and Power Mach., Agr.		Farm Motors, Agr. Engg. 225....	4(2-6)
Engg. 111	4(2-6)	Farm Crops, Agron. 101.....	4(2-6)
Engg. Thermo. A, Mech. Engg.		Economics I, Econ. 101.....	3(3-0)
201A	3(3-0)	Graphic Statics, Ap. Mech. 225...	1(0-3)
Public Speaking, Pub. Spk. 107...	2(2-0)	Engg. Assembly, Gen. Engg. 105..	R
Metals and Alloys, Shop 165.....	2(2-0)		
Machine Tool Work I, Shop 170...	2(0-6)		
Technical Reports, Eng. 215.....	1(1-0)		
Engg. Assembly, Gen. Engg. 105..	R		
Total	18	Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Farm Structures, Agr. Engg. 203..	4(2-6)	Mod. Farm and Home Equipment,	
Soils, Agron. 130.....	4(3-2, 1)	Agr. Engg. 210.....	3(2-3)
Hydraulics, Ap. Mech. 230, 235...	4(3-3)	Land Reclamation, Agr. Engg. 245,	4(2-6)
Highway Engg. I, Civil Engg. 231,		Elec. Engg. C, Elec. Engg. 102,	
Amer. Ind. History, Hist. 105.....	3(3-0)	106	3(2-2, 1)
Engg. Assembly, Gen. Engg. 105..	R	Farm Organization, Agr. Econ. 106,	3(2-3)
Inspection Trip, Agr. Engg. 140...	R	Elective†	4(-)
		Engg. Assembly, Gen. Engg. 105..	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 ARCHITECTURAL ENGINEERING

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 Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101...	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)	Shades and Shadows and Perspec-	
Desc. Geometry A, Mach. Des. 107,	3(0-9)	tive, Mach. Des. 108.....	3(0-9)
Artillery I, Mil. Sc. 113.....	1(1-2)	Freehand Drawing I, Arch. 112...	2(0-6)
Engg. Lectures, Gen. Engg. 101...	R	Artillery II, Mil. Sc. 114.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Engg. Lectures, Gen. Engg. 101...	R
		Phys. Educ. M, Phys. Ed. 103...	R(0-2)
Total	17	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Freehand Drawing II, Arch. 113...	2(0-6)	Economics I, Econ. 101.....	3(3-0)
El. of Arch. I, Arch. 106A.....	3(0-9)	El. of Arch. II, Arch. 107A.....	3(0-9)
Surveying I, Civil Engg. 102.....	2(0-6)	Pencil Rend. and Sketch., Arch.	
Artillery III, Mil. Sc. 115.....	1(1-2)	116	2(0-6)
Engg. Assembly, Gen. Engg. 105...	R	Artillery IV, Mil. Sc. 116.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Engg. Assembly, Gen. Engg. 105...	R
		Phys. Educ. M, Phys. Ed. 103...	R(0-2)
Total	17	Total	18

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Bldg. Materials and Construction,		Work. Draw. and Spec., Arch. 191,	3(0-9)
Arch. 187A	3(3-0)	Architectural Design II, Arch. 144,	3(0-9)
Architectural Design I, Arch. 142..	3(0-9)	Hist. of Arch. II, Arch. 157A....	2(2-0)
Hist. of Arch. I, Arch. 154A.....	2(2-0)	Water Color I, Arch. 118.....	2(0-6)
Foundations, Civil Engg. 121.....	2(2-0)	Illumination A, Elec. Engg. 116..	2(2-0)
Law for Engineers, Hist. 167.....	2(2-0)	Engg. Assembly, Gen. Engg. 105..	R
Public Speaking, Pub. Spk. 107...	2(2-0)		
Engg. Assembly, Gen. Engg. 105..	R		
Total	18	Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Stresses in Framed Struc., Civil		Des. of Framed Struc., Civ. Engg.	
Engg. 201	4(4-0)	246	3(0-9)
Architectural Design III, Arch. 145,	5(0-15)	Reinforced Concrete Design, Civ.	
Hist. of Arch. III, Arch. 158A....	2(2-0)	Engg. 250, 255.....	3(2-3)
Civ. Engg. Draw. II, Civ. Engg.		Hist. of Arch. IV, Arch. 160A....	2(2-0)
205	2(0-6)	Building Equipment, Arch. 188...	2(2-0)
Soil Mechanics, Ap. Mech. 290....	2(0-6)	Air Cond. A, Mech. Engg. 135...	3(3-0)
Elective†	2(-)	Elective†	4(-)
Engg. Assembly, Gen. Engg. 105..	R	Engg. Assembly, Gen. Engg. 105..	R
Inspection Trip, Arch. 199.....	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 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 Perspec-	
El. of Arch. I, Arch. 106A.....	3(0-9)	tive, Mach. Des. 108.....	3(0-9)
History of Arch. I, Arch. 154A....	2(2-0)	El. of Arch. II, Arch. 107A.....	3(0-9)
Freehand Drawing I, Arch. 112....	2(0-6)	History of Arch. II, Arch. 157A..	2(2-0)
Artillery I, Mil. Sc. 113 (men)....	1(1-2)	Freehand Drawing II, Arch. 113..	2(0-6)
Engg. Lectures, Gen. Engg. 101....	R	Artillery II, Mil. Sc. 114 (men)....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)or	Engg. Lectures, Gen. Engg. 101..	R
Phys. Educ. W, Phys. Ed. 151....	R(0-3)	Phys. Educ. M, Phys. Ed. 103....	R(0-2)or
		Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Total		Total	
16 or 17		16 or 17	

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.		Work. Draw. and Spec., Arch. 191,	3(0-9)
187A	3(3-0)	History of Arch. IV, Arch. 160A..	2(2-0)
History of Arch. III, Arch. 158A..	2(2-0)	Water Color I, Arch. 118.....	2(0-6)
Pencil Rend. and Sketch., Arch. 116,	2(0-6)	Artillery IV, Mil. Sc. 116 (men)..<	1(1-2)
Artillery III, Mil. Sc. 115 (men)..<	1(1-2)	Engg. Assembly, Gen. Engg. 105..	R
Engg. Assembly, Gen. Engg. 105..	R	Phys. Educ. M, Phys. Ed. 103....	R(0-2)or
Phys. Educ. M, Phys. Ed. 103....	R(0-2)or	Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Phys. Educ. W, Phys. Ed. 151....	R(0-3)		
Total		Total	
17 or 18		17 or 18	

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Str. of Mat. A, Ap. Mech. 116, 121,	4(3-3)	Theory of Structures I, Arch. 192,	4(2-6)
French I, Mod. Lang. 151.....	3(3-0)	French II, Mod. Lang. 152.....	3(3-0)
Architectural Design III, Arch. 145,	5(0-15)	Architectural Design IV, Arch. 147,	5(0-15)
Life Drawing I, Arch. 121.....	2(0-6)	Life Drawing II, Arch. 123.....	2(0-6)
Hist. of Painting and Sculpture,		Building Equipment, Arch. 188....	2(2-0)
Arch. 179	3(3-0)	Public Speaking, Pub. Spk. 107...	2(2-0)
Engg. Assembly, Gen. Engg. 105..	R	Engg. Assembly, Gen. Engg. 105..	R
Total		Total	
17		18	

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Architectural Design V, Arch. 254,	7(0-21)	Architectural Design VI, Arch. 257,	7(0-21)
Theory of Structures II, Arch. 194A,	5(3-6)	Theory of Structures III, Arch. 196,	4(2-6)
Law for Engineers, Hist. 167.....	2(2-0)	Professional Practice, Arch. 195..	2(0-6)
Elective†	3(-)	Elective†	4(-)
Engg. Assembly, Gen. Engg. 105..	R	Engg. Assembly, Gen. Engg. 105..	R
Inspection Trip, Arch. 199.....	R		
Total		Total	
17		17	

Number of hours required for graduation: Men, 139; women, 135

* 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 CHEMICAL ENGINEERING

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
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)
Plane Trigonometry, Math. 101....	3(3-0)	Plane Analytical Geom., Math. 110,	4(4-0)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Engg. Drawing, Mach. Des. 101....	2(0-6)	Desc. Geometry, Mach. Des 106...	2(0-6)
Artillery I, Mil. Sc. 113.....	1(1-2)	Mach. Drawing I, Mach. Des. 111,	2(0-6)
Engg. Lectures, Gen. Engg. 101....	R	Artillery II, Mil. Sc. 114.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Engg. Lectures, Gen. Engg. 101..	R
		Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Total	17	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
German I, Mod. Lang. 101.....	3(3-0)	German II, Mod. Lang. 102.....	3(3-0)
Chem. Engg. Materials, Chem.		Quan. Analysis, Chem. 241.....	5(1-12)
Engg. 201	2(2-0)	Artillery IV, Mil. Sc. 116.....	1(1-2)
Mechanism, Mach. Des. 121.....	3(3-0)	Engg. Assembly, Gen. Engg. 105..	R
Artillery III, Mil. Sc. 115.....	1(1-2)	Phys. Educ. M, Phys. Ed. 103...	R(0-2)
Engg. Assembly, Gen. Engg. 105....	R		
Phys. Educ. M, Phys. Ed. 103....	R(0-2)		
Total	18	Total	18

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat. E., Ap. Mech. 216,	
Phys. Chemistry I, Chem. 206....	5(3-6)	220	4(3-3)
Org. Chemistry I, Chem. 266.....	5(3-6)	Phys. Chemistry II, Chem. 272...	3(3-0)
Industrial Stoichiometry, Chem.		Org. Chemistry II, Chem. 267....	4(2-6)
Engg. 205	2(2-0)	EL. of Chem. Engg. I, Chem. Engg.	
Elective†	2(-)	220	4(3-3)
Engg. Assembly, Gen. Engg. 105..	R	Economics I, Econ. 101.....	3(3-0)
		Engg. Assembly, Gen. Engg. 105..	R
Total	18	Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
El. of Chem. Engg. II, Chem.		Chem. Engg. Plant Design, Chem.	
Engg. 225	4(3-3)	Engg. 245	4(3-3)
Chem. Engg. Thermodynamics, Chem.		Org. Chem. Technology, Chem.	
Engg. 230	3(3-0)	Engg. 235	3(3-0)
Inorg. Chem. Tech. Rec., Chem.		Heat Power Engg. B, Mech. Engg.	
Engg. 210	3(3-0)	211	5(4-3)
Inorg. Chem. Tech. Lab., Chem.		Elective†	4(-)
Engg. 215	2(0-6)	Engg. Assembly, Gen. Engg. 105..	R
Elec. Engg. C, Elec. Engg. 102, 106,	3(2-2, 1)		
Elective†	2(-)		
Engg. Assembly, Gen. Engg. 105..	R		
Inspection Trip, Chem. Engg. 150..	R		
Total	17	Total	16

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 CIVIL ENGINEERING

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 Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101...	3(3-0)	Amer. Ind. History, Hist. 105....	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Engg. Drawing, Mach. Des. 101...	2(0-6)	Descriptive Geom., Mach. Des. 106,	2(0-6)
Surveying I, Civ. Engg. 102.....	2(0-6)	Artillery II, Mil. Sc. 114.....	1(1-2)
Artillery I, Mil. Sc. 113.....	1(1-2)	Engg. Lectures, Gen. Engg. 101..	R
Engg. Lectures, Gen. Engg. 101...	R	Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)		
Total	18	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Surveying II, Civ. Engg. 111.....	2(0-6)	Surveying III, Civ. Engg. 151, 155,	3(2-3)
Economics I, Econ. 101.....	3(3-0)	Metals and Alloys, Shop 165....	2(2-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	C. E. Drawing I, Civ. Engg. 125..	2(0-6)
Artillery III, Mil. Sc. 115.....	1(1-2)	Artillery IV, Mil. Sc. 116.....	1(1-2)
Engg. Assembly, Gen. Engg. 105...	R	Engg. Assembly, Gen. Engg. 105..	R
Phys. Educ. M, Phys. Ed. 103...	R(0-2)	Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Total	17	Total	17

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Ap. Mechanics, Ap. Mech. 202....	4(4-0)	Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Engg. Geology, Geol. 102.....	4(3-3)	Hydraulics, Ap. Mech. 230, 235...	4(3-3)
Surveying IV, Civ. Engg. 156, 157,	3(2-3)	Foundations, Civ. Engg. 121.....	2(2-0)
Highway Engg. I, Civ. Engg. 231..	2(2-0)	Drain and Irrig. I, Civ. Engg. 161,	2(2-0)
Steam and Gas Engg. C, Mech.		Railway Engg. I, Civ. Engg. 145...	2(2-0)
Engg. 120	2(2-0)	Public Speaking, Pub. Spk. 107..	2(2-0)
Heat Power Lab. IA, Mech. Engg.		Engg. Assembly, Gen. Engg. 105..	R
125	1(0-3)		
Water and Sewage Bact., Bact. 125,	2(0-6)		
Engg. Assembly, Gen. Engg. 105...	R		
Total	18	Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Str. in Fmd. Struc., Civ. Engg. 201,	4(4-0)	Reinforced Concrete Design, Civ.	
Astr. and Geod., Civ. Engg. 211,		Engg. 250, 255.....	3(2-3)
216	4(2-6)	Design of Framed Structure, Civ.	
Water Supply, Civ. Engg. 220....	2(2-0)	Engg. 246	3(0-9)
Sewerage, Civ. Engg. 225.....	2(2-0)	Elec. Engg. C, Elec. Engg. 102,	
C. E. Drawing II, Civ. Engg. 205,	2(0-6)	106	3(2-2, 1)
Soil Mechanics, Ap. Mech. 290....	2(0-6)	Law for Engineers, Hist. 167....	2(2-0)
High. Mat. Lab., Ap. Mech. 250..	1(0-3)	Technical Reports, Engl. 215....	1(1-0)
Engg. Assembly, Gen. Engg. 105...	R	Elective†	5(-)
Inspection Trip, Civ. Engg. 180...	R	Engg. Assembly, Gen. Engg. 105..	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

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 Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101...	3(3-0)	Elec. Mach. & Construction, Elec.	
College Rhetoric I, Engl. 101.....	3(3-0)	Engg. 112	2(0-6)
Engg. Drawing, Mach. Des. 101...	2(0-6)	College Rhetoric II, Engl. 104....	3(3-0)
Forging and Heat Treating, Shop		Desc. Geometry, Mach. Des. 106,	2(0-6)
150	1(0-2, 1)	Arc Welding, Shop 172.....	1(0-2, 1)
Artillery I, Mil. Sc. 113.....	1(1-2)	Artillery II, Mil. Sc. 114.....	1(1-2)
Engg. Lectures, Gen. Engg. 101...	R	Engg. Lectures, Gen. Engg. 101...	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Total	17	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Amer. Ind. History, Hist. 105....	3(3-0)	Economics I, Econ. 101.....	3(3-0)
Mechanism, Mach. Des. 121.....	3(3-0)	Mach. Drawing I, Mach. Des. 111,	2(0-6)
Surveying I, Civ. Engg. 102.....	2(0-6)	Principles of Electronics, Elec.	
Artillery III, Mil. Sc. 115.....	1(1-2)	Engg. 120	2(2-0)
Engg. Assembly, Gen. Engg. 105...	R	Artillery IV, Mil. Sc. 116.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)	Engg. Assembly, Gen. Engg. 105..	R
Total	18	Phys. Educ. M, Phys. Ed. 103....	R(0-2)
		Total	17

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat. E, Ap. Mech. 216, 220,	4(3-3)
Bus. Engl. & Sales, Engl. 125.....	3(3-0)	Public Speaking, Pub. Spk. 107...	2(2-0)
Machine Tool I, Shop 170.....	2(0-6)	Metals and Alloys, Shop 165.....	2(2-0)
D. C. Machinery Rec., Elec. Engg.		A. C. Circuits, Elec. Engg. 209...	4(4-0)
207	4(4-0)	Elec. Meas. Rec., Elec. Engg. 227,	2(2-0)
Electrodynamics, Elec. Engg. 201..	2(2-0)	Elec. Meas. and Electronics Lab.,	
Differential Equations, Math. 121..	2(2-0)	Elec. Engg. 229.....	2(0-4, 2)
Engg. Assembly, Gen. Engg. 105...	R	D. C. Machinery Lab., Elec. Engg.	
Total	17	208	2(0-4, 2)
		Engg. Assembly, Gen. Engg. 105..	R
		Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
A. C. Mach. I, Elec. Engg. 210, 211,	5(3-4, 2)	A. C. Mach. II, Elec. Engg. 212,	
Engg. Thermo. A, Mech. Engg.		213	5(3-4, 2)
201A	3(3-0)	Heat Power Engg. A, Mech. Engg.	
Heat Power Lab. IA, Mech. Engg.		204	3(3-0)
125	1(0-3)	Heat Power Lab. IIA, Mech. Engg.	
Wire Commun. I, Elec. Engg. 244,	3(3-0)or	205	1(0-3)
Pub. Util. Managt., Elec. Engg. 290,	3(3-0)	Hydraulics, Ap. Mech. 230.....	3(3-0)
Elec. Mach. Des., Elec. Engg. 270,	1(0-3)	Elective†	6(-)
Technical Reports, Engl. 215.....	1(1-0)	Engg. Assembly, Gen. Engg. 105..	R
Elective†	3(-)	Total	18
Engg. Assembly, Gen. Engg. 105..	R		
Inspection Trip, Elec. Engg. 190..	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.

CURRICULUM IN INDUSTRIAL ARTS

FRESHMAN

FIRST SEMESTER

Chemistry E-I, Chem. 107.....	4(3-3)
College Algebra,* Math. 104.....	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Engg. Drawing, Mach. Des. 101...	2(0-6)
Sheet Metal Work, Shop 173.....	2(0-6)
Wood Turning, Shop 135.....	2(0-6)
Artillery I, Mil. Sc. 113.....	1(1-2)
Engg. Lectures, Gen. Engg. 101....	R
Phys. Education M, Phys. Ed. 103,	R(0-2)

Total 17

SECOND SEMESTER

Chemistry E-II, Chem. 108.....	4(3-3)
Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric II, Engl. 104....	3(3-0)
Desc. Geometry, Mach. Des. 106..	2(0-6)
Surveying I, Civ. Engg. 102.....	2(0-6)
Foundry Production, Shop 161....	1(0-3)
Farm Blacksmithing I, Shop 157..	1(0-3)
Artillery II, Mil. Sc. 114.....	1(1-2)
Engg. Lectures, Gen. Engg. 101....	R
Phys. Education M, Phys. Ed. 103,	R(0-2)

Total 17

SOPHOMORE

FIRST SEMESTER

General Physics I, Phys. 102.....	4(3-3)
Gen. Psychology, Educ. 184.....	3(3-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)
Mechanism, Mach. Des. 121.....	3(3-0)
Woodwork I, Shop 120.....	2(0-6)
Arc Welding, Shop 172.....	1(0-2, 1)
Elec. Mach. and Const., Elec. Engg.	
112	2(0-6)
Artillery III, Mil. Sc. 115.....	1(1-2)
Engg. Assembly, Gen. Engg. 105....	R
Phys. Education M, Phys. Ed. 103,	R(0-2)

Total 18

SECOND SEMESTER

General Physics II, Phys. 103....	4(3-3)
Educ. Psychology, Educ. 109.....	3(3-0)
Mach. Drawing II, Mach. Des. 118,	2(0-6)
Metals and Alloys, Shop 165.....	2(2-0)
Farm Carpentry, Shop 147.....	3(1-6)
Wood and Metal Fin., Shop 121..	2(0-6)
Artillery IV, Mil. Sc. 116.....	1(1-2)
Engg. Assembly, Gen. Engg. 105..	R
Phys. Education M, Phys. Ed. 103,	R(0-2)

Total 17

JUNIOR

FIRST SEMESTER

Economics I, Econ. 101.....	3(3-0)
Principles of Accounting, Econ. 136,	3(3-0)
Educ. Sociology, Educ. 239.....	3(3-0)
Public Speaking, Pub. Spk. 107...	2(2-0)
Woodwork II, Shop 126.....	2(0-6)
Farm Blacksmithing II, Shop 158..	1(0-3)
Metallography I, Shop 262.....	1(0-3)
Elective†	3(-)
Engg. Assembly, Gen. Engg. 105...	R

Total 18

SECOND SEMESTER

Labor Economics, Econ. 234.....	3(3-0)
Bus. Engl. and Sales, Engl. 125....	3(3-0)
Ap. Mechanics A, Ap. Mech. 102,	3(3-0)
Gas Engines and Tractors, Agr.	
Engg. 130	3(2-3)
Machine Tool Work I, Shop 170..	2(0-6)
Elective†	R
Engg. Assembly, Gen. Engg. 105..	R

Total 17

SENIOR

FIRST SEMESTER

Business Law I, Hist. 163.....	3(3-0)
Extemp. Speech II, Pub. Spk. 108,	2(2-0)
Technical Reports, Engl. 215.....	1(1-0)
Str. of Mat. A, Ap. Mech. 116, 121,	4(3-3)
El. of Heat Power, Mech. Engg.	
181	2(2-0)
Machine Tool Work II, Shop 192..	2(0-6)
Oxyacetylene Welding, Shop 171..	1(0-2, 1)
Elective†	3(-)
Engg. Assembly, Gen. Engg. 105....	R
Inspection Trip, Shop 194.....	R

Total 18

SECOND SEMESTER

Business Law II, Hist. 164.....	3(3-0)
Amer. Ind. History, Hist. 105....	3(3-0)
Credits and Collections, Econ. 223,	2(2-0)
Elec. Engg. C, Elec. Engg. 102,	
106	3(2-2, 1)
Heat Power Lab. IA, Mech. Engg.	
125	1(0-3)
Elective†	5(-)
Engg. Assembly, Gen. Engg. 105..	R

Total 17

Number of hours required for graduation, 139.

Electives for students preparing to teach industrial arts in Kansas high schools must include the following:

Methods of Teaching Industrial Arts, Educ. 134.....	3(1-6)
Teaching Participation in High School, Educ. 163.....	3(-)
Principles of Secondary Education, Educ. 236.....	3(3-0)
Vocational Education, Educ. 241.....	3(3-0)

* 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		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 Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101...	3(3-0)	Desc. Geometry, Mach. Des. 106..	2(0-6)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Engg. Drawing, Mach. Des. 101....	2(0-6)	Metals and Alloys, Shop 165.....	2(2-0)
Oxyacetylene Welding, Shop 171..1	(0-2, 1)or	Forging and Heat Treating, Shop	
Arc Welding, Shop 172.....	1(0-2, 1)	150	1(0-2, 1)
Artillery I, Mil. Sc. 113.....	1(1-2)	Artillery II, Mil. Sc. 114.....	1(1-2)
Engg. Lectures, Gen. Engg. 101....	R	Engg. Lectures, Gen. Engg. 101....	R
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)	Phys. Ed. M, Phys. Ed. 103.....	R(0-2)
Total	17	Total	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Amer. Ind. History, Hist. 105.....	3(3-0)	Mechanism, Mach. Des. 121.....	3(3-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	El. Heat Power, Mech. Engg. 131,	2(2-0)
Machine Tool Work I, Shop 170..	2(0-6)	Surveying I, Civ. Engg. 102.....	2(0-6)
Artillery III, Mil. Sc. 115.....	1(1-2)	Foundry Prod., Shop 161.....	1(0-3)
Engg. Assembly, Gen. Engg. 105..	R	Artillery IV, Mil. Sc. 116.....	1(1-2)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)	Engg. Assembly, Gen. Engg. 105..	R
		Phys. Ed. M, Phys. Ed. 103.....	R(0-2)
Total	17	Total	18

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Eng. Thermodynamics, Mech. Engg.		Hydraulics, Ap. Mech. 230.....	3(3-0)or
208	4(4-0)	Fluid Mechanics, Ap. Mech. 231,	3(3-0)
Economics I, Econ. 101.....	3(3-0)	Option (see next page).....	9(-)
Mach. Drawing II, Mach. Des. 118,	2(0-6)	Engg. Assembly, Gen. Engg. 105..	R
Metallography I, Shop 262.....	1(0-3)		
Heat Power Lab. I, Mech. Engg.			
209	1(0-3)		
Option (see next page).....	3(-)		
Engg. Assembly, Gen. Engg. 105..	R		
Total	18	Total	18

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Elec. Engg. M-I, Elec. Engg. 237,		Elec. Engg. M-II, Elec. Engg. 242,	
238	5(4-3)	243	4(3-2, 1)
Mach. Design I, Mach. Des. 204,		Graphic Statics, Ap. Mech. 225...	1(0-3)
205	5(3-6)	Hydr. Lab., Ap. Mech. 235.....	1(0-3)
Heat Power Lab. II, Mech. Engg.		Option (see next page).....	11(-)
213	1(0-3)	Engg. Assembly, Gen. Engg. 105..	R
Technical Reports, Engl. 215.....	1(1-0)		
Option (see next page).....	5(-)		
Engg. Assembly, Gen. Engg. 105..	R		
Inspection Trip, Mech. Engg. 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.

Options: Curriculum in Mechanical Engineering**Power Option*****JUNIOR**

FIRST SEMESTER		SECOND SEMESTER	
Elective†	3(-)	Heat Transfer and Fluid Flow, Mech. Engg. 251.....	4(3-3)
		Public Speaking, Pub. Spk. 107...	2(2-0)
		Elective†	3(-)
Total	3	Total	9

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Pr. Plant Equipment, Mech. Engg. 216	3(2-3)	Pr. Plant Design, Mech. Engg. 217	3(1-6)
Elective†	2(-)	Air Conditioning, Mech. Engg. 228, Air Cond. Equipment Lab., Mech. Engg. 229	3(2-3) 1(0-3)
		Ht. Pr. Lab. III, Mech. Engg. 219, Elective†	1(0-3) 3(-)
Total	5	Total	11

Industrial Option***JUNIOR**

FIRST SEMESTER		SECOND SEMESTER	
Elective†	3(-)	Heat Power Engg., Mech. Engg. 214	4(3-3)
		Public Speaking, Pub. Spk. 107...	2(2-0)
		Elective†	3(-)
Total	3	Total	9

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Ind. Management, Shop 246.....	3(3-0)	Factory Design, Shop 255.....	2(0-6)
Elective†	2(-)	Machine Tool Work II, Shop 192, Air Conditioning, Mech. Engg. 228, Air Cond. Equipment Lab., Mech. Engg. 229	2(0-6) 3(2-3) 1(0-3)
		Elective†	3(-)
Total	5	Total	11

Petroleum Production Option**JUNIOR**

FIRST SEMESTER		SECOND SEMESTER	
General Geology, Geol. 103.....	3(3-0)	Heat Power Engg., Mech. Engg. 214	4(3-3)
		Historical Geology, Geol. 203.....	4(3-3)
		Elective†	1(-)
Total	3	Total	9

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Petroleum Production I, Mech. Engg. 270	3(3-0)	Petroleum Production II, Mech. Engg. 271	3(2-3)
Public Speaking, Pub. Spk. 107...	2(2-0)	Economic Geology, Geol. 207.....	4(3-3)
		Elective†	4(-)
Total	5	Total	11

* Students in the power option or the industrial option interested in aeronautics may substitute Differential Equations for Engineers 2(2-0), Aerodynamics 4(3-3), and Airplane Design 2(0-6) for Air Conditioning 3(2-3), Air Conditioning Equipment Laboratory 1(0-3), and electives 4(-). Students in the power option or the industrial option interested in machine design may substitute Differential Equations for Engineers 2(2-0), Machine Design II 2(0-6), and Machine Vibration 3(3-0) for Air Conditioning 3(2-3), Air Conditioning Equipment Laboratory 1(0-3), and elective 3(-).

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

Agricultural Engineering

Professor FENTON
Associate Professor BARGER
Instructor ROBERTS

Instructor OTIS
Graduate Research Assistant WHITE
Graduate Research Assistant LARSON

FOR UNDERGRADUATE CREDIT

101. FARM BUILDINGS. 3(2-3)*; II. Fenton, Otis.

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); II. Otis, 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, \$2.

130. GAS ENGINES AND TRACTORS. 3(2-3); I, II, and SS. Barger, Roberts.

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. Cost of trip, \$25 to \$50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. POWER AND MACHINERY IN AGRICULTURE. 2(2-0); I. Prerequisite: Junior or senior classification. Barger.

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. Engg. 108 or 130.

203. FARM STRUCTURES. 4(2-6); I. Prerequisite: Ap. Mech. 211 and 225. Fenton, Otis.

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.

* 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 school, respectively.

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, \$2.

215. TRACTOR RESEARCH. Credit to be arranged; I. Prerequisite: Agr. Engg. 225 or equivalent. Barger, Roberts.

Research studies relating to tractor construction and operation.

225. FARM MOTORS. 4(2-6); II. Prerequisite: Phys. 106, Math. 114, and Mech. Engg. 201A. 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); II. Prerequisite: Agron. 130. Otis.

Principles and practices of land improvement by terracing and other methods of erosion control; drainage, irrigation, and land clearing. (For agricultural students.) Charge, \$1.

245. LAND RECLAMATION. 4(2-6); II. Prerequisite: Ap. Mech. 230 and Agron. 130. Fenton, Otis.

Principles and methods of land drainage, soil and water conservation, and irrigation. Charge, \$2.

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 furnish material for the Master's thesis.

Applied Mechanics

Professor SCHOLER

Professor ROBERT

Professor DAWLEY

Associate Professor PICKETT

Assistant Professor KOENITZER

Assistant Professor McCULLLEY

Instructor TAYLOR

Instructor THOMSON

Instructor ANDERSON

Instructor McCORMICK

Graduate Research Assistant MUNGER

Graduate Research Assistant YOUNG

Graduate Assistant NOTHSTINE

FOR UNDERGRADUATE CREDIT

102. APPLIED MECHANICS A. 3(3-0); II. 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); I. 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); I. 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, II, and SS. 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 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. About two-fifths of the time is devoted to 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); I, II, and SS. 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. Engg. 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. Charge, \$1.

250. **HIGHWAY MATERIALS LABORATORY.** 1(0-3); I and II. 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, Robert.

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); 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); I. 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 and II. Prerequisite: Ap. Mech. 250. Koenitzer, Pickett.

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. Prerequisite: 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, or furnish materials for the Master's thesis.

Architecture

Professor WEIGEL
Professor HELM
Associate Professor WICHERS
Assistant Professor WARE

Assistant Professor McCaulley
Instructor MACKAY
Instructor WASSERMAN

Students should consider the advantages of combining the work in architectural engineering and in architecture, receiving the degree of Bachelor of Science in Architectural Engineering at the end of the fourth year, and the degree of Bachelor of Science in Architecture at the end of the fifth year. Students wishing to combine both curriculums should enroll in the curriculum in Architectural Engineering for the first three years.

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.

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 of Arch. 112.

116. PENCIL RENDERING AND SKETCHING. 2(0-6); I, II, and SS. Prerequisite: Arch. 112. Mackey.

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. 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.

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.

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.

154A, 157A. HISTORY OF ARCHITECTURE I and II. 2(2-0) each; I and II, respectively. Prerequisite: For II, Arch. 154A. Ware.

I, preclassical and classical architecture; II, medieval architecture.

158A, 160A. HISTORY OF ARCHITECTURE III and IV. 2(2-0) each; I and II, respectively. Prerequisite: For III, Arch. 157A; for IV, Arch. 158A. Ware.

III, Italian and French Renaissance architecture; IV, continuation of Arch. 158A through modern architecture.

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. A required course for students in architecture and a recommended elective for other students.

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: Ap. Mech. 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 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, usually Chicago, by the senior students in Architectural Engineering and Architecture. The inspection 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. Approximate cost of trip, \$50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. ADVANCED FREEHAND DRAWING. Credit to be arranged. I, II, and SS. Prerequisite: Arch. 117 and 118. Helm.

217. ETCHING. 2(0-6); I, II, and SS. Prerequisite: Arch. 117 and 134. Helm.

Technical principles and practice of etching on copper and zinc plate. Charge, \$1.

221. PROBLEMS IN ARCHITECTURAL DEVELOPMENT. Credit to be arranged; I, II, and SS. Prerequisite: Approval of instructor. Weigel, McCaulley.

Under direct supervision of some member of the departmental staff, study of specific architectural problems. Deposit, \$1.

230. OIL PAINTING. Credit to be arranged. I, II, and SS. Prerequisite: Arch. 118 or approval of instructor. Helm.

249. CITY PLANNING. 3(0-9); II. Prerequisite: Arch. 144. Weigel.

A 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. Prerequisite: Arch. 257. 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.

Chemical Engineering

Professor FAITH
Assistant Professor GREENE
Instructor HEDRICK

The instruction in this department deals primarily with those unit physical operations and unit chemical processes which, when coordinated and in their proper sequence, constitute a physical or chemical process as conducted on an industrial scale. Chemistry, physics, and mathematics are the underlying sciences of chemical engineering, and economics its guide in practice.

FOR UNDERGRADUATE CREDIT

150. INSPECTION TRIP. R; I. Greene.

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

201. CHEMICAL ENGINEERING MATERIALS. 2(2-0); I and II. Prerequisite: Chem. 103 and 104. Faith.

Manufacture, use, and properties of metallic and nonmetallic materials of construction.

205. INDUSTRIAL STOICHIOMETRY. 2(2-0); I. Prerequisite: Chem. 241. Faith. Problems involving heat, material, and economic balances.

210. INORGANIC CHEMICAL TECHNOLOGY RECITATION. 3(3-0); I. Prerequisite: Chem. 206. Hedrick.

Applications of physical chemistry, unit operations, and economics to the inorganic chemical industry.

215. INORGANIC CHEMICAL TECHNOLOGY LABORATORY. 2(0-6); I. Prerequisite: Chem. 241. Faith, Greene.

Gas, oil, water, and fuel analysis; manufacturing problems. Deposit, \$10.

220. ELEMENTS OF CHEMICAL ENGINEERING I. 4(3-3); II. Prerequisite: Chem. 206 and Math. 115. Hedrick.

Fundamentals of chemical engineering unit operations, with emphasis on flow of fluids and flow of heat; application of these principles to equipment design. Deposit, \$10.

225. ELEMENTS OF CHEMICAL ENGINEERING II. 4(3-3); I. Prerequisite: Chem. Engg. 220. Greene, Hedrick.

A study of unit operations, including filtration, evaporation, humidification and drying, absorption, distillation, and crystallization. Deposit, \$10.

230. CHEMICAL ENGINEERING THERMODYNAMICS. 3(3-0); I. Prerequisite: Chem. 272. Faith.

Thermodynamics applied to chemical engineering.

235. ORGANIC CHEMICAL TECHNOLOGY. 3(3-0); II. Prerequisite: Chem. 206 and 219. Faith.

Organic process industries, including oil refining, synthetic organic chemicals, cellulose, fats and oils.

240. ORGANIC CHEMICAL TECHNOLOGY LABORATORY. 2(0-6); II. Prerequisite: Chem. Engg. 235 or concurrent registration. Faith.

Investigation of the important unit processes. Deposit, \$10.

245. CHEMICAL ENGINEERING PLANT DESIGN. 4(3-3); II. Prerequisite: Chem. Engg. 225. Greene.

Unit operations, thermodynamics, reaction kinetics, and economic balance, solution of the annual A. I. Ch. E. contest problem. Deposit, \$7.50.

250. PROBLEMS IN CHEMICAL ENGINEERING. Credit to be arranged; I and II. Staff.

An introduction to chemical engineering research. Deposit, \$10.

255. CHEMICAL ENGINEERING ANALYSIS. 3(3-0); I or II. Prerequisite: Chem. 272. Greene.

Graphical methods and dimensional analysis applied to chemical engineering problems.

260. ORGANIC UNIT PROCESSES. 2(2-0); I. Prerequisite: Chem. 272 and Chem. Engg. 235. Faith.

Unit processes in organic synthesis, especially nitration, sulfonation, oxidation, hydrogenation, esterification, and hydrolysis.

265. DISTILLATION. 3(3-0); I or II. Prerequisite: Chem. Engg. 225. Hedrick.

Advanced study of distillation.

270. ABSORPTION AND EXTRACTION. 3(3-0); I or II. Prerequisite: Chem. Engg. 225. Greene.

Advanced study of absorption and extraction.

280, 285. PETROLEUM REFINING ENGINEERING I AND II. 3(3-0) each; I and II, respectively. Prerequisite: For I, Chem. Engg. 225 or concurrent registration; for II, Chem. Engg. 280. Hedrick.

I: Properties of hydrocarbon mixtures, cracking, polymerization, hydrogenation, separation by distillation.

II: Design and operation of plants, refinery economics, natural gasoline plants.

FOR GRADUATE CREDIT

301. RESEARCH IN CHEMICAL ENGINEERING. Credit to be arranged; I, II, and SS. Prerequisite: Consent of instructor. Staff.

Original investigations in the fields of unit operations, unit processes, petroleum refining, and industrial utilization of Kansas raw materials. Work is usually correlated with the research projects of the engineering or agricultural experiment stations. Satisfactory results may be used for the Master's thesis.

Civil Engineering

Professor CONRAD
Professor FRAZIER
Professor FURR
Associate Professor WHITE
Assistant Professor CRAWFORD

Assistant Professor MORSE
Instructor MOELLER
Graduate Assistant COPEN
Graduate Assistant WHERRY

FOR UNDERGRADUATE CREDIT

102. SURVEYING I. 2(0-6); I, II, and SS. Prerequisite or concurrent: 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, II and SS. Prerequisite: Civ. Engg. 102. White, Morse.

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); II and SS. Prerequisite or concurrent: Ap. Mech. 202. Frazier.

Design and construction of foundations.

125. CIVIL ENGINEERING DRAWING I. 2(0-6); II and SS. 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 and SS. Prerequisite: Civ. Engg. 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, II, and SS. Prerequisite: Civ. Engg. 111. White, Crawford, Schmidt.

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, II, and SS. Prerequisite: Civ. Engg. 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.

* 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.

161. DRAINAGE AND IRRIGATION I. 2(2-0); II and SS. Prerequisite or concurrent: 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. A trip of four to six days to one or more industrial centers for the purpose of making inspections of power plants, mills, structures, waterworks, sewage disposal plants, to illustrate the principles and applications of interest to civil engineers. Approximate cost of trip, \$50.

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 concurrent: Civ. Engg. 201. Conrad, Morse.

Graphic statics and design of simple roof trusses in timber and steel.

207. ADVANCED BRIDGE STRESSES. 3(3-0); I and SS. Prerequisite: Civ. Engg. 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 and SS. Prerequisite: Civ. Engg. 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 and SS. Prerequisite: Civ. Engg. 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, II, and SS. Prerequisite: Civ. Engg. 111. Furr.

Fundamental principles, location, design, construction, and maintenance of roads and pavements.

246. DESIGN OF FRAMED STRUCTURES. 3(0-9); I, II, and SS. Prerequisite: Civ. Engg. 201. Conrad.

The making of general drawings for a highway truss bridge, a railroad truss bridge, and a railroad deck-plate girder.

248. ECONOMICS OF DESIGN AND CONSTRUCTION. 3(3-0); II and SS. Prerequisite: Civ. Engg. 201 and 231. Conrad.

Primarily a study of methods, equipment, construction costs, and economy in design.

250, 255. REINFORCED CONCRETE DESIGN. 3(2-3); I, II, and SS. Prerequisite: Ap. Mech. 211. Frazier, Furr.

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 and SS. Prerequisite: Ap. Mech. 211. 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 and SS. Prerequisite: Civ. Engg. 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 and SS. Prerequisite: Civ. Engg. 156, 157, and 231. Furr.

Highway laws, highway administration, and highway economics.

Laboratory.—A reconnaissance 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 and SS. Prerequisite: Civ. Engg. 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 related 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 TREGIDGA

Special laboratories are provided for the research conducted by the electrical engineering staff and for television and other investigations made by graduate students.

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 and machinery. For nonelectrical students.

Laboratory.—Experiments covering characteristics and applications 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. Systems, calculations, and specifications of interior wiring; principles of illumination.

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 St. Louis, Chicago, and other cities for the purpose of making inspections of power plants and various industries illustrating the application of electrical engineering principles. Approximate cost of trip, \$50.

195. THESIS. Credit to be arranged; I and II. Staff.

A subject for thesis work is selected in consultation with the department head at the beginning of the senior year; every opportunity is given to work out original ideas as to design and operation of electrical apparatus and machinery.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. ELECTRODYNAMICS. 2(2-0); I, II, and SS. Prerequisite: Math. 115 and Phys. 106. Brenneman.

Principles of magnetic, electric, and electrostatic circuits.

207. DIRECT-CURRENT MACHINERY. 4(4-0); I, II, and SS. Prerequisite or concurrent: Elec. Engg. 201. Brenneman, Sitz.

Principles of operation and the characteristics of direct-current generators and motors.

208. DIRECT-CURRENT MACHINERY LABORATORY. 2(0-4, 2); I, II, and SS. Prerequisite: Elec. Engg. 207. Sitz.

Experiments illustrating operating characteristics, losses, and efficiencies of direct-current motors and generators. Charge, \$3.

209. ALTERNATING-CURRENT CIRCUITS. 4(4-0); I, II, and SS. Prerequisite: Math. 121 and Elec. Engg. 207. 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. Engg. 209. Kerchner, Hunt, Sitz.

Principles of design, construction, and operation of transformers, alternating-current generators, and polyphase induction motors.

Laboratory.—Experiments illustrating the characters of alternating-current circuits and transformers. Charge, \$3.

212, 213. ALTERNATING-CURRENT MACHINERY II. 5(3-4, 2); I, II, and SS. Prerequisite: Elec. Engg. 210 and 211. Kerchner, Hunt, Sitz.

Continuation of Elec. Engg. 210, including synchronous motors, parallel operation of alternators, converters, induction and commutator alternating-current motors, rectifiers, and accessory apparatus.

Laboratory.—Continuation of Elec. Engg. 211. Experiments on machines listed in Elec. Engg. 212. Charge, \$3.

227. ELECTRICAL MEASUREMENTS RECITATION. 2(2-0); I and II. Prerequisite: Math. 114, Phys. 106, Elec. Engg. 120 and 201. Tregidga.

Methods for electric and magnetic measurements; resistance, quantity, current, electromotive force, capacity, inductance.

229. ELECTRICAL MEASUREMENTS AND ELECTRONICS LABORATORY. 2(0-4, 2); I and II. Prerequisite: Math. 114, Phys. 106, Elec. Engg. 120 and 201. Tregidga.

Characteristics of electron tubes; measurement of potential, resistance, inductance, capacity, etc. Charge, \$3.

237, 238. ELECTRICAL ENGINEERING M-I. 5(4-3); I and II. Prerequisite: Math. 114 and Phys. 106. Hunt, Sitz.

Theory 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); I and II. Prerequisite: Elec. Engg. 237 and 238. Hunt.

Theory of alternating-current machinery.

Laboratory.—Experiments on alternating-current circuits and alternating-current machinery characteristics. Charge, \$1.50.

244. WIRE COMMUNICATION I. 3(3-0); I. Prerequisite: Elec. Engg. 209. Kloeffler.

Principles of wire communication; telephone and telegraph switching systems, line loading, repeaters, and carrier currents.

248, 249. WIRE COMMUNICATION II. 3(2-2, 1); II. Prerequisite: Elec. Engg. 209 and 244. Selvidge.

Transmission problems, networks, wave filters.

Laboratory.—Measurements as applied to wire communication networks. Charge, \$1.50.

251, 253. RADIO COMMUNICATION I. 3(2-2, 1); I. Prerequisite: Elec. Engg. 120 and 209. Selvidge.

An introduction to radio theory and practice, including a study of tuned circuits, electron tubes, and audio-frequency amplifiers.

Laboratory.—The application and operation of electron tubes in radio circuits; audio- and radio-frequency measurements. Charge, \$1.50.

255. RADIO COMMUNICATION II. 3(3-0); II. Prerequisite: Elec. Engg. 251 and 253. Selvidge.

Radio-frequency amplifiers and oscillators, modulation; application to transmitter circuits; antennas and wave propagation.

256. INDUSTRIAL ELECTRONICS. 2(2-0); I. Prerequisite: Elec. Engg. 120 and 209. Tregidga.

The fundamental principles of electronics and their application to the type of tubes and circuits used in industry.

260, 261. ILLUMINATING ENGINEERING. 3(2-2, 1); 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. 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, daytime illumination in buildings, and spectrophotometry.

270. ELECTRICAL MACHINE DESIGN. 1(0-3); I and II. Prerequisite: Elec. Engg. 207. Brenneman, 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. Engg. 210. Brenneman.

Transmission line design, economic and technical features; and properties of cables and insulators.

284. TRANSIENT ELECTRICAL PHENOMENA 3(3-0); II. Prerequisite: Elec. Engg. 209, 210, and 211, and Math. 201. Brenneman.

Two phases of electrical phenomena: (a) transients in time, and (b) transients in space.

290. PUBLIC UTILITY MANAGEMENT. 3(3-0); I and II. Prerequisite: Econ. 101. Kloeffler.

The problem of depreciation, finance, rates, and public regulation in gas, electric, and telephone properties.

FOR GRADUATE CREDIT

301. ADVANCED ELECTRIC CIRCUITS I. 3(3-0); I. Prerequisite: Elec. Engg. 212. Kerchner.

Short-circuit currents in networks; equivalent impedance of multicircuit transformers; analysis of unbalanced polyphase circuits and analysis of induction motor performance on unbalanced voltages; short transmission lines in steady state.

304. ADVANCED ELECTRIC CIRCUITS II. 3(3-0); II. Prerequisite: Elec. Engg. 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. Engg. 209 and 251. Selvidge.

Theory of measurement at radio frequencies of current, voltage, frequency, modulation; antenna and transmission line characteristics.

Laboratory.—Applications of high-frequency measurements. Charge, \$1.50.

316. ADVANCED ELECTRICAL THEORY. Credit to be arranged; I and II. Prerequisite: Elec. Engg. 212. Staff.

336. RESEARCH IN ELECTRICAL ENGINEERING. Credit to be arranged: I, II, and SS. Prerequisite: Elec. Engg. 210. Staff.

Special investigations adapted to the needs of individual students. The laboratory work is correlated with the work of the Engineering Experiment Station and may be used as the basis of a Master's thesis.

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
Graduate Assistant KOERTING

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.

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 Mach. Des. 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. 101. Staff.

Conventional representations; working drawings; dimensioning; the reproduction of drawings; checking for errors; arrangement of titles and notes; sheet and metal drafting; 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.

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.

123. AVIATION GROUND INSTRUCTION. 4(4-0); I. Prerequisite: Selection for C. A. A. Civilian Pilot Training Program or approval of instructor. Pearce.

Primary ground instruction prescribed by the Civil Aeronautics Authority for its civilian pilot training program. Charge, \$24, which includes cost of insurance but not cost of medical examination.

126. **THESIS.** Credit to be arranged; I and II. Pearce, Durland.

Excellent material for thesis study is furnished by projects in machine design or aerodynamics; the 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. 111, and Mech Engg. 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); II. Prerequisite: Mach. Des. 204 and 205. Pearce, Sullivan.

Complete design of a small power shear with a graphical analysis of the shaft; the rotative effect diagram and balancing 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. Mech. 202. Pearce, Durland.

A general introduction into aerodynamics, 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; operation of demonstration wind tunnel.

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 and 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
 Professor BRAINARD
 Assistant Professor FLINNER

Assistant Professor TRIPP
 Instructor PIPPIN
 Instructor MATTING
 Graduate Assistant FEARN

The instruction in the Department of Mechanical Engineering covers courses in thermodynamics, heat transfer, heat power engineering, air conditioning, refrigeration, and petroleum production. Additional courses closely allied to and a part of mechanical engineering are given in the departments of Machine Design and Shop Practice.

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.

FOR UNDERGRADUATE CREDIT

120. STEAM AND GAS ENGINEERING C. 2(2-0); I and II. Prerequisite: Math. 114 and Phys. 105. Staff.

Steam boilers, steam engines, steam turbines, internal combustion engines, and auxiliaries.

125. HEAT POWER LABORATORY IA. 1(0-3); I and II. Prerequisite: Must accompany or follow Mech. Engg. 120 or 201A. Staff.

Power-plant instruments and testing of power-plant equipment. Charge, \$2.

131. ELEMENTS OF HEAT POWER. 2(2-0); I and II. Prerequisite: Phys. 105. Mack.

Principles and practices underlying the conversion of fuel energy into mechanical energy, and essential equipment in heat power plants.

135. AIR CONDITIONING A. 3(3-0); II. Prerequisite: Phys. 105 or 102. Primarily for students who have not had engineering thermodynamics. Mack.

Principles of heating, cooling, and ventilating; heat transmission; equipment used for heating, cooling, and ventilating.

170, 175. DAIRY REFRIGERATION. 2(1-3); I of the even-numbered years. 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.

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. ENGINEERING THERMODYNAMICS A. 3(3-0); I and II. Prerequisite: Mach. Des. 121 and Math. 115. Staff.

Similar to Mech. Engg. 208, but designed for non-mechanical engineering students.

204. HEAT POWER ENGINEERING A. 3(3-0); I and II. Prerequisite: Mech. Engg. 201A. Staff.

Power-plant equipment, fuels and combustion.

205. HEAT POWER LABORATORY IIA. 1(0-3); I and II. Prerequisite: Mech. Engg. 125, and must accompany or follow Mech. Engg. 204. Staff.

Similar to Heat Power Laboratory II. Charge, \$2.

208. ENGINEERING THERMODYNAMICS. 4(4-0); I and II. Prerequisite: Math. 115 and Mech. Engg. 131. Staff.

Laws of the conversion of heat energy into mechanical energy; properties of fluids; gases, vapors, and gas vapor mixtures; flow and non-flow processes; power generating cycles; air compressions and refrigeration.

209. HEAT POWER LABORATORY I. 1(0-3); I and II. Prerequisite: Must accompany or follow Mech. Engg. 208. Staff.

Power-plant instruments and testing of power-plant equipment. Charge, \$2.

211. HEAT POWER ENGINEERING B. 5(4-3); II. Prerequisite: Phys. 106 and Math. 115. Staff.

Same as Mech. Engg. 204, except that some material on Engineering Thermodynamics has been added.

Laboratory.—Power plant instruments, tests of lubricating oils, testing of power-plant equipment. Charge, \$2.

213. HEAT POWER LABORATORY II. 1(0-3); I and II. Prerequisite: Mech. Engg. 208 and must accompany or follow Mech. Engg. 216. Staff.

Continuation of Heat Power Lab. I. Charge, \$2.

214. HEAT POWER ENGINEERING. 4(3-3); I and II. Prerequisite: Mech. Engg. 208. Staff.

Application of thermodynamic principles to power generation, flow of fluids, turbines, engines, compressors, and blowers; also a study of prime movers, steam generating equipment, auxiliaries, fuels and combustion, and evaporators.

216. POWER-PLANT EQUIPMENT. 3(2-3); I. Prerequisite: Mech. Engg. 251. Helander, Pippin.

Similar to Mech. Engg. 214, except that more attention is paid to design factors.

217. POWER-PLANT DESIGN. 3(1-6); II. Prerequisite: Mech. Engg. 214 or 216. Helander, Pippin.

Industrial and central station power generation practices, means for effecting economies 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 and II. Prerequisite: Mech. Engg. 213 and 214 or 216. Helander, Pippin.

Performance tests of power generating equipment, internal combustion engines, steam engines, turbines, and auxiliaries. Students are required to organize and conduct tests and to submit complete reports. Charge, \$2.

221. REFRIGERATION. 2(2-0); I. Prerequisite: Mech. Engg. 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.

228. AIR CONDITIONING. 3(2-3); I and II. Prerequisite: Mech. Engg. 201A or 208. Mack, Flinger.

Psychrometry; heat transmission; air-conditioning equipment and systems; design problems.

229. AIR-CONDITIONING EQUIPMENT LABORATORY. 1(0-3); I and II. To be taken with or following Mech. Engg. 228. Flinger, Pippin. Charge, \$1.

230. ADVANCED THERMODYNAMICS. 2(2-0); I. Prerequisite: Mech. Engg. 208. Helander.

240. INTERNAL COMBUSTION ENGINES. 2(2-0); II. Prerequisite: Mech. Engg. 201A or 208. Brainard, Flinger.

251. HEAT TRANSFER AND FLUID FLOW. 4(3-3); II. Prerequisite: Mech. Engg. 208. Tripp.

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. Engg. 217. Helander.

An advanced course in the economic problems met with in the design of power plants and in the generation of power. Selection of equipment, choice of station heat balances, 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 developments; drilling; oil field hydrology; casing and well completion; and fishing tools and methods.

271. PETROLEUM PRODUCTION II. 3(2-3); II. Prerequisite: Mech. Engg. 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, \$2.

FOR GRADUATE STUDY

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. Research in any field pertinent to subjects taught in the Department of Mechanical Engineering.

Shop Practice

Professor CARLSON
Professor SELLERS
Associate Professor WILSON
Assistant Professor JONES
Assistant Professor LYNCH
Assistant Professor ALMAN

Assistant Professor STUTZMAN
Instructor GRANT
Instructor MCCOLLUM
Instructor MOORE
Instructor LADD
Graduate Research Assistant RAWSON

The work in the Department of Shop Practice 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.

FOR UNDERGRADUATE CREDIT

118. ELEMENTARY CRAFTS FOR TEACHERS. 2(0-6); SS. Moore.

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); SS. Moore.

Exercises and 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.

134. METHODS OF TEACHING INDUSTRIAL ARTS. 3(1-6); I, II, and SS. Prerequisite: Senior standing and approval of instructor. Wilson.

See Department of Education, Division of General Science. Charge, \$2.50.

135. WOOD TURNING. 2(0-6); I, II, 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, II, 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 AND HEAT TREATING. 1(0-2, 1); I and II. Lynch.

(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, II, 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. METALS AND ALLOYS. 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, aluminum, and their alloys.

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(0-2, 1); I, II, and SS. Ladd.

The theory and practice of oxyacetylene welding, including a microscopic study of welds. Charge, \$2.50.

172. ARC WELDING. 1(0-2, 1); I, II, and SS. Ladd.

The theory and practice of arc welding, including a microscopic study of welds. Charge, \$2.50.

173. SHEET METAL WORK. 2(0-6); I and II. 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); I, II, and SS. Prerequisite: Shop 147 and 157. Wilson.

Babbitting, 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. Prerequisite: Consult instructor. Staff.

Opportunity is offered to specialize to a limited degree along certain lines 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.

262. 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.

263. PHYSICAL METALLURGY. 2(2-0); II and SS. Prerequisite: Shop 262. Sellers, Stutzman.

An advanced study of the structure, properties, and uses of the more common metals and alloys involving heat and mechanical treatment and casting.

265. METALLOGRAPHY II. 2(0-6); I, II, and SS. Prerequisite: Shop 262. Sellers, Stutzman.

A continuation of Shop 262, nonferrous metals, with special attention to photomicrographic analysis. Charge, \$5.

274. GENERAL SHOP ORGANIZATION. 3(1-6); II and SS. Prerequisite: Shop 147, 157, 161, 170, 171, 172, 173, and Elec. Engg. 112. Wilson.

A course covering the organization, methods of teaching, and equipment for the general shop. Charge, \$2.50.

286. SHOP PRACTICE TEACHING. Credit to be arranged; I, II, and SS. Prerequisite: 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. Insofar 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. Prerequisite: Consult instructors. Staff.

Investigations of interest to the individual student. May be used as the basis of the Master's thesis, and is usually correlated with the work of the Engineering Experiment Station.

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; *pisé de terre* construction; durability of concrete; school shops for vocational agriculture and industrial arts instruction; deterioration of concrete in silos; air conditioning for residences; 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; residential construction units; ductility of welded joints; cutting-tool performance; binders for foundry cores; rubber tires for tractors and implements; farm fencing; catalytic oxidation of petroleum derivatives; planning farm homes; soil and water conservation; uses of materials in farm shops; fluid flow friction factors; heat transfer in heat-exchange equipment; nursery thresher; Kansas coal; starch production from sorghum grains, potatoes, and other farm crops; the electric fence; and mixing as a chemical engineering unit operation.

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 WHITTEMORE 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 chosen their vocation, but who wish a well-balanced education; (2) those who expect to teach in the high schools of the state; (3) those who are fitting themselves for research work in the sciences; (4) those for whom a 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. The facilities of the Department of Chemistry, reinforced by opportunities for practical work in connection with the research of the experiment stations, provide for this specialized training. A curriculum in Chemical Engineering is offered in the Division of Engineering and Architecture.

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 theoretical and practical instruction given in these curriculums prepares students for coaching athletic games. The curriculums are also planned to enable the student to elect work in some other subject which may be taught in connection with physical education.

CURRICULUMS IN BUSINESS ADMINISTRATION

The curriculums in Business Administration are designed to train men and women for citizenship and business. The curriculum in Business Administration 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 Business Administration are included, and a sequence of courses in accounting extends through the entire four 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. 101 (men)....	1(1-2)	Current History, Hist. 126.....	1(1-0)
Phys. Ed., M or W.....	R	Infantry II, Mil. Sc. 102 (men)...	1(1-2)
		Phys. Ed., 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. 103 (men)...	1(1-2)	Elective‡	2(-)
Phys. Ed., M or W.....	R	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
		Phys. Ed., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Hist. of Engl. Lit., 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)
Public Speaking, Pub. Spk. 107....	2(2-0)	Elective‡	6(-)
Elective‡	6(-)		
Total	15	Total	15

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; electives, 44 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

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)
Extm. Speech I, Pub. Spk. 106...	2(2-0)	Chemistry II Lab., Chem. 104.....	2(0-6)
Elective**	5(-)	General Zoölogy, Zoöl. 105.....	5(3-6)
Infantry I, Mil. Sc. 101 (men)...	1(1-2)	Elective**	2(-)
Phys. Ed., M or W.....	R	Infantry II, Mil. Sc. 102 (men)...	1(1-2)
		Phys. Ed., M or W.....	R
Total		Total	
15 or 16		15 or 16	

Adaptation of Curriculum in General Science for Medical Technicians

Work outlined below has been approved by the Registry of Medical Technologists as preparation for admission to hospital training for medical technicians.

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 Zoölogy, Zoöl. 105.....	5(3-6)	Plane Trigonometry, Math. 101...	3(3-0)
Infantry I, Mil. Sc. 101 (men)...	1(1-2)	Gen. Microbiology, Bact. 101....	3(1-6)
Phys. Ed., M or W.....	R	Elective	2(-)
		Infantry II, Mil. Sc. 102 (men)...	1(1-2)
		Phys. Ed., M or W.....	R
Total		Total	
16 or 17		16 or 17	

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Organic Chemistry, Chem. 220....	5(3-6)	Quan. Anal. B, Chem. 251.....	3(1-6)
Human Physiology, Zoöl. 221.....	4(3-3)	General Physics II, Phys. 103....	4(3-3)
General Physics I, Phys. 102.....	4(3-3)	Adv. Serology, Bact. 229.....	5(3-6)or
Hyg. Bact., Bact. 207.....	5(3-6)	Physiol. Chem., Chem. 231.....	5(3-6)
Infantry III, Mil. Sc. 103 (men)...	1(1-2)	Elective	4(-)
Phys. Ed., M or W.....	R	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
		Phys. Ed., M or W.....	R
Total		Total	
18 or 19		16 or 17	

* 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.

** Electives should be chosen in economics, mathematics, modern languages, or physics.

Curriculum in Industrial Chemistry

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)
Plane Trigonometry, Math. 101...	3(3-0)	Plane Anal. Geom., Math. 110....	4(4-0)
Engg. Drawing, Mach. Des. 101...	2(0-6)	Library Methods, Lib. Ec. 101....	1(1-0)
Artillery I, Mil. Sc. 113 (men)....	1(1-2)	Des. Geometry, Mach. Des. 106...	2(0-6)
Phys. Ed., M or W.....	R	Artillery II, Mil. Sc. 114 (men)...	1(1-2)
		Phys. Ed., M or W.....	R
Total	16 or 17	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Quant. Anal. A, Chem. 250.....	3(1-6)	Quant. Anal. B, Chem. 251.....	3(1-6)
Adv. Inorg. Chem., Chem. 207....	3(3-0)	Inorg. Preparations, Chem. 202...	2(0-6)
Calculus I, Math. 114.....	4(4-0)	Calculus II, Math. 115.....	4(4-0)
Engg. Physics I, Phys. 105.....	5(4-3)	Engg. Physics II, Phys. 106.....	5(4-3)
Artillery III, Mil. Sc. 115 (men)..	1(1-2)	Elective†	2(-)
Phys. Ed., M or W.....	R	Artillery IV, Mil. Sc. 116 (men)..	1(1-2)
		Phys. Ed., M or W.....	R
Total	15 or 16	Total	16 or 17

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
German I, Mod. Lang. 101.....	3(3-0)	German II, Mod. Lang. 102.....	3(3-0)
Organic Chemistry I, Chem. 266...	5(3-6)	Organic Chemistry II, Chem. 267..	4(2-6)
Physical Chemistry I, Chem. 206..	5(3-6)	Physical Chemistry II, Chem. 272,	3(3-0)
Elective†	4(-)	Economics I, Econ. 101.....	3(3-0)
		Elective†	4(-)
Total	17	Total	17

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Amer. Govt., Hist. 151.....	3(3-0)	Org. Chem. Tech., Chem. Engg.	
Inorg. Chem. Tech. Rec., Chem.		235	3(3-0)
Engg. 210	3(3-0)	Prob. in Chemistry, Chem. 270....	3(0-9)
Inorg. Chem. Tech. Lab., Chem.		Hist. of Chemistry, Chem. 208....	1(1-0)
Engg. 215	2(0-6)	Elective†	9(-)
Scientific German, Mod. Lang. 137,	4(4-0)		
Inspection Trip, Chem. Engg. 150..	R		
Elective†	5(-)		
Total	17	Total	16

Summary.—Men: Physical education, two years required; military science, 4 hours; chemistry, 50 hours; engineering, 4 hours; other prescribed subjects, 51 hours; electives, 24 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

College Rhetoric I, Engl. 101.....	3(3-0)
General Chemistry, Chem. 110....	5(3-6)
Modern Language I*.....	3(3-0)
Library Methods, Lib. Ec. 101....	1(1-0)
General Psychology, Educ. 184....	3(3-0)
Industrial Journalism Lecture.....	R
Infantry I, Mil. Sc. 101 (men)....	1(1-2)
Phys. Ed., M or W.....	R
Total	15 or 16

SECOND SEMESTER

College Rhetoric II, Engl. 104....	3(3-0)
General Geology, Geol. 103.....	3(3-0)
Modern Language II*.....	3(3-0)
Journalistic Vocations, Ind. Jour. 140	2(2-0)
Option*	4(-)
Industrial Journalism Lecture.....	R
Infantry II, Mil. Sc. 102 (men)....	1(1-2)
Phys. Ed., M or W.....	R
Total	15 or 16

SOPHOMORE

FIRST SEMESTER

Elem. Journalism, Ind. Jour. 152..	3(3-0)
Current History, Hist. 126.....	1(1-0)
Prin. of Typog., Ind. Jour. 101....	3(2-3)
Biological science	5(-)
Modern Language III*.....	3(3-0)
Industrial Journalism Lecture.....	R
Infantry III, Mil. Sc. 103 (men)....	1(1-2)
Phys. Ed., M or W.....	R
Total	15 or 16

SECOND SEMESTER

Ind. Writing, Ind. Jour. 164.....	3(3-0)
Economics I, Econ. 101.....	3(3-0)
Option*	3(-)
English Literature, Engl. 172.....	3(3-0)
Extens. Speech I, Pub. Spk. 106..	2(2-0)
Current History, Hist. 126.....	1(1-0)
Industrial Journalism Lecture.....	R
Infantry IV, Mil. Sc. 104 (men)....	1(1-2)
Phys. Ed., M or W.....	R
Total	15 or 16

JUNIOR

FIRST SEMESTER

Ind. Feature Writing, Ind. Jour. 167	2(2-0)
Prin. of Adv., Ind. Jour. 178.....	4(4-0)
American Literature, Engl. 175....	3(3-0)
Option*	6(-)
Industrial Journalism Lecture.....	R
Total	15

SECOND SEMESTER

Jour. for Women, Ind. Jour. 172..	2(2-0)or
Rural Press, Ind. Jour. 181.....	2(2-0)or
Radio Writing, Ind. Jour. 162....	2(2-0)
Copy Reading, Ind. Jour. 254.....	2(0-6)
Hist. of Engl. Lit., Engl. 181....	3(3-0)
Elective and Option*	8(-)
Industrial Journalism Lecture.....	R
Total	15

SENIOR

FIRST SEMESTER

History and Ethics of Journalism, Ind. Jour. 273.....	3(3-0)
Elective and Option*	12(-)
Industrial Journalism Lecture.....	R
Total	15

SECOND SEMESTER

Editorial Practice, Ind. Jour. 257..	2(2-0)
Contem. Thought, Ind. Jour. 255..	3(3-0)
American Government, Hist. 151..	3(3-0)
Elective and Option*	7(-)
Industrial Journalism Lecture.....	R
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 group 15 (history, government and law) and group 16 (economics and sociology).

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 who wish 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		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104...	3(3-0)
Harmony I, Mus. 101.....	2(2-0)	Harmony II, Mus. 102.....	2(2-0)
Ear Tr. and St. Sing. I, Mus. 105,	2(1-3)	Ear Tr. and St. Sing. II, Mus. 106,	2(1-3)
Piano, Mus. 161	2(1-6)	Piano, Mus. 161.....	2(1-6)
Voice, Mus. 156.....	2(1-6)	Voice, Mus. 156.....	2(1-6)
Orch. Instruments I, Mus. 151A..	$\frac{1}{2}$ (1-0)	Orch. Instruments II, Mus. 151B..	$\frac{1}{2}$ (1-0)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)	Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
General Psychology, Educ. 184....	3(3-0)	Phys. or Biol. Science.....	3(-)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)	Infantry II, Mil. Sc. 102 (men)...	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., M or W.....	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Harmony III, Mus. 103.....	2(2-0)	Harmony IV, Mus. 104.....	2(2-0)
Ear Tr. and St. Sing. III, Mus. 107,	2(1-3)	Ear Tr. and St. Sing. IV, Mus. 108,	2(1-3)
Piano, Mus. 161	1($\frac{1}{2}$ -3)	Piano, Mus. 161.....	1($\frac{1}{2}$ -3)
Voice, Mus. 156.....	1($\frac{1}{2}$ -3)	Voice, Mus. 156.....	1($\frac{1}{2}$ -3)
Orch. Instr. III, Mus. 151C.....	$\frac{1}{2}$ (1-0)	Orch. Instr. IV, Mus. 151D.....	$\frac{1}{2}$ (1-0)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)	Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Hist. and Ap. of Mus. I, Mus. 130,	2(2-0)	Hist. and Ap. of Mus. II, Mus. 131,	2(2-0)
Choral Conducting, Mus. 133.....	1(1-0)	English Literature, Engl. 172....	3(3-0)
Phys. or Biol. Science.....	5(-)	Nonmusic elective	3(-)
Infantry III, Mil. Sc. 103 (men)..	1(1-2)	Infantry IV, Mil. Sc. 104 (men)..	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Counterpoint, Mus. 108A.....	2(2-0)	Musical Form and Analysis, Mus.	
Voice or Instrument.....	2(1-6)	111	1(1-0)
School Music I, Mus. 138.....	2(2-0)	Voice or Instrument.....	2(1-6)
Rad. Mus. Ap. Programs, Mus. 115,	1(1-0)	School Music II, Mus. 139.....	2(2-0)
Instrumental Conducting, Mus. 134,	1(1-0)	Pub. Spk. for Teachers, Pub. Spk.	
Orch. Instr. V, Mus. 151E.....	$\frac{1}{2}$ (1-0)	138	1(1-0)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)	Orch. Instr. VI, Mus. 151F.....	$\frac{1}{2}$ (1-0)
Educ. Psychology, Educ. 109.....	3(3-0)	Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Education elective	3(3-0)	Educ. Admin., Educ. 210.....	3(3-0)
		American Literature, Engl. 175... 3(3-0)	
		Nonmusic elective	2(-)
Total	15	Total	15

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Voice or Instrument.....	2(1-6)	Voice or Instrument.....	2(1-6)
Orch. Instr. VII, Mus. 151G.....	$\frac{1}{2}$ (1-0)	Orch. Instr. VIII, Mus. 151H.....	$\frac{1}{2}$ (1-0)
Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)	Choral Ensemble, Mus. 194.....	$\frac{1}{2}$ (0-2)
Teach. Part. in Grade School,		School Music III, Mus. 143.....	2(2-0)
Educ. 129	3(3-0)	Education elective	3(3-0)
Instr. and Orches., Mus. 136.....	3(3-0)	Nonmusic elective	7(-)
English elective	3(3-0)		
Nonmusic elective	3(-)		
Total	15	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 who major 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.....	$\frac{1}{2}$ (1-0)	Orch. Instr. II, Mus. 151B.....	$\frac{1}{2}$ (1-0)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)	Infantry II, Mil. Sc. 102 (men)...	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., 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.....	$\frac{1}{2}$ (1-0)	Orch. Instr. IV, Mus. 151D.....	$\frac{1}{2}$ (1-0)
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. 103 (men)...	1(1-2)	Modern Language	3(3-0)
Phys. Ed., M or W.....	R	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
		Phys. Ed., 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.....	$\frac{1}{2}$ (1-0)	111	1(1-0)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Orch. Instr. VI, Mus. 151F.....	$\frac{1}{2}$ (1-0)
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
Phys. for Musicians I, Phys. 121..	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)
Ensemble, Mus. 183.....	$\frac{1}{2}$ (0-2)	Orch. Instr. VIII, Mus. 151H.....	$\frac{1}{2}$ (1-0)
Orch. Instr. VII, Mus. 151G.....	$\frac{1}{2}$ (1-0)	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)	Prac. Teach. of Music, Mus. 187..	3(3-0)
English Literature, Engl. 172.....	3(3-0)	American Literature, Engl. 175....	3(3-0)
Nonmusic elective	6(-)	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		SECOND SEMESTER	
Intro. to Phys. Ed., Phys. Ed. 107,	1(1-0)	Phys. Ed. Act. II, Phys. Ed. 138,	2(0-6)
Phys. Ed. Act. I, Phys. Ed. 137..	1(0-3)	Football, Phys. Ed. 126.....	2(1-3)
Basketball, Phys. Ed. 130A.....	2(1-3)	General Zoölogy, Zoöl. 105.....	5(3-6)
College Rhetoric I, Engl. 101....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Extern. Speech I, Pub. Spk. 106..	2(2-0)	Chemistry II Rec., Chem. 103....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)	Infantry II, Mil. Sc. 102.....	1(1-2)
Library Methods, Lib. Ec. 101....	1(1-0)	Phys. Ed., M.....	R
Infantry I, Mil. Sc. 101.....	1(1-2)		
Phys. Ed., M.....	R		
Total	16	Total	16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Human Anatomy, Zoöl. 123.....	5(3-6)	Baseball, Phys. Ed. 133.....	2(1-3)
General Psychology, Educ., 184....	3(3-0)	Swimming M, Phys. Ed. 120.....	1(0-3)
Personal Hygiene, Phys. Ed. 119..	2(2-0)	Nat. and Fcn. of Play, Phys. Ed.	
Phys. Ed. Act. III, Phys. Ed. 139,	2(0-6)	145	2(2-0)
Current History, Hist. 126.....	1(1-0)	Kinesiology M, Phys. Ed. 141B...	3(3-0)
Hist. of Phys. Ed., Phys. Ed. 143,	2(2-0)	Human Physiology, Zoöl. 221.....	4(3-3)
Infantry III, Mil. Sc. 103.....	1(1-2)	Gen. Microbiology, Bact. 101.....	3(1-6)
Phys. Ed., M.....	R	Infantry IV, Mil. Sc. 104.....	1(1-2)
		Phys. Ed., M.....	R
Total	16	Total	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Community Hygiene, Phys. Ed. 147,	2(2-0)	First Aid and Mas., Phys. Ed. 113A,	3(3-0)
Org. and Admin. of Phys. Ed. M.,		Track and Field Sports, Phys. Ed.	
Phys. Ed. 146.....	3(3-0)	140A	2(1-3)
Sociology, Econ. 151.....	3(3-0)	Educ. Admin., Educ. 210.....	3(3-0)
Phys. Ed. Act. IV, Phys. Ed. 140,	1(0-3)	Practice Teaching in Phys. Ed.,	
Psych. of Child. and Adol., Educ.		Phys. Ed. 134.....	2(0-6)
250	3(3-0)	Teaching Health, Phys. Ed. 149...	2(2-0)
Elective*	4(-)	Elective*	4(-)
Total	16	Total	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Phys. Diagnosis and Prescrip.,		Teach. Partic. in H. S., Educ. 163,	3(3-0)
Phys. Ed. 124A.....	3(3-0)	Public-school Program in Phys.	
Physiol. of Exercise, Phys. Ed. 123,	2(2-0)	Ed., Phys. Ed. 142.....	2(2-0)
Educ. Psychology, Educ. 109....	3(3-0)	Educ. Sociology, Educ. 239.....	3(3-0)
Practice Teaching in Phys. Ed.,		Community Recreation, Phys. Ed.	
Phys. Ed. 134.....	2(0-6)	203	2(2-0)
Elective*	5(-)	Elective*	5(-)
Total	15	Total	15

Summary.—Military science, 4 hours; physical education, 48 hours; professional education, 18 hours; other prescribed subjects, 38 hours; electives, 18 hours; total, 126 hours.

* 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.

Curriculum in Physical Education for Women

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 Psychology, Educ. 184....	3(3-0)
Music Fundamentals, Mus. 118....	2(3-0)	Extern. Speech I, Pub. Spk. 106...	2(2-0)
Fund. Rhythms, Phys. Ed. 155...	1(0-3)	General Zoölogy, Zoöl. 105.....	5(3-6)
Personal Health, Child Welf. 101..	2(2-0)	Phys. Ed., W.....	R
Phys. Ed., W.....	R	Gen. Technic II, Phys. Ed. 157B..	2(1-3)
Gen. Technic I, Phys. Ed. 157A...	2(1-3)		
Total	15	Total	15

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Human Anatomy, Zoöl. 123.....	5(3-6)	Kinesiology W, Phys. Ed. 184....	2(2-0)
English Literature, Engl. 172.....	3(3-0)	Human Physiology, Zoöl. 221.....	4(3-3)
Sociology, Econ. 151.....	3(3-0)	History and Prin. of Phys. Ed.,	
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. Ed., W.....	R	Phys. Ed., W.....	R
Gen. Technic III, Phys. Ed. 157C,	2(1-3)	Gen. Technic IV, Phys. Ed. 157D,	2(1-3)
		Elective†	1(-)
Total	15	Total	15

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Prin. Health Educ., Phys. Ed. 163,	3(3-0)	Teach. and Adapt. of Phys. Educ.,	
Psych. of Child. and Adol., Educ.		Phys. Ed. 188.....	3(3-0)
250	3(3-0)	Phys. Ed., W.....	R
Phys. Ed., W.....	R	Gen. Technic VI, Phys. Ed. 157F,	2(0-6)
Gen. Technic V, Phys. Ed. 157E..	2(1-3)	Therap. and Mas., Phys. Ed. 172..	2(0-6)
Health Exam. W, Phys. Ed. 171..	2(0-6)	Embryology, Zoöl. 219.....	4(3-3)
Elective†	5(-)	Elective†	4(-)
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. Ed., W, Phys. Ed. 176..	2(2-0)
Teach. Partic. in H. S., Educ. 163,	3(3-0)	Phys. Ed., W.....	R
Phys. Ed., W.....	R	Gen. Technic VIII, Phys. Ed.	
Gen. Technic VII, Phys. Ed. 157G,	2(1-3)	157H	2(1-3)
Elective†	2(-)	Educ. Admin., Educ. 210.....	3(3-0)
		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; electives, 15 hours; total, 120 hours.

† 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.

Curriculum in Business Administration

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)
General Algebra, Math. 108.....	5(5-0)	Amer. Ind. History, Hist. 105.....	3(3-0)
Accounting I, Econ. 133.....	3(2-3)	Accounting II, Econ. 134.....	3(2-3)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)	Infantry II, Mil. Sc. 102 (men)....	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., 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)
Economics I, Econ. 101.....	3(3-0)	English Literature, Engl. 172.....	3(3-0)
History, Elective	3(-)	Economics II, Econ. 104.....	3(3-0)
El. Statistics, Math. 126.....	3(3-0)	Sociology, Econ. 151.....	3(3-0)
Valuation Accounting, Econ. 280..	3(3-0)	Option*	3(-)
Infantry III, Mil. Sc. 103 (men)...	1(1-2)	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Public Speaking, Pub. Spk. 107...	2(2-0)	Amer. Govt., Hist. 151.....	3(3-0)
Option*	3(-)	Bus. Org. and Fin., Econ. 215....	3(3-0)
Money and Banking, Econ. 116....	3(3-0)	Option*	3(-)
Marketing, Econ. 246.....	3(3-0)	Elective†	6(-)
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)	Bus. Adm. 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; business administration courses, 43 hours; other prescribed courses, 38 hours; option, special and general electives, 39 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

* 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 present one and one-half units of high-school algebra may replace General Algebra, Math. 108, by College Algebra, Math. 104.

Curriculum in Business Administration 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)
General Algebra, Math. 108.....	5(5-0)	Amer. Ind. History, Hist. 105....	3(3-0)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)	Infantry II, Mil. Sc. 102 (men)...	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., 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. 103 (men)...	1(1-2)	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Phys. Ed., M or W.....	R	Phys. Ed., M or W.....	R
Total	15 or 16	Total	15 or 16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
El. of Statistics, Math. 126.....	3(3-0)	Auditing, Econ. 291.....	3(3-0)
Money and Banking, Econ. 116...	3(3-0)	Am. Govt., Hist. 151.....	3(3-0)
Bus. Org. and Fin., Econ. 215.....	3(3-0)	Public Speaking, Pub. Spk. 107...	2(2-0)
Adv. Accounting, Econ. 281.....	3(3-0)	Elective†	7(-)
Options*	3(-)		
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)	Bus. Admin. 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; business administration courses, 56 hours; other prescribed courses, 35 hours; option, 9 hours; electives, 20 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

* 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 present one and one-half units of high-school algebra may replace General Algebra, Math. 108, by College Algebra, Math. 104.

‡ Thirteen hours of special electives must be chosen from the following group: Economics 222, Investments; 223, Credits and Collections; 230, Principles of Transportation; 234, Labor Economics; 242, Property Insurance; 244, Life Insurance; 248, Problems in Economics; 258, Social Pathology; 280, Valuation Accounting; 281, Advanced Accounting; 286, Tax Accounting; 287, Cost Accounting; 288, Advanced Cost Accounting; 289, Government Accounting; 291, 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.

Groups 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. In a modern language a student must reach a point equivalent to that obtained by college courses aggregating nine hours. Students who wish 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 who major 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 are 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)	Short Story I, Engl. 228.....	3(3-0)
Agricultural English, Engl. 137....	3(3-0)	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

English Literature, Engl. 172.....	3(3-0)	English Essayists, Engl. 276.....	3(3-0)
American Literature, Engl. 175....	3(3-0)	Wordsworth, Shelley, and Keats, Engl. 278	3(3-0)
Hist. of Eng. Lit., Engl. 181.....	3(3-0)	World Classics I, Engl. 280.....	3(3-0)
Probs. in English, Engl. 247.....	Cr. Ar.	World Classics II, Engl. 281.....	3(3-0)
Chaucer, Engl. 260.....	3(3-0)	Contemporary Fiction, Engl. 283..	3(3-0)
Milton and the Puritan Revolt, Engl. 262	3(3-0)	Contemporary Drama, Engl. 284..	3(3-0)
American Survey, Engl. 265.....	2(2-0)	Novel I, Engl. 286.....	3(3-0)
Literature of Middle West, Engl. 268	3(3-0)	Novel II, Engl. 287.....	3(3-0)
English Bible, Engl. 271.....	3(3-0)	English Survey I, Engl. 288.....	2(2-0)
Shakes. Drama I, Engl. 273.....	3(3-0)	English Survey II, Engl. 290.....	2(2-0)
Shakes. Drama II, Engl. 274.....	3(3-0)	Browning and Tennyson, Engl. 293,	3(3-0)
		Contemporary Poetry, Engl. 297...	3(3-0)

3. Modern Languages

German I, Mod. Lang. 101.....	3(3-0)	Spanish Comp. and Conv., Mod. Lang. 194	3(3-0)
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)	German Drama, Mod. Lang. 215..	3(3-0)
Scien. German, Mod. Lang. 137...	4(4-0)	French Prose, Mod. Lang. 252....	3(3-0)
French I, Mod. Lang. 151.....	3(3-0)	17th Cent. French Drama, Mod. Lang. 257	3(3-0)
French II, Mod. Lang. 152.....	3(3-0)	Mod. French Drama, Mod. Lang. 258	3(3-0)
French III, Mod. Lang. 161.....	3(3-0)	Spanish Prose, Mod. Lang. 275....	3(3-0)
French IV, Mod. Lang. 162.....	3(3-0)	Spanish Drama, Mod. Lang. 280..	3(3-0)
French Comp. and Conv., Mod. Lang. 163	3(3-0)	Span.-Amer. Lit., Mod. Lang. 282,	3(3-0)
Spanish I, Mod. Lang. 176.....	3(3-0)	Probs. in Mod. Lang., Mod. Lang. 299	Cr. Ar.
Spanish II, Mod. Lang. 177.....	3(3-0)		
Spanish III, Mod. Lang. 180.....	3(3-0)		
Spanish IV, Mod. Lang. 181.....	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 present one and one-half units of high-school algebra may replace General Algebra, Math. 108, by College Algebra, Math. 104.

† 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.

5. Mathematics

Students who wish 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. Geom., Math. 110....	4(4-0)	Advanced Calculus II, Math. 213..	3(3-0)
Calculus I, Math. 114.....	4(4-0)	Theory of Equations, Math. 216..	3(3-0)
Calculus II, Math. 115.....	4(4-0)	Fourier's Series, Math. 223.....	3(3-0)
Diff. Equations, Math. 201.....	3(3-0)	Modern Plane Geom., Math. 225..	3(3-0)
Higher Algebra, Math. 202.....	3(3-0)	Vector Analysis, Math. 230.....	3(3-0)
Statistics, Math. 203.....	3(3-0)	Topics in Math., Math. 299.....	Cr. Ar.
Advanced Calculus I, Math. 210...	3(3-0)		

6. Inorganic and Physical Chemistry

Students who desire 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. 266 and 267, 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.

Ind. Electrochem., Chem. 205.....	2(2-0)	Inorg. Chem. Tech. Rec., Chem.	
Physical Chemistry I, Chem. 206..	5(3-6)	Engg. 210	3(3-0)
Adv. Inorg. Chem., Chem. 207....	3(3-0)	Inorg. Chem. Tech. Lab., Chem.	
Surf. Tension and Rel. Phenomena,		Engg. 215	2(0-6)
Chem. 209	2(2-0)	Selected Topics in Inorg. Chem.,	
Colloid Chem., Chem. 213.....	2(2-0)	Chem. 271	2(2-0)
Chem. Thermodyn., Chem. 215...	3(3-0)	Physical Chem. II, Chem. 272....	3(3-0)
Electrochem. Lab., Chem. 217....	2(0-6)		

7. Analytical and Organic Chemistry

Qual. Org. Analysis, Chem. 221...	3(1-6)	Laboratory Technic in Animal	
Organic Preparations, Chem. 223..	5(0-15)	Nutrition, Chem. 239.....	2(0-6)
Stereoisomeric and Tautomeric Com-		Adv. Qual. Analysis, Chem. 240..	3(1-6)
pounds, Chem. 225.....	2(2-0)	Quant. Analysis, Chem. 241.....	5(1-12)
Carbocyclic and Heterocyclic Com-		Quant. Analysis A., Chem. 250....	3(1-6)
pounds, Chem. 226.....	2(2-0)	Quant. Analysis B., Chem. 251....	3(1-6)
Physiological Chem., Chem. 231...	5(3-6)	Organic Chemistry I, Chem. 266..	5(3-6)
Pathological Chem., Chem. 235...	2(2-0)	Organic Chemistry II, Chem. 267..	4(2-6)
Biochemical Analysis, Chem. 237..	2(0-6)		

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, 251, 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 students in business administration or industrial journalism.

Household Physics, Phys. 109....	4(3-3)	Heat Laboratory, Phys. 239.....	1(0-3)
Descriptive Physics, Phys. 136...	3(3-0)	Sound, Phys. 240.....	3(3-0)
Descriptive Astronomy, Phys. 141,	3(3-0)	Light, Phys. 243.....	3(3-0)
Meteorology, Phys. 146.....	3(3-0)	Light Laboratory, Phys. 244.....	1(0-3)
Photography, Phys. 151.....	2(1-3)	Elec. and Magnetism, Phys. 251..	3(3-0)
Lab. Tech. and App., Phys. 201..	2(0-6)	Elec. and Magnetism Lab., Phys.	
Applied X-rays, Phys. 205.....	3(2-3)	254	1(0-3)
Astronomy, Phys. 210.....	3(3-0)	Elec. Oscill. and Waves, Phys. 265,	3(3-0)
Geophysics I, Phys. 217.....	3(3-0)	Elec. Oscill. and Waves Lab., Phys.	
Geophysics II, Phys. 218.....	3(1-6)	266	2(0-6)
Applied Spectroscopy, Phys. 220...	3(2-3)	Electron Optics, Phys. 268.....	2(2-0)
Mechanics, Phys. 227.....	3(3-0)	Atomic Physics, Phys. 270.....	3(3-0)
Mechanics Laboratory, Phys. 228..	1(0-3)	Problems in Physics, Phys. 297...	Cr. Ar.
Heat, Phys. 238.....	3(3-0)		

10. Bacteriology

Bact. 101 may be followed in order by 202, 204, 207, 229, 222, and 225.

Gen. Microbiology, Bact. 101....	3(1-6)	Poultry Sanitation, Bact. 218.....	3(2-3)
Path. Bacteriology I, Bact. 111...	4(2-6)	Physiol. of Microorg., Bact. 222...	3(3-0)
Path. Bacteriology II, Bact. 116..	4(2-6)	Bact. Technic, Bact. 225.....	3(0-9)
Soil Microbiol., Bact. 202.....	3(3-0)	Adv. Serology, Bact. 229.....	5(3-6)
Soil Microbiol. Lab., Bact. 204....	2(0-6)	Determinative Bact., Bact. 240...	3(1-6)
Hyg. Bacteriology, Bact. 207.....	5(3-6)	Sanitary and Food Bact., Bact. 242,	3(1-6)
Dairy Bacteriology, Bact. 211.....	3(1-6)	Microbial Fermentations, Bact. 244,	2(2-0)

11. Botany

Bot. 101 and 105 are prerequisite to all other courses, excepting 110 and 126. Students who specialize in plant diseases should take, in order, Bot. 205, 202 or 241, and 232; in plant physiology, Bot. 208, 211, 210, and 232; in taxonomy and ecology, Bot. 225, 228, and 232. For general training, all are available subject to prerequisites.

General Botany I, Bot. 101.....	3(1-6)	Tax. Bot. of Flowering Plants, Bot. 225	3(1-6)
General Botany II, Bot. 105.....	3(1-6)	Plant Ecology, Bot. 228.....	2(2-0)
Nat. and Dev. of Plants, Bot. 110,	3(3-0)	Problems in Botany, Bot. 232.....	Cr. Ar.
Medical Botany, Bot. 126.....	2(1-3)	Field Crop Diseases, Bot. 241....	3(1-6)
Fruit Crop Diseases, Bot. 202.....	2(1-3)	Anatomy of Higher Plants, Bot. 251	3(1-6)
Plant Pathology I, Bot. 205.....	3(2-3)	Literature of Botany, Bot. 266...	2(2-0)
Morphology of Fungi, Bot. 206...	3(1-6)	Plant Cytology, Bot. 268.....	3(1-6)
Plant Physiology I, Bot. 208.....	3(3-0)	Recent Advances in Cytogenetics, Bot. 270	3(2-3)
Plant Physiology II, Bot. 210.....	3(1-6)		
Plant Physiology III, Bot. 211....	3(3-0)		
Botanical Microtechnic, Bot. 217..	3(1-6)		

12. Zoölogy

A student who wishes to major in zoölogy should, in connection with the required work or after its completion, elect from courses in parasitology, embryology, or genetics. Consult the head of the department.

Human Anatomy, Zoöl. 123.....	5(3-6)	Adv. Embryology, Zoöl. 220.....	4(2-6)
Problems in Zoölogy, Zoöl. 203....	Cr. Ar.	Human Physiology, Zoöl. 221.....	4(3-3)
Field Zoölogy, Zoöl. 205.....	2(1-3)	General Physiology, Zoöl. 222.....	3(2-3)
Zoölogical Technic, Zoöl. 206.....	1(0-3)	Protozoölogy, Zoöl. 223.....	3(2-3)
Animal Parasitology, Zoöl. 208....	3(2-3)	Zoölogy and Ent. Sem., Zoöl. 225,	1(1-0)
Prin. of Parasitology, Zoöl. 209....	2(2-0)	Genetics Seminar, Zoöl. 227.....	1(1-0)
Invert. Zoölogy, Zoöl. 212.....	4(2-6)	Taxonomy of Parasites, Zoöl. 240..	2(1-3)
Cytology, Zoöl. 214.....	4(2-6)	Ornithology, Zoöl. 244.....	3(2-3)
Evol. and Heredity, Zoöl. 215....	3(3-0)	Comp. Anat. of Vert., Zoöl. 246...	4(2-6)
Heredity and Eugenics, Zoöl. 216..	2(2-0)	Endocrinology, Zoöl. 247.....	3(3-0)
Human Parasitology, Zoöl. 218....	3(3-0)	Applied Zoölogy, Zoöl. 248.....	3(3-0)
Embryology, Zoöl. 219.....	4(3-3)		

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 as possible.

General Geology, Geol. 103.....	3(3-0)	Field Meth. in Geol., Geol. 230...	3(1-6)
Physiographic Geol., Geol. 110...	3(3-0)	Optical Mineralogy, Geol. 235....	4(2-6)
Prin. of Geography, Geol. 140....	3(3-0)	Sedimentary Petrology, Geol. 236..	5(3-6)
Historical Geology, Geol. 203.....	4(3-3)	Geologic Literature, Geol. 241....	3(3-0)
Economic Geology, Geol. 207.....	4(3-3)	Vert. Paleontology, Geol. 255.....	3(3-0)
Cryst. and Min., Geol. 209.....	4(2-6)	Micropaleontology, Geol. 256.....	3(1-6)
Structural Geology, Geol. 215....	4(3-3)	Problems in Geology, Geol. 275..	Cr. Ar.
Invert. Paleontology, Geol. 220....	4(3-3)		

14. Entomology

Students who major in entomology should take Ent. 203, 211, 212, 231, 216, 217, 218, 226, 206, 221, and 238, in sequence determined by prerequisites.

Gen. Entomology, Ent. 101.....	3(3-0)	Taxonomy of Insects II, Ent. 218..	3(0-9)
Gen. Econ. Ent., Ent. 203.....	3(2-3)	Adv. Gen. Ent., Ent. 221.....	3(3-0)
Staple Crop Ent., Ent. 206.....	3(2-3)	Medical Ent., Ent. 226.....	3(2-3)
General Apiculture, Ent. 208.....	3(2-3)	Adv. Apiculture I, Ent. 229.....	3(2-3)
Ext. Insect Morph., Ent. 211.....	3(1-6)	Adv. Apiculture II, Ent. 230.....	3(2-3)
Int. Insect Morph., Ent. 212.....	3(0-9)	Ent. and Zoöl. Lit., Ent. 231.....	2(2-0)
Prin. of Taxonomy, Ent. 216.....	1(1-0)	Problems in Ent., Ent. 238.....	Cr. Ar.
Taxonomy of Insects I, Ent. 217..	2(0-6)	Insect Physiology, Ent. 240.....	3(3-0)

15. History, Government, and Law

Preparation for teaching history in high school should include fifteen hours of college history following two units in high school, or its equivalent in college. Consult the head of the department.

Ancient Civilizations, Hist. 101.....	3(3-0)	Amer. Pol. Parties, Hist. 206.....	2(2-0)
Medieval Europe, Hist. 102.....	3(3-0)	Latin America, Hist. 208.....	3(3-0)
Amer. Ind. History, Hist. 105....	3(3-0)	Modern Europe II, Hist. 223.....	3(3-0)
Hist. of Com. and Ind., Hist. 110,	3(3-0)	History of the Home, Hist. 225...	3(3-0)
Modern Europe I, Hist. 115.....	3(3-0)	British Empire, Hist. 226.....	2(2-0)
English History, Hist. 121.....	3(3-0)	Immig. and Int. Rel., Hist. 228...	2(2-0)
Current History, Hist. 126.....	1(1-0)	History of Religions, Hist. 231....	2(2-0)
Amer. Govt., Hist. 151.....	3(3-0)	20th Cent. Europe, Hist. 234.....	3(3-0)
Amer. Natl. Govt., Hist. 152.....	3(3-0)	Far East, Hist. 236.....	3(3-0)
Amer. State Govt., Hist. 153.....	3(3-0)	Comp. Govt., Hist. 252.....	2(2-0)
Business Law I, Hist. 163.....	3(3-0)	City Govt., Hist. 253.....	3(3-0)
Business Law II, Hist. 164.....	3(3-0)	International Law, Hist. 256.....	2(2-0)
Farm Law, Hist. 175.....	2(2-0)	Govt. and Business, Hist. 260....	2(2-0)
Amer. History I, Hist. 201.....	3(3-0)	Problems in Hist. and Govt., Hist.	
Amer. History II, Hist. 202.....	3(3-0)	270	Cr. Ar.
Amer. History III, Hist. 203.....	3(3-0)	Land Law, Hist. 276.....	2(2-0)
Amer. Agr. History, Hist. 204.....	3(3-0)		

16. Economics and Sociology

Economics I, Econ. 101.....	3(3-0)	Labor Economics, 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 Econ., Econ. 248.....	Cr. Ar.
Public Finance, Econ. 214.....	3(3-0)	Sociology, Econ. 151.....	3(3-0)
Bus. Org. and Fin., Econ. 215.....	3(3-0)	Social Pathology, Econ. 258.....	3(3-0)
Investments, Econ. 222.....	3(3-0)	Com. Org. and Lead., Econ. 267..	3(3-0)
Credits and Coll., Econ. 223.....	2(2-0)	Adv. Sociology, Econ. 273.....	3(3-0)
International Trade, Econ. 224.....	2(2-0)	Hist. Soc. Thought, Econ. 277....	3(3-0)
Prin. of Trans., Econ. 230.....	3(3-0)	Problems in Sociology, Econ. 279..	Cr. Ar.

17. Accounting

Accounting I, Econ. 133.....	3(2-3)	Adv. Cost Accounting, Econ. 288..	2(2-0)
Accounting II, Econ. 134.....	3(2-3)	Govt. Accounting, Econ. 289.....	2(2-0)
Valuation Accounting, Econ. 280..	3(3-0)	Auditing, Econ. 291.....	3(3-0)
Advanced Accounting, Econ. 281...	3(3-0)	C. P. A. Problems, Econ. 292.....	3(3-0)
Tax Accounting, Econ. 286.....	3(3-0)	Inst. Accounting, Econ. 293.....	2(1-3)
Cost Accounting, Econ. 287.....	3(3-0)		

18. Education and Psychology

See "Education" in this catalogue for information concerning certificates.

Gen. Psychology, Educ. 184.....	3(3-0)	Principles of Secondary Education,	
Educ. Psychology, Educ. 109.....	3(3-0)	Educ. 236	3(3-0)
Methods of Teaching, Educ. 111...	3(3-0)	Educ. Sociology, Educ. 239.....	3(3-0)
Meth. of Teaching Home Econom-		Psychology of Childhood and Ado-	
ics, Educ. 132.....	3(3-0)	lescence, Educ. 250.....	3(3-0)
Meth. of Teach. Agr., Educ. 136...	3(3-0)	Abnormal Psychology, Educ. 254..	3(3-0)
Teach. Participation in High School,		Adv. Gen. Psychology, Educ. 257..	3(3-0)
Educ. 163	1-4 hrs.	Experimental Psych., Educ. 259...	3(3-0)
Extracur. Activities, Educ. 202....	3(3-0)	Mental Tests, Educ. 260.....	3(3-0)
Educ. Admin., Educ. 210.....	3(3-0)	Psych. of Excep. Child., Educ. 266,	3(3-0)
Educ. Measurements, Educ. 212....	3(3-0)	Animal Psychology, Educ. 269....	3(3-0)
Stat. Meth. Applied to Education,		Social Psychology, Educ. 270.....	3(3-0)
Educ. 223	3(3-0)	Psychology of Art. Educ. 276.....	3(3-0)

20. Industrial Journalism

Jour. Vocations, Ind. Jour. 140....	2(2-0)	News Bureau Methods, Ind. Jour.	
Elem. Journalism, Ind. Jour. 152..	3(3-0)	183	2(2-0)
Radio Writing, Ind. Jour. 162.....	2(2-0)	Contem. Thought, Ind. Jour. 255..	3(3-0)
Industrial Writing, Ind. Jour. 164..	3(3-0)	Mat. of Jour., Ind. Jour. 265.....	2(2-0)
Ind. Feat. Writing, Ind. Jour. 167..	2(2-0)	Mag. Features, Ind. Jour. 270....	2(2-0)
Jour. for Women, Ind. Jour. 172...	2(2-0)	Jour. Surveys, Ind. Jour. 278....	2(0-6)
Prin. of Adv., Ind. Jour. 178.....	4(4-0)	Cur. Periodicals, Ind. Jour. 287...	3(3-0)
Rural Press, Ind. Jour. 181.....	2(2-0)		

23. Music

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)	Hist. and Apprec. of Music I, Mus. 130	2(2-0)
Harmony II, Mus. 102.....	2(2-0)	Hist. and Apprec. of Music II, Mus. 131	2(2-0)
Harmony III, Mus. 103.....	2(2-0)	Inst. and Orchest., Mus. 136.....	3(3-0)
Harmony IV, Mus. 104.....	2(2-0)	School Music I, Mus. 138.....	2(2-0)
Counterpoint, Mus. 108A.....	2(2-0)	School Music II, Mus. 139.....	2(2-0)
Mus. Form and Anal., Mus. 111..	1(1-0)	School Music III, Mus. 143.....	2(2-0)
Radio Music Appreciation Programs, Mus. 115	1(1-1)		

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(3-3)	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

FOR MEN

Int. to Phys. Ed., Phys. Ed. 107..	1(1-0)	Phys. Ed. Act. IV, Phys. Ed. 140,	1(0-3)
First Aid and Massage, Phys. Ed. 113A	3(3-0)	Track and Field Spts., Phys. Ed. 140A	2(1-3)
Personal Hygiene, Phys. Ed. 119..	2(2-0)	Kinesiology M, Phys. Ed. 141B..	3(3-0)
Swimming M, Phys. Ed. 120.....	1(0-3)	Pub. Sch. Prog. in Phys. Ed., Phys. Ed. 142	2(2-0)
Physiol. of Ex., Phys. Ed. 123....	2(2-0)	Hist. of Phys. Ed., Phys. Ed. 143,	2(2-0)
Phys. Diag. and Pres., Phys. Ed. 124A	3(3-0)	Nat. and Fen. of Play, Phys. Ed. 145	2(2-0)
Football, Phys. Ed. 126.....	2(1-3)	Community Hyg., Phys. Ed. 147..	2(2-0)
Baseball, Phys. Ed. 133.....	2(1-3)	Teaching Health, Phys. Ed. 149...	2(2-0)
Phys. Ed. Act. I, Phys. Ed. 137...	1(0-3)	Community Recreation, Phys. Ed. 203	2(2-0)
Phys. Ed. Act. II, Phys. Ed. 138..	2(0-6)		
Phys. Ed. Act. III, Phys. Ed. 139,	2(0-6)		

FOR WOMEN

Fundamental Rhythm, Phys. Ed. 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. Mgmt. and Games, Phys. Ed. 182A	2(1-3)
Gen. Tech. III, Phys. Ed. 157C....	2(1-3)	Adult Recreation, Phys. Ed. 183..	2(2-0)
Gen. Tech. IV, Phys. Ed. 157D...	2(1-3)	Teach. and Adapt. of Phys. Ed., Phys. Ed. 188.....	3(3-0)
Gen. Tech. V, Phys. Ed. 157E....	2(1-3)	Hist. and Prin. of Phys. Ed., Phys. Ed. 192	3(3-0)
Gen. Tech. VI, Phys. Ed. 157F...	2(0-6)		
Gen. Tech. VII, Phys. Ed. 157G..	2(1-3)		

27. Public Speaking

Oral Interp., Pub. Spk. 101.....	2(2-0)	Arg. and Debate, Pub. Spk. 121...	2(2-0)
Dram. Reading, Pub. Spk. 102....	2(2-0)	Parl. Proceed., Pub. Spk. 126.....	1(1-0)
Extrem. Speech I, Pub. Spk. 106...	2(2-0)	Dram. Produc. I, Pub. Spk. 207..	2(1-3)
Public Speaking, Pub. Spk. 107...	2(2-0)	Dram. Produc. II, Pub. Spk. 208..	2(0-6)
Extrem. Speech II, Pub. Spk. 108,	2(2-0)	Adv. Debate, Pub. Spk. 222.....	2(2-0)
El. of Phonetics, Pub. Spk. 110...	2(2-0)	Public Program, Pub. Spk. 225....	2(2-0)

31. Applied Science

For industrial option in the curriculum in Industrial Journalism.

Seed Iden. and Weed Cont., Agron. 105	2(1-3)	General Geology, Geol. 103.....	3(3-0)
Soils, Agron. 130.....	4(3-3)	Physiographic Geol., Geol. 110....	3(3-0)
General Microbiology, Bact. 101...	3(1-6)	Prin. of Geography, Geol. 140.....	3(3-0)
Hygienic Bacteriology, Bact. 207..	5(3-6)	Historical Geology, Geol. 203.....	4(3-3)
General Botany I, Bot. 101.....	3(1-6)	Economic Geology, Geol. 207.....	4(3-3)
General Botany II, Bot. 105.....	3(1-6)	Cryst. and Min., Geol. 209.....	4(2-6)
Nature and Dev. of Plants, Bot. 110	3(3-0)	Sedimentary Petrology, Geol. 236..	5(3-6)
Fruit Crop Diseases, Bot. 202.....	2(1-3)	Vert. Paleontology, Geol. 255.....	3(3-0)
Plant Pathology I, Bot. 205.....	3(2-3)	Micropaleontology, Geol. 256.....	3(1-6)
Plant Ecology, Bot. 228.....	2(2-0)	El. of Horticulture, Hort. 107.....	3(2-3)
Field Crop Diseases, Bot. 241.....	3(1-6)	Small Fruits, Hort. 109.....	3(2-3)
Gen. Org. Chemistry, Chem. 122..	5(3-6)	Farm Forestry, Hort. 114.....	3(2-3)
Dairy Chemistry, Chem. 254.....	3(1-6)	Land. Gardening I, Hort. 125.....	3(3-0)
Gen. Entomology, Ent. 101.....	3(3-0)	Household Physics, Phys. 109.....	4(3-3)
Hort. Entomology, Ent. 201.....	2(2-0)	Descriptive Physics, Phys. 136....	3(3-0)
Gen. Economic Ent., Ent. 203....	3(2-3)	Des. Astronomy, Phys. 141.....	3(3-0)
Staple Crop Ent., Ent. 206.....	3(2-3)	Meteorology, Phys. 146.....	3(3-0)
General Apiculture, Ent. 208.....	3(2-3)	Photography, Phys. 151.....	2(1-3)
Human Nutrition, Food and Nutr. 112	3(3-0)	General Zoölogy, Zoöl. 105.....	5(3-6)
Ap. Nutr., Food and Nutr. 121...	2(2-0)	Animal Parasitology, Zoöl. 208....	3(2-3)
		Embryology, Zoöl. 219.....	4(3-3)
		Endocrinology, Zoöl. 247.....	3(3-0)

32. Home Economics

For industrial option in the curriculum in Industrial Journalism.

Elementary Design I, Art 101A...	2(0-6)	Applied Nutrition, Food and Nutr. 121	2(2-0)
Costume Design I, Art 130.....	2(0-6)	The House, Household Econ. 107,	3(2-3)
Principles of Art I, Art 201.....	3(3-0)	Family Finance, Household Econ. 263	2(2-0)
Principles of Art II, Art 202.....	3(3-0)	Econ. of Household, Household Econ. 265	2(2-0)
Child Guidance I, Child Welf. 201,	3(1-6)	Consumer Buying, Household Econ. 270	2(2-0)
The Family, Child Welf. 216.....	2(2-0)		
Clothing for the Ind., Clo. and Text. 103	4(1-9)		
Foods I, Food and Nutr. 102.....	5(3-6)		

35. Agriculture

For industrial option in the curriculum in Industrial Journalism.

Farm Crops, Agron. 101.....	4(2-6)	Field Crop Diseases, Bot. 241.....	3(1-6)
Soils, Agron. 130	4(3-3)	Gen. Org. Chemistry, Chem. 122..	5(3-6)
El. of An. Husb., An. Husb. 125..	3(2-4)	El. of Dairy, Dairy Husb. 101....	3(2-3)
Prin. of Feeding, An. Husb. 152...	3(3-0)	Dairy Cattle Judging, Dairy Husb. 105	2(0-6)
Genetics, An. Husb. 221.....	3(3-0)	El. of Horticulture, Hort. 107.....	3(2-3)
General Botany I, Bot. 101.....	3(1-6)	Farm Poultry Prod., Poult. Husb. 101	2(1-3)
General Botany II, Bot. 105.....	3(1-6)		
Plant Pathology I, Bot. 205.....	3(2-3)		

36. Drawing and Art

For industrial option in the curriculum in Industrial Journalism.

Freehand Drawing I, Arch. 112...	2(0-6)	Design in Crafts, Art 102.....	2(0-6)
Freehand Drawing II, Arch. 113...	2(0-6)	Intermediate Design, Art 103.....	2(0-6)
Pen. Rend. and Sketch., Arch. 116,	2(0-6)	Advanced Design, Art 105.....	2(0-6)
Still-Life Drawing, Arch. 117....	2(0-6)	Art of Southwest Indians, Art 111,	1(1-0)
Water Color I, Arch. 118.....	2(0-6)	Interior Decoration I, Art. 113....	2(0-6)
Water Color II, Arch. 119.....	2(0-6)	Interior Decoration II, Art 115....	2(0-6)
Life Drawing I, Arch. 121.....	2(0-6)	Interior Decoration III, Art 117...	2(0-6)
Life Drawing II, Arch. 123.....	2(0-6)	Drawing, Art 120.....	2(0-6)
Domestic Architecture, Arch. 124..	2(2-0)	Principles of Art I, Art 124.....	3(3-0)
Apprec. of Arch., Arch. 125.....	3(3-0)	Principles of Art II, Art 126.....	3(3-0)
Clay Modeling, Arch. 133.....	2(0-6)	Lettering, Art 127.....	2(0-6)
Pen and Ink Drawing, Arch. 134..	2(0-6)	Costume Design I, Art 130.....	2(0-6)
Block Prints, Arch. 137.....	2(0-6)	Costume Design II, Art 134.....	2(0-6)
Commercial Illus. I, Arch. 165....	2(0-6)	Costume Design III, Art 138.....	2(0-6)
Commercial Illus. II, Arch. 170....	2(0-6)	Costume Illustration, Art 139.....	2(0-6)
Hist. Paint. and Sculp., Arch. 179,	3(3-0)	Problems in Design, Art 217.....	Cr. Ar.
Adv. Freehand Drawing, Arch. 201,	Cr. Ar.	Problems in Interior Decoration, Art 232	Cr. Ar.
Etching, Arch. 217.....	2(0-6)	Historic Textiles Design, Art 233..	2(2-0)
Oil Painting, Arch. 230.....	Cr. Ar.	Problems in Costume Design, Art 235	Cr. Ar.
Elementary Design I, Art 101A...	2(0-6)		
Elementary Design II, Art 101B...	2(0-6)		

37. Manual and Industrial Arts

For industrial option in the curriculum in Industrial Journalism; for certification, fifteen hours are required.

Farm Buildings, Agric. Engg. 101...	3(2-3)	Farm Carpentry, Shop 147.....	3(1-6)
Farm Mach., Agric. Engg. 108....	3(2-3)	Forging, Shop 150.....	1(0-3)
Gas Eng. and Tract., Agric. Engg. 130	3(2-3)	Farm Blacksmithing I, Shop 157..	1(0-3)
Surveying I, Civ. Engg. 102.....	2(0-6)	Farm Blacksmithing II, Shop 158,	1(0-3)
Engg. Drawing, Mach. Des. 101..	2(0-6)	Foundry Production, Shop 161....	1(0-3)
Des. Geom., Mach. Des. 106.....	2(0-6)	Metals and Alloys, Shop 165.....	2(2-0)
Mach. Draw. I, Mach. Des. 111....	2(0-6)	Metallography I, Shop 167.....	1(0-3)
Ele. Crafts for Teachers, Shop 118,	2(0-6)	Machine Tool Work I, Shop 170..	2(0-6)
Woodwork I, Shop 120.....	2(0-6)	Oxyacetylene Welding, Shop 171..	1(0-3)
Reed Furn. Const., Shop 121.....	2(0-6)	Arc Welding, Shop 172.....	1(0-3)
Wood and Metal Fin., Shop 122....	2(0-6)	Sheet Metal Work, Shop 173.....	2(0-6)
Woodwork II, Shop 126.....	2(0-6)	Farm Shop Methods, Shop 175....	3(1-6)
Woodwork III, Shop 131.....	2(0-6)	Machine Tool Work II, Shop 192,	2(0-6)
Woodturning, Shop 135.....	2(0-6)	Machine Tool Work III, Shop 193,	1(0-3)
Woodwork IV, Shop 139.....	2(0-6)	Adv. Shop Practice, Shop 261....	Cr. Ar.

38. Printing

For industrial option in the curriculum in Industrial Journalism.

Ad Comp. I, Ind. Jour. 108.....	2(0-6)	Job Comp. II, Ind. Jour. 118....	2(0-6)
Ad Comp. II, Ind. Jour. 111.....	2(0-6)	Job Comp. III, Ind. Jour. 120....	2(0-6)
Ad Comp. III, Ind. Jour. 112.....	2(0-6)	Press Work I, Ind. Jour. 122....	2(0-6)
Job Comp. I, Ind. Jour. 114.....	2(0-6)	Press Work II, Ind. Jour. 126....	2(0-6)

39. Radio Broadcasting

For industrial option in the curriculum in Industrial Journalism.

Radio Writing, Ind. Jour. 162....	2(2-0)	Broadcasting Inf. Programs, Pub. Spk. 163	2(2-0)
Radio Advertising, Ind. Jour. 179..	3(3-0)	Radio Speech, Pub. Spk. 166.....	1(0-3)
Broadcasting Station Practice, Ind. Jour. 180	1(0-3)	Radio Program Participation, Pub. Spk. 168	1(0-3)
Broadcast Musical Programs, Mus. 119	2(3-0)	Adv. Phonetics, Pub. Spk. 201....	4(3-3)
Hist. and Apprec. of Music I, Mus. 130	2(2-0)	Radio Continuity, Pub. Spk. 230..	2(2-0)
Hist. and Apprec. of Music II, Mus. 131	2(2-0)	Radio Program Production, Pub. Spk. 231	2(1-3)
Survey of Broadcasting, Pub. Spk. 162	1(1-0)	Problems in Broadcasting, Pub. Spk. 232	Cr. Ar.

40. Milling Industry

Farm Crops, Agron. 101.....	4(2-6)	Milling Technology I, Mill. Ind. 201	2(0-6)
Grain Grad. and Judging, Agron. 108	2(0-6)	Milling Technology II, Mill. Ind. 202	2(0-6)
Colloid Chemistry, Chem. 213....	2(2-0)	Wheat and Flour Testing, Mill. Ind. 205	3(0-9)
Chem. of Proteins, Chem. 236....	3(3-0)	Exper. Baking, Mill. Ind. 207....	4(2-6)
Quant. Analysis A, Chem. 250....	3(1-6)	Advanced Wheat and Flour Testing, Mill. Ind. 210.....	1-5 hrs.
Quant. Analysis B, Chem. 251....	3(1-6)	Mill. Qual. of Wheat, Mill. Ind. 212	3(3-0)
Grain Marketing, Econ. 203.....	3(3-0)	Probs. in Mill., Mill. Ind. 214....	Cr. Ar.
El. of Milling, Mill. Ind. 101....	2(1-3)		
Flow Sheets, Mill. Ind. 103.....	2(0-6)		
Mill. Practice I, Mill. Ind. 109....	3(1-6)		
Mill. Practice II, Mill. Ind. 111....	3(1-6)		

42. Personnel Management

Economics II, Econ. 104.....	3(3-0)	Prin. of Guidance, Educ. 230....	3(3-0)
Business Management, Econ. 126..	2(2-0)	Vocational Education, Educ. 241..	3(3-0)
Prin. of Accounting, Econ. 136....	3(3-0)	Mental Tests, Educ. 260.....	3(3-0)
Business Organization and Finance, Econ. 215	3(3-0)	Technic of Mental Tests, Educ. 261	3(1-6)
Labor Economics, Econ. 234.....	3(3-0)	Psych. of Adv. and Selling, Educ. 265	3(3-0)
Social Pathology, Econ. 258.....	3(3-0)	Social Psychology, Educ. 270....	3(3-0)
Com. Org. and Lead., Econ. 267....	3(3-0)	Psych. of Personnel Mgmt., Educ. 273	3(3-0)
Advanced Sociology, Econ. 273....	3(3-0)		
Stat. Meth. App. to Educ., Educ. 223	3(3-0)		

44. Social Welfare Work

Personal Health, Child Welf. 101,	2(2-0)	Com. Org. and Lead., Econ. 267..	3(3-0)
Child Guid. I, Child Welf. 201....	3(1-6)	Advanced Sociology, Econ. 273....	3(3-0)
Child Guid. II, Child Welf. 206..	3(3-0)	General Psychology, Educ. 184....	3(3-0)
Family Health, Child Welf. 211...	3(3-0)	Psychology of Childhood and	
The Family, Child Welf. 216....	2(2-0)	Adolescence, Educ. 250.....	3(3-0)
Clo. for Ind., Clo. and Text. 103..	4(1-9)	Abnormal Psychology, Educ. 254..	3(3-0)
Clo. Select., Clo. and Text. 110...	2(2-0)	Social Psychology, Educ. 270.....	3(3-0)
Economics I, Econ. 101.....	3(3-0)	Psych. and Pers. Mgmt., Educ. 273,	3(3-0)
Economics II, Econ. 104.....	3(3-0)	Foods I, Food and Nutr. 102....	5(3-6)
Sociology, Econ. 151.....	3(3-0)	The House, Household Econ. 107,	3(2-3)
Rural Sociology, Econ. 156.....	3(3-0)	Home Mgmt., Household Econ. 116,	3(1-6)
Labor Economics, Econ. 234.....	3(3-0)	Hereditry and Eugenics, Zoöl. 216..	2(2-0)
Social Pathology, Econ. 258.....	3(3-0)		

Bacteriology

Professor BUSHNELL
 Professor GAINNEY
 Assistant Professor FOLTZ
 Assistant Professor NELSON
 Instructor TWIEHAUS

Instructor MCCALLA
 Instructor PEPPLER
 Graduate Assistant DIKE
 Graduate Assistant HAAS

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, development of bacteria, culture media, staining values, and principles of applied bacteriology. Deposit, \$8.

105. AGRICULTURAL MICROBIOLOGY. 3(2-3); I and II. Prerequisite: Chem. 103. Staff. Deposit, \$4.

For students in the Division of Agriculture. Students who expect to take Bact. 202 or 235 should take Bact. 101. Sterilization and disinfection; analyses of water, milk, and soil.

111. PATHOGENIC BACTERIOLOGY I. 4(2-6); II. Prerequisite: Chem. 122. Bushnell, Foltz, Twiehaus.

Fundamentals of bacteriology as applied to veterinary medicine. Deposit, \$8.

116. PATHOGENIC BACTERIOLOGY II. 4(2-6); I. Prerequisite: Bact. 111. Bushnell, Foltz, Twiehaus.

Continuation of Bact. 111. Deposit, \$8.

125. WATER AND SEWAGE BACTERIOLOGY. 2(0-6); I. Prerequisite: Chem. 108. Gainey.

Water purification and sewage disposal; 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 Bact. 202. Deposit, \$8.

206. HYGIENIC BACTERIOLOGY. 5(3-6); I. Prerequisite: Bact. 101. Bushnell, Foltz.

Pathogenic bacteria and their effect upon human health and diseases. Deposit, \$8.

* 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.

211. DAIRY BACTERIOLOGY. 3(1-6); II. Prerequisite: Bact. 101 or 111. Nelson.

Bacterial flora and their effects in milk, butter, cheese, and other dairy products; 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 of control of poultry diseases. Deposit, \$3.

222. PHYSIOLOGY OF MICROORGANISMS. 3(3-0); I. Prerequisite: Bact. 101 or 111 and Chem. 122. Offered in 1940-'41 and alternate years thereafter. Nelson.

Chemistry and physics of microbial processes.

225. BACTERIOLOGICAL TECHNIC. 3(0-9); I. Prerequisite: Bact. 101 or 111. Offered in 1940-'41 and 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. 207. Offered in 1941-'42 and alternate years thereafter. Bushnell, Foltz.

Immunity and immunization; preparation, purification, and standardization of biological products for human and veterinary medicine. Deposit, \$8.

235. BACTERIOLOGY OF BUTTER CULTURES. 1(0-3); I. Prerequisite: Bact. 211 and concurrent registration in Dairy Husb. 110. Nelson.

240. DETERMINATIVE BACTERIOLOGY. 3(1-6); I. Prerequisite: Bact. 101 or 111. Bushnell, Foltz.

Isolation, study, and identification of unknown organisms. Deposit, \$8.

242. SANITARY AND FOOD BACTERIOLOGY. 3(1-6); I. Prerequisite: Bact. 101 or 111. Nelson.

Bacteriology of water and food supplies. Deposit, \$8.

244. MICROBIAL FERMENTATIONS. 2(2-0); II. Prerequisite: Bact. 222. Offered in 1940-'41 and alternate years thereafter. Nelson.

Microbiology and chemistry of fermentation processes.

270. PROBLEMS IN BACTERIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Bact. 101, 111, or 116. Staff. Deposit, \$3 a credit hour.

Work is offered in:

Dairy. Nelson.

Foods. Foltz.

Poultry diseases. Bushnell, Twiehaus.

Soils. Gainey.

275. BACTERIOLOGY SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructor in charge. Bushnell.

FOR GRADUATE CREDIT

301. RESEARCH IN BACTERIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff. Deposit, \$3 a credit hour.

Work is offered in:

Dairy. Nelson.

Foods. Foltz.

Poultry diseases. Bushnell.

Soils. Gainey.

Botany and Plant Pathology

Professor MELCHERS
 Professor MILLER
 Professor DAVIS
 Professor HAYMAKER
 Professor GATES
 Associate Professor ELMER
 Assistant Professor NEWCOMB
 Assistant Professor FRAZIER

Assistant Professor ———
 Instructor KINGSLEY
 Instructor BATES
 Instructor McCracken
 Assistant JOHNSON
 Graduate Assistant KOEPPER
 Graduate Research Assistant GRIES

FOR UNDERGRADUATE CREDIT

101. GENERAL BOTANY I. 3(1-6); I and SS. Staff.

Photosynthesis, digestion, respiration, transpiration, growth, environmental conditions, and plant anatomy. Charge, \$3.50.

105. GENERAL BOTANY II. 3(1-6); II and SS. Staff.

Plant morphology, physiology, taxonomy, ecology, fungi and other pathogenic plants, and plant evolution. Charge, \$3.50.

110. NATURE AND DEVELOPMENT OF PLANTS. 3(3-0); II and SS. Haymaker.

Structure, life processes, identification, classification, evolutionary development, geographical distribution, and economic importance of plants.

126. MEDICAL BOTANY. 2(1-3); I. Prerequisite: High-school botany or equivalent. Gates.

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 1941-'42 and 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.

Important diseases of crops and the organisms which cause them. Charge, \$2.

206. MORPHOLOGY OF THE FUNGI. 3(1-6); I. Prerequisite: Bot. 105. Offered in 1940-'41 and alternate years thereafter.

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.

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. Offered in 1940-'41 and alternate years thereafter. Miller.

Methods used to obtain data which concern common functions of plants. Charge, \$5.

211. PLANT PHYSIOLOGY III. 3(3-0); II. Prerequisite: Bot. 208. Miller.

Continuation of Bot. 208, including photosynthesis, nitrogen metabolism, fat metabolism, digestion, translocation, respiration, and growth.

212. PROBLEMS IN BOTANICAL INSTRUCTION. 3(2-3); SS. Prerequisite: Ten hours in botany or in courses of botanical nature. Haymaker.

Advanced morphology, anatomy, physiology, taxonomy, and diseases of plants; technic in presenting botany to high-school and college students. Charge, \$2.

217. BOTANICAL MICROTCHNIC. 3(1-6); II. Prerequisite: Bot. 101 and 105. Offered in 1941-'42 and alternate years thereafter. Bates.

Preparation of plant materials for histological or cytological study. Charge, \$3.

218. FIELD BOTANY. 3(2-3); SS. Prerequisite: Bot. 101 and 105. Haymaker.

Identification and classification of seed plants. Charge, \$2.

220. BOTANY 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.

Systems of classification; identification of plants in the field and in the laboratory; orders and families of plants. Charge, \$2.

228. PLANT ECOLOGY. 2(2-0); II. Prerequisite: Bot. 101 and 105. Gates. 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 instructor. Staff. Charge, \$2.

Work is offered in:

Anatomy. Newcomb.

Cytology. Newcomb.

Ecology. Gates.

Mycology. Hansing.

Pathology. Melchers, Haymaker, Elmer.

Physiology. Miller.

Taxonomy. Gates.

241. FIELD CROP DISEASES. 3(1-6); II. Prerequisite: Bot. 205. Offered in 1941-'42 and alternate years thereafter. Melchers.

Diseases of cereal and forage crops; cause, effect on host, control. Breeding for disease resistance. Charge, \$2.

251. ANATOMY OF HIGHER PLANTS. 3(1-6); II. Prerequisite: Bot. 101 and 105. Offered in 1940-'41 and alternate years thereafter. Newcomb.

Structure and development of the various tissues and organs of seed plants. Charge, \$3.

266. LITERATURE OF BOTANY. 2(2-0); I. Prerequisite: Bot. 205. Offered in 1940-'41 and alternate years thereafter. Davis.

Current botanical publications, together with the classics of botanical literature; historical development of botany.

268. PLANT CYTOLOGY. 3(1-6); I. Prerequisite: Bot. 101 or Zoöl. 105. Offered in 1941-'42 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.

270. RECENT ADVANCES IN CYTOGENETICS. 3(2-3); II. Prerequisite: Agron. 208 or Bot. 268 or Zoöl. 214. Offered in 1941-'42 and alternate years thereafter. McCracken.

Chromosome structure, mechanics, and behavior; their significance for problems of genetics, evolution, and the origin of species. Charge, \$3.

FOR GRADUATE CREDIT

301. PLANT PATHOLOGY III. 3(1-6); I. Prerequisite: Bot. 205. Offered in 1940-'41 and alternate years thereafter. Elmer. Charge, \$5.

310. RESEARCH IN BOTANY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Anatomy. Newcomb.

Cytology. Newcomb.

Ecology. Gates.

Mycology. Hansing.

Pathology. Melchers, Haymaker, Elmer.

Physiology. Miller.

Taxonomy. Gates.

Chemistry

Professor KING
 Professor HUGHES
 Professor BRUBAKER
 Professor COLVER
 Professor KEITH
 Professor PERKINS
 Associate Professor Van WINKLE
 Associate Professor BARHAM
 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 ANDREWS

Assistant Professor PETERSON
 Instructor McDOWELL
 Instructor REED
 Instructor CALDWELL
 Instructor HOSTETTER
 Instructor DORF
 Instructor BEERS
 Instructor OLSEN
 Instructor FISHER
 Instructor NEAL
 Instructor SCHRENK
 Instructor HANKE
 Graduate Assistant DEVOR
 Graduate Assistant LONG
 Graduate Assistant SUTHERLAND
 Graduate Assistant CRON
 Graduate Assistant THOMSON

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. Staff.

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 who have credit in any college courses in inorganic chemistry. Staff.

Principle laws and theories of chemistry; 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.

125. ORGANIC CHEMISTRY (AGR.). 3(3-0); I, II, and SS. Prerequisite: Chem. 103. Staff.

Fundamentals of organic chemistry, particularly fats, proteins, and carbohydrates.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. INORGANIC PREPARATIONS. Credit to be arranged; one credit for each three 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.

205. INDUSTRIAL ELECTROCHEMISTRY. 2(2-0); II. Prerequisite: Chem. 104 or 110 and Phys. 103 or 106.

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 elements as a basis for methods of classification; rarer elements and compounds. Students who elect 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. 104 and 122. Olsen.

Extraction, purification, and properties of the oils commonly used in paints; manufacture and properties of paint pigments; products employed as protective coverings for both wood and metal.

213. COLLOID 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.

215. CHEMICAL THERMODYNAMICS. 3(3-0); II. Prerequisite: Chem. 206 and Math. 115. Keith.

Thermodynamics particularly applicable to chemistry, the first and second laws of thermodynamics and their application.

216. THEORETICAL ELECTROCHEMISTRY. 3(3-0); I. Prerequisite: Chem. 206 and 272. Keith.

Theory of electrolytic cells, 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.

Electrometric titrations, storage battery efficiency, polarization, overvoltage, electrode potentials, and related subjects. Deposit, \$10.

220. ORGANIC CHEMISTRY. 5(3-6); I, II, and SS. Prerequisite: Chem. 104. Colver.

Topics selected from the content of Chem. 266 and 267. Deposit, \$10.

221. QUALITATIVE ORGANIC ANALYSIS. 3(1-6); I. Prerequisite: Chem. 267. Colver. Deposit, \$10.

223. ORGANIC PREPARATIONS. 1(0-3) to 5(0-15); I. Prerequisite: Chem. 267. Colver. Deposit, \$10.

225. STEREOISOMERIC AND TAUTOMERIC COMPOUNDS. 2(2-0); II. Prerequisite: Chem. 267. Colver.

226. CARBOCYCLIC AND HETEROCYCLIC COMPOUNDS. 2(2-0); II. Prerequisite: Chem. 267. Colver.

228. SPECIAL REACTIONS OF ORGANIC COMPOUNDS. 2(2-0); I. Prerequisite: Chem. 267. 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.

232. VITAMINS. 2(2-0); I or II. Prerequisite: Chem. 231. Hughes. Chemistry and functions of vitamins and related compounds.
233. BIOCHEMICAL PREPARATIONS. 2(0-6) to 5(0-15); II. Prerequisite: Chem. 231 and 267. Marlow. Deposit, \$10.
235. PATHOLOGICAL CHEMISTRY. 2(2-0). Prerequisite: Chem. 231. Hughes.
236. CHEMISTRY OF PROTEINS. 3(3-0); I. Prerequisite: Chem. 122 and 206. Conrad.
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. 206 and 267. 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(1-12); 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. Assays of ores containing such metal as copper, zinc, lead, bismuth, tin, silver, and gold. Deposit, \$10.
243. GAS ANALYSIS. 1(0-3); I. Prerequisite: Chem. 241. 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. Application of the spectrograph, spectrophotometer, colorimeter, nephelometer, refractometer, X-ray equipment, and other instruments in the chemical analysis of gases, liquids, and solids.
250. QUANTITATIVE ANALYSIS A. 3(1-6); I and SS. Prerequisite: Chem. 104. Brubaker. General procedure of gravimetric analysis. Deposit, \$10.
251. QUANTITATIVE ANALYSIS B. 3(1-6); II and SS. Prerequisite: Chem. 104. Brubaker. 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. Chemical phenomena of soils, ionic exchange, electrodialysis, solutions, and colloid 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.

262. INTERMEDIARY METABOLISM OF PROTEINS. 2(2-0); I. Prerequisite: Chem. 231. Hughes.

263. INTERMEDIARY METABOLISM OF CARBOHYDRATES AND LIPINS. 2(2-0); II. Prerequisite: Chem. 231. Marlow.

265. CHEMISTRY OF CARBOHYDRATES. 2(2-0); I or II. Prerequisite: Chem. 122. Whitnah.

266. ORGANIC CHEMISTRY I. 5(3-6); I. Prerequisite: Chem. 104. Colver, Neal. Deposit, \$10.

267. ORGANIC CHEMISTRY II. 4(2-6); II. Prerequisite: Chem. 266. Colver, Neal. Deposit, \$10.

269. SPECIAL TOPICS IN ORGANIC CHEMISTRY. 2(2-0); I, II, and SS. Prerequisite: Chem. 267. Colver, Barham.

Lectures with assigned readings which deal with special phases of organic chemistry.

270. PROBLEMS IN CHEMISTRY. Credit to be arranged; I, II, and SS. Staff. Deposit, \$10.

Work is offered in:

Agricultural Chemistry. King, Perkins.

Analytical Chemistry. Brubaker, Perkins.

Biochemistry. Hughes, Whitnah, Marlow.

General and Physical Chemistry. King, Keith, Hall, Lash.

Industrial Chemistry. Van Winkle.

Organic Chemistry. Colver, Barham, Whitnah.

271. SELECTED TOPICS IN INORGANIC CHEMISTRY. 2(2-0); II. Prerequisite: Chem. 206. Staff.

Thermal analysis, temperature measurements, atomic hydrogen, hydrides, halogens, solutions, ammonia systems, and crystal chemistry.

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.

275. CHEMISTRY SEMINAR. R; I and II. Staff.

276. CHEMICAL LITERATURE. 2(2-0); I and II. Prerequisite: Chem. 267. Reed.

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.

288. ADVANCED PHYSICAL CHEMISTRY I. 3(3-0); I. Prerequisite: Chem. 272. Andrews.

Extension of certain topics of physical chemistry such as thermodynamics, chemical kinetics, photochemistry, atomic and molecular structure.

289. ADVANCED PHYSICAL CHEMISTRY II. 3(3-0); II. Prerequisite: Chem. 288. Andrews.

Continuation of Chem. 288.

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, 220, or 267. 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; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Agricultural Chemistry. King, Perkins.

Analytical Chemistry. Brubaker, Perkins.

Biochemistry. Hughes, Whitnah, Marlow.

General and Physical Chemistry. King, Keith, Hall, Lash.

Industrial Chemistry. Van Winkle.

Organic Chemistry. Colver, Barham, Whitnah.

305. ANIMAL NUTRITION SEMINAR. 1(1-0); I and II. Prerequisite: Consult instructor. Hughes, McCampbell, Burt, Payne.

Experiments in nutrition, methods employed, and validity of conclusions drawn.

307. VITAMIN ANALYSIS. 2(0-6); I, II, and SS. Prerequisite: Chem. 231 and 251. Peterson.

Chemical and biological determination of vitamins. Deposit, \$10.

309. HORMONE PREPARATION AND ASSAY. 2(0-6); I and II. Prerequisite: Chem. 290 or Zoöl. 247 or concurrent registration. Marlow. Deposit, \$10.

311. CHEMISTRY OF ENZYMES. 3(1-6); II. Prerequisite: Chem. 220 or 267. Hall.

Extraction, purification, and action of enzymes. Deposit, \$10.

Economics and Sociology

Professor GRIMES

Professor HOWE

Professor HILL

Associate Professor STEWART

Associate Professor HOLTZ

Associate Professor HODGES

Associate Professor THOMPSON

Associate Professor MONTGOMERY

Assistant Professor NELSON

Assistant Professor PARSONS

Assistant Professor EGGERT

Assistant Professor PINE

Assistant Professor WARD

Instructor DOLL

Instructor MILLER

Instructor WILSON

Instructor LETBETTER

Instructor LONG

Instructor REED

Instructor GELLEIN

Instructor BREUNINGER

Instructor OTTO

Work in economics and sociology is offered in the divisions of General Science and Agriculture. The general courses are listed here. Those which have 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. Not open to students in curriculums in Business Administration. 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, 226, 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. Howe.

Public expenditures and revenues; administration of public funds.

215. BUSINESS ORGANIZATION AND FINANCE. 3(3-0); I and II. Prerequisite: Econ. 104 and 134. Thompson.

Organization and classification of business enterprises, their financial structure, and internal management.

222. INVESTMENTS. 3(3-0); II and SS. Prerequisite: Econ. 134 or 136 and 215. 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 ECONOMICS. 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; I, II, and SS. Prerequisite: Senior standing. Staff.

Work is offered in:

Banking, finance, business organization and management. Thompson.
General economics and international trade. Grimes, Nelson.
Insurance, investments, and accounting. Stewart.
Marketing. Ward.
Public finance. Howe.

249. BUSINESS ADMINISTRATION SEMINAR. 1(1-0); I and II. Prerequisite: Senior standing. Staff.

Current questions in economics and business.

FOR GRADUATE CREDIT

(For Econ. 301, see agricultural section.)

302. RESEARCH IN ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Banking, finance, business organization and management. Thompson.
General economics and international trade. Grimes, Nelson.
Insurance, investments, and accounting. Stewart.
Marketing. Ward.
Public finance. Howe.

305. ADVANCED ECONOMICS. 3(3-0); I. Prerequisite: Econ. 101. Nelson. 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. Prerequisite: Sophomore standing. 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, poverty, crime, delinquency, immigration, family discord, group conflict, and population.

259. POPULATION AND HUMAN ECOLOGY. 2(2-0); I. Prerequisite: Six hours of sociology or economics or history. Hill.

Early theories, policies, growth, composition, spatial aspects, movements, and population trends.

260. FAMILY AND SOCIETY. 2(2-0); II. Prerequisite: Econ. 151. Hill.

Origin and development of marriage customs and systems of family organizations; the family under present conditions.

267. COMMUNITY ORGANIZATION AND LEADERSHIP. 3(3-0); II and SS. Prerequisite: Econ. 151. Hill.

Organizations working in urban and rural fields; principles involved and technic of organization.

273. ADVANCED SOCIOLOGY. 3(3-0); II. Prerequisite: Econ. 151. Hill.

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.

FOR GRADUATE CREDIT

(For Econ. 350, see agricultural section.)

351. RESEARCH IN SOCIOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in sociology. Hill.

COURSES IN ACCOUNTING

FOR UNDERGRADUATE CREDIT

(For Econ. 112, see agricultural section.)

133. ACCOUNTING I. 3(2-3); I, II, and SS. Stewart, Letbetter.

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.

134. ACCOUNTING II. 3(2-3); I, II, and SS. Prerequisite: Econ. 133. Stewart, Letbetter.

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 curriculums in Business Administration. Stewart, Letbetter.

Principles of accounting; use of accounting records and statements.

FOR GRADUATE AND UNDERGRADUATE CREDIT

280. VALUATION ACCOUNTING. 3(3-0); I, 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 partnerships, corporations with subsidiaries and branches, companies in financial difficulties, and estates and trusts.

286. TAX ACCOUNTING. 3(3-0); II. Prerequisite: Econ. 280 or concurrent registration. Stewart, Letbetter.

Accounting problems in income, sales, social security, and other taxes.

287. COST ACCOUNTING. 3(3-0); I and SS. Prerequisite: Econ. 134. Stewart, Letbetter.

Allocation of production and distribution costs to determine financial results and guide the management of business enterprises.

288. ADVANCED COST ACCOUNTING. 2(2-0); II. Prerequisite: Econ. 287. Offered in 1941-'42 and alternate years thereafter. Stewart, Letbetter.

289. GOVERNMENTAL ACCOUNTING. 2(2-0); I. Prerequisite: Econ. 280 or 287. Stewart.

Federal, state, and municipal accounts, and accounts for public institutions.

291. AUDITING. 3(3-0); I. Prerequisite: Econ. 280 and permission of instructor. Offered in 1940-'41 and alternate years thereafter. Letbetter.

Audits of accounts of commercial enterprises; attention to balance sheet and detail audits.

292. C. P. A. PROBLEMS. 3(3-0); II. Prerequisite: Permission of instructor. Stewart, Letbetter.

Problems given in various C. P. A. examinations.

293. INSTITUTIONAL ACCOUNTING. 2(1-3); II. Not open to students in curriculums in Business Administration. Stewart.

Accounting principles and their application to cafeteria, lunch and tea rooms, restaurants, dormitories, clubs, and other institutions.

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 BROWN
 Instructor BARE
 Instructor ROSKIE
 Assistant SHIELDS
 Assistant MILLER

The State Board of Education has set up the following standards or their equivalents for certification of high-school teachers:

1. Three-year Certificate Renewable for Life.
 - a. Complete four years of college work with degree.
 - b. At least eighteen hours 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: Extracurricular Activities, Educational Measurements, Curriculum, Statistical Methods Applied to Education, Educational Sociology, Vocational Education, History of Education, Psychology of Childhood and Adolescence, Abnormal Psychology, Mental Tests, Technic of Mental Tests, Social Psychology, Psychology of Art, Psychology of Exceptional Children, and Principles of Guidance.
 - c. Valid in any elementary or high school in Kansas.
2. Certificate for Teachers of Vocational Agriculture.
 - a. Complete four years of college work with degree, including the following:
 - (1) Not fewer than fifty hours in technical or practical agriculture.
 - (2) Not fewer 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 Homemaking.
 - a. Complete four years of college work with degree, including the following:
 - (1) Thirty-four hours in technical 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. Certificate for Teachers of Industrial Arts.
 - a. Complete four years of college work with degree, including the following: Eighteen hours in the Department of Education; three each in General Psychology, Educational Psychology, Educational Sociology, Methods of Teaching Industrial Arts, Teaching Participation in High School, and Educational Administration or Principles of Secondary Education.
 - b. Valid for three years and may be renewed for life.
5. 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 which grants the degree.
6. Any student who wishes to prepare for certification must present a statement from the Department of Student Health which shows that a satisfactory physical examination has been passed.

COURSES IN EDUCATION

FOR UNDERGRADUATE CREDIT

109. EDUCATIONAL PSYCHOLOGY. 3(3-0); I, II, and SS. Prerequisite: Educ. 184 and junior standing. Moggie.

Native equipment of human beings, individual differences, psychology of learning, motivation, and psychology of 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. 111 and 184; open only to students in the curriculums in Music. Hartman.

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: Clo. and Text. 103, Educ. 184, and Food and Nutr. 102 and 107. Rust, Baxter.

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.

134. METHODS OF TEACHING INDUSTRIAL ARTS. 3(1-6); I, II, and SS. Prerequisite: Senior standing and approval of instructor. Wilson.

Methods of teaching, lesson planning, organization of subject matter, and class projects applied to general shop work, woodworking, sheet metal, arc and oxyacetylene welding, machine shop practice, motor mechanics, and other industrial arts subjects.

136. METHODS OF TEACHING AGRICULTURE. 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Davidson.

Lesson plans, organization of materials, and direction of class, laboratory, and field instructional work in vocational agriculture. Individual and class projects are studied, as well as coördination of farm mechanics work.

160. TEACHING PARTICIPATION IN HOME ECONOMICS. 3 hours. I, II, and SS. Prerequisite: Clo. and Text. 103, Educ. 132, and Food and Nutr. 102 and 107, 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

202. EXTRACURRICULAR ACTIVITIES. 3(3-0); 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); 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. 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.

230. PRINCIPLES OF GUIDANCE. 3(3-0); I, II, and SS. Prerequisite: Educ. 210 or 236. 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. Wyckoff.

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 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 standing. Holton.

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 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.

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.

248. PROBLEMS IN EDUCATION. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 184 and approval of instructor. Staff.

Work is offered in:

Educational Administration. Strickland.

Educational Measurement. Strickland.

Educational Psychology. Moggie.

Educational Sociology. Holton.

Extension Education. Gemmell, Fleenor.*

Principles of Guidance. Williams.

Teaching Methods. Strickland.

Statistical Methods Applied to Education. Moggie.

Vocational Education. Williams.

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.

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.

314. PROBLEMS IN ORGANIZATION AND PRESENTATION OF HOME ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing. Justin, Rust.

315. SUPERVISION IN HOME ECONOMICS. 2(2-0); II and SS. 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.

* From the staff of the Department of Home Study.

316. SEMINAR IN HOME ECONOMICS EDUCATION. 3(3-0); II and SS. Prerequisite: Educ. 160 and experience in teaching home economics. Rust and visiting instructors.

Recent trends in home economics education.

325. RESEARCH IN EDUCATION. Credit to be arranged; I and II. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Educational Administration. Strickland.

Educational Measurement. Strickland.

Educational Psychology. Moggie.

Educational Sociology. Holton.

Principles of Guidance. Williams.

Teaching Methods. Strickland.

Statistical Methods Applied to Education. Moggie.

Vocational Education. Williams.

COURSES IN PSYCHOLOGY

FOR UNDERGRADUATE CREDIT

137. INDIVIDUAL PROBLEMS AND PERSONAL ADJUSTMENT. 3(2-3); I and II. Not to be substituted for Educ. 184. Peterson.

Analysis of problems of living and learning in college, with readings and conferences concerning personal adjustments.

184. GENERAL PSYCHOLOGY. 3(3-0); I, II, and SS. Peterson, Alm, Langford. Charge, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

250. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Alm.

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, dementias, 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; 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. 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.

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 and SS. 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 esthetics in pictorial art and music, with special emphasis on the former.

278. **PROBLEMS IN PSYCHOLOGY.** Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Peterson, Alm, Langford.

FOR GRADUATE CREDIT

373. **PSYCHOLOGY OF TEACHING AND LEARNING.** 3(3-0); I and SS. Prerequisite: Educ. 184. Peterson.

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. Staff.

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 which cover 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. **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 GROUP ACTIVITIES.** 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.

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 which offers vocational education; 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.

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.

FOR GRADUATE CREDIT

339. PROBLEMS IN PART-TIME CLASSES. 2(10-0); four-week SS. Prerequisite: Graduate standing and one year's experience teaching vocational agriculture. Davidson, Brown.

Organization, curriculum, and methods of teaching part-time classes, sponsored by national vocational education act. Designed for teachers in service.

340. STATISTICAL METHODS IN AGRICULTURAL EDUCATION. 2(10-0); four-week SS. Prerequisite: Graduate standing. Moggie.

Fundamental statistical technics and interpretation of results; problems encountered in the organization, use, and expression of agricultural data.

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
 Assistant Professor PETERSON
 Instructor LAMAN
 Instructor PEERY
 Instructor BAKER

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.

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.

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.

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. 122. Staff.

215. TECHNICAL REPORTS. 1(1-0); I and II. Prerequisite: Engl. 104. Peterson.

Organization and writing of technical reports, to accompany certain courses in engineering specified by heads of engineering departments.

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. 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. SHORT STORY I. 3(3-0); I. Prerequisite: Engl. 172. Rice.

The world's best short stories; practice in writing sketches and short stories.

230. SHORT STORY II. 3(3-0); II. Prerequisite: Engl. 228. Rice.

Preparation of the short story for publication; the short story in America; types, characteristics, and tendencies.

232. ORAL ENGLISH. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. 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.

247. PROBLEMS IN ENGLISH. Credit to be arranged; I, II, and SS. Prerequisite: Engl. 104. Staff.

Work is offered in:

Chaucer and Shakespeare. Elcock, Sturmer.

Classical Epics. Faulkner.

Midwestern Literature. Callahan.

Modern Drama and Fiction. Conover.

Novel and Short Story. Breeden, Rice.

Old and Middle English. Matthews.

Romantic Revival. Rockey.

Sketch and Column Writing. Davis.

Technical Reports. Peterson.

COURSES IN ENGLISH LITERATURE

FOR UNDERGRADUATE CREDIT

172. ENGLISH LITERATURE. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Staff.

175. AMERICAN LITERATURE. 3(3-0); I, II, and SS. Prerequisite: Engl. 172. Staff.

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. Matthews.

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, Breeden.

268. MIDWESTERN LITERATURE. 3(3-0); I. Prerequisite: Engl. 172. Callahan.

Literature of the Middle West, particularly Kansas and the surrounding territory; its background, authors, and literature since the close of the Civil War.

271. ENGLISH BIBLE. 3(3-0); I, II, and SS. Prerequisite: Engl. 172. Conover, Rockey.

273. SHAKESPEAREAN DRAMA I. 3(3-0); I. Prerequisite: Engl. 172. Conover, Sturmer.

Life and times of Shakespeare; five of Shakespeare's tragedies: Macbeth or Othello, Hamlet, King Lear, Romeo and Juliet, and Coriolanus.

274. SHAKESPEAREAN DRAMA II. 3(3-0); II. Prerequisite: Engl. 172. Conover, Sturmer.

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. 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. WORLD CLASSICS I. 3(3-0); I. Prerequisite: Engl. 172. Faulkner.

Literary masterpieces (in translation) of early times, particularly Greek and Latin classics.

281. WORLD CLASSICS II. 3(3-0); II. Prerequisite: Engl. 172. Faulkner.

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. NOVEL I. 3(3-0); I. Prerequisite: Engl. 172. Breeden.

287. NOVEL II. 3(3-0); II. Prerequisite: Engl. 172. Breeden.

288. ENGLISH SURVEY I. 2(2-0); I. Prerequisite: Engl. 172. Matthews.

History of English literature from Anglo-Saxon times down to the close of the Elizabethan period.

290. ENGLISH SURVEY II. 2(2-0); II. Prerequisite: Engl. 172. Matthews.

Rise of Puritanism and its influence on English literature; classical movement; romanticism and its development.

293. BROWNING AND TENNYSON. 3(3-0); II. Prerequisite: Engl. 172. Rockey.

297. CONTEMPORARY POETRY. 3(3-0); II and SS. Prerequisite: Engl. 172. Davis, Conover.

FOR GRADUATE CREDIT

305. RESEARCH IN ENGLISH. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Chaucer and Shakespeare. Elcock, Sturmer.

Classical Epics. Faulkner.

Midwestern Literature. Callahan.

Modern Drama and Fiction. Conover.

Novel and Short Story. Breeden, Rice.

Old and Middle English. Matthews.

Romantic Revival. Rockey.

Sketch and Column Writing. Davis.

Technical Reports. Peterson.

Entomology

Professor DEAN
 Professor SMITH
 Professor PARKER
 Associate Professor PAINTER
 Assistant Professor BRYSON

Assistant Professor WILBUR
 Assistant LAMERSON
 Assistant FRITZ
 Graduate Assistant CURTISS
 Graduate Assistant GRUNDMAN

FOR UNDERGRADUATE CREDIT

101. GENERAL ENTOMOLOGY. 3(3-0) or 4(3-3); I and II. Smith. Insects and related arthropods in their relations to plants and animals, including man. Students who desire 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); I. 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.

Injurious insects of the vegetable garden, shade trees, flowering and greenhouse plants, deciduous and citrus orchards; methods of control; insecticides.

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, \$1.50.

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, \$1.50.

208. GENERAL APICULTURE. 3(2-3); 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 order 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 I. 3(2-3); I and II. Prerequisite: Ent. 208. Parker.

Requeening; wintering; honey extraction and marketing. Charge, \$1.

230. ADVANCED APICULTURE II. 3(2-3); I and II. Prerequisite: Ent. 208. Parker.

Honey plant and beekeeping regions; swarm control and colony division; queen rearing and introduction; honey production. 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 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: An. Husb. 221 and Ent. 101 (4 hours) or 203. Offered in 1940-'41 and alternate years thereafter. 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.

236. ZOÖLOGY AND ENTOMOLOGY SEMINAR. 1(2-0); I and II. Prerequisite: Consult seminar committee.

238. PROBLEMS IN ENTOMOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Ent. 208 or 217. Staff.

Work is offered in:

Apiculture. Parker.

Economic Entomology. Dean, Painter, Wilbur.

Taxonomy and Morphology. Painter, Wilbur.

240. INSECT PHYSIOLOGY. 3(3-0); II. Prerequisite: Chem. 104 or 110 and Ent. 203. Parker.

Physiology of the cell, respiration, metabolism, reproduction, muscular action, nervous responses, sense organs and senses, circulation, glandular system, metamorphosis, and effects of insecticides.

FOR GRADUATE CREDIT

316. RESEARCH IN ENTOMOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Apiculture. Parker.

Economic Entomology. Dean, Painter, Wilbur.

Taxonomy and Morphology. Painter, Wilbur.

Geology

Professor SPERRY
Assistant Professor BYRNE

Instructor CHELIKOWSKY
Graduate Assistant HARNED

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. Staff.

Structural and dynamic features of the earth; the rock-forming minerals; the rocks and their decay; a short history of the earth. Three or four field trips during the semester. 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 topographic features of North America. Charge, \$1.50.

140. PRINCIPLES OF GEOGRAPHY. 3(3-0); II and SS. Sperry, Byrne.

Introductory course in college geography, emphasizing the relationships between human activities and environment. Charge, \$1.50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. HISTORICAL GEOLOGY. 4(3-3); I and II. Prerequisite: Geol. 102 or 103. Sperry, Byrne.

Physical and biological events through which the earth has gone. Charge, \$1.50.

207. ECONOMIC GEOLOGY. 4(3-3); II. Prerequisite: Chem. 110 and Geol. 203. 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. Sperry, Chelikowsky. 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.

Polarizing microscope used to identify crystal fragments, powders, sediments, and thin sections; optical methods of microscopic research. Charge, \$1.50.

236. SEDIMENTARY PETROLOGY. 5(3-6); I. Prerequisite: Geol. 203 and 209. Sperry.

Mineralogy and origin of soils and other sediments, their transportation, deposition, and transformation. Charge, \$1.50.

241. GEOLOGIC LITERATURE. 3(3-0); I. Prerequisite: Geol. 203 and 209. Staff.

Current geologic literature and history of geology. 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.

256. MICROPALAEONTOLOGY. 3(1-6); I. Prerequisite: Geol. 203 and junior standing. Byrne.

Preparation, identification, and use of microscopic fossils. Charge, \$1.50.

275. PROBLEMS IN GEOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: Geol. 203 and 209. Staff.

Work is offered in:

Mineralogy. Chelikowsky.

Paleontology. Byrne.

Sedimentary Petrology. Sperry.

FOR GRADUATE CREDIT

301. RESEARCH IN GEOLOGY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Mineralogy. Chelikowsky.

Paleontology. Byrne.

Sedimentary Petrology. Sperry.

History and Government

Professor PRICE
Professor ILES
Professor JAMES
Professor CORRELL

Professor PARRISH
Professor WILLIAMS
Associate Professor SAGESER
Assistant Professor ALSOP

COURSES IN HISTORY

FOR UNDERGRADUATE CREDIT

101. ANCIENT CIVILIZATIONS. 3(3-0); I and SS. Parrish.

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.

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.

American history and institutions, 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. Staff.

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. Sageser.

Evolution of industry and commerce from primitive beginnings to present-day organization. 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.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. AMERICAN HISTORY I. 3(3-0); I, II, and SS. Prerequisite: When taken for graduate credit, six hours of college history. Price.

Beginning of American nationality and democracy through the War of 1812, including our industrial, 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, Sageser.

Recent and contemporary problems in American history and government from the Civil War to the present; the new industrial nation.

204. AMERICAN AGRICULTURAL HISTORY. 3(3-0); I. Prerequisite: When taken for graduate credit, six hours of college history. Sageser.

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, including international relations.

225. HISTORY OF THE HOME. 3(3-0); II. Prerequisite: When taken for graduate credit, six hours of college history. Alsop.

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. 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 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 concepts, 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.

236. 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.

270. PROBLEMS IN HISTORY AND GOVERNMENT. Credit to be arranged; I, II, and SS. Prerequisite: When taken for graduate credit, six hours of history and government. Staff.

Work is offered in:

American History. Price, Sageser.

English History. James.

European History. Parrish.

Government and Law. Iles, Williams.

20th Century Europe. Correll.

290. HISTORICAL METHOD AND BIBLIOGRAPHY. 2(2-0); I and SS. Prerequisite: When taken for graduate credit, six hours of college history. Required of graduate majors in history. Sageser.

Survey of historical works; methods in writing history, historical articles, or theses.

FOR GRADUATE CREDIT

301. RESEARCH IN HISTORY. Credit to be arranged; I, II, and SS. Prerequisite: Hist. 290 or concurrent registration, and at least two courses in this department. Staff.

Work is offered in:

American History. Price, Sageser.

English History. James.

European History. Parrish.

20th Century Europe. Correll.

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. BUSINESS LAW I. 3(3-0); I. Williams.

Contracts, agency, and sales.

164. BUSINESS LAW II. 3(3-0); II. Williams.

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 1941-'42 and 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.

253. CITY GOVERNMENT. 3(3-0); II. Prerequisite: Junior standing; when taken for graduate credit, six hours of history and government. Iles, Williams.

Government and administration of American cities.

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 which affect 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 1940-'41 and 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: At least two courses in this department. Staff.

Work is offered in:

Government. Iles.

Law. Williams.

Industrial Journalism and Printing

Professor ROGERS
 Professor KEITH
 Associate Professor AMOS
 Associate Professor HOSTETTER

Associate Professor LASHBROOK
 Assistant Professor KRIEGHBAUM
 Assistant Professor DAVIDSON
 Instructor DITTEMORE

All students enrolled in the curriculum in Industrial Journalism and all other students who take courses designated "Journalism fee charged," pay a charge of \$1.50 a semester. Only one journalism fee is charged a student in a semester.

To be classified as "professionals," students in the curriculum in Industrial Journalism must attain a typing speed of thirty words a minute.

COURSES IN PRINTING

FOR UNDERGRADUATE CREDIT

101. PRINCIPLES OF TYPOGRAPHY. 3(2-3); I and II. Prerequisite: Ind. Jour. 140 or sophomore classification. Amos.

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. AD COMPOSITION I. 2(0-6); I and II. Prerequisite: Ind. Jour. 101. Amos.

Principles of display and design as applied to advertisements. Journalism fee charged.

111. AD COMPOSITION II. 2(0-6); I and II. Prerequisite: Ind. Jour. 108. Amos.

Continuation of Ind. Jour. 108. Journalism fee charged.

112. AD COMPOSITION III. 2(0-6); I and II. Prerequisite: Ind. Jour. 111. Amos.

Continuation of Ind. Jour. 111. Journalism fee charged.

114. JOB COMPOSITION I. 2(0-6); I and II. Prerequisite: Ind. Jour. 101. Amos.

Differences in requirements for job composition and ad composition. Journalism fee charged.

118. JOB COMPOSITION II. 2(0-6); I and II. Prerequisite: Ind. Jour. 114. Amos.

Color work, tabular forms, and other job work. Journalism fee charged.

120. JOB COMPOSITION III. 2(0-6); I and II. Prerequisite: Ind. Jour. 118. Amos.

Continuation of Ind. Jour. 118. Journalism fee charged.

122. PRESS WORK I. 2(0-6); I and II. Prerequisite: Ind. Jour. 108 or 114. Amos.

Practical platen presswork under ordinary printing-office conditions. Journalism fee charged.

126. PRESS WORK II. 2(0-6); I and II. Prerequisite: Ind. Jour. 122. Amos.
 Continuation of Ind. Jour. 122; 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, Krieghbaum.

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, Krieghbaum.

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. Lashbrook, Dittmore. 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. Lashbrook.

Preparation and broadcasting of radio news.

164. INDUSTRIAL WRITING. 3(3-0); I and II. Prerequisite: Ind. Jour. 152. Hostetter, Krieghbaum.

Principles of journalism in the treatment of industrial subjects. Journalism fee charged.

167. INDUSTRIAL FEATURE WRITING. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 164 and permission of instructor. For "professionals" only. Krieghbaum.

Feature articles; underlying principles applied to writing on agricultural and other industrial subjects. Journalism fee charged.

172. JOURNALISM FOR WOMEN. 2(2-0); II and SS. 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 students in curriculum in Industrial Journalism, Ind. Jour. 164; for students in the curriculum in Business Administration, 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. 162. 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. RURAL PRESS. 2(2-0); I and II. Prerequisite: Ind. Jour. 152. Lashbrook.

Community newspapers; emphasis on presentation of agriculture and rural life. Journalism fee charged.

183. NEWS BUREAU METHODS. 2(2-0); I. Prerequisite: Ind. Jour. 152. Lashbrook. 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. Journalism fee charged.

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. LANGUAGE OF JOURNALISM. 2(2-0); II. Prerequisite: Ind. Jour. 164 or permission of instructor. Nock.

Nature and development of the English language, uses of language, words and meaning, jargon. Journalism fee charged.

254. COPY READING. 2(0-6); I, II, and SS. Prerequisite: Ind. Jour. 164. Lashbrook, Krieghbaum. Journalism fee charged.

255. CONTEMPORARY THOUGHT. 3(3-0); II. Prerequisite: For students in curriculum in Industrial Journalism, Ind. Jour. 254 and permission of instructor; for others, Econ. 101. For "professionals" only. 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); II. Prerequisite: Ind. Jour. 254 and permission of instructor. For "professionals" only. Hostetter.

Writing of editorials suitable for farm papers, trade papers, and newspapers; shaping of editorial policies. Journalism fee charged.

265. MATERIALS OF JOURNALISM. 2(2-0); I. Prerequisite: Ind. Jour. 254. Hostetter.

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 students in curriculum in Industrial Journalism, Ind. Jour. 167; for others, Engl. 104. Rogers.

Contents of the course varied to suit the needs and desires of the students, emphasis 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); I. 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.

282. COLUMN CONDUCTING. 2(2-0); II. Prerequisite: Engl. 104. Davis.

285. CONTEMPORARY AFFAIRS. 2(2-0); II. Prerequisite: Ind. Jour. 164 or permission of instructor. Concurrent registration with Hist. 126 not permitted. Krieghbaum.

Contemporary news events and their background. Journalism fee charged.

287. CURRENT PERIODICALS. 3(3-0); II. Prerequisite: Engl. 104. Hostetter.

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.

295. PROBLEMS IN INDUSTRIAL JOURNALISM. Credit to be arranged; I, II, and SS. Prerequisite: Permission of instructor. Staff.

Work is offered in:

Advertising. Keith.

Agriculture. Lashbrook.

Contemporary affairs. Krieghbaum.

Current newspapers and periodicals. Hostetter.

High-school journalism. Rogers.

History and ethics. Rogers.

Home economics. Hostetter.

News photography. Lashbrook.

Radio. Lashbrook.

Science. Krieghbaum.

FOR GRADUATE CREDIT

351. RESEARCH IN INDUSTRIAL JOURNALISM. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Advertising. Keith.

Agriculture. Lashbrook.

Contemporary affairs. Krieghbaum.

Current newspapers and periodicals. Hostetter.

High-school journalism. Rogers.

History and ethics. Rogers

Home economics. Hostetter.

News photography. Lashbrook.

Radio. Lashbrook.

Science. Krieghbaum.

Library Economics

Associate Librarian DERBY
Reference Librarian DAVIS

Assistant Reference Librarian SWENSON

FOR UNDERGRADUATE CREDIT

101. LIBRARY METHODS. 1(1-0); I and II. Derby, Davis, Swenson.

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
Assistant Professor SIGLEY
Instructor RAWHOUSER
Instructor SHOBE
Instructor HADLEY
Instructor CARLSON

FOR UNDERGRADUATE CREDIT

101. PLANE TRIGONOMETRY. 3(3-0); I, II, and SS. Prerequisite: Plane geometry and one and one-half units of high-school algebra. Staff.

102. SOLID GEOMETRY. 2(2-0); I, II, and SS. Prerequisite: Plane geometry and one unit of high-school algebra. Staff.

104. COLLEGE ALGEBRA. 3(3-0); I, II, and SS. Prerequisite: Plane geometry and one and one-half units of high-school algebra. Staff.

107. COLLEGE ALGEBRA A. 5(5-0); I, II, and SS. Prerequisite: Plane geometry and one unit of high-school algebra. Staff.

The third semester of high-school algebra and the chief content of Math. 104.

108. GENERAL ALGEBRA. 5(5-0); I, II, and SS. Prerequisite: Plane geometry and one unit of high-school algebra. Not open to students with credit in Math. 104 or 107. For students in the curriculums in Business Administration and Agricultural Administration. Staff.

110. PLANE ANALYTIC GEOMETRY. 4(4-0); I, II, and SS. Prerequisite: Math. 101 and 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); II. 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.

121. DIFFERENTIAL EQUATIONS FOR ENGINEERS. 2(2-0); I, II, and SS. Prerequisite: Math. 115. Stratton, White, Sigley.

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, White, Munro.

202. HIGHER ALGEBRA. 3(3-0); I, II, and SS. Prerequisite: Math. 115. Stratton, Munro, Sigley.

Material selected from Bocher's Higher Algebra.

203. STATISTICS. 3(3-0); II. Prerequisite: Math. 126. 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 ANALYTIC 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, Janes, Sigley.

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. Babcock.

Determinants and matrices; infinite series; Fourier's series; multiple, line, and improper integrals; elliptic integrals.

232. SURVEY OF APPLIED MATHEMATICS II. 3(3-0); II. Prerequisite: Math. 115. Babcock.

Continuation of Math. 231, including ordinary and partial differential equations; vector analysis; probability; curve fitting.

299. TOPICS IN MATHEMATICS. Credit to be arranged; I, II, and SS. Prerequisite: Math. 115. Staff.

Work is offered in:

Analysis. Stratton, White, Sigley.

Applied Mathematics. Babcock.

Differential Equations. Munro.

Geometry. Stratton, Janes.

Statistics. White.

FOR GRADUATE CREDIT

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. Sigley.
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, II, and SS. Prerequisite: At least two courses in this department subsequent to Math. 115. Staff.

Work is offered in:

Analysis. Stratton, White, Sigley.

Applied Mathematics. Babcock.

Differential Equations. Munro.

Geometry. Stratton, Janes.

Statistics. White.

Military Science and Tactics

Professor MCKINNEY, Lieut. Colonel, Inf., U. S. A.
Associate Professor MARTIN, Major, Inf., U. S. A.
Associate Professor CAMPBELL, Major, Inf., U. S. A.
Associate Professor BROWN, Major, Inf., U. S. A.
Associate Professor MACKIRDY, Major, CAC., U. S. A.
Associate Professor HOLMES, Major, Inf., U. S. A.
Assistant Professor ALDRICH, Captain, CAC., U. S. A.
Assistant Professor FRANK, CAC., U. S. A.
Assistant WILLIAMS, Staff Sergeant, D. E. M. L., U. S. A.
Assistant LARSON, Staff Sergeant, D. E. M. L., U. S. A.
Assistant WILSON, Staff Sergeant, D. E. M. L., U. S. A.
Assistant 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 who enter with 25 hours of advanced credit are excused from the second year of military training; those who enter 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 who have received previous military training in a junior division unit or in a school or college which conducts military training under an officer of the Army of the United States detailed as professor of military science and tactics, will receive such credit toward eligibility for the advanced course as the professor of military science and tactics and the head of the institution may determine. Credit shall be given only for time during which the student has received a course of military training substantially equivalent to that prescribed for the corresponding period or periods of training of the senior division. Credit will not be given to a student for military training received prior to his fourteenth birthday.

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 in these classes will be furnished a complete uniform and equipment for his use in 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. Brown or tan shoes of smooth leather must be worn with the uniform. If low shoes are worn, brown or tan socks must be worn with them.

To insure the return of this uniform, a deposit of \$5 is required of each basic-course student. The deposit will be refunded when the complete uniform is returned to the department in good condition.

In case any article of clothing is lost or because of carelessness or improper use becomes unfit for reissue or requires repairs, the student to whom it was issued must pay the cost of replacement or of repairs. In any 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 regular second lieutenant in the Army of the United States.

The corps of cadets at present is organized as one regiment with a military band.

FOR UNDERGRADUATE CREDIT

Senior Division, R. O. T. C.

BASIC COURSE, INFANTRY

(For students not in the Division of Engineering and Architecture or in the curriculums in Industrial Chemistry and Milling Industry.)

101. INFANTRY I. 1(1-2); I. Staff.

Leadership; orientation in military fundamentals; military discipline, courtesies and customs of the service; military sanitation and first aid; general military organization; weapons.

102. INFANTRY II. 1(1-2); II. Prerequisite: Mil. Sc. 101. Staff.

Leadership; military organization; map reading; weapons.

103. INFANTRY III. 1(1-2); I. Prerequisite: Mil. Sc. 102. Brown.

Leadership; weapons; musketry.

104. INFANTRY IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 103. Brown.

Leadership; scouting and patrolling; combat principles.

ADVANCED COURSE, INFANTRY

(For students not in the Division of Engineering and Architecture or in the curriculums in Industrial Chemistry and Milling Industry.)

109. INFANTRY V. 3(2-3); I. Prerequisite: Mil. Sc. 104. Campbell.

Leadership; aerial photograph reading; combat orders; defense against chemical warfare; administration; care and operation of motor vehicles.

110. INFANTRY VI. 3(2-3); II. Prerequisite: Mil. Sc. 109. Campbell.

Leadership; weapons; marksmanship.

111. INFANTRY VII. 3(2-3); I. Prerequisite: Mil. Sc. 110. Martin.

Leadership; military history and policy; military law; property, emergency procurement and funds; mechanization; tanks; infantry signal communications; combat training; anti-aircraft defense.

112. INFANTRY VIII. 3(2-3); II. Prerequisite: Mil. Sc. 111. Martin.

Leadership; combat orders; anti-tank defense; attack, defense and security; combat intelligence.

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 Leavenworth, Kansas.

BASIC COURSE, COAST ARTILLERY

(For students in the Division of Engineering and Architecture and in the curriculums in Industrial Chemistry and Milling Industry.)

113. ARTILLERY I. 1(1-2); I. Aldrich, Frank.

Leadership; military fundamentals; military sanitation and first aid; map reading; coast artillery weapons and matériel; rifle marksmanship.

114. ARTILLERY II. 1(1-2); II. Prerequisite: Mil. Sc. 113. Aldrich, Frank.

Leadership; organization of the army; organization of the coast artillery; military discipline, courtesies and customs of the service; military sanitation and first aid; map reading; coast artillery ammunition, weapons, and matériel.

115. ARTILLERY III. 1(1-2); I and II. Prerequisite: Mil. Sc. 114. MacKirdy, Aldrich.

Leadership; coast artillery weapons and matériel; fire-control and position-finding for seacoast artillery; basic gunnery for anti-aircraft artillery; characteristics of naval targets; rigging.

116. ARTILLERY IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 115. MacKirdy, Aldrich.

Leadership; coast artillery weapons and matériel; basic gunnery; fire-control and position-finding for anti-aircraft artillery; identification of aircraft; operation and maintenance of coast artillery motor transportation.

ADVANCED COURSE, COAST ARTILLERY

(For students in the Division of Engineering and Architecture and in the curriculums in Industrial Chemistry and Milling Industry.)

117. ARTILLERY V. 3(2-3); I. Prerequisite: Mil. Sc. 116. Frank.

Leadership; administration; aerial photograph reading; defense against chemical warfare; applied gunnery, fire-control and position-finding for seacoast artillery; coast artillery signal communications; orientation.

118. ARTILLERY VI. 3(2-3); II. Prerequisite: Mil. Sc. 117. Frank.

Leadership; basic and applied gunnery, fire-control and position-finding for anti-aircraft artillery; rifle and pistol marksmanship.

119. ARTILLERY VII. 3(2-3); I. Prerequisite: Mil. Sc. 118. MacKirdy.

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. MacKirdy.

Leadership; property, emergency procurement, and funds; military history and policy; combat orders and solution of map problems; technic and elementary tactics for anti-aircraft artillery; mechanization; Officers' Reserve Corps.

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, Illinois.

Modern Languages

Professor MOORE
Professor LIMPER
Associate Professor CRITTENDEN

Associate Professor PETTIS
Assistant Professor TOWNSEND

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.

FOR UNDERGRADUATE CREDIT

101. GERMAN I. 3(3-0); I, II, and SS. Moore, Limper.

102. GERMAN II. 3(3-0); I, II, and SS. Prerequisite: 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.

138. ADVANCED SCIENTIFIC GERMAN. 2(2-0); II. Prerequisite: Mod. Lang. 137. Moore.

151. FRENCH I. 3(3-0); I, II, and SS. Limper, Pettis, Townsend.

152. FRENCH II. 3(3-0); I, II, and SS. Prerequisite: 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 CONVENTION. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 162. Pettis.

176. SPANISH I. 3(3-0); I, II, and SS. Moore, Crittenden, Townsend.

177. SPANISH II. 3(3-0); I, II, and SS. Prerequisite: 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

209. SCHILLER. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 112 or equivalent. Moore, Limper.

213. GOETHE. 3(3-0); I or II. Prerequisite: Mod. Lang. 112 or equivalent. Moore.

215. GERMAN DRAMA. 3(3-0); I or II. Prerequisite: Eighteen hours of college German or equivalent. Moore.

252. FRENCH PROSE. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 162 or equivalent. Limper, Pettis.

257. SEVENTEENTH CENTURY FRENCH DRAMA. 3(3-0); I or II. Prerequisite: Fifteen hours of college French or equivalent. Pettis.

258. MODERN FRENCH DRAMA. 3(3-0); I or II. Prerequisite: Fifteen hours of college French or equivalent. Pettis.

275. SPANISH PROSE. 3(3-0); I and II. Prerequisite: Mod. Lang. 181. Crittenden, Townsend.

280. SPANISH DRAMA. 3(3-0); II. Prerequisite: Mod. Lang. 181. Crittenden, Townsend.

282. SPANISH-AMERICAN LITERATURE. 3(3-0); I or II. Prerequisite: Fifteen hours of college Spanish or equivalent. Townsend.

299. PROBLEMS IN MODERN LANGUAGES. Credit to be arranged; I, II, and SS. Prerequisite: When taken for graduate credit, nine hours of modern languages. Staff.

Work is offered in:

French. Limper, Pettis.

German. Moore, Limper.

Spanish. Crittenden, Townsend.

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 MORRISON

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 musical 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 technic 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.

COURSES IN THE THEORY OF MUSIC

FOR UNDERGRADUATE CREDIT

101. HARMONY I. 2(3-0); I, II, and SS. Prerequisite: Mus. 118 or equivalent. Stratton, Jesson.

Major and minor scales; intervals; primary triads and their inversions; dominant seventh and its inversions; harmonizing melodies and basses.

102. HARMONY II. 2(3-0); I, II, and SS. Prerequisite: Mus. 101. Stratton, Jesson.

Subordinate triads and their sevenths in progressions and inversions; elementary modulation; original exercises.

103. HARMONY III. 2(3-0); I and SS. Prerequisite: Mus. 102. Stratton, Jesson.

Modulation completed; altered and mixed chords; embellishments.

104. HARMONY IV. 2(3-0); II and SS. Prerequisite: Mus. 103. Stratton, Jesson.

Works of the masters; writing of original exercises and small compositions.

105. EAR TRAINING AND SIGHT SINGING I. 2(1-3); I. Hartman.

Reading and hearing of intervals, chords, and rhythmical forms.

106. EAR TRAINING AND SIGHT SINGING II. 2(1-3); II. Prerequisite: Mus. 105. Hartman.

Continuation of Mus. 105.

107. EAR TRAINING AND SIGHT SINGING III. 2(1-3); I. Prerequisite: Mus. 106. Hartman.

Continuation of Mus. 106.

108. EAR TRAINING AND SIGHT SINGING IV. 2(1-3); II. Prerequisite: Mus. 107. Hartman.

Continuation of Mus. 107.

108A. COUNTERPOINT. 2(2-0); I, II, and SS. Prerequisite: Mus. 104. Stratton.

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 PROGRAMS. 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.

Elementary instruction in the theory of music.

119. BROADCAST MUSICAL PROGRAMS. 2(3-0); I, II, and SS. Prerequisite: Pub. Spk. 162 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. HISTORY AND APPRECIATION OF MUSIC I. 2(3-0); I 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.

131. HISTORY AND APPRECIATION OF MUSIC II. 2(3-0); II and SS. Prerequisite: Mus. 130 or equivalent. Lindquist.

Continuation of Mus. 130.

133. CHORAL CONDUCTING. 1(2-0); I, II, and SS. Prerequisite: Mus. 118 or equivalent. Lindquist.

134. INSTRUMENTAL CONDUCTING. 1(2-0); I, II, and SS. Prerequisite: Mus. 104 and 133. Downey.

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. SCHOOL MUSIC I. 2(2-0); I and SS. Prerequisite: Mus. 106. Hartman.
Methods and materials for teaching music in kindergarten and primary grades. Adaptation is made in summer school to meet the needs of rural and smaller city schools. Prerequisite waived for non-music students, but recommended as parallel non-credit courses for those taking Mus. 138 and 139.

139. SCHOOL MUSIC II. 2(2-0); II and SS. Prerequisite: Mus. 138. Hartman.

Methods and materials for teaching music in 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 outlining of courses of study. For students in the curriculum in Applied Music; taught in separate divisions for voice, piano, organ, violin.

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, maximum of 32 hours allowed; I, II, and SS. Downey, Martin. For fees, see table following Mus. 198.

156. VOICE. 0 to 4 hours, maximum of 32 hours allowed; I, II, and SS. Lindquist, Sayre, Grossmann. For fees, see table following Mus. 198.

158. VIOLIN. 0 to 4 hours, maximum of 32 hours allowed; I, II, and SS. Martin. For fees, see table following Mus. 198.

161. PIANO. 0 to 4 hours, maximum of 32 hours allowed; I, II, and SS. Staff. For fees, see table following Mus. 198.

163. VIOLONCELLO. 0 to 4 hours, maximum of 32 hours allowed; I, II, and SS. Downey. For fees, see table following Mus. 198.

167. DOUBLE BASS. 0 to 4 hours, maximum of 32 hours allowed; I, II, and SS. Downey. For fees, see table following Mus. 198.

172. ORGAN. 0 to 4 hours, maximum of 32 hours allowed; I, II, and SS. Jesson. For fees, see table following Mus. 198.

174. VOCAL ENSEMBLE. R(0-2); I, II, and SS. Elective for students of superior vocal talent. Lindquist, Sayre, Grossmann. Fee, \$2.

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). Staff.

A joint solo recital appearance in Recital IV, and an individual solo recital in Recital VI.

183. ENSEMBLE. $\frac{1}{2}$ (0-2); I and II. Staff.

Required ensemble work may be taken in Choral Ensemble (Mus. 194); Orchestra (Mus. 195); or Band (Mus. 198).

187. PRACTICE TEACHING IN MUSIC. R(1-0); II. Staff.

Practice teaching in private classes for students in the curriculum in Applied Music.

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.

194. CHORAL ENSEMBLE. $\frac{1}{2}$ (0-2); I and II. 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.

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

Associate Professor WILLIAMSON

Associate Professor HAYLETT

Assistant Professor GEYER

Assistant Professor MAYTUM

Assistant Professor MOLL

Assistant Professor GARDNER

Instructor PATTERSON

Instructor THOMPSON

Instructor COCHRANE

Instructor BOZENHARD

Assistant MYERS

Assistant NEWMAN

Each student receives a physical examination before enrollment in courses in this department. Transfer students who enter this College with 15, 25, 44, or 59 hours of credit are excused from one, two, three, or four semesters, respectively, of Phys. Ed. 103 or 151.

COURSES IN PHYSICAL EDUCATION FOR MEN

FOR UNDERGRADUATE CREDIT

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. PHYSICAL EDUCATION M. R(0-2); I, II, and SS. Staff. Deposit.

Activities offered: Boxing, corrective gymnastics, floorwork, golf, handball, swimming, tennis, and wrestling.

107. INTRODUCTION TO PHYSICAL EDUCATION. 1(1-0); I. Washburn.

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. 123. Moll.

118. COMMUNITY HEALTH. 1(1-0); SS. Washburn.

Water supply; sewage disposal; milk, food, and general sanitation.

119. PERSONAL HYGIENE. 2(2-0); I and SS. Moll.

* Fees for children.

† Student assistant fees.

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. 123 and 221. 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. Gardner.
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.
134. PRACTICE TEACHING IN PHYSICAL EDUCATION. 1(0-3) or 2(0-6); I and II. Prerequisite: Junior standing. Total credit allowed, four hours. Washburn.
Supervised students assist in physical education classes, and officiate in intramural games. 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. 123. Thompson.
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.
143. HISTORY OF PHYSICAL EDUCATION. 2(2-0); I. Prerequisite: Phys. Ed. 107. Moll.
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.
147. COMMUNITY HYGIENE. 2(2-0); I. Prerequisite: Bact. 101 and Phys. Ed. 119. Moll.
Production, improvement, maintenance, and defense of public health.
149. TEACHING HEALTH. 2(2-0); I. Prerequisite: Phys. Ed. 119, Zoöl. 123 and 221. Moll.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. COMMUNITY RECREATION. 2(2-0); II and SS. Prerequisite: Phys. Ed. 145. Washburn.

FOR GRADUATE CREDIT

301. PROBLEMS IN PHYSICAL EDUCATION. Credit to be arranged. Prerequisite: Variable, depending upon problem chosen. Washburn.

COURSES IN PHYSICAL EDUCATION FOR 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. A refund of 50 cents, each semester, is made upon return of locker 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.

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.

FOR UNDERGRADUATE CREDIT

151. PHYSICAL EDUCATION W. R(0-3); I, II, and SS. Staff.

Activities offered: Archery, baseball, basketball, boxing, fieldball, golf, hockey, individual and Danish gymnastics, recreational sports, soccer, swimming, and tennis.

155. FUNDAMENTAL RHYTHM. 1(0-3); I. Bozenhard.

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: Knowledge of Danish gymnastics, tennis, and golf. Geyer.

Methods of teaching Danish gymnastics, tennis, and golf. Deposit.

157F. GENERAL TECHNIC VI. 2(0-6); II. Prerequisite: Phys. Ed. 155 and one-half semester each of folk dancing and tap dancing. Maytum.

Methods of teaching child rhythms and folk dancing. Deposit.

157G. GENERAL TECHNIC VII. 2(1-3); I. Prerequisite: A semester each of beginning and intermediate dancing. Bozenhard.

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.

159. FIRST-AID. 2(2-0); SS.

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. Saum.

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.

165. TUMBLING, PYRAMIDS, AND STUNTS W. 1(0-3); SS.

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. Maytum.

Methods of teaching games in public schools, suitable for recess, noon, and after-school periods. Deposit.

171. HEALTH EXAMINATIONS W. 2(0-6); I. Prerequisite: Phys. Ed. 184 and Zoöl. 123 and 221. 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. 123. 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. Maytum.

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.

Mechanics of movement; 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, 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.

192. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. 3(3-0); II. Prerequisite: Sophomore standing. Maytum.

Physical education from ancient to modern times; aims and ideals of physical education and its relations to general education.

Physics

Professor CARDWELL
 Professor RABURN
 Professor FLOYD
 Professor McMILLEN
 Associate Professor BRACKETT
 Associate Professor LYON

Associate Professor CHAPIN
 Associate Professor ALLEN
 Assistant Professor HARTEL
 Assistant Professor MAXWELL
 Assistant Professor AVERY
 Assistant Professor HUDIBURG

FOR UNDERGRADUATE CREDIT

102. GENERAL PHYSICS I. 4(3-3); I, II, and SS. Prerequisite: Math. 101. Not open for full credit to students who have credit in Phys. 109 or 136. Staff. Mechanics, heat, and sound. Charge, \$3.

103. GENERAL PHYSICS II. 4(3-3); I, II, and SS. Prerequisite: Phys. 102 or 136. Not open for full credit to students who have credit in Phys. 109 or 136. Staff.

Magnetism, electricity, and light. Charge, \$3.

105. ENGINEERING PHYSICS I. 5(4-3); I, II, and SS. Prerequisite: Math. 101. Not open for full credit to students who have credit in Phys. 102, 103, 109, or 136. Staff.

Mechanics, heat, and sound for technical students. Charge, \$3.

106. ENGINEERING PHYSICS II. 5(4-3); I, II, and SS. Prerequisite: Phys. 105. Not open for full credit to students who have credit in Phys. 102, 103, 109, or 136. Staff.

Magnetism, electricity, and light for technical students. Charge, \$3.

109. HOUSEHOLD PHYSICS. 4(3-3); I, II, and SS. 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. 102. Floyd, Chapin.

Selected topics applied to the physics of music and musical instruments. Charge, \$3.

122. PHYSICS FOR MUSICIANS II. 3(3-0); II. Prerequisite: Phys. 102, 105, or 121. Floyd, Chapin.

Sound from the musician's point of view.

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.

Nonmathematical explanations and experimental demonstrations of selected principles in physics.

141. DESCRIPTIVE ASTRONOMY. 3(3-0); I and II. Hartel.

146. METEOROLOGY. 3(3-0); I and II. Raburn, Hudiburg.

Weather phenomena and principles of forecasting; climatic factors; relation of weather studies to agriculture, general science, and physiography.

151. PHOTOGRAPHY. 2(1-3); I and II. Hudiburg.

Chemical and physical principles involved in photography; practice in making good negatives and prints. Deposit, \$6.

160. INTRODUCTION TO MODERN PHYSICS. 2(2-0); I, II, and SS. Prerequisite: A course in physics and in chemistry. Cardwell, Brackett, Lyon.

Nonmathematical 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.

Glass blowing and shopwork 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. McMillen, Hudiburg.

Radiology, theory of short waves and of the equipment used in production; use and operation of X-ray equipment; exposures and development of X-ray plates and films. Charge, \$3.

210. ASTRONOMY. 3(3-0); I or II. Prerequisite: Math. 115 and Phys. 103 or 106, 141. Babcock.

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, radio-active, 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: Chem. 104 or 110 and Phys. 103 or 106. McMillen.

Spectrographic methods for detecting, qualitatively and quantitatively, chemical constituents of minerals, metals, and biological specimens. Charge, \$3.

227. MECHANICS. 3(3-0); I. Prerequisite: Math. 115 and Phys. 102 or 105. Cardwell, McMillen.

Theoretical mechanics by methods of the calculus with an introduction to generalized coördinates.

228. MECHANICS LABORATORY. 1(0-3) or 2(0-6); I. Prerequisite: Phys. 227 or concurrent registration. Cardwell, McMillen. Charge, \$3.

238. HEAT. 3(3-0); I. Prerequisite: Math. 115 and Phys. 103 or 106. Cardwell, Chapin.

239. HEAT LABORATORY. 1(0-3); I. Prerequisite: Phys. 238 or concurrent registration. Chapin. Charge, \$3.

240. SOUND. 3(3-0); I and SS. Prerequisite: Math. 115 and Phys. 102 or 105. Floyd, Chapin.

243. LIGHT. 3(3-0); II. Prerequisite: Math. 114 and Phys. 103 or 106. Cardwell, Chapin.

244. LIGHT LABORATORY. 1(0-3); II. Prerequisite: Phys. 243 or concurrent registration. Cardwell, Chapin. Charge, \$3.

251. ELECTRICITY AND MAGNETISM. 3(3-0); I or II. Prerequisite: Math. 115 and Phys. 103 or 106. 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. 251 or concurrent registration. Lyon. Charge, \$3.

265. ELECTRIC OSCILLATIONS AND WAVES. 3(3-0); II. Prerequisite: Phys. 251. 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: Math. 115 and Phys. 103 or 106. 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: Math. 115 and Phys. 103 or 106. Cardwell, McMillen, Lyon.

Contemporary theories and problems.

297. PROBLEMS IN PHYSICS. Credit to be arranged; I, II, and SS. Prerequisite: Phys. 103 or 106. Staff.

Work is offered in:

Electricity. Lyon, Allen.

Electronics. Cardwell.

Sound. Floyd, Chapin.

Spectroscopy. McMillen.

299. COLLOQUIUM IN PHYSICS. R; I and II. Required of graduate majors and senior undergraduate majors. Staff.

FOR GRADUATE CREDIT

302. INTRODUCTION TO THEORETICAL PHYSICS I. 3(3-0). Prerequisite: Math. 201 and Phys. 227. Cardwell, McMillen.

303. INTRODUCTION TO THEORETICAL PHYSICS II. 3(3-0). Prerequisite: Phys. 302. Cardwell, McMillen.

A continuation of Phys. 302.

305. QUANTUM AND WAVE MECHANICS. 3(3-0). Prerequisite: Math. 201 and Phys. 103 or 106. McMillen.

310. GENERAL THERMODYNAMICS. 3(3-0). Prerequisite: Math. 201 and Phys. 238. Cardwell, Chapin.

313. KINETIC THEORY OF GASES. 3(3-0). Prerequisite: Math. 201 and Phys. 238. Raburn, Floyd.

315. VECTOR MECHANICS. 3(3-0). Prerequisite: Math. 230. Babcock.

317. X RAY. 3(3-0); I, II, and SS. Prerequisite: Math. 201 and Phys. 103 or 106. Allen.

390. RESEARCH IN PHYSICS. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Electricity. Lyon, Allen.

Electronics. Cardwell.

Sound. Floyd, Chapin.

Spectroscopy. McMillen.

Public Speaking

Professor HILL
Professor SUMMERS
Associate Professor HEBERER

Associate Professor TROUTMAN
Instructor WEBSTER
Instructor ELLIOTT

All students who take courses designated "Radio fee charged," pay a charge of \$2 a semester. Only one radio fee is charged a student in a given semester.

FOR UNDERGRADUATE CREDIT

101. ORAL INTERPRETATION. 2(2-0); I, II, and SS. Hill, Elliott.

Attainment of some proficiency in the art of reading aloud. Charge, \$1.

102. DRAMATIC READING. 2(2-0); II. Prerequisite: Pub. Spk. 101. Troutman, Elliott.

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.
107. PUBLIC SPEAKING. 2(2-0); I, II, and SS. Prerequisite: Junior standing. Staff.
Practical public speaking of the extempore type. Charge, \$1.
108. EXTEMPORE SPEECH II. 2(2-0); I, II, and SS. Prerequisite: Pub. Spk. 106 or 107. Staff.
Pub. Spk. 106 continued, with special attention to illustrative material.
110. ELEMENTS OF PHONETICS. 2(2-0); I. Elliott. Charge, \$1.
121. ARGUMENTATION AND DEBATE. 2(2-0); II. Prerequisite: Pub. Spk. 106 or 107. Summers, Webster.
123. INTERCOLLEGIATE DEBATE I. 2(2-0); I and II. Prerequisite: Pub. Spk. 121. Summers, Webster.
Open only to members of the intercollegiate debate squads.
124. INTERCOLLEGIATE DEBATE II. 2(2-0); I and II. Prerequisite: Pub. Spk. 123. Summers, Webster.
Open only to members of the intercollegiate debate squads.
126. PARLIAMENTARY PROCEDURE. 1(1-0); II. Hill, Summers.
138. PUBLIC SPEAKING FOR TEACHERS. 1(1-0); II and SS. Hill, Troutman.
142. ORATORICAL CONTEST. 2(-); I and II. Hill.
144. DRAMATIC PARTICIPATION. 1(0-3) or 2(0-6); I, II, and SS. Prerequisite: Junior standing. Heberer.
150. DEVELOPMENT OF THE THEATER I. 2(2-0); I. Heberer, Troutman.
The theater to the end of the nineteenth century.
152. DEVELOPMENT OF THE THEATER II. 2(2-0); II. Heberer, Troutman.
The modern and the contemporary theater.
162. SURVEY OF BROADCASTING. 1(1-0); I and II. Prerequisite: Pub. Spk. 106 or 107. Summers.
Survey of radio industry; social importance of broadcasting. Radio fee charged.
163. BROADCASTING INFORMATIVE PROGRAMS. 2(2-0); I and II. Prerequisite: Pub. Spk. 106 or 107. Summers.
Radio fee charged.
166. RADIO SPEECH. 1(0-3); I and II. Prerequisite: Permission of instructor. Summers.
Training in voice and diction for broadcasting. Radio fee charged.
168. RADIO PROGRAM PARTICIPATION. 1(0-3); I and II. Prerequisite: Pub. Spk. 163. May not be taken for more than four semesters for credit. Summers, Webster. Radio fee charged.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. ADVANCED PHONETICS. 4(3-3); II. Prerequisite: Pub. Spk. 101, 106, 107, and 110. Elliott.
207. DRAMATIC PRODUCTION I. 2(1-3); I, II, and SS. Prerequisite: Pub. Spk. 102. Heberer.
Theory of and practice in fundamentals of acting and direction. Charge, \$1.
208. DRAMATIC PRODUCTION II. 2(0-6); I, II, and SS. Prerequisite: Pub. Spk. 207. Heberer.
Projects in direction and stagecraft. Charge, \$1.
222. ADVANCED DEBATE. 2(2-0); I. Prerequisite: Pub. Spk. 121. Summers.
Advanced study of and participation in the methods of persuasion in public discussion.

225. PUBLIC PROGRAM. 2(2-0); II and SS. Prerequisite: Pub. Spk. 106 or 107. Hill, Troutman.

Planning, building, and presenting non-radio public programs.

230. RADIO CONTINUITY. 2(2-0); I and II. Prerequisite: Pub. Spk. 163. Summers.

Planning and construction of radio programs. Radio fee charged.

231. RADIO PROGRAM PRODUCTION. 2(1-3); I and II. Prerequisite: Pub. Spk. 163. Summers.

Production and direction of radio programs. Radio fee charged.

232. PROBLEMS IN BROADCASTING. Credit to be arranged; I and II. Prerequisite: Pub. Spk. 163. Summers.

Individual problems in the general field of radio broadcasting. Radio fee charged.

FOR GRADUATE CREDIT

301. RESEARCH IN SPEECH. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Debate. Summers.

Dramatics. Heberer, Troutman.

Oratory. Hill.

Phonetics. Hill, Elliott.

Radio. Summers.

305. CLINICAL PROBLEMS OF DEFECTIVE SPEAKING. 4(2-6); II. Prerequisite: Pub. Spk. 101, 106, 107, 108, and 201. Hill.

Student Health

Professor HUSBAND

FOR UNDERGRADUATE CREDIT

101. PREVENTIVE MEDICINE AND PUBLIC HEALTH. 2(2-0); I and II. Prerequisite: Sophomore standing. Husband.

Communicable diseases and their control; factors involved in healthful living.

Zoölogy

Professor NABOURS

Professor ACKERT

Professor HARMAN

Associate Professor HERRICK

Associate Professor WIMMER

Assistant Professor HARBAUGH

Assistant Professor GOODRICH

Instructor AMEEL

Instructor EDGAR

Assistant STEBBINS

Graduate Assistant ALSOP

Graduate Assistant FENT

Graduate Research Assistant CASE

Graduate Research Assistant FRICK

Graduate Research Assistant GOOD

Graduate Research Assistant MONSON

FOR UNDERGRADUATE CREDIT

105. GENERAL ZOÖLOGY. 5(3-6); I, II, and SS. Staff. Charge, \$3.

123. HUMAN ANATOMY. 5(3-6); I. Prerequisite: Zoöl. 105. Wimmer.

General anatomy studied by means of dissectable models, skeletons, and charts. Charge, \$3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. PROBLEMS IN ZOÖLOGY. Credit to be arranged; I, II, and SS. Staff. Charge, \$2 per credit hour.

Work is offered in:

Cytology and Embryology. Harman.

Endocrinology. Herrick.

Heredity. Nabours.
Ornithology. Goodrich.
Parasitology. Ackert.
Physiology. Wimmer.
Protozoölogy. Ameel.
Zoölogical Technic. Edgar.

205. FIELD ZOÖLOGY. 2(1-3) or 3(1-6); II and SS. Prerequisite: Zoöl. 105. Harbaugh.

Habitat, distribution, and relationship of animals. Charge, \$3.

206. ZOÖLOGICAL TECHNIC. 1(0-3) or 2(0-6); II and SS. Prerequisite: Zoöl. 105. Edgar.

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 theories of animal parasitism.

212. INVERTEBRATE ZOÖLOGY. 4(2-6); I and SS. Prerequisite: Zoöl. 105. Goodrich. Charge, \$3.

214. CYTOLOGY. 4(2-6); I. Prerequisite: Zoöl. 105. Harman.

Cells, chromosomes, and heredity. Charge, \$3.

215. EVOLUTION AND HEREDITY. 3(3-0); 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.

216. HEREDITY AND EUGENICS. 2(2-0); I. Prerequisite: Zoöl. 105. Nabours.

Human inheritance and the interactions of nature and heredity.

218. HUMAN PARASITOLOGY. 3(3-0); II. Prerequisite: Zoöl. 105. Ackert.

219. EMBRYOLOGY. 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. 219. Harman. Charge, \$3.

221. HUMAN PHYSIOLOGY. 4(3-3); I, II, and SS. Prerequisite: Chem. 101 or 110 and Zoöl. 105. Wimmer.

Functions of various organ systems of the body. Charge, \$3.

222. GENERAL PHYSIOLOGY. 3(2-3); I and SS. Prerequisite: Chem. 122 and Zoöl. 105. Wimmer.

Life functions in living organisms. Charge, \$3.

223. PROTOZOÖLOGY. 3(2-3); II. Prerequisite: Zoöl. 105. Ameel. Taxonomy, morphology, and biology of the free living and parasitic protozoa. Charge, \$2.

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, Ibsen.

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. Charge, \$2.

246. COMPARATIVE ANATOMY OF VERTEBRATES. 4(2-6); II. Prerequisite: Zoöl. 105. Herrick. Charge, \$3.

247. ENDOCRINOLOGY. 3(3-0); I and SS. Prerequisite: Zoöl. 221 and 219 or 246 and permission of instructor. Herrick.

248. APPLIED ZOÖLOGY. 3(3-0); I and SS. Prerequisite: Zoöl. 105. Herrick, Harbaugh.

Valuable and destructive animals in relation to mankind.

FOR GRADUATE CREDIT

301. RESEARCH IN ZOÖLOGY. Credit to be arranged; I, II, and SS. Prerequisite: At least two courses in this department. Staff.

Work is offered in:

Cytology and Embryology. Harman.

Endocrinology. Herrick.

Heredity. Nabours.

Ornithology. Goodrich.

Parasitology. Ackert.

Physiology. Wimmer.

Protozoölogy. Ameel.

The Division of Home Economics

MARGARET M. JUSTIN, *Dean*

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 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 to industry and social service. The training includes the laws of health; an understanding of the sanitary requirements of the home; the study of values 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 care of children; and the ability to secure efficient service from others. Life in the residence hall, in which the student participates in the numerous duties pertaining to the routine of living, is a sustaining influence in the mastery of instruction offered in the classroom and laboratory, and is desirable for all students not participating otherwise in group life.

Because of the prospective intimate relationship between students of home economics and human health, all seniors in the Division of Home Economics must take physical examinations given by the Department of Student Health, the records of which will become part of the permanent college records of the students.

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

Since scientific training is fundamental in the administration of the home, courses in the sciences are given as a foundation for the special training in home economics. English, history, economics, and psychology receive due attention. The time of the student is about equally divided among the purely technical subjects, the fundamental sciences, and studies of general interest. In the junior and senior years opportunity for choice of electives makes it possible for students to specialize in some chosen line. There is provision for both options and electives to be chosen in groups approved by the faculty or by the students' dean. This choice of electives will be made during the first semester of the sophomore year.

This curriculum is recommended to those 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 courses in this curriculum give background for professional work in art and for teaching art.

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, tearoom, 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, residence in the college residence hall for one semester is required. Usually after graduation the student serves an apprenticeship in a recommended establishment.

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 in the College. The last two and one-half years are spent in 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 must be approved by the superintendent of the school of nursing. Further information may be obtained from the dean of the Division of Home Economics.

Options for Students in the Curriculum in 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: Economics, Sociology, American History, European History, American Government, Economic Problems of the Family, 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: German, French, or Spanish. If the student has had one year of language in high school she will be held for 12 additional hours of the same language; if she has had two years of language in high school, she will be held for nine additional hours of the same language. 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. If she has had only one year of algebra in high school, the student must take the five-hour course, College Algebra A.

Option IV—Music: Piano, Voice, and Orchestral Instruments, two hours each. 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 has the required physical education courses in the first two years as a background for the option in this field. Prerequisites for the courses in General Technic included in the option are as follows:

OPTION	PREREQUISITE
General Technic IV	Basketball and Baseball
General Technic VI	Folk Dancing and Tap Dancing

Other subjects are Principles of Health Education W, Playground Management and Games W, History and Principles of Physical Education, and Teaching and Adaptation of Physical Education.

Option VI—Journalism: Elementary Journalism, Journalism for Women, and Industrial Feature writing are basic courses. In addition, selection may be made from: Industrial Writing, Magazine Features, Principles of Advertising, Radio Writing.

Option VII—Physical or Biological Science: Physics, Chemistry, and Geology, or Botany, Zoölogy, Bacteriology, and Entomology.

Option VIII—Art: Advanced courses in the various fields of Art, such as Design, Interior Decoration, and Costume Design.

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 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.....	3(3-0)	Child Guidance I, Child Welf. 201,	3(2-3)
Prin. of Secondary Educ., Educ. 236,	3(3-0)	Home Mgmt., Hshld. Econ. 116....	3(1-6)
Vocational Educ., Educ. 241.....	3(3-0)	Adv. Clothing, Clo. and Text. 123..	4(1-9)
Methods of Teach. Home Economics, Educ. 132.....	3(3-0)		
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.

HOME ECONOMICS IN THE SUMMER SCHOOL

In addition to the regular instruction in home economics, the division offers numerous courses 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.

Curriculum in Home Economics

FRESHMAN

FIRST SEMESTER

College Rhetoric I, Engl. 101.....	*3(3-0)
Gen. Chemistry, Chem. 110.....	5(3-6)
Elementary Design I, Art 101A....	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>
Personal Health, Child Welf. 101..	2(2-0)
H. E. Lectures, Gen. H. E. 130....	R(1-0)
Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Total	15

SECOND SEMESTER

College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Organic Chemistry, Chem. 122,	5(3-6)
Costume Design I, Art 130.....	2(0-6)
Gen. Psychology, Educ. 184.....	3(3-0) <i>and</i>
Personal Health, Child Welf. 101..	2(2-0) <i>or</i>
Foods I, Food and Nutr. 102.....	5(3-6)
H. E. Lectures, Gen. H. E. 130....	R
Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Total	15

SOPHOMORE

FIRST SEMESTER

English Literature, Engl. 172.....	3(3-0)
General Zoölogy, Zoöl. 105.....	5(3-6)
Elementary Design II, Art 101B....	2(0-6)
Foods II, Food and Nutr. 107....	3(1-6) <i>or</i>
Clothing for the Individual, Clo. and Text. 103.....	4(1-9)
Economics I, Econ. 101.....	3(3-0)
H. E. Lectures, Gen. H. E. 130....	R
Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Home Projects, Gen. H. E. 140....	R
Total	16 or 17

SECOND SEMESTER

American Literature, Engl. 175....	3(3-0)
Embryology, Zoöl. 219.....	4(3-3) <i>or</i>
Human Physiology, Zoöl. 221.....	4(3-3)
Clothing for the Individual, Clo. and Text. 103.....	4(1-9) <i>or</i>
Foods II, Food and Nutr. 107....	3(1-6)
Current History, Hist. 126.....	1(1-0)
Household Physics,** Phys. 109...	4(3-3)
H. E. Lectures, Gen. H. E. 130....	R
Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Total	15 or 16

JUNIOR

FIRST SEMESTER

Human Nutr., Food and Nutr. 112,	3(3-0)
The House, Household Econ. 107..	3(2-3)
Interior Decoration I, Art 113....	2(0-6)
Option†	6(-)
Elective‡	2(-)
H. E. Lectures, Gen. H. E. 130....	R
Home Projects, Gen. H. E. 140....	R
Total	16

SECOND SEMESTER

Textiles, Clo. and Text. 116.....	3(2-3)
General Microb., Bact. 101.....	3(1-6)
Option	3(-)
Elective	6(-)
H. E. Lectures, Gen. H. E. 130....	R
Total	15

SENIOR

FIRST SEMESTER

Dietetics, Food and Nutr. 202....	4(3-3)
The Family, Child Welf. 216.....	2(2-0)
Option	3(-)
Elective	7(-)
H. E. Lectures, Gen. H. E. 130....	R
Total	16

SECOND SEMESTER

Family Health, Child Welf. 211...	3(3-0)
Option	3(-)
Elective	9(-)
H. E. Lectures, Gen. H. E. 130....	R(1-0)
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.

** Subject to prerequisite, 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)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. 151....	R(0-3)	Phys. Educ. W, Phys. Ed. 151....	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)	Lettering, Art 127.....	2(0-6)
Elementary Design II, Art 101B....	2(0-6)	Drawing, Art 120	2(0-6)
Clothing for the Individual, Clo.		Foods II, Food and Nutr. 107....	3(1-6)or
and Text. 103.....	4(1-9)or	Clothing for the Individual, Clo.	
Foods II, Food and Nutr. 107....	3(1-6)	and Text. 103.....	4(1-9)
Ancient Civilizations, Hist. 101....	3(3-0)	Extem. 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. 151....	R(0-3)	H. E. Lectures, Gen. H. E. 130...	R
Home Projects, Gen. H. E. 140....	R	Phys. Educ. W, Phys. Ed. 151....	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)or	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)
Intermediate Design, Art 103.....	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 240,	1(1-0)
Textiles, Clo. and Text. 116.....	3(2-3)	Advanced Design, Art 105.....	2(0-6)
The House, Household Econ. 107..	3(2-3)	Elective	6(-)
Elective**	3 or 4(-)	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	
Child Guidance I, Child Welf. 201,	3(2-3)	Principles of Art II, Art 202.....	3(3-0)
Principles of Art I, Art 201.....	3(3-0)	Interior Decoration III, Art 117...	2(0-6)
Interior Decoration II, Art 115....	2(0-6)	Elective	10(-)
Elective	8(-)	H. E. Lectures, Gen. H. E. 130...	R(1-0)
H. E. Lectures, Gen. H. E. 130....	R		
Total	16	Total	15

* 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.

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. 151...	R(0-3)	Phys. Educ. W, Phys. Ed. 151...	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)	Human Physiology, Zoöl. 221....	4(3-3)
Current History, Hist. 126.....	1(1-0)	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)	Interior Decoration I, Art. 113....	2(0-6)
H. E. Lectures, Gen. H. E. 130...	R	H. E. Lectures, Gen. H. E. 130...	R
Phys. Educ. W, Phys. Ed. 151....	R(0-3)	Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Home Projects, Gen. H. E. 140...	R		
Total	16	Total	16

Number of hours required for graduation, 124.

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. Cookery, Inst. Mgmt. 101...	4(1-9)
General Micro., Bact. 101.....	3(1-6)	Inst. Food Buying, Inst. Mgmt.	
Meats HE, An Husb. 176.....	1(0-3)	103	2(2-0)
Elective†	6(-)	Inst. Furnishings and Equipment,	
H. E. Lectures, Gen. H. E. 130...	R	Inst. Mgmt. 105.....	2(2-0)
Home Projects, Gen. H. E. 140...	R	Elective	3(-)
		H. E. Lectures, Gen. H. E. 130...	R
Total	16	Total	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Dietetics, Food and Nutr. 202....	4(3-3)	Child Guidance I, Child Welf. 201,	3(2-3)
Meth. of Teaching H. E., Educ.		Dietetics for Abn. Conditions, Food	
132	3(3-0)	and Nutr. 205.....	2(1-3)
Exper. Cookery, Food and Nutr.		Tea Room Mgmt., Inst. Mgmt. 225,	3(0-9)or
255	2(0-6)	Field Work in Nutr., Food and	
Organ. and Admin. of Inst., Inst.		Nutr. 215	3(2-3)
Mgmt. 206	3(3-0)	Food Econ. and Nutr. Seminar,	
Elective	2(-)	Food and Nutr. 251.....	2(2-0)
H. E. Lectures, Gen. H. E. 130...	R	Inst. Accounting, Econ. 284.....	2(2-0)
		Elective	4(-)
		H. E. Lectures, Gen. H. E. 130..	R
Total	14	Total	16

Number of hours required for graduation, 124.

* See footnote regarding Household Physics under curriculum in Home Economics.

† 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(2-6)
Foods I, Food and Nutr. 102....	5(3-6)	Economics I, Econ. 101.....	3(3-0)
Gen. Psychology, Educ. 184.....	3(3-0)	Personal Health, Child Welf. 101..	2(2-0)
H. E. Lectures, Gen. H. E. 130...	R(1-0)	Extemp. Speech I, Pub. Spk. 106..	2(2-0)
Phys. Educ. W, Phys. Ed. 151....	R(0-3)	H. E. Lectures, Gen. H. E. 130...	R
		Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Total		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)	Human Physiology, Zoöl. 221.....	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)	Elective*	6(-)
Sociology, Econ. 151.....	3(3-0)	H. E. Lectures, Gen. H. E. 130...	R
H. E. Lectures, Gen. H. E. 130...	R	Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Phys. Educ. W, Phys. Ed. 151....	R(0-3)		
Home Projects, Gen. H. E. 140...	R		
Total		Total	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Anatomy, Zoöl. 123A.....	5(3-6)	Child Guidance I, Child Welf. 201,	3(2-3)
Physiol. Chemistry, Chem. 231....	5(3-6)	The Family, Child Welf. 216.....	2(2-0)
Dietetics, Food and Nutr. 202....	4(3-3)	Abn. Psychology, Educ. 204.....	3(3-0)
H. E. Lectures, Gen. H. E. 130...	R	Elective	7(-)
Elective	2(-)	H. E. Lectures, Gen. H. E. 130...	R(1-0)
Total		Total	15

SENIOR

(Replaced by two and one-half years at University of Kansas Hospitals)
(Equivalent to 31 college hours)

THEORETICAL WORK	PRACTICAL WORK
Professional Adjustments I and II	Medicine
Nursing Arts I and II	Surgery (including operating room)
Materia Medica	Pediatrics
Medical Nursing (including specialties)	Nursery
Surgical Nursing (including specialties)	Obstetrics
Dietotherapy	Dispensary
Obstetrical Nursing	Tuberculosis
Pediatric Nursing	Public Health
Principles of Public Health Nursing	
Principles of Public Hygiene and Sanitation	
Social Aspects of Nursing	

Number of hours required for graduation, 124.

* See footnote regarding electives under curriculum in Home Economics.

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.

Child Care and Training

Sociology, Econ. 151.....	3(3-0)	Psyc. of Childhood and Adoles-	
Social Pathology, Econ. 258.....	3(3-0)	cence, 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		Problems in Child Welfare and	
Nutr. 215	3(2-3)	Euthenics, Child Welf. 221....	1 to 5
Heredity and Eugenics, Zool. 216..	2(2-0)	Nutr. of Dev., Food and Nutr. 210,	2(2-0)
Child Guidance I, Child Welf. 201,	3(2-3)	Family Health, Child Welf. 211..	3(3-0)
Seminar in Child Welfare and		Psyc. of Excep. Children, Educ. 266,	3(3-0)
Euthenics, Child Welf. 226....	1 or 2	Family Finance, Hshld. Econ. 263,	2(2-0)
The Tech. of Mental Tests, Educ.		Consumer Buying, Hshld. Econ. 270,	2(2-0)
261	3(1-6)	Econ. Prob. of the Family, Hshld.	
History of the Home, Hist. 225....	3(3-0)	Econ. 265	2(2-0)

Costume Design

Hist. of Costume, Clo. and Text.		Journalistic Vocations, Ind. Jour.	
225	2(2-0)	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.	
Costume Illustration, Art 212....	2(0-6)	167	2(2-0)
Problems in Costume Design, Art		Radio Writing, Ind. Jour. 162....	2(2-0)
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.	
The Family, Child Welf. 216.....	2(2-0)	140	2(2-0)
Historic Textile Design, Art 233..	2(2-0)	Elem. Journalism, Ind. Jour. 152..	3(3-0)
Landscape Gardening I, Hort. 125,	3(3-0)	Industrial Writing, Ind. Jour. 161,	2(2-0)
Problems in Design, Art 217.....	2(0-6)	Ind. Feature Writing, Ind. Jour.	
Problems in Interior Dec., Art 232,	4(0-12)	167	2(2-0)
Oral English, Engl. 232.....	3(3-0)	Radio Writing, Ind. Jour. 162....	2(2-0)
Modern Europe I, Hist. 115.....	3(3-0)	Sociology, Econ. 151.....	3(3-0)

Home Service and Food Demonstration Work

Extens. Speech I, Pub. Spk. 106...	2(2-0)	Industrial Writing, Ind. Jour. 161,	2(2-0)
Radio Spk. and Announcing, Pub.		Sociology, Econ. 151.....	3(3-0)
Spk. 160	2(1-3)	Meats, HE, An. Husb. 176.....	1(0-3)
Radio Program Partic., Pub. Spk.		Exp. Cookery, Food and Nutr. 255,	2(0-6)
168	1(1-1)	Problems in Foods, Food and	
Oral English, Engl. 232.....	3(3-0)	Nutr. 245	1(-)
Magazine Features, Ind. Jour. 270,	2(2-0)	Home Mgmt., Hshld. Econ. 116..	3(1-6)
Journalism for Women, Ind. Jour.		Consumer Buying, Hshld. Econ. 270,	2(2-0)
172	2(2-0)	Hshld. Equipment I, Hshld. Econ.	
Field Work in Nutr., Food and		203	2(0-6)
Nutr. 215	3(2-3)	Hshld. Equipment II, Hshld. Econ.	
Inst. Cookery, Inst. Mgmt. 101...	4(1-9)	205	2(0-6)
Meth. of Teaching H. E., Educ. 132,	3(3-0)	Family Finance, Hshld. Econ. 263,	2(2-0)
The House, Hshld. Econ. 107.....	3(2-3)	Econ. Prob. of the Family, Hshld.	
Elem. Journalism, Ind. Jour. 152..	3(3-0)	Econ. 265	2(2-0)



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.		Human Physiol., Zoöl. 221.....	4(3-3)or
222	3(3-0)	Embryol., Zoöl. 219.....	4(3-3)
Bact. Tech., Bact. 225.....	3(0-9)	Human Parasitol., Zoöl. 218.....	3(3-0)
Physiol. Chem., Chem. 231.....	5(3-6)	Comparative Anatomy of Vert.,	
Biochem. Prep., Chem. 234.....	2 to 5	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(2-3)	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)	Adv. Clothing, Clo. and Text. 123,	4(1-9)
Com. Organization, Econ. 267....	3(3-0)	Meats H. E., An. Husb. 176.....	1(0-3)
Problems in Foods, Food and Nutr.		Hist. of Engl. Literature, Engl. 181,	3(3-0)
310	1 to 3	Psyc. of Childhood and Adolescence,	
Home Mgmt., Household Econ. 116	3(1-6)	Educ. 250	3(3-0)
World Classics I, Engl. 280.....	3(3-0)	Econ. Prob. of the Family, Hshld.	
Nutr. of Dev., Food and Nutr. 210,	2(2-0)	Econ. 265	2(2-0)
Family Health, Child Welf. 211....	3(3-0)	Family Finance, Hshld. Econ. 263,	2(2-0)
Consumer Buying, Hshld. Econ. 270,	2(2-0)		

Social and Welfare Work

Child Guidance I, Child Welf. 201,	3(2-3)	Child Guidance II, Child Welf. 206,	3(3-0)
Sociology, Econ. 151.....	3(3-0)	Labor Problems, Econ. 233.....	2(2-0)
Com. Organization, Econ. 267.....	3(3-0)	Rural Sociology, Econ. 156.....	3(3-0)
Field Work in Nutrition, Food and		Social Pathology, Econ. 258.....	3(3-0)
Nutr. 215	3(2-3)	Modern Europe II, Hist. 223.....	3(3-0)
Family Health, Child Welf. 211....	3(3-0)	Immi. and Int. Rel., Hist. 228....	2(2-0)
Econ. Prob. of the Family, Hshld.		Probs. in Child Welfare and	
Econ. 265	2(2-0)	Euthenics, Child Welf. 221....	1 to 5
Consumer Buying, Hshld. Econ. 270,	2(2-0)	Family Finance, Hshld. Econ. 263,	2(2-0)

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. 221.....	4(3-3)
Plane Analytical Geom., Math. 110,	4(4-0)	Statis. Meth. Ap. to Educ., Educ.	
Calculus I, Math. 114.....	4(4-0)	223	3(3-0)
Calculus II, Math. 115.....	4(4-0)	Bact. Problems, Bact. 270.....	1 to 4
Consumer Buying, Hshld. Econ. 270,	2(2-0)	Adv. Textiles, Clo. and Text. 205,	3(1-6)
Econ. Prob. of the Family, Hshld.		Family Finance, Hshld. Econ. 263,	2(2-0)
Econ. 265	2(2-0)	Experi. Textiles, Clo. and Text. 312,	2 to 5

Teaching Home Economics

See "Certificate for Teaching Home Economics."

Art

Professor BARFOOT
Associate Professor EVERHARDY
Assistant Professor MORRIS
Instructor HOLLAND
Instructor KEDZIE

Temporary Assistant MARTENS
Temporary Assistant SHERRILL
Graduate Assistant PUTZIG
Graduate Assistant WAGNER
Graduate Assistant HANLY

The curriculum in Art is designed to provide a background for homemaking or other professional work. Depending upon their interests, the students may specialize in design, interior decoration, costume design, or teaching of art.

FOR UNDERGRADUATE CREDIT

101A. ELEMENTARY DESIGN I. 2(0-6)*; I, II, and SS. Staff.

A fundamental course in color and form and the application of their principles to daily living. Charge, \$1; deposit, 25 cents.†

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.

113. INTERIOR DECORATION I. 2(0-6); I, II, and SS. Prerequisite: Art 101B. Staff.

The decoration and furnishing 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.

*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.

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. Staff.

A continuation of Art 130, with review and application of the principles of art 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. Staff.

A continuation of Art 134, dealing with the relation between the historic background and fabric and costume design. Charge, \$1; deposit, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. PRINCIPLES OF ART I. 3(3-0); I. Prerequisite: Art 101B. Barfoot, Harris, Morris.

The culture of various peoples and their homes as shown by their use of color, line, and form in architecture, sculpture, and painting.

202. PRINCIPLES OF ART II. 3(3-0); II. Prerequisite: Art 201. Barfoot, Harris, Morris.

A continuation of Art 201, dealing particularly with home crafts and minor arts.

212. COSTUME ILLUSTRATION. 2(0-6); I or II. Prerequisite: Art 101B and 130. Staff.

Costume figures for fashion illustration rendered in various media suitable for reproduction. Charge, \$2; deposit, 25 cents.

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, particularly for the teacher of art connected with vocational training. 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.

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. Staff.

Problems planned with the student to meet her particular needs. Charge, \$1; deposit, 25 cents.

240. ART OF THE SOUTHWEST INDIANS. 1(1-0); I, II, and SS. Prerequisite: Art 101A. Everhardy.

Discussions of the origin and development of the decorative arts and ceremonials of the Southwest area from prehistoric times to the present. 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 Master's thesis. 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 Master's thesis. Charge to be arranged with instructor.

Child Welfare and Euthenics

Professor ROY
Associate Professor KELL
Associate Professor WILLIAMS
Assistant Professor RAFFINGTON
Instructor LISTER

Instructor KEIM
Graduate Assistant BURTON
Graduate Assistant ROSS
Graduate Assistant ———

In the Department of Child Welfare and Euthenics, instruction is given in physical and mental health, child behavior and guidance, and family relationships. The instruction in child behavior and guidance is based on work with children 2 to 5 years of age in the two nursery schools.

FOR UNDERGRADUATE CREDIT

101. PERSONAL HEALTH. 2(2-0); I, II, and SS. Staff.

The maintenance and improvement of social, mental, and physical health. Charge 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. CHILD GUIDANCE I. 3(2-3); I, II, and SS. Prerequisite: Educ. 184 and Child Welf. 101 or equivalent. Staff.

The needs of young children, the principles involved in understanding and guiding young children, and the application of these principles in daily life.

Laboratory.—Directed observation and assisting in the nursery school. Charge, \$1. Additional charge for lunches, \$2.

206. CHILD GUIDANCE II. 3(3-0); II. Prerequisite: Child Welf. 201. Roy. Guidance principles applied to the needs of adolescents.

211. FAMILY HEALTH. 3(3-0); I, II, and SS. Prerequisite: Junior standing and Educ. 184; Zoöl. 105 or 221; Child Welf. 101 or equivalent. Williams.

Factors conducive to family and community health; physical development and care of the child; simple first-aid and home nursing procedures. Charge, 50 cents.

216. THE FAMILY. 2(2-0) I, II, and SS. Prerequisite: Educ. 184 and junior standing. Roy, Kell.

The approach to an understanding of the American family of today is made through study of the dynamic relationship of family members. Charge, 50 cents.

221. PROBLEMS IN CHILD WELFARE AND EUTHENICS. Credit to be arranged; I, II, and SS. Prerequisite: Child Welf. 201; consult instructors. Staff.

226. SEMINAR IN CHILD WELFARE AND EUTHENICS. 1 to 2 hours; II. Prerequisite: Child Wel. 201. Roy, Kell.

Consideration of current research in the field.

231. PARENT GUIDANCE. 3(3-0); II. Prerequisite or concurrent: Child Welf. 206 and 216. Kell.

Survey and organization of principles, methods, and materials useful to advanced students. Field work is offered whenever practicable. Charge, \$1.

FOR GRADUATE CREDIT

301. RESEARCH IN CHILD WELFARE AND EUTHENICS. Credit to be arranged: I, II, and SS. Consult instructors. Roy, Kell, Williams.

Individual research problems which may form the basis for the Master's thesis. Charge to be arranged.

Clothing and Textiles

Professor LATZKE
Associate Professor COWLES
Associate Professor HESS
Assistant Professor CORMANY
Assistant Professor FLETCHER

Instructor HOWE
Instructor SWEET
Instructor GILMORE
Temporary Assistant HOUSTON

The Department of Clothing and Textiles offers courses designed to furnish essential knowledge for the selection of clothing and household fabrics. Design principles and the technique of garment construction are presented. 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.

FOR UNDERGRADUATE CREDIT

101. ELEMENTARY CLOTHING. 0(0-6); I, II. Staff.

Fundamental processes of garment construction. No credit, but is required of all home economics students who have not had sufficient work to enter Clo. and Text. 103. Charge, \$1; deposit, 25 cents.

103. CLOTHING FOR THE INDIVIDUAL. 4(1-9); I, II, and SS. Prerequisite: One semester of clothing in high school or equivalent and Art 130. Staff. Application of design principles to dress; budgeting and buying procedures.

Laboratory.—Development of foundation pattern; flat pattern designing; construction of wool or silk garment. Charge, \$2.50; deposit, 25 cents.

110. CLOTHING SELECTION. 2(2-0); I and II. Cowles, Sweet.

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.

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.

Fundamentals of textiles as related to the 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. Latzke, Cormany, Howe.

Social significance of fashion; application of design principles to dress.

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 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.

Laboratory.—Emphasis placed on research technique. 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 clothing or textiles. Charge to be arranged with instructor.

225. HISTORY OF COSTUME. 2(2-0); II. Prerequisite: Hist. 101 or equivalent. Cowles.

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 clothing or in textiles which may form the basis for the Master's thesis. 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. Charge to be arranged with instructor.

Food Economics and Nutrition

Professor PITTMAN
Associate Professor VAIL
Associate Professor McMILLAN
Assistant Professor BROWNING
Assistant Professor NUTTER
Instructor KUNERTH
Instructor MEYER

Instructor MULLEN
Instructor FORNEY
Instructor MEILLER
Instructor STEWART
Instructor SAFFRY
Technician CEDARQUIST

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.

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. 219 or 221.† Staff.

† Students from other divisions desiring to elect Food and Nutr. 112 may substitute an equivalent number of hours in other sciences for these requirements.

Chemistry of food and nutrition, emphasizing food nutrients, digestion, and metabolism.

121. APPLIED NUTRITION. 2(2-0); I and II. Prerequisite: Chem. 122 or permission of instructor. Pittman, Forney.

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. Staff.

Food requirements in health during infancy, childhood, adolescence, adult life, and old age. Principles of human nutrition applied to adequate diets at different cost levels.

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. Meiller.

Dietetic requirements in pathological and abnormal conditions. (For students who expect to qualify as professional dietitians.)

Laboratory.—Demonstration of special foods used in such conditions, preparation of trays, 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. Staff.

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 concurrent: Food and Nutr. 202. Vail, McMillan, Browning.

Food preparation from experimental standpoint. Charge to be arranged with instructor; 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 the basis for the Master's thesis. Charge to be arranged with instructor.

306. ANIMAL NUTRITION SEMINAR. 1(1-0) per year; I and II. Prerequisite: Senior or graduate standing. Pittman, Nutter.

Reports of experiments in nutrition, discussion of methods, and validity of conclusions.

General Home Economics

Dean JUSTIN
Assistant Dean McMILLAN
Assistant Professor RAFFINGTON
Assistant BARE

FOR UNDERGRADUATE CREDIT

130. HOME ECONOMICS LECTURES. R (meetings by appointment). Staff, 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 a means of 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 with junior or senior standing need to complete only one. Bare.

COURSES IN HOME ECONOMICS EDUCATION*

Professor RUST
Assistant Professor BAXTER
Instructor WYCKOFF

Instructor BARE
Instructor ROSKIE

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, Bare.

See Department of Education, Division of General Science.

* The eight courses named here are given by the Department of Education for the Division of Home Economics. The staff is appointed coöperatively by that department and the Division of Home Economics.

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, Wyckoff.

See Department of Education, Division of General Science.

234. METHODS IN ADULT HOMEMAKING CLASSES. 1 to 3 hours; SS. Prerequisite: Educ. 132 and 184 or equivalent. Wyckoff.

The principles of teaching applied to adult classes and a demonstration class in one or more phases of homemaking.

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.

316. SEMINAR IN HOME ECONOMICS EDUCATION. 3(3-0); II, SS. Prerequisite: Educ. 160 and experience in teaching Home Economics. Rust and visiting instructors.

See Department of Education, Division of General Science.

Household Economics

Professor LINDQUIST
Associate Professor GUNSELMAN
Assistant Professor AGAN

Assistant Professor MCKINNEY
Instructor BARE
Instructor BARNES

Through the courses in the Department of Household Economics 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, home management, equipment, and economic problems of the household. Graduate students preparing to become directors of home management houses, specialists and advisers in home management, teachers, homemakers, or research workers in this field find suitable courses in this department.

FOR UNDERGRADUATE CREDIT

107. THE HOUSE. 3(2-3); I, II, and SS. Prerequisite: Food and Nutr. 102; Phys. 109 recommended. Agan, Barnes.

A consideration of dwellings, their environment, plan, furnishings, and equipment, which will promote good utilization of family resources.

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. Lindquist, McKinney, Bare.

Application of basic courses in home economics to the management of a home.

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. Agan.

Selection, care, construction, operation, use, and repair of various pieces of equipment used in the home. Charge, \$2.50.

205. HOUSEHOLD EQUIPMENT II. 2(0-6); II. Prerequisite: Hshld. Econ. 203. Agan.

Selection, care, construction, operation, and methods of testing mechanical, electrical, and heating equipment. Charge, \$2.50.

238. PROBLEMS IN HOUSEHOLD EQUIPMENT. Credit to be arranged; I, II, and SS. Prerequisite: Hshld. Econ. 203. Agan.

Special problems in selection, care, operation, or testing of household equipment. Charge to be arranged with instructor.

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; organization and methods of housework; use of family resources.

263. FAMILY FINANCE. 2(2-0); I, II, and SS. Gunselman, McKinney.

Economic problems involved in the efficient management of the family's financial resources.

265. ECONOMIC PROBLEMS OF THE FAMILY. 2(2-0); II, and SS. Prerequisite: Econ. 101. Lindquist, Gunselman.

Problems of household production and of earning and spending the money income; factors determining the purchasing power of the "dollar of the home."

270. CONSUMER BUYING. 2(2-0); I, II, and SS. Prerequisite: Econ. 101 and junior standing. Gunselman and others from related subject-matter fields.

Problems of the consumer in the present market, aids toward intelligent buying of commodities, and the need for protective legislation. Field trip.

275. SEMINAR IN HOME MANAGEMENT. 2 to 3 hours a semester. I, II, and SS. Prerequisite: Senior or graduate standing. Lindquist.

A review of management literature and trends; the contribution made by home management to the family and community. Charge, \$1.

FOR GRADUATE CREDIT

305. ECONOMICS OF CONSUMPTION. 2(2-0). II and SS. Prerequisite: Econ. 101 and Hshld. Econ. 263 and 265. Lindquist, Gunselman.

The consumer and his function; the economic significance of choice and of the planes of consumption.

310. RESEARCH IN HOUSEHOLD ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Lindquist, Gunselman, Agan.

Individual research problems in household economics, housing, equipment, or management, which may form the basis for the Master's thesis.

Institutional Management

Professor WEST
Associate Professor WOOD
Assistant Professor OFELT
Temporary Instructor SMULL

Assistant HILTON
Assistant MILLER
Graduate Assistant McCALL
Graduate Assistant FOSTER

Courses in this department provide training for cafeteria, tearoom, and lunchroom managers, dietitians, and directors of residence halls.

FOR UNDERGRADUATE CREDIT

101. INSTITUTIONAL COOKERY. 4(1-9); I, II, and SS. Prerequisite: Food and Nutr. 107. Smull.

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.

103. INSTITUTIONAL FOOD BUYING. 2(2-0); I, II, and SS. Prerequisite or concurrent: Inst. Mgmt. 101. West.

Producing areas; distribution of food products; methods of purchasing food in large quantities.

105. INSTITUTIONAL FURNISHINGS AND EQUIPMENT. 2(2-0); I, II, and SS. Prerequisite or concurrent: Inst. Mgmt. 101. Ofelt.

Selection, arrangement, installation, and care of the different types of equipment for the house and food departments of institutions.

FOR GRADUATE AND UNDERGRADUATE CREDIT

206. ORGANIZATION AND ADMINISTRATION OF INSTITUTIONS. 3(3-0); I and II. Prerequisite (or concurrent for graduate students): Inst. Mgmt. 101. West, Wood.

Organization and administration problems of the food and house departments of certain institutions such as the school lunchroom, residence halls, hospitals, cafeteria. Concurrent residence in Van Zile Hall gives opportunity for actual managerial experience.

210. PROBLEMS IN INSTITUTIONAL MANAGEMENT. Credit to be arranged; I, II, and SS. Prerequisite or concurrent: Inst. Mgmt. 206; consult instructor. Staff.

Individual investigation of problems in institutional management. Conferences and reports at appointed hours.

218. SCHOOL LUNCHROOM 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. TEAROOM MANAGEMENT. 3(0-9); I and II. Prerequisite or concurrent: Inst. Mgmt. 206. Ofelt.

Practical experience in planning, preparing, and serving food for the public. The College tearoom serves as a laboratory for this course. Charge, \$2.50.

235. INSTITUTIONAL HOUSEKEEPING. 2(1-3); II. Prerequisite or concurrent: Inst. Mgmt. 206. 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. Prerequisite: Consult instructor. Staff.

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 in 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, foods, 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:

- *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, and balance studies.

- *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 silk fiber, weighted and unweighted, as affected by light, light and moisture, and light and perspiration.

- *A study of the rayon fiber as affected by light, light and moisture, and 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*

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.

Effective on and after January 1, 1940, the College is authorized to require each nonresident of Kansas filing an application for selection as a student in the Division of Veterinary Medicine to deposit the amount of the nonresident matriculation fee, which at present is \$20. If the application for selection is approved by the Committee on the Selection of Veterinary Students, the deposit is to be applied when the student enrolls as payment of the usual matriculation fee required of nonresidents, or in the case of those nonresidents who have been previously enrolled in the College—though not as students of Veterinary Medicine—it is to be applied on the incidental fee. If the applicant is not approved by the Committee on the Selection of Veterinary Students, the deposit is to be returned to him in full. If an approved applicant does not present himself for registration within ten days after the opening of the next semester following the date of the receipt of the application, 50 percent of the deposit will be forfeited to the College.

Applicants must offer: (1) the high-school units required for admission to the pre-veterinary adaptation of the freshman 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 in 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. 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

FIRST YEAR

FIRST SEMESTER

Anatomy I, Anat. 104.....	*4(3-3)
El. Histology, Path. 103.....	1(0-3)
El. of An. Husb., An. Husb. 125..	3(2-3)
Gen. Org. Chemistry, Chem. 122..	5(3-6)
Medical Botany, Bot. 126.....	2(1-3)
Infantry III, Mil. Sc. 103.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total 16

SECOND SEMESTER

Anatomy II, Anat. 110.....	8(4-12)
Histology I, Path. 104.....	3(1-6)
Path. Bact. I, Bact. 111.....	4(2-6)
Infantry IV, Mil. Sc. 104.....	1(1-2)
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total 16

SECOND YEAR

FIRST SEMESTER

Anatomy III, Anat. 112.....	4(1-9)
Comp. Physiology I, Anat. 222....	4(3-3)
Histology II, Path. 106.....	3(1-6)
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. 224... 5(3-6)	
Farm Poul. Prod., Poul. Husb. 101, 2(1-2, 1)	
Feeds and Feeding, An. Husb. 189, 3(3-0)	
Dairy Inspec. for Veterinary Students, Dairy Husb. 119.....	2(1-3)

Total 16

THIRD YEAR

FIRST SEMESTER

Surgery I, Surg. 102.....	5(5-0)
Materia Medica, Surg. 158.....	4(3-3)
Pathology II, Path. 208.....	4(3-3)
Parasitology, Zoöl. 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

FOURTH YEAR†

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

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)
Urine Analysis, Anat. 228.....	1(0-3)

* 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.

† Because of the prospective intimate relationship between students of veterinary medicine and human health, all fourth-year students of veterinary medicine must take physical examinations given by the Department of Student Health, the records of which will become part of the permanent college records of the students.

Anatomy and Physiology

Professor BURT
 Professor McLEOD
 Professor LEASURE
 Instructor LINK
 Instructor ———

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, ———.

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.

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, ———.

Dissection and study of all structures of the head of the horse with exception of the bones; 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.

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.

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.

* 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 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 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, an approved course in organic chemistry. Leasure, Link.

Physiology of domestic animals; the blood, heart, and blood vessels, 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.

224. **COMPARATIVE PHYSIOLOGY II.** 5(3-6); 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, and selected physiological experiments. Deposit, \$10.

228. **URINE ANALYSIS.** 1(0-3); II, SS. Prerequisite: Anat. 224. Leasure, Link.

A laboratory course devoted to the comparative study of human urine and the urine of domestic animals, especially the horse, cow, and dog. A microscopic study of urinary deposits will be carried out also. Class limited to ten students. 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 RODERICK
Professor KITSELMAN
Associate Professor FARLEY
Assistant Professor THOMPSON

Assistant Professor WHITLOCK
Assistant Professor WAGERS
Technician KIMBALL

The Department of Pathology presents courses in histology, pathology, and meat inspection. Instruction is by lectures, recitations, laboratory work, and demonstrations with the aid of lantern slides and autopsies.

COURSES IN HISTOLOGY**FOR UNDERGRADUATE CREDIT**

103. **ELEMENTARY HISTOLOGY.** 1(0-3); I. Prerequisite: Zoöl. 105. Whitlock.

Form, structure, organization, and activities of the cell and its parts. Deposit, \$1.

104. **HISTOLOGY I.** 3(1-6); II. Prerequisite: Path. 103. Whitlock.

Origin, development, structure, and appearance of the various cells and tissues of the animal body. Particular attention is paid to the relationships between structure and function and to the fundamental similarities and differences of cells and tissues. Deposit, \$3.

106. HISTOLOGY II. 3(1-6); I. Prerequisite: Path. 104. Whitlock.

Origin, development, structure, and microscopic appearance of the various organs and systems of the animal body. Particular emphasis is laid on the correlation of tissue distribution and regional function. Deposit, \$3.

101. V. M. SENIOR SEMINAR. See "Courses in Anatomy."

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. SPECIAL HISTOLOGY. 3(0-9); I, II, and SS. Prerequisite: Anat. 131 or equivalent. Whitlock.

Fundamental histological technics studied by means of problems. Deposit, \$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. Roderick, Wagers.

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. Roderick, Wagers.

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. Roderick, Wagers.

Special pathology; continuation of Pathology II. Deposit, \$3.

214. PATHOLOGY IV. 3(2-3); I. Prerequisite: Path. 211. Roderick.

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. Roderick, Wagers.

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 anaërobic, 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 livestock 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. Roderick.

Individual research in the pathology of an animal disease problem. 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 Roderick.

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 ROBERTS
Instructor MOORE

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 domestic animals; horseshoeing is included.

112. SURGICAL EXERCISES. 1(0-3); I. Prerequisite: Surg. 107. Staff.

Major surgical operations on anaesthetized domestic 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. Roberts.

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 III AND IV. 4(0-12) each; I and II, respectively. Prerequisite: Junior or senior standing 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. Moore.

A detailed study of important drugs; their origins, properties, and classification; their physiological actions, clinical administration, and dosage; metrolology, prescription writing, pharmaceutical processes, and pharmaceutical preparations; compounding of prescriptions. Deposit, \$3.

163. THERAPEUTICS. 3(3-0); II. Prerequisite: Surg. 158. Moore.

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, Roberts.

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.

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
 LLOYD M. COPENHAVER, 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
 LESTER O. GILMORE, Dairy Husbandry
 L. E. WILLOUGHBY, Crops
 E. A. CLEAVINGER, Crops
 L. L. COMPTON, Crops
 JOHN G. BELL, Crops

CHARLES E. DOMINY, Marketing
 FRANK S. BURSON, Marketing
 J. WARREN MATHER, Marketing
 L. M. SCHRUBEN, Farm Management
 ———, Farm Management
 C. R. JACCARD, Agricultural Economics
 M. L. ROBINSON, Agricultural Economics
 KARL G. SHOEMAKER, Agricultural Economics
 GERALD J. BROWN, Agricultural Economics
 J. H. COOLIDGE, Fieldman,
 Farm Management Association
 W. J. CONOVER, Fieldman,
 Farm Management Association
 LEONARD B. HARDEN, Fieldman,
 Farm Management Association
 ———, Fieldman
 Farm 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 home-makers with regular officers, constitution, and bylaws. 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 Colleges 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 coöperative 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, land use planning, 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 homes 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 (Organization)
E. H. TEAGARDEN, District Agent

HARRY C. BAIRD, N. W. District Supervisor
OTIS B. GLOVER, E. District Supervisor
LEONARD F. NEFF, S. W. District Supervisor

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 manage-

† To find an alphabetical list of county agricultural agents, see Index.

ment, erosion control, cropping systems, crop pests, adapted crop varieties, and 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, 1939, there were 103 county agents and thirty-four assistant county agents. Eight of the assistant county agents are coöperating with soil conservation associations, sixteen serve as testers for dairy herd improvement associations, and ten 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 AGENTS

ELLEN M. BATCHELOR†

EUNICE A. PARDEE

RACHEL MARKWELL

SPECIALISTS IN HOME ECONOMICS

M. CHRISTINE WIGGINS, Clothing and Textiles

LORA V. HILYARD, Clothing and Textiles

GERTRUDE ALLEN, Foods and Nutrition

MARY FLETCHER, Foods and Nutrition

RACHEL MARTENS, Home Furnishings†

RUTH CRAWFORD, Home Furnishings‡

MAE FARRIS, Home Furnishings

W. PEARL MARTIN, Home Health and Sanitation

ELLEN LINDSTROM, Home Management

GLADYS MYERS, Home Management

DORIS COMPTON, Recreation

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 toward the salaries 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, 1939, forty-eight 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
WAYNE EWING, County Club Agent, Sedgwick County
CLAUDE L. KING, County Club Agent, Shawnee County
I. H. DAVIES, County Club Agent, Wyandotte County
RICHARD KING, County Club Agent, Crawford County
JOHN B. HANNA, County Club Agent, Butler 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 club 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 1910, 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, rural electrification, 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. All 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 furnished 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 selection, 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. The gross time required to complete correspondence courses is practically the same as would be necessary for the same courses in residence.

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 school 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 work 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 outlines and explanations, additional subject matter, and such special directions as seem desirable.

As soon as an enrollment card and fee are received at the Department of Home Study, the first assignments are sent out. As reports are received, additional assignments are mailed. The plan keeps work always at hand for the student and makes it possible for the instructor to keep in close touch with the student's progress and to offer suggestions to guide the student in his work. 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. In general, 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.

FEES

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 fewer, 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 pays the postage on his lessons, manuscripts, and communications sent to the department. The department pays the postage for the return of all such papers to students.

REGULATIONS

1. Enrollments for correspondence study will be received at any time during the year, and students may continue their work throughout the entire year.

2. Correspondence students are 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 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 will be permitted to complete a three-hour course in less than three weeks, a two-hour course in less than two weeks, or a one-hour course in less than one week.

8. Where there is evidence that any correspondence student has copied any part of the lessons from the papers of another student who has previously taken the course, such student will be automatically and permanently dropped from the course and a failing grade will be sent to the registrar's office with notation of the 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 can attend high school should do so, 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 be temporarily out of high school, who may not find the work which they desire offered locally, or who wish to 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 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 course 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	1/2
PCA 2.	Elementary Agriculture II.....	20	1/2
DRAWING			
PCD 3.	Shop Mechanical Drawing I.....	20	1/2
PCD 4.	Shop Mechanical Drawing II.....	20	1/2
ENGLISH			
PCE 1C.	Grammar and Composition (first year).....	20	1/2
PCE 2L.	Literature (first year).....	20	1/2
PCE 3C.	Composition (second year).....	20	1/2
PCE 4L.	Literature (second year).....	20	1/2
PCE 5C.	Composition (third year).....	20	1/2
PCE 6L.	Literature (third year).....	20	1/2
HISTORY AND CIVICS			
PCH 1.	Ancient History I.....	20	1/2
PCH 2.	Ancient History II.....	20	1/2
PCH 3.	Modern History I.....	20	1/2
PCH 4.	Modern History II.....	20	1/2
PCH 5.	American History I.....	20	1/2
PCH 6.	American History II.....	20	1/2
PCH 7.	Community Civics.....	20	1/2
PCH 8.	Constitution of United States.....	20	1/2
PCH 9.	World History I.....	20	1/2
PCH 10.	World History II.....	20	1/2
MATHEMATICS			
PCM 1.	Algebra I.....	20	1/2
PCM 2.	Algebra II.....	20	1/2
PCM 3.	Algebra III.....	20	1/2
PCM 4.	Plane Geometry I.....	20	1/2
PCM 5.	Plane Geometry II.....	20	1/2
PCM 6.	Solid Geometry.....	20	1/2
PCM 7.	Bookkeeping.....	20	1/2
SCIENCE			
PCS 1.	Physical Geography.....	20	1/2
PCS 2.	Botany.....	20	1/2
PCS 4.	Physiology.....	20	1/2
PCS 5.	General Science.....	20	1/2
PCC 1.	Commercial Geography.....	20	1/2
PCC 2.	Elementary Economics.....	20	1/2
PCC 3.	Elementary Sociology.....	20	1/2
PCC 4.	Elementary Psychology.....	20	1/2

COLLEGE COURSES

Numerous 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 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

<i>Course No.</i>		<i>AGRONOMY</i>	<i>Assignments</i>	<i>Semester hours of credit</i>
CA 3.	Farm Crops		16	2
<i>ANIMAL HUSBANDRY</i>				
CL 2.	History of Breeds.....		16	2
<i>HORTICULTURE</i>				
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
<i>POULTRY HUSBANDRY</i>				
CPP 1.	Farm Poultry Production.....		8	1

DIVISION OF ENGINEERING

<i>MACHINE DESIGN</i>				
CE 2.	Engineering Drawing		16	2
CE 6.	Machine Drawing I.....		16	2
CE 4.	Mechanism		24	3
CE 11.	Descriptive Geometry		16	2
<i>CIVIL ENGINEERING</i>				
CE 1.	Highway Engineering I.....		16	2
<i>SHOP PRACTICE</i>				
CE 7.	Metals and Alloys.....		16	2
<i>AGRICULTURAL ENGINEERING</i>				
CE 3.	Gas Engines and Tractors.....		16	2
<i>MECHANICAL ENGINEERING</i>				
CE 9.	Steam Turbines		16	2

DIVISION OF GENERAL SCIENCE

<i>ECONOMICS AND SOCIOLOGY</i>				
CEc 1.	Economics		24	3
CS 2.	Rural Sociology		24	3
CS 3.	Sociology		24	3
CS 4.	Community Leadership		16	2
<i>EDUCATION (PROFESSIONAL)</i>				
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
<i>ENGLISH</i>				
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
CCE 8.	Children's Literature		24	3
<i>JOURNALISM</i>				
CCJ 1.	Agricultural Journalism		24	3

<i>Course No.</i>		<i>Assignments</i>	<i>Semester hours of credit</i>
PHYSICAL EDUCATION			
CPE 1.	Personal and Community Hygiene.....	24	3
CPE 2.	Community Health	8	1
CPE 3.	Playground Activities	16	2
GEOLOGY			
CG 1.	Geology	24	3
CG 2.	Principles of Geography.....	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	24	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 1939

Seventy-sixth Annual Commencement

May 29, 1939

DEGREES CONFERRED

PROFESSIONAL DEGREES IN ENGINEERING

CIVIL ENGINEER

Joseph Alfred Doubrava, B. S., Kansas State College, 1933; Topeka, Kan.
Theodore Roosevelt Gingrich, B. S., Kansas State College, 1931; Lakin, Kan.
James Frederick Snyder, B. S., Kansas State College, 1927; Pharr, Texas.

ELECTRICAL ENGINEER

James Leroy Potter, B. S., Kansas State College, 1928; M. S., *ibid.*, 1930; Iowa City, Iowa.

MECHANICAL ENGINEER

Arthur Sidney McIntire, B. S., Kansas State College, 1931; Bridgeport, Connecticut.

Division of Graduate Study

MASTER OF SCIENCE

Norman Davis Ball, B. S., Baker University, 1936; Manhattan, Kan.
Nora Elizabeth Bare, B. S., Kansas State College, 1925; Protection, Kan.
Clarence Ezra Bley, D. V. M., University of Pennsylvania, 1920; Chester, Pa.
Loren Aldro Bryan, B. S. and A. B., Kansas State Teachers College, Emporia, 1937; Emporia, Kan.
Ruth Josephine Dales, B. S., Elmira College, 1933; Niagara Falls, N. Y.
Benjamin Ammon Davis, A. B., Central College, 1932; Atlantic, Iowa.
*Lois Estelle Dennhardt, B. S., University of Wisconsin, 1937; Neenah, Wis.
Samuel Allen Edgar, A. B., Sterling College, 1937; Sterling, Kan.
John Charles Finerty, A. B., Kalamazoo College, 1937; Chicago, Ill.
Forest Sheldon Frick, A. B., University of Kansas, 1915; Albion, Ind.
Clarence Lee Gish, B. S., Kansas State College, 1934; Manhattan, Kan.
Walter Raymond Gustafson, B. S., Kansas State College, 1936; Salina, Kan.
Leonard Casper Hoegemeyer, B. S., University of Nebraska, 1937; Hooper, Neb.
*Wai Lan Huang, B. S., National Sun Yat-Sen University, 1933; Canton, China.
Dolf Jesse Jennings, B. S., Ottawa University, 1932; A. B., Ottawa University, 1933; Burlingame, Kan.
Virginia Voigt Keim, B. S., University of Nebraska, 1937; Lincoln, Neb.
Alvin Lawrence Kenworthy, B. S., Oklahoma Agricultural and Mechanical College, 1937; Manhattan, Kan.
Alice Charlotte Linn, B. S., Kansas State College, 1931; Clyde, Kan.
Vergil Miller McIntosh, B. S., Kansas State College, 1938; Manhattan, Kan.
Wayne Wesley McIntosh, B. S., Kansas State College, 1938; Manhattan, Kan.
*Albert Bonebrake Macy, B. S., Kansas State College, 1930; Woodston, Kan.
*Charles Ernest O'Neal, Jr., B. S., Mississippi State College, 1936; Jackson, Miss.
Carl Gerhardt Ossmann, B. S., Kansas State College, 1933; Greenleaf, Kan.
Martha Richardson, A. B., University of Missouri, 1938; Kansas City, Mo.
Dan Arnold Richert, B. S., Kansas State College, 1938; Newton, Kan.
Marshall Minton Ross, A. B., University of Wichita, 1933; Wichita, Kan.
William Henry Schindler, B. S., Kansas State College, 1928; Winchester, Kan.
Luke Michael Schruben, B. S., Kansas State College, 1933; Manhattan, Kan.
William Augustus Tanner, B. S., University of Illinois, 1938; Aurora, Ill.
Joseph Benjamin Tuck, B. S., Kansas State College, 1938; Morrisville, Mo.
Elizabeth Daniel Walbert, B. S., Kansas State College, 1935; Columbus, Kan.

* In absentia.

Division of Agriculture

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 Bruce Warren Barker, Burns
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 *William Raymond Brady, Vermillion
 John Robson Brainard, Jr., Carlyle
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 Carl Ernest Claassen, Newton
 Carol Eugene Coleman, Sylvia
 Earl Jesse Cook, Parker
 Jess Ralph Cooper, Preston
 Edwin G. Courtney, Danville
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 Ernest Wilson Decker, Tecumseh
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 Merton Vincent Emmert, Manhattan
 Kenneth LeRoy Enright, El Dorado
 Earl Albert Erickson, Wilson, Pa.
 Willard Halsey Eyestone, Pittsburg
 Frank Webster Farley, Jr., Kansas City, Mo.
 Roy Raymond Green, Wichita
 Hilbert August Grote, Manhattan
 Donald Eugene Hall, Macksville
 Emmett Benjamin Hannawald, Pratt
 John Vernon Hansen, Hiawatha
 John Harris, Jr., Havensville
 Powell Harry Heide, Wilmore
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 Norman Walter Hildwein, Fairview
 James Elbert Johnson, Winfield
 Keith Cleon Johnson, Sylvia
 Kenneth Edward Johnson, Emporia
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 Emile Fredrick Kientz, Manhattan
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 Kenneth Ernst Kruse, Barnes
 Robert Marvin Lay, Higginsville, Mo.
 Edward Lyle Leland, Manhattan
 Kenneth Raymond Leonard, Manhattan
 Arthur Frank Leonard, Lawrence
 Joe W. Lewis, Larned
 John Wheeler Livingston, Vliets
 Dale Edwin McCarty, Oneida
 Machlitte Neal McVay, Sterling
 Lewis Francis Madison, Fort Scott
 Clayton Wilson Marker, Topeka
 Earl Edward Miller, Sublette
 Irwin Alvin Miller, Oberlin
 Harry Earl Molzen, Newton
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 Francis John Moore, Ashland
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 Clyde Dewey Mueller, Sawyer
 James Franklin Muggleston, Berkeley, Cal.
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 Walter O'Daniel Scott, Westmoreland
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 Alfons Alfred Stiebe, Rozel
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 Elwood Malcolm Strom, Dwight
 Warren Chalmer Teel, Morland
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 Gay Stanley Tuis, Fredonia
 Robert Lee Turner, Oskaloosa
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 Forrest Lemoine Duncan, Penaloza
 Beattie Harris Fleenor, Manhattan
 Robert Wade Furtick, Salina
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 Richard Eugene Hotchkiss, Manhattan
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 LeRoy Lloyd McAninch, Manhattan
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 Kenneth Leroy Nordstrom, Norton
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 *James Porter Sproul, Penokee

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*Lehnus Lloyd Horst, Holyrood
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Iden Frederick Krase, Cheney
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James John Stout, Belvidere, N. J.
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Earl Albert Ragland, Herington
*Dallas Glenn Schmidt, Lorraine
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Thomas Richard Edgerton, Manhattan	Anna Caroline Pfrang, Goff
Luella Edith Effland, White City	Viola Ruth Plush, Penalosa
Lewis Edward Emery, Manhattan	Claire Rickenbacker, Turlock, Cal.
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Kenneth Max Gould, Broken Bow, Neb.	Robert Paul Seidel, Morrowville
Ellen Anita Hawke, Irving	Ruth Arline Slagg, Manhattan
Margaret Jane Henry, Belleville	Gordon Kirkpatrick Steele, Columbus
Alice Arlene Herwig, Kansas City, Mo.	Richard Shelley Storer, Herington
Archie Willard Howell, Manhattan	Donald Eugene Tannahill, Phillipsburg
Jesse Richard Hunt, Arkansas City	DeLaura Vivian Whipple, Manhattan
Charles Fenwyck Jones, Irving	Edith Mary White, Kingsdown
Grace Louise Kiene, Topeka	Helen Iams Wroten, Beattie
Dean Karl Kipp, Manhattan	

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Anna Lora Bell, Silver Lake	Paris Shedrick Jackson, Ness City
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Hubert Ross Breuninger, Manhattan	Robert Verne Kellogg, Wichita
Zona Barbara Brown, El Dorado	John Leonard McKenzie, Solomon
Thomas Rudolph Brunner, Wamego	Harry Harrison Meyer, Basehor
Earl Everett Certain, Dodge City	Ivan John Meyer, Basehor
Lawrence Donaldson Colburn, Manhattan	Stanley Cole Miner, Ness City
Maynard Gerald Cox, Colony	Edward Cooper Moore, Westmoreland
Howard Allen Crawford, Stafford	Benn Michael Moyer, Columbus
Everett John Degenhardt, Alma	LaVon Klein Painter, Kansas City
Rowland Maxwell Dolan, Clifton	Arthur Eli Patterson, Kansas City
Elnita Ella Ehler, Holyrood	Grant Waldemar Peterson, Healy
Mary Helen Fitzgerald, Wamego	Forrest Wayne Pettey, Clay Center
Merlin J. Fleming, Oakley	Ruthe Christine Porter, Mount Hope
Mary Jane Foulston, Wichita	George Francis Preston, Cuba
Paul Delbert Fuller, Kansas City	Robert Edward Rion, Wetmore
John William Gamby, Everest	Billy Neil Stone, Hiawatha
John Thomas Harrell, Paradise	William Paul Trenkle, Topeka
Warner Harris, Burrton	Wilma Hazel Van Diest, Prairie View
Robert M. Heaton, Norton	Leland Austin Viar, Dunlap
William Joseph Hudspeth, Parsons	Ella Larine Wait, El Dorado
James Thomas Jackson, Manhattan	Marshall Edward Wilson, Kansas City

* In absentia.

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

*Byron Woodrow Black, Utica
Dean Thompson Bradley, Belle Plaine
John Perry Dilworth, Winfield
George Albert Engelland, Sterling
Charles Fred Horne, Alma
Glenn Walter Kerr, Rossville

William Eugene Larson, Wichita
William Minor Murfin, Fort Scott
Robert William Nottorf, Abilene
Gerald Edward Simms, Republic
James Longwell Woodruff, Dodge City
James Kelly Woods, Burden

BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Elwyn Lavern Alter, Jr., Manhattan
Dean Franklin Arnold, Kansas City
Rose Lee Arnold, Emporia
Jane Alleyne Auld, Wichita
Jesse Edward Bogan, Manhattan
Edward Arnold Buchmann, Clay Center
Marybelle Churchill, Topeka
Owen Earl Clark, Hoisington
Alice Rosalind Coldren, Oberlin
Ralph Roy Daggett, Reading
John Benjamin Dickens, Manhattan
Stanley Naismeth Dwyer, Manhattan
Dolores Coraleen Foster, Manhattan
Paul Willis Furst, Atchison
Frances Macy Gebhart, Salina
Lawrence Emil Grauerholz, Kensington
Margene Verena Holmes, Manhattan

Thelma Frances Holuba, Manhattan
Louis John Horn, Horton
*Robert Francis Kane, Topeka
Frederick Vinton Klemp, Jr., Leavenworth
Marie Donnasue Lohmeyer, Kansas City, Mo.
Susanne Long, El Dorado
Betty Lee McTaggart, Belleville
Gordon Ray Molesworth, Colony
Joseph William Newman, Manhattan
Elizabeth Phelan, Kansas City, Mo.
Elton Chester Pieplow, Hutchinson
Norma Lee Rebecca Quinlan, Lyons
Myron Maxford Rooks, Salina
Richard Blaine Schwitzgebel, Kansas City
Mary Eleanor Thomas, Easton, Pa.
*David Ambrose Thompson, Cheney
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BACHELOR OF SCIENCE IN MUSIC EDUCATION

Cynthia Elizabeth Askren, Manhattan
Margaret Louise Crawford, Hugoton
Lois LaVone Darby, Washington
Darwin Newcomb DeYoe, Hiawatha
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*Harold Ernest George, Nevada, Mo.

Roberta Laurine Hutchinson, Wamego
Jean Frances Johnson, Olsburg
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Richard Clair Banbury, Wichita
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Edward William Klimek, Manhattan
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Division of Home Economics

BACHELOR OF SCIENCE IN HOME ECONOMICS

Margaret Elizabeth Abbott, Manhattan
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* In absentia.

Elizabeth Laura Huey, Atchison
 Flora May Hulings, Sidney, Mont.
 Lena Marie Hurst, Clearwater
 Margaret M'Lee Isenbart, Wilmore
 Avis E. Johnson, Sterling
 Virginia Verle Johnson, Circleville
 Charlotte Erminie Jones, Leavenworth
 Jane Miner Julian, Kansas City
 Patricia Catherine Kail, Longford
 Grace Lorene Kendrick, Topeka
 Virginia Lee King, Kansas City, Mo.
 Hilda Mae Kroeker, Hutchinson
 Jean Marty Lawson, McPherson
 Fern Adele Layman, Arlington
 Opal M. Leach, Bird City
 Margaret Elizabeth Leger, Peiping, China
 Marceline Carroll Link, Chase
 Dorothy Margaret Lohmeyer, Newton
 Florence Elma Lovejoy, Alma
 Ruth Maxine Lund, Green
 Nancy Ellen McCroskey, Kansas City
 Dorothy Carol McKeen, Manhattan
 Maxine Doris McKenzie, Wayne
 Elsie Marie McLendon, Kansas City
 Hazel Mahon, Silver Lake
 Mary Frances Marron, Jacksonville, Fla.
 Helen Elizabeth Martin, Wichita
 Minnie Isobel Matthias, Atchison
 Edith Magdalena Meisner, Wichita
 Helen Hope Merryfield, Minneapolis
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 Elsinor Adelle Murphy, Manhattan
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 Elizabeth Frances Nabours, Manhattan
 Winifred Gene Needels, Salina
 Willa Dean Nodurft, Wichita
 Fern Aileen Norbury, Hume, Mo.
 Leona Venetta Ochsner, Tribune
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 Thomas Joseph Guilfoil (VC)
 Clare C. Hamilton (VC)
 Harris Warren Hantman (VC)
 ‡Carl Robert Harris (CAC)
 Sidney Lloyd Harry (Inf)
 Robert Carl Harvey (Inf)
 Albert Leo Havlik (VC)
 Eldon Francis Hayes (VC)
 Merle Logan Henrikson (VC)
 Arthur Wayne Hiort (Inf)
 ‡Richard Eugene Hotchkiss (Inf)
 Aubrey Means Hutton (VC)
 Donald Clayton Innes (VC)

Duane George Jehlik (CAC)
 Herman August Jokerst (VC)
 †Charles Fenwyck Jones (Inf)
 Raymond Albert Jones (VC)
 Frank Wilson Jordan (VC)
 Wendell Lee Kanawyer (VC)
 Fred Detter Kathis (Inf)
 Joseph Boston Key (VC)
 Emile Frederick Kientz (Inf)
 Marion Ainsworth Kilian (Inf)
 †Ray Carlyle King (Inf)
 Jack Ross Knappenberger (VC)
 Charles Davis Labahn (VC)
 *Gerald August Lake (CAC)
 Robert Jerome Lee (VC)
 *Wayne Howard Lee (CAC)
 Walter John Leland (Inf)
 †Glenn Richard Long (CAC)
 Henry Loughridge (VC)
 ‡Chauncey Karl Lundberg (Inf)
 Edward LeRoy McCoy (Inf)
 Dean Elwyn McIntire (Inf)
 James William McKinley (CAC)
 Hugh Otis McMillen (Inf)
 Albert Leon Malle (VC)
 Clayton Wilson Marker (Inf)
 Joseph Raymond Massey (VC)
 Ivan John Meyer (Inf)
 †Carl William Miller (Inf)
 Leonard John Miller (VC)
 *Edward Fox Moody (Inf)
 Edward Cooper Moore (Inf)
 William Hugh Moore (Inf)
 Patrick Exum Morgan (Inf)
 Lynus Robert Morton (VC)
 Leland Mark Moss (CAC)
 Donald Fleet Mossman (VC)
 Joe Kenneth Murphy (CAC)
 Samuel Siskind Nebb (VC)
 Walbert Oscar Nelson (VC)
 *Chester Dale Nielson (Inf)
 Morris Aaron Nossow (VC)
 Joseph Selverius Palen (VC)
 Wilfred Leroy Park (CAC)
 William David Paske (Inf)
 Kenyon Thomas Payne (Inf)
 Lester Leroy Peterie (CAC)
 Lee Richard Peterson (CAC)
 ‡Lester Winner Pollom (Inf)
 Curtis Albert Poppenhouse (VC)
 Gerhard Charles Poppenhouse (VC)
 George Eldon Powell (Inf)
 George Francis Preston (Inf)
 Guy Arthur Railsback (VC)
 ‡Weldon Wilday Reagor (CAC)
 *Leondis J. Redwine (CAC)
 Glen Stanley Remsberg (VC)
 ‡Robert Edward Rion (Inf)
 William Armour Roark (CAC)
 Donald Edwin Rodabaugh (VC)
 Louis Rotar (CAC)
 Bernard Barny Rovner (VC)
 Leo Henry Schweiter (Inf)
 Robert Paul Seidel (Inf)

* In absentia.

Richard Joe Seitz (Inf)	George Gilbert Tanenbaum (VC)
Hillard Weston Shaffer (CAC)	Edgar Lewis Taylor (VC)
John Aaron Sheetz (Inf)	*Buford Lewis Thomas (Inf)
Philip Newton Shrake (CAC)	†Leland Austin Viar (Inf)
Woodrow Bryan Sigley (CAC)	Elmer Leroy Vinson (CAC)
Stephen Milton Smith (CAC)	Roland Emil Vollmar (VC)
Morton Smutz (CAC)	Howard Oscar Wagner (Inf)
Bertel Emanuel Soderblom (Inf)	Melford Marcelle Wheatley (Inf)
*Otto Franklin Spencer (Inf)	Morris Brewer Willis (CAC)
William Frank Stoudenmire (VC)	‡Norman Dunning Wilttrout (Inf)
Thiel Holmes Sweet (CAC)	*John Henry Young (CAC)
*Buford Delmont Tackett (CAC)	Edward Bonjour Zickefoose (VC)

* Requirements for commission completed January 28, 1939.

† Certificate in lieu of commission—not 21 years of age.

‡ Commissioned at end of summer camp, 1938.

CAC—Coast Artillery Corps.

Inf—Infantry.

VC—Veterinary Corps.

Fifteenth Annual Summer School Commencement

July 28, 1939

DEGREES CONFERRED

PROFESSIONAL DEGREE IN ENGINEERING

ELECTRICAL ENGINEER

Walter Rankin Mitchell, B. S., Kansas State College, 1932; Dallas, Tex.

Division of Graduate Study

DOCTOR OF PHILOSOPHY

John Theodore Kroulik, A. B., 1934; M. A., University of Texas, 1935; Bellville, Tex.
Herbert Henry Schwardt, B. S., Kansas State College, 1926; M. S., *ibid.*, 1927; Ithaca, N. Y.

MASTER OF SCIENCE

- Edith Evelyn Ames, B. S., Kansas State College, 1927; Brewster
Adelaide Anne Aschmann, B. S., Carnegie Institute of Technology, 1938; Charleroi, Pa.
*Thomas Burt Avery, B. S., Kansas State College, 1934; Coldwater
Leslie Marion Blake, B. S., Kansas State College, 1937; Glasco
Francis Woodrow Boyd, B. S., Kansas State College, 1934; Mankato
Vira Brown, B. S., Kansas State College, 1925; Edmond
Arthur Adam Case, B. S., Kansas State College, 1937; Manhattan
*Tate Benton Collins, Jr., B. S., Kansas State College, 1937; Kuttawa, Ky.
Hazel Sophia Cox, B. S., Kansas State Teachers College, Pittsburg, 1928; Blue Mound
Howard Preston Davis, B. S., Kansas State College, 1927; Manhattan
Myron Samuel Dendurent, B. S., Kansas State College, 1939; Goodland
Ethel Faye Dennis, A. B., Southwestern College, 1925; Dodge City
Vera May Ellithorpe, B. S., Kansas State College, 1935; Russell
Lorena Catherine Foreman, A. B., University of Wichita, 1931; Hutchinson
Robert Jerome Frick, B. S., Kansas State College, 1938; Kansas City
*Roy Fred Fritz, B. S., Kansas State College, 1937; Garden City
Emma Thompson Galbraith, B. S., Kansas State Teachers College, Emporia, 1928; Cottonwood Falls
Mary Louise Gephart, A. B., College of Emporia, 1935; Peabody
Dora Eloise Gilmore, B. S., Kansas State Teachers College, Pittsburg, 1926; Chetopa
Galen Francis Glessner, B. S., McPherson College, 1936; Manhattan
Garnet Isal Hill, A. B., Baker University, 1917; Westmoreland
Phyllis Wheatley Honesty, B. S., Bradley Polytechnic Institute, 1929; Kansas City
Miriam Hill Houston, B. S., University of Wisconsin, 1936; Milwaukee, Wis.
Allee Winifred James, B. S., Prairie View State Normal and Industrial College, 1933; Seguin, Tex.
Eneas Dillon Kane, B. S., University of California, 1938; San Francisco, Cal.
*Henry H. Lee, A. B., College of Emporia, 1936; Chanute
Florence May Lehman, A. B., McPherson College, 1930; Abilene
Sam Long, B. S., Kansas State College, 1937; Abilene
Hans David Oliver Miller, B. S., Kansas State College, 1938; Manhattan
Francis Earl Mordy, B. S., Kansas State Teachers College, Emporia, 1932; Manhattan
Chester Winfield Ofelt, B. S., University of Minnesota, 1932; Minneapolis, Minn.
Roland Winfield Peterson, B. S., Kansas State College, 1934; Riley
Eugene Harold Pietsch, B. S., University of Illinois, 1938; Manhattan
*Imogene Price, A. B., Park College, 1932; B. S., Warrensburg Teachers College, 1934; Tripplett, Mo.
William Morrow Proudfit, B. S., Kansas State College, 1938; Powhattan
Luella May Reeve, A. B., Southwestern College, 1930; Winfield
Jayne Glenn Robinson, B. S., Houston College for Negroes, 1938; Houston, Tex.
*Joy Sinyard Ross, B. S., Prairie View State Normal and Industrial College, 1933; Bryan, Tex.
Robert Jacob Rychel, B. S., Kansas State College, 1932; Almena
Emma Frances Shepek, B. S., Kansas State College, 1932; Narka
Roger Turner Shepherd, B. S., Kansas State College, 1938; Manhattan
Berniece Ethel Sloan, B. S., Kansas State College, 1928; Manhattan
Grace Louise Smith, B. S., University of Kansas, 1930; Kansas City
Robert Dean West, B. S., Kansas State College, 1937; Coffeyville
Joseph Arthur Weybrew, B. S., Kansas State College, 1938; Wamego
Kathryn Whitten, B. S., Kansas State College, 1930; Topeka
*Dennis Emerson Wiant, B. S., Iowa State College, 1924; Brookings, S. Dak.

* In absentia.

Division of Agriculture**BACHELOR OF SCIENCE IN AGRICULTURE**

Hilding August Anderson, Cleburne
 Ray DeLore Brent, Alton
 *Donald Evans Charles, Republic
 George Washington Eberhart, Jewell
 Howard Surber Elliott, Manhattan
 Hoy Boyd Etling, Copeland
 Willis Bert Faulkender, Circleville
 Cecil Earl Hornbuckle, Hillsdale

Wayne Arnold Linville, Chase
 Joseph Wade Morey, Narka
 Morris William Phillips, Stockton
 Rolla Glenn Raines, Manhattan
 Noel Neville Robb, Dodge City
 William Alvis Wade, Hoxie
 *Wilbert John Wilson, Manhattan

BACHELOR OF SCIENCE IN MILLING INDUSTRY

*Mervin Wilson Myers, Anson

Division of Engineering and Architecture**BACHELOR OF SCIENCE IN AGRICULTURAL ENGINEERING**

George Alfred Randel, Lewis

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Gilbert Harold Burnett, McPherson

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Glenn Harold Boes, Pretty Prairie
 Clarence Joseph Dreier, Kansas City
 Walter Edmund Hanson, Lyndon
 George Wesley Hofsess, Partridge

James Maxwell Pierce, Burden
 Charles Eugene Scherzer, Larned
 Joe Earl Thompson, Alma

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Tom Bruce Bash, Kansas City, Mo.
 William Lester Daniels, Holliday
 Arthur Benoni Mills, Lakin

*Richard Earl Totten, Clifton
 J. Edmond Wolfe, Kansas City

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Elvin Stanton Brumfield, Jetmore

John William Miller, Alma

Division of General Science**BACHELOR OF SCIENCE**

Geraldine Lucille Cross, Wilson
 Harold Edward Engle, Manhattan
 Robert Nathaniel Erickson, Orland, Cal.
 Everett Leroy Fiedler, Manhattan
 Everett Nelson George, Edwardsville
 Merrill Douglas Geraghty, Selden
 James Banks Godin, Wamego

Albert Glenn Hunt, Larned
 James Robert Jesson, Ashland, Ohio
 Mae Maxine Johnson, Manhattan
 *Russell Anthony Kern, Junction City
 Leonard George Nehring, Harveyville
 Hallie Elizabeth Whitney, Council Grove

BACHELOR OF SCIENCE IN COMMERCE

Emma Jane Aushman, Abilene
 Vincent Wendell Doll, McPherson
 Harold Anderson Fechter, Aurora
 Arthur Wayne Hjort, Manhattan
 Mary Grace Iorger, Harper
 *Marion Ainsworth Kilian, Holyrood

Carl William Miller, Manhattan
 Albert Oren Morris, Coffeyville
 *John Hart Nicholson, Newton
 Donald Gilbert Reames, Independence
 Edward Allen Russell, Manhattan
 Alice Geneva Buikstra, Cawker City

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

James Annison Baird, Dodge City
 Charles Martin Good, Jr., Plevna
 George Robert Kramer, Mankato

Cecil Raymond Rhorer, Lewis
 *Buford Lewis Thomas, Manhattan

BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Ray Carlyle King, Manhattan
 Harold Eugene Nelson, Holton

Orville William Saffry, Alma
 Norma Elizabeth Speelman, Manhattan

* In absentia.

BACHELOR OF SCIENCE IN MUSIC EDUCATION

Veona Ruth Dixon, Moran

BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

Paul William Brown, Manhattan

*Barnabas Allen Hays, Princeton, Mo.

Division of Home Economics

BACHELOR OF SCIENCE IN HOME ECONOMICS

Lenora Lucille Ash, Wichita	Anita Mae Kensler, Manhattan
Virginia Faye Baxter, Manhattan	Helen Ermin McGuire, Burlington
Anna Elizabeth Betts, North Topeka	Beulah Burnetta Nelson, Manhattan
*Vera Louise Clarke, LeGrand, Cal.	Mary Margaret Pejsa, St. Joseph, Mo.
Maxine Evelyn Danielson, Manhattan	Rhoda Selma Putzig, Sylvan Grove
Valoris AEolia Davis, Hutchinson	Lois Anita Reed, Wichita
Hannah Lee Hemphill, Chanute	Mathilda Rempel, Hillsboro
Helen Vivian Higbee, Eureka	*Eugenia Carolyn Sanderson, Arkansas City

* In absentia.

HONORS

PHI KAPPA PHI

1938-1939

Division of Graduate Study

Alfred Charles Curtiss

John Charles Finerty

Division of Agriculture

George Wilson Aicher
Philip Tingley Allen
Hilding August Anderson
Ellwood Tyler Baker
Earl Jesse Cook
John Harris, Jr.
Meade Cecil Charles Harris, Jr.
Kenneth Ernst Kruse

Arthur Frank Leonhard
Charles William Lobenstein
Earl Edward Miller
Harry Earl Molzen
Clyde Dewey Mueller
Kenyon Thomas Payne
Herman J. Reitz
Henry Schweiter

Division of Engineering and Architecture

Dean Eugene Braden
Harry Copley Buchholtz
Richard Binford Christy
Walter Leroy Culbertson
Clifford Jerrold Drake
Paul Milton Hefty
Benjamin George Hildyard
Vearl Nathan Huff
Milton Kaslow
George Herbert Larson
Richard Edgar Lindgren
James William McKinley

Darrel Emmett Moll
Wilfred Leroy Park
John Wesley Pennington
Wendell John Pfeffer
Eugene Arman Ripperger
Robert D. Sieg
Woodrow Bryan Sigley
Edward Paul Smith
James John Stout
Howard Roy Stover
John Bennett Sutherland
J. Edmond Wolfe

Division of General Science

Dean Franklin Arnold
Cynthia Elizabeth Askren
Earl Everett Certain
Carlos Irving Cole
Jessie May Conard
Howard Allen Crawford
Ralph Roy Daggett
Ermal Irene Dearborn
Rose Geraldine Diller
Harold Edward Engle
Paul C. Fisher

Dolores Coralene Foster
Harold Ernest George
Barbara Jean Glenn
Ellen Anita Hawke
Dean Carl Kipp
George Robert Kramer
John D. McNeal
Gordon Ray Molesworth
Robert William Nottorf
Helen Iams Wroten

Division of Home Economics

Margaret Elizabeth Abbott
Stella Lucille Beil
Phyllis Irene Boyle
Bula May Carlson
Rosamond Claywell
Helen Beth Coats
Frances Arbetine Davis

Mary Frances Davis
Ailine Laurentia Hanson
Virginia Verle Johnson
Elinor Adelle Murphy
Hylan Myers
Rhoda Selma Putzig
Arlene Lois Waterson

Division of Veterinary Medicine

Wade Oberlin Brinker
Norwood Harry Casselberry
David Edward Evans
Jack Ross Knappenberger

Morris Aaron Nosslov
Guy Arthur Railsback
Edgar Lewis Taylor

SENIOR HONORS

1939

In each division of the College, high honors are awarded to 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

Philip Tingley Allen
Hilding August Anderson
*Earl Edward Miller

Clyde Dewey Mueller
*Herman J. Reitz

HONORS

John Dewey Axtell
Ellwood Tyler Baker
*Earl Jesse Cook
John Harris, Jr.

*Arthur Frank Leonhard
Leonard William Schruben
Henry Schweiter
Clifford William Stone

Division of Engineering and Architecture

HIGH HONORS

*Walter LeRoy Culbertson
*Wendell John Pfeffer

*Edward Paul Smith
*Howard Roy Stover

HONORS

Emil William Beckman
*Harry Copley Buchholtz
Walter Edmund Hanson
Paul Milton Hefty
Benjamin George Hildyard
Harold Hawley Munger

*Wilfred Leroy Park
Eugene Arman Ripperger
*Woodrow Bryan Sigley
James John Stout
John Bennett Sutherland
J. Edmond Wolfe

Division of General Science

HIGH HONORS

*Howard Allen Crawford
*Ermal Irene Dearborn
*Harold Edward Engle

Ellen Anita Hawke
*Thelma Frances Holuba
*Helen Iams Wroten

HONORS

Cynthia Elizabeth Askren
Emma Jane Ausherman
Hubert Ross Breuninger
Earl Everett Certain
Jessie May Conard
Ralph Roy Daggett
John Perry Dilworth
Everett Leroy Fiedler

Barbara Jean Glenn
Archie Willard Howell
*George Robert Kramer
Marie Donnasue Lohmeyer
*Gordon Ray Molesworth
Edward Cooper Moore
*Robert William Nottorf

Division of Home Economics

HIGH HONORS

*Stella Lucille Beil
*Mary Frances Davis

Hylen Myers
*Arlene Lois Waterson

HONORS

Margaret Elizabeth Abbott
Frances Mildred Berggren
*Phyllis Irene Boyle
*Helen Beth Coats
Frances Arbetine Davis

*Ailine Laurentia Hanson
Virginia Verle Johnson
Florence Elma Lovejoy
Elinor Adelle Murphy
*Rhoda Selma Putzig

* These persons were awarded sophomore honors at the end of their sophomore year.

Division of Veterinary Medicine**HIGH HONORS**

*Wade Oberlin Brinker

*Norwood Harry Casselberry

HONORSJack Ross Knappenberger
Morris Aaron NossovGuy Arthur Railsback
*Edgar Lewis Taylor

* These persons were awarded sophomore honors at the end of their sophomore year.

SOPHOMORE HONORS**1939**

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 Agriculture

George Wilson Cochran
Lloyd Charles Jones
Henry Joseph Smies
Joseph Wesley Nunemaker

Paul Elbert Smith
Eugene Ellsworth Woolley
Boyd Homer McCune
John Stanley Winter

Division of Engineering and Architecture

Duane Richard Davis
Vincent Henry Ellis
Louis Earl Raburn
Joseph Donald Musil
Garland Baxter Childers
Melvin Eugene Estey
John Richard Romig

Shirley Frederick Eyestone
Dwight Carl Brown
Emery John Levin
Eldon Ralph Sechler
Allen Ellwood Smoll
Durward Clair Danielson

Division of General Science

Raymond Voiles Adams, Jr.
James Merlin Kendall
Carl Ernest Latschar
Ruth Ella Kindred
Norma Elizabeth Cook
Frances Lillian Ruhl
Mary Marvel Kantz

Clara Katharine Chubb
Mary Ann Bair
Betty Hamilton Augur
Robert Earhart Crow
Charles Paul Schafer
Kathryn Elizabeth Blevins

Division of Home Economics

Dorothy Mae Green
Marianna Kistler
Jessie Margaret Collins
Frances Margaret Loomis
Velva Aldene Peffly

Helen Leona Pilcher
Dorothy Elizabeth Axcell
Beatta Elizabeth Totten
Clara Isabel Schnellbacher

Division of Veterinary Medicine

Bernard Busby

Clark C. Collins

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LIST OF STUDENTS
KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

(305)

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LIST OF STUDENTS **

Students Pursuing Graduate Work in Regular Session

Graduate Students

- Lois Geraldine Aldous; Manhattan
Annette Alsop; Manhattan
Malcolm Llewellyn Alsop; Wamego
Elinor Murphy Anderson; Manhattan
Hilding August Anderson; Cleburne
John Edmond Anderson; Manhattan
Kling LeRoy Anderson; Manhattan
Dewey Axtell; Manhattan
Nelta Evelyn Axtell; Manhattan
Harry C. Baird; Manhattan
James Annison Baird; Dodge City
James Walter Barger; Blue Mound
Glenn H. Beck; Manhattan
*Ballard Keller Bennett; Manhattan
*Lawrence Raymond Berg; Elma, Wash.
*Charles John Birkeland; Warwich, N. Dak.
Cora Alice Blackwill; Collyer
Helen Ann Blair; Mulvane
James A. Blodgett; Corvallis, Ore.
*Bernard Benjamin Bohren; Manhattan
*Hobart Paul Boles; Wilmore
*Christena Clarabel Bowen; Bloomington
*Mary Caroline Boyer; Philadelphia, Pa.
*Augustin Wilkes Breeden; Manhattan
Hubert Ross Breuminger; Manhattan
Gerald James Brown; Manhattan
Lillian Josephine Brychta; Blue Rapids
Frank Sherman Burson; Manhattan
Marjorie Louise Burton; Ames, Iowa
Marion John Caldwell; Manhattan
Bula May Carlson; Manhattan
Merrill Levern Carter; Wamego
Arthur Adam Case; Manhattan
*Hsien Tsin Chang; Shanghai, China
James P. Chapman; Manhattan
Vera Louise Clarke; LeGrand, Cal.
Laurence LaRue Compton; Manhattan
*Merlin D. Copen; Mendon, Utah
*Edwin Jamison Crane; Braddyville, Iowa
*Minerva Marie Cron; Alamo, Texas
Alfred Charles Curtiss; Beeler
†Reynold George Dahms; Lawton, Okla.
Walter Jones Daly; Manhattan
Floyd Ewing Davidson; Parsons
*James Allison Davidson;
East Lansing, Mich.
John Wesley DeMand; Lincolnville
Arthur William Devor; Manhattan
*Annabelle Jeanette Dickinson; Gorham
*Kenneth Wilcox Dike; Bristol, Vt.
Paul Lawrence Dittmore; Manhattan
Raymond Joseph Doll; Manhattan
Nina Edelblute; Manhattan
Thomas Richard Edgerton; Manhattan
Hal F. Eier; Manhattan
Mary Myers Elliott; Manhattan
*Maxine Elliott; Wichita
Elbert Lee Eshbaugh; Manhattan
*Ralph Frederick Fearn; Peoria, Ill.
*Walter Theodore Federer; Cheyenne, Wyo.
Lee Shriver Fent; Newton
Doris Hays Fenton; Manhattan
*Florence Rosalie Fields; McPherson
Alva Leroy Finkner; Akron, Colo.
Karl Frederick Finney; Manhattan
Homer Wendell Flemming; Pratt
Vernon Daniel Foltz; Manhattan
*Helen Gertrude Forney; Manhattan
*Helen Marguerite Foster;
Williston, N. Dak.
Jean Dobbs Frank; Manhattan
Caroline Ruth French; Lyndon
Lyman Phillip Frick; Kansas City, Mo.
†Henry Isely Germann; Oneida
*Oscar Strand Gillean; Manhattan
Otis Benton Glover; Manhattan
*Amy H. Goldsmith; Manhattan
Charles Martin Good; Plevna
*Elizabeth Walker Gordon; Zenith
Mary Alexander Gray; Topeka
George Alexander Gries; Conover, Ohio
Albert Wendell Grundmann;
Salt Lake City, Utah
Mary Louise Guggell; Edmond
Myrtle A. Gunselman; Manhattan
Herbert Frank Haas; Kansas City
†Charles Wendell Hadley;
Ann Arbor, Mich.
Virginia Kay Haggart; Topeka
Jacqueline Hanly; Manhattan
Charles Hal Harned; Manhattan
Meade Cecil Charles Harris, Jr.; Topeka
*Orville Beatty Harris; Baxter, Tenn.
George Thomas Hart; Manhattan
John V. Hepler; Manhattan
Elmer George Heyne; Manhattan
Helen Vivian Higbee; Eureka
*Francis Joseph Higgins; Kansas City
Ida Lue Hildibrand; Latham
*Raymona Mayne Hilton; Omaha, Neb.
Zelma Ellen Hockett; Manhattan
Hilton Delos Hollembek; Manhattan
Margene Holmes; Manhattan
Louis John Horn; Horton
Cecil Earl Hornbuckle; Hillsdale
Charles Fred Horne; Alma
Helen Pansy Hostetter; Manhattan
Miriam Hill Houston; Manhattan
*Clarence Neil Hunt; Sedan
Jesse Richard Hunt; Arkansas City
*Edgar Abner Johnson; Fort Collins, Colo.
DeVere Kay; Topeka
Glenn Walter Kerr; Rossville
Glenn Charles Klingman; Chappell, Neb.
*Leo Kobler; Penokee
James Michael Koepper; Medora, Ind.
*Rufus Alexander Koerting; Lincoln, Neb.
*Marvin Koger; State College, N. Mex.

** May 31, 1939, to June 28, 1940.

* Matriculated 1939-1940.

† In absentia.

GRADUATE STUDENTS—*Concluded*

- George Robert Kramer; Mankato
 *Earl McKee Kroth; Denison
 Harold LeRoy Kugler; Manhattan
 Raymond John Ladd; Manhattan
 *Clifford Elmer Lampman; Moscow, Idaho
 Alice Lucille Lanz; No. Battleford, Sask., Canada
 George Herbert Larson; Lindsborg
 Alvin George Law; Hill City
 *Nathan Mossell Lee; Quindaro
 *Franz Leidler; Vienna, Germany
 Edward Lyle Leland; Manhattan
 Marjorie Iris Lemon; Salina
 †Morris Loewenstein; Lincoln, Neb.
 Sam Long; Abilene
 Robert W. Lukens; Beloit
 Jeanne Agnes Lyon; Manhattan
 Marjorie Sellers McCall; Manhattan
 Max Elton McCluggage; Manhattan
 Patricia Fleming McCluggage; Manhattan
 Frederick Lee McDonald; Horton
 *Eugene Joseph Mackey; Manhattan
 Arvid Irvine Mall; Manhattan
 *Orrin Jay Marcy; Hay Springs, Neb.
 Rachel Martens; Manhattan
 Edgar Martin; Manhattan
 Calvin J. Medlin; Manhattan
 Ella Jane Meiller; Manhattan
 *Raymond Menard; Manhattan
 John O. Miller; Manhattan
 Kenneth William Miller; Manhattan
 Merna Beatrice Miller; Kansas City
 Winifred June Milliard; Manhattan
 Alice Carol Mitchelson; Baxter Springs
 *Clifford Merrill Moeller; Manhattan
 Darrel Emmett Moll; Hutchinson
 *Irene Monson; Osnabrock, N. Dak.
 Maria Morris; Manhattan
 Leonard Housden Moulden; Manhattan
 Harold Hawley Munger; Manhattan
 *Kermit Beard Myers; Centralia
 Leslie C. Nash; Manhattan
 Arthur Leslie Neal; Manhattan
 Eula May Neal; Olathe
 †Shelby M. Neelly; Greensburg
 Joseph William Newman; Manhattan
 *Leo Vaughn Nothstine; Mancelona, Mich.
 *†Harry B. Olson; Cuba
 Maxine Josephine Osbourn; Manhattan
 Merton Louis Otto; Manhattan
 Carol Lee Owsley; Manhattan
 Jasper Earl Pallesen; Manhattan
 *Claude Kingsford Paul; Fairview, Okla.
 †Iver Eugene Peterson; Phillipsburg
 Maurice Lewellen Peterson; Manhattan
 Morris William Phillips; Stockton
 James Meriden Phinney; Russell
 Leonard Milton Pike; Goddard
 Wilfred Harold Pine; Lawrence
 Clarence Andrew Pippin; Manhattan
 *Helen King Platt; Manhattan
 Nancy Elizabeth Poole; Manhattan
 Roland Wagner Portman; Manhattan
 Joseph Curtis Prentice; Manhattan
 Rhoda Putzig; Sylvan Grove
 Leonard James Rawson; Wamego
 David Vernon Rector; Topeka
 Addison Doyle Reed; Manhattan
 Clarence Walter Rice; Grand Rapids, Mich.
 Betty Jane Roberts; Manhattan
 *Stephen James Roberts; Manhattan
 Louise M. Ross; Wamego
 *E. Eugene Saunders; Columbia, Mo.
 *William Schauer; Wheeler
 Paul Angel Schoonhoven; Manhattan
 William George Schrenk; Manhattan
 †Louis C. Schwanke; Altamont
 Dick Schwitzgebel; Manhattan
 Rowena Hammons Sherrill; Brownell
 Louis Raymon Shobe; Waverly
 †Sister Mary Martha Scott; St. Louis, Mo.
 Ethel Sklar; Manhattan
 Laurence Nelson Skold; Haxtun, Colo.
 Robert Fred Sloan; Leavenworth
 *Ethel Sedonia Smith; Hempstead, Texas
 Hester Read Smith; Manhattan
 Mabel Rachel Smith; Manhattan
 Morton Smutz; Manhattan
 Katherine Bingman Snair; Manhattan
 William Zanvil Sosna; Manhattan
 Alice Mary Stockwell; Manhattan
 Charles William Stratton; Manhattan
 Hilmar C. Stuart; Garrison
 Charles Raymond Stumbo; Manhattan
 *Leroy Franklin Stutzman; Petersburg, Ind.
 Francis Joseph Sullivan; Manhattan
 John Bennett Sutherland; Burlingame
 Lewis Sweat; Cedar
 Robert Edward Tate; Downs
 Mary Ellen Thayer; Manhattan
 *Thomas Radford Thomson; Alameda, Cal.
 Eleanor Tibbetts; Wamego
 Marvin John Twiehaus; Manhattan
 *Karolyn Margaret Wagner; Seattle, Wash.
 Charles Edmond Wagoner; McPherson
 *Marlin Eugene Wallace; Little River
 Ellen Grace Warren; Manhattan
 *Mabel Roberta Warren; Wellsville
 George Harvey Wellington; Manhattan
 Homer Triss Wesche; Manhattan
 Joseph Arthur Weybrew; Wamego
 Marcelle Melford Wheatley; Gypsum
 *John E. Wherry; Kit Carson, Colo.
 Hugh Erwin White; Kingsdown
 Henry Evert Wichers; Manhattan
 Loyd Elbert Wildman; Manhattan
 *Bill Williams; Topeka
 *John Calvin Williams; Kansas City
 Samuel Lonnie Williams; Alleghany, N. C.
 Charles Peairs Wilson; Manhattan
 †Ralph Ernest Wilson; Paxico
 Temple Fay Winburn; Manhattan
 John Edmond Wolfe; Kansas City
 †Tit Wong; Canton, China
 Joe Nate Wood; Manhattan
 John Henry Young; Centralia
 Herman Wilson Zabel; Westmoreland

* Matriculated 1939-1940.

† In absentia.

UNDERGRADUATE STUDENTS

In Regular Session

The following lists include seniors, juniors, sophomores, freshmen and special students in College. For students in 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; BA, business administration; BA&A, business administration 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; IA, industrial arts; IC, industrial chemistry; IJ, industrial journalism; IM&D, institutional management and dietetics; M, applied music; MuE, music education; ME, mechanical engineering; MI, milling industry; PE, physical education; PVM, preveterinary medicine; SH, specialized horticulture, and VM, veterinary medicine.

SENIORS

- | | |
|---|--|
| Clarence Leaman Abell (CE); Oakley | Dale Wesley Baxter (CE); Manhattan |
| Edward Linn Abernathy (ArE); | Metta Lucille Baxter (PE); Manhattan |
| Sharon Springs | Ross Beach (GS); Hays |
| William Benton Ackley (Ag); Portis | Alice Lucille Beal (GS); Eureka |
| Lawrence Douglas Adams (EE); | Theodore Mason Beard (VM); Topeka |
| Mount Hope | Victor Bernard Beat (VM); Kingman |
| Michael Bartley Adams (ME); Newton | †Donald Gordon Beatson (EE); |
| DeWitt Bernard Ahlerich (AA); Winfield | Arkansas City |
| Voma Alcott (GS); Colby | De Elroy Beeler (ME); Kansas City |
| Julia Jane Alderman (HE); Ottawa | Ellwood Herschel Beeson (BA); Parsons |
| †Lois Geraldine Aldous (GS-1; Grad-2); | William Millington Beezley (Ag); Girard |
| Manhattan | Roy Swan Belcher (ME); Topeka |
| Genevie Elizabeth Allen (HE); Manhattan | Charles Arthur Bell (AA); Fort Scott |
| Bruce Logue Amos (CE); Arkansas City | William Goddard Bensing (EE); |
| Earl Walter Amthauer (ChE); | Manhattan |
| Junction City | Ina Jean Bentley (IC); Coffeyville |
| Alfred Eugene Anderson (Ag); Courtland | Floyd Willis Berger (AA); Barnes |
| Madeline Blanche Anderson (MuE); | Eileen Marie Bergsten (Ar); Randolph |
| Courtland | Marylee Berry (HE); Kensington |
| †Vivian Ethel Anderson (HE); | Carl Theodore Besse (CE); Clay Center |
| Kansas City, Mo. | Carl Frederick Beyer (ME); Glen Elder |
| Loyd Miller Angelo (BA&A); Horton | Joan Ellen Black (GS); Chanute |
| Carter Howell Anthony (VM); | Martha Ann Black (IJ); Independence |
| LaJolla, Cal. | Charles Wilson Blackburn (EE); Topeka |
| Fred Edwin Appleton (ME); Salina | E. Joseph Blackburn (ME); Alma |
| Orven Harry Armstrong (EE); | Helen Mae Blake (BA); Kansas City |
| Garden City | Carroll Gould Blanden (EE); Greeley |
| Mary Margaret Arnold (HE); Newton | Russell William Blessing (MI); Emporia |
| Clarence Lafayette Ash (ME); Wetmore | †Margaret Helen Blevens (IC); Manhattan |
| Neville LaVon Astle (VM); Manhattan | John Kermit Blythe (Ag); White City |
| †Ethel Avery (HE); Riley | John Mathew Boalen (GS); Concordia |
| Allan Vincent Ayres (AA); Augusta | Ralph Arthur Boehner (AA); Glen Elder |
| John Henry Babcock (EE); Manhattan | †Vernon Glenn Boger (ChE); Junction City |
| Fern Bair (BA); Wamego | Chester Lloyd Boles (CE); Turon |
| Eugene Ware Baird (SH); Kansas City | Betty Bonnell (HE); Kansas City, Mo. |
| Ruth Elizabeth Baldwin (IM&D); | Warren Harvey Boomer (BA); Portis |
| Manhattan | Maurice Eugene Bostwick (BA); |
| William Joseph Ball (MI); Oswego | Manhattan |
| Evans Eugene Banbury (AA); Pratt | Lawrence Ralph Bowdish (ArE); Wichita |
| †James Walter Barger (PE-1; Grad-2); | Jean Boyle (PE); Lawrence |
| Blue Mound | Louise Evelyn Boyle (IM&D); Spivey |
| Lawrence Newton Barker (Ag); Louisburg | Andrew Jack Bozarth (Ag); Liberal |
| Marian Phyllis Barnes (IJ); Manhattan | Mildred Blanche Bozarth (HE); Liberal |
| Melvin Lester Barrett (MuE); Dodge City | Elliot Wilson Brady (ME); Manhattan |
| Howard Nelson Batchelder (GS); | Mary Dean Brainard (MuE); Carlyle |
| Hiawatha | James Richard Brandon (CE); Wichita |

† Also pursuing graduate study.

SENIORS—*Continued*

- Jack Wallace Branson (GS); Belleville
 Albert Wade Brant (Ag); Sawyer
 William Armond Breeden (AA); Quinter
 Margaret Keith Breneman (HE);
 Wichita Falls, Tex.
 Marjorie Bee Breneman (HE); Macksville
 Leo James Brenner (AA); Bazine
 Vernon Lee Breensing (CE); Mullinville
 John A. Brewer (ME); Concordia
 Berniece Lanoda Brien (HE); Bern
 †Elinor Stanton Brinton (HE);
 DeKalb, Mo.
 James Charles Brock (Ag); Glasco
 John Richard Brock (BA); Glasco
 Carroll Wright Brooks (AA); Manhattan
 Elizabeth Maude Brooks (HE); Scott City
 Travis Epps Brooks (Ag); Salina
 David Wilson Brower (ChE); Emporia
 Betty Brown (HE); Emporia
 Donald Sefton Brown (ChE & GS);
 Manhattan
 James Milton Brown (VM);
 Los Angeles, Cal.
 Edith Carey Brownlee (HE); Hutchinson
 Dorothy May Buchanan (HE);
 Kansas City
 Jean Louise Buchanan (IM&D);
 Kansas City
 Pauline Clare Budde (HE); Albert
 Elinor Althea Buenning (MuE); Hope
 Frederick Louis Buente (VM);
 Evansville, Ind.
 *†Edward Erle Buller (GS); Inman
 †Richard Melven Bullock (Ag); Glasco
 George Frank Burditt (IC); Coldwater
 Walter Eugene Burrell (ME); Emporia
 Thomas Orland Bush (BA&A); Salina
 Jack DeLos Butler (CE); Hutchinson
 Albert B. Cameron (GS); Smith Center
 †Walter Jackson Campbell (Ag); Wilsey
 Howard Sidney Cantwell (VM);
 Riverside, Cal.
 Fred Granger Carman (IA); St. Francis
 Bill Milton Carnes (VM);
 Henryetta, Okla.
 Harold Eugene Carpenter (ME);
 Coffeyville
 †Charles Otis Carter (Ag); Morrowville
 Glenn Irville Case (VM); Nickerson
 Richard Alford Case (VM); Nickerson
 Harlan Wendell Casper (ME); Clifton
 Margaret Bessie Cassidy (HE); Clifton
 Helen Frances Chambers (IJ); Chanute
 *Maurine Chambers (HE); Newton
 Lloyd Dale Cherry (VM);
 Redwood Falls, Minn.
 Elisabeth Kerr Chickering (GS);
 Hutchinson
 Eunice Sarah Christenson (HE); Olsburg
 Doris Winona Christophersen (IJ);
 Manhattan
 John York Christy (Ag); Meriden
 Frank Adelbert Churchill (ME);
 Detroit, Mich.
 †Robertha Jeanette Clack (HE);
 Arkansas City
 Allen Roland Clark (AA); Miltonvale
 Margaret Wilma Clark (HE); Manhattan
 Thaine Alvin Clark (AA); Concordia
 Theodore Stanley Clark (BA); Penokee
 Rosamond Claywell (HE&J); Kansas City
 Cecil Eugene Cleland (AA); Eskridge
 Robert George Clendenin (MI);
 Kansas City
 Alonzo Leon Cloninger (EE); Chanute
 John Leslie Clow (AA); Goodland
 Ruth Elizabeth Cochran (HE); Topeka
 Harold Hedrick Coffman (IC); Overbrook
 Carlos Irving Cole (BA&A); Logan
 Dorothy Frances Cole (HE); Fowler
 Lee Wilson Collinsworth (Ag); Rosalia
 Rachael Jane Congdon (HE); Sedgwick
 Helen Lee Connely (HE); Kansas City
 William Kenneth Conwell (ChE);
 Manhattan
 Irene Beardwell Cook (HE); Wakeeney
 Norma Elizabeth Cook (MuE);
 Monument
 James Fenimore Cooper (IJ); Manhattan
 Louis Wilton Cooper (Ag); Peabody
 Corinne Ruth Corke (HE); Studley
 Mary Ellen Corman (HE); El Dorado
 Lucile Mae Cosandier (HE); Onaga
 Carl J. Coulter (IA); Leon
 Keith Lundy Cowden (BA&A);
 Kansas City, Mo.
 Virginia Lee Coy (HE); Kansas City
 Agatha Neoma Crawshaw (HE);
 Maplehill
 Don Eldon Crumbaker (Ag); Onaga
 Ray Earl Cudney (Ag); Trousdale
 Rex Edgar Cudney (Ag); Belpre
 Margaret Jane Culbertson (BA);
 Long Island
 Paul Stromquist Danielson (Ag);
 Lindsborg
 June Darby (IJ); Kansas City
 Charles James Davidson (BA); Madison
 Hyatt Lynne Davidson (IC); Manhattan
 Lawrence Roy Davidson (BA); Manhattan
 Margaret May Davidson (HE); Madison
 Charlene Mildred Davis (BA);
 Kansas City
 Charles Willard Davis (Ag); Garnett
 Dent C. Davis (ChE); Sedalia, Mo.
 Heene Genevieve Davis (HE); Marysville
 Dorothy Dean (GS); Manhattan
 †George Thomas Dean (CE); Manhattan
 †John G. Dean (Ag); Manhattan
 LaRue Eldred Delp (CE); Lenora
 Jean Frances DeYoung (HE); Manhattan
 †Paul Rutherford Dickens (PE);
 Long Island
 Roger Stephen Dildine (GS); Delphos
 George E. Dillenbeck (AH&V);
 Poultney, Vt.
 Rose Geraldine Diller (GS); Manhattan
 Richard Francis DiHey (CE); Topeka
 †Loren John Dilsaver (AE); Athol
 Herbert Merrill Dimond (EE); Manhattan
 *Gertrude Charlotte Dirks (HE);
 Hillsboro
 Betty June Doan (IJ); Pratt
 Darold Ardale Dodge (AA); Dighton
 Jane E. Dodge (GS); Manhattan
 Mildred Faith Dodge (HE); Manhattan
 Theodore Orice Dodge (BA&A); Dighton
 William Earl Doty (Ar); Manhattan
 Stanley James Dowds (VM); Gypsum
 Edward Merrill Downer (BA); Manhattan
 Donald Frederick Dresselhaus (CE);
 Lincoln
 Helen Amelia Droll (MuE); Alta Vista
 Wilbert William Duitsman (AA);
 Washington
 Lawrence Jack Duncan (ArE); Wichita
 Robert Frederick Dundon (EE);
 Junction City
 Grace Helen Dunlap (HE); Manhattan
 Iona Marie Dunlap (MuE); Keats
 Harriet Mayer Duvanel (MuE);
 Alta Vista

* Matriculated 1939-1940.

† Also pursuing graduate study.

SENIORS—Continued

- John Page Earle (AA); Washington
A. Thornton Edwards (GS);
Junction City
Fay Albert Edwards (EE); Arlington
*Karl Drechsel Edwards (GS); Manhattan
†Adah Lou Eier (BA); Manhattan
John Wallace Elling (MI); Manhattan
Mary E. Elliott (BA); Manhattan
Forest D. Ellis (ME); Garden City
Orin Ellgene Ellis (VM); Phillipsburg
Dwight Kendall Ellison (Ag);
Ogden, Utah
Ruth Trousdale Ellison (HE);
Ogden, Utah
Martha Elnora Emery (HE&A);
Manhattan
Frederick Dale Engler (Ag); Topeka
Burt Walter English (VM); Manhattan
John Henry Eppard (ChE); Kansas City
Carl Frederick Erickson (VM); Aurora
Frank Howard Estabrooks (ME);
Riverton
Ralph Edgar Evans (BA); Kansas City
Richard Cameron Evenson (EE); Claflin
Albert Ross Ewing (EE); Great Bend
Clair Eugene Ewing (CE); Blue Rapids
Doris Muriel Ewing (BA); Sabetha
Lottie Caroline Ewing (HE); El Dorado
John Madison Eyer (EE); Larned
Paul Fagler (PE); Uniontown, Pa.
Gustave Edmund Fairbanks (AE); Topeka
Lyle Willis Falkenrich (ME); Manhattan
Farland Edgar Fanscher (Ag); Hutchinson
John Robert Farmer (ME); Manhattan
Arthur Anthony Farrell (BA); Manhattan
Leora Aliene Fencl (BA); Haddam
Mary Helen Filley (IM&D);
Kansas City, Mo.
Austin J. Fink (EE); Lafontaine
Betty Lou Fisher (HE&A); Manhattan
Charles Allan Fisher (IJ); Wellington
Dean Lewis Fisher (CE); Mankato
Roy Mac Fisher (IJ); Belleville
George Howard Fittell (MI); Beloit
Truman Brandon Fleener (VM);
Tulsa, Okla.
Wilbert John Foos (ChE); Manhattan
Donald Galen Forbes (IJ); Kansas City
Marie Annette Foreman (HE); Vliets
Chester Alanson Foreman (CE); Wichita
John Cotterill Foster (Ar); Manhattan
Robert Clare Foulston (GS); Wichita
William Larry Fowler (CE); Wakeeney
Richard Grant Freeman (AE);
Tonganoxie
William B. Freeman (ChE); Manhattan
George W. French (AE); Augusta
Leland Samuel Frey (Ag);
Sacramento, Cal.
James Phillip Frick (ME); Kansas City
Francis Loyd Friedli (MI); Roscoe, Ohio
†John Walton Friedline (ChE);
Grand Saline, Tex.
†Jack Pearson Fuller (CE); Kansas City
William Borland Fullerton, Jr. (Ar);
Independence, Mo.
Betty Lane Gage (HE); Kansas City, Mo.
Janis Leigh Gainey (GS); Manhattan
Phil McNabb Gainey (EE); Manhattan
Freddie Joe Galvani (CE); Pittsburg
Merle Leon Garber (Ag); Dennis
Frederick James Gardner (Ar);
Manhattan
William Arthur Gardner (CE); Chanute
†Jess Dudley Garinger (ME); Harveyville
Clement Garrelts (CE); McPherson
Arthur Raymond Garvin (Ag); Ogden
John William Geddis (MI); Larned
Roger K. Ghormley (EE); Hutchinson
Helen Jean Gibbs (IJ); Kincaid
Elvin Vance Giddings (CE); Manhattan
Frank Glendon Gillett (VM); Wichita
Richard Mills Gillispie (EE); Topeka
Robert Newton Gist (ME); Manhattan
William Jack Glover (BA); Syracuse
Frances Louise Gonder (GS); Coffeyville
William Gerald Gordon (EE); Topeka
James LeRoy Gould (IJ); Manhattan
Henry Clifford Graefe (VM); Elwood
Harold Ellsworth Gray (AE);
No. Stonington, Conn.
†Mary Alexander Gray (IM&D-1;
Grad-2); Topeka
Gaylord George Green (Ag); Whiting
Gordon Charles Green (Ag); Whiting
Julia Louise Green (IM&D); Iola
Mark Leon Greenberg (VM);
Camden, N. J.
Murray Greensaft (VM); Belmar, N. Y.
†Dorothy Helen Greeson (GS); Partridge
Harold Allen Gregg (GS); Manhattan
C. Lyndon Griffith (ME); Elkhart
Katherine Piercy Grimes (HE); Lenexa
Ivan Charles Griswold (IJ); Marysville
Eugenia Louise Grob (HE); Randolph
Ralph Lewis Gross (Ag); Colby
Raymond Harry Groth (ChE); Bushton
Alice Ruth Gulick (HE); Olathe
Celia Camilla Guthrie (HE); Walton
Ralph Edward Guyton (BS); Salina
Marie Louise Haberthier (HE); Wichita
Beatrice Gertrude Habiger (HE); Bushton
Elmer Loyd Hackney (PE); Oberlin
Robert Monroe Hackney (BA); Parsons
Thomas Benton Haines (ChE); Manhattan
Lucille Haley (PE); Kansas City, Mo.
Julia Helen Hamm (HE); Humboldt
†Ruth Helen Hammel (GS); Clay Center
Florence Marie Hammett (HE);
Manhattan
James Russell Hammitt (BA&A);
St. John
Robert Lynnan Hammond (EE); Parsons
Paul V. Hannah (ME); Osborne
Fredric William Hanson (VM);
Pelican Rapids, Minn.
Harold Raymond Harris (ChE);
Genda Springs
Isaac Kieth Harrison (AA); Ottawa
Sidney Lloyd Harry (BA); Home
Gilbert Marri Hassur (GS); Hanover
Paul Clement Hauber (EE); Kansas City
Otto Ambrose Hauck (EE);
Jackson Heights, N. Y.
Gordon Graham Hazell (Ar);
Kansas City, Mo.
Edna Alletta Heaton (PE); Buford, Ark.
Frank Conrad Heifer (BA&A); Gove
Richard William Heikes (Ag); Wakefield
Harold Arthur Heimerich (EE);
Clay Center
William Douglas Helm (EE); Manhattan
Dorothy Mary Henderson (HE);
Bloomington, Neb.
Harold Vincent Henderson (CE); Eskridge
Tom Knight Henderson (ME); Wichita
Marion John Hennessy, Jr. (BA);
Hutchinson
Albert Raymond Henry (BA); Salina
Kenneth Dean Henry (CE); Robinson
Frederick Allen Heskett (BA&A);
Alton, Ill.

* Matriculated 1939-1940.

† Also pursuing graduate study.

SENIORS—Continued

- John Emmett Hesselbarth (ME); Abilene
 Michael Earl Hickey (CE); Hoisington
 Jennie Elizabeth Higdon (HE); Goodland
 Marjorie Higgins (Ag); Linn
 Marcella Genevieve Hobbie (HE); Tipton
 Belle Arvice Hoffman (IM&D); Hope
 Lester John Hoffman (AA); Haddam
 Charles Edwin Hofmann (VM);
 Manhattan
 Albert Sidney Holbert (GS); Newton
 Edwin B. Holland (EE); Liberal
 Charles Harris Holm (AA); Dwight
 Frances Elizabeth Holman (SH);
 Leavenworth
 Floyd Arthur Holmes (GS); Prescott
 Helen Elizabeth Hood (HE); Salina
 Leo Michael Hoover (AA); Greenleaf
 Conner Garth Hopkins (BA); Parsons
 Raymond Wells Hopkins (ME);
 River Forest, Ill.
 Dawn Lorraine Hornbaker (IM&D);
 Artesia, N. Mex.
 *Edna Grace Hostetler (HE); Harper
 †Helen Pansy Hostetler (Grad-1; HE-2);
 Manhattan
 James Lynn Hourrigan (VM); Langdon
 Horton Kent Howard (VM);
 Canton, N. Y.
 Walter Roy Howat (Ag); Codell
 Blanche Margaret Howe (BA&A);
 Stockdale
 Gerald Albert Hoyt (EE); Thayer
 Dena Everett Huitt (AE); Talmage
 Wilma Vivian Humbert (HE); Danville
 Arlyn Morris Humburg (BA); Bison
 Hannora Maude Hummel (HE); Towanda
 Frank Raymond Hunter (ME);
 Kansas City, Mo.
 Thomas Conrad Hutcherson (BA);
 Manhattan
 Lucille Opal Ifland (HE); Gaylord
 Gerald Howard Ingraham (MI);
 Manhattan
 Margaret Edith Iverson (HE);
 Wilmette, Ill.
 Richard Alonzo Jaccard (Ag); Manhattan
 †Clifton Edward Jackson (AE); Elsmore
 Howard Nelson Jackson (CE); Barnes
 John James Jackson (PE); Eureka
 Marjorie Louise Jacobs (GS); Kansas City
 Ruth Mildred Jameon (GS); Garrison
 Morgan Knott Jarvis (VM); Minden, Nev.
 Jack Wilton Jeakins (EE); El Dorado
 Duane George Jehlik (CE); Cuba
 Betty Ann Jenkins (IM&D); Wamego
 Calvin M. Jenkins (GS); Manhattan
 Grace Gladys Jenkins (HE); Jewell
 Irvin Brown Jenkins (BA); Kansas City
 Ross Lyman Jewell (VM); Irving
 Dale Edward Johnson (Ag); Manhattan
 Eleanor Lee Johnson (HE); Salina
 Kenneth Lowell Johnson (VM);
 Fresno, Cal.
 Martha Josephine Johnson (IM&D);
 Simpson
 Walter Lee Johnson (ME); Emmett
 Ruth Ella Johnston (MuE);
 Remsen, Iowa
 Helen Henrietta Johnstone (PE); Wamego
 Allen Margaret Terrell Jones (HE);
 Manhattan
 Betty Jean Jones (IM&D); Salina
 Elgie Gerald Jones (Ag); Tonganoxie
 Harold Eugene Jones (Ag); Concordia
 Mary Eleanor Jones (IJ); Garden City
 Van Chaffin Jones (EE); Parsons
 Robert Harry Joyce (AE); Ulysses
 Charles Ellsworth Kaiser (ArE);
 Kansas City
 Ralph Clayton Kantz (Ar&ArE); Wichita
 Milton Kaslow (ChE); New York City
 Alvin Daniel Kaufman (CE);
 Moundridge
 Roland Harry Kaufman (IA); Galva
 Robert Landis Kauffman (BA); Salina
 Eldon C. Kaup (MuE); Holton
 Grace Lea Kellogg (HE); Lecompton
 Chester Hennessy Kennedy (VM); Chase
 Francis Maxwell Kennedy (GS & VM);
 Lawrence
 William Thomas Keogh (ChE);
 New York City
 Charles Isaac Kern (Ag); Smith Center
 Osborn Arthur Kershner (ME); Paola
 Jean Elizabeth Kessler (IM&D);
 Excelsior Springs, Mo.
 Lyman DuVall Ketchum (MI);
 Kansas City
 Perle Everett Kimball (VM); Eskridge
 Donald Eugene King (EE); Wichita
 Dora Grey King (HE); Manhattan
 Elwood Chase King (Ag); Potwin
 Mildred King (GS); Minneola
 Muriel Ruth King (HE&A); Ottawa
 Ronald Bishop King (AA); Council Grove
 Donald Benton Kinkaid (AA);
 Medicine Lodge
 John Wallace Kirkbride (Ag);
 Medicine Lodge
 †Wesley Charles Kirschner (Ag); Humboldt
 Roy Wilber Kiser (Ag); Manhattan
 Wayne Klanun (Ag); Bonner Springs
 George William Kleier (Ag); Oxford
 Dell James Klema (EE & BA); Wilson
 LeRoy Vernon Kleppe (EE); Everest
 Olga Alma Knapp (HE); Topeka
 Ralph Wesley Knedlik (BA&A); Belleville
 Merle Ashton Knepper (EE); Winfield
 Karl Knoche (VM); Adrian, Minn.
 Hildegard Charlotte Knopp (IM&D);
 Kansas City
 Eleanor C. Kohake (GS); Seneca
 Isaac Henry Kriebel (EE); Liberty
 Harold Anderson Krig (VM); Manhattan
 Glenn Homer Kruse (AA); Morrill
 Roland Andrew Kruse (Ag); Barnes
 Henry Fred Kupfer (SH);
 Kansas City, Mo.
 Emory Harmon Lackey (AE); Manhattan
 Gerald August Lake (ChE); Manhattan
 Robert Glenn Lake (EE); Lake City
 Eleanor Jane Lambert (GS); Hiawatha
 Colter Adiel Landis (ChE); St. George
 Lewis Emsley Landsberg (AA);
 Bonner Springs
 Shelly Harrison Lane (ArE); Bucklin
 Chris William Langvardt (AA); Alta Vista
 Robert Byron Lank (AH&V); Kansas City
 Arthur Robert Laughlin (ME); Turon
 Oliver Ned Laurie (EE); Mulvane
 Sidney Jean Lawson (BA&A);
 Sylvan Grove
 Kenneth Lebsack (BA); Hutchinson
 Gwendolyn Lucille Lee (GS); Lyons
 Russell Arden Leeper (VM);
 Plymouth, Ind.
 Janice Roberta Lehmann (HE&N);
 Manhattan
 Ernest Wayne Leive (EE); Brookville
 Dorothea Leland (HE); Manhattan
 Walter John Leland (Ag); Manhattan
 Harold McKee Lemert (BA);
 Arkansas City

* Matriculated 1939-1940.

† Also pursuing graduate study.

SENIORS—Continued

- Dorothy Merle Lerew (HE); Portis
 Alvina Frieda Licht (HE); Ludell
 Ethel Iona Lienhardt (IM&D);
 Manhattan
 Gordon Grigsby Lill (GS); Mount Hope
 Wayne Percy Lill (CE); Mount Hope
 Leonard Lille (BA); Ellsworth
 Richard Edgar Lindgren (CE); Dwight
 Luella Elizabeth Lint (HE); Wichita
 Freda Ellen Lipper (GS); Sterling
 Maxine Elizabeth Lippy (BA);
 Independence
 William Allen Ljundahl (Ag); Menlo
 Charles William Lobenstein (Ag);
 Edwardsville
 Wilbert Lloyd Loewen (ME); Goessel
 Harry Wilbur Longberg (AA); Soldier
 Daniel Martin Longenecker (EE);
 Kingman
 Paul Torrence Loyd (VM); Valley Center
 James Stanley Lucas (EE); Kansas City
 Chauncey Karl Lundberg (GS);
 Manhattan
 James Herbert Lundsted (ME);
 Kansas City, Mo.
 Virginia Ethel Lupper (GS); Larned
 Elizabeth May Lyman (IM&D);
 Northfield, Minn.
 Margaret Eva McAllister (IM&D);
 Garden City
 Vesta Beam McCammon (HE);
 Manhattan
 Maurine Myrl McCann (HE&A); Newton
 Marjorie Loretta McCaslin (GS);
 Manhattan
 Charles Murry McCormick (ArE);
 El Dorado
 Donald Irvine McCoy (AA); Manhattan
 John Henry McCoy (AA); Manhattan
 Charles Melvin McCrann (PE); Wichita
 Raedine McCully (HE); La Harpe
 *Dorothy Louise McCully (GS); El Dorado
 Delbert Earl McCune (Ag); Stafford
 William Edward McCune (AE);
 Leavenworth
 Lowell Elvis McCutchen (PE); Kingman
 Ernest Raymond McDonald (BA); Salina
 Velma Maysle McGaugh (HE);
 Garden City
 Norris J. McGaw (MuE); Topeka
 Dorothy Lucille McIntosh (GS); Palmer
 Robert Glenn McKay (ME); Winfield
 James William McKinley (ME);
 Manhattan
 Carrie McLain (HE); Kansas City
 Marjorie Ellen McLenon (BA); Effingham
 Gerald Orestes McMaster (AA);
 Eskridge
 †John D. McNeal (GS); Boyle
 Marcel Dale McVay (Ag); Sterling
 Helen Frances Macan (HE); Edwardsville
 Robert MacDonald (VM);
 Newburgh, N. Y.
 Herman Peter Madsen (ME); Corbin
 Richard Hamilton Magerkurth (MI);
 Salina
 Julius Henry Mai (Ag); Tribune
 Alfred Eugene Makins (IJ); Abilene
 Richard Merrill Mall (IJ); Manhattan
 Gail Andrew Malson (BA); Chanute
 Walter Farrel Maninger (VM); Harper
 Manford Edward Mansfield (AA);
 McCune
 Charles Franklin Manspeaker (MI);
 Topeka
 Gordon John Marold (VM);
 Saguache, Colo.
 Louie Marshall (CE); Minneola
 Joseph Ralph Marshall (ChE & GS);
 Manhattan
 Harold Doig Martin (Ag); La Cygne
 Harry Eugene Martin (GS); Manhattan
 Maxine Jeanne Martin (IJ); Manhattan
 Theodore Vernon Martin (Ag);
 Kingsdown
 †Robert Edwin Marx (AA); Emporia
 Grace Elizabeth Mather (HE); Grinnell
 Kenneth William Matthews (CE);
 Mullinville
 Betty Lou Maupin (HE); Silver Lake
 John Stephen Maurer (BA&A); Winfield
 †Jeanne Eloise Meadows (GS); Gaylord
 Robert Frank Mears (SH); Kansas City
 †Henry John Meenen (AA); Clifton
 Joseph Eugene Meier (BA); Clay Center
 Roy Leonard Mesenbrink (VM);
 St. Louis, Mo.
 Carroll Louise Meyer (HE&A);
 Fort Leavenworth
 Frances Lucille Meyer (HE); Lillis
 Margaret Louise Meyer (HE); Jewell
 Virginia Roget Meyer (HE&A);
 Fort Leavenworth
 David Francis Mickey (CE);
 Junction City
 Abbie Maurine Miller (HE); Agra
 Doris Louise Miller (GS); Winfield
 Ernest William Miller (CE); Independence
 Lester Isaac Miller (ChE); Le Roy
 Robert Dunlap Miller (ChE);
 Junction City
 Roger Gray Miller (GS); Kansas City
 John Ludvig Mitcha (ME); Rossville
 Albert Peter Mitchell (VM); Osborn
 Lucille Eleanor Mollhagen (HE);
 Frederick
 Charles Carson Moore (VM); Louisburg
 Ellen Wauneta Moore (HE); Burden
 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
 Karl J. Mosbacher (ME); Wichita
 Leland Mark Moss (ArE); Miltonvale
 Robert Clark Mossman (AH&V);
 Manhattan
 †Leonard Housden Moulden (GS-1;
 Grad-2); Manhattan
 Robert Lee Mueller (ChE); Anthony
 William Lloyd Muir (BA); Norton
 Claude Franklin Murphy (VM);
 Conway Springs
 Grayson Elwood Murphy (Ag); Norton
 Joe Kenneth Murphy (EE); Chapman
 Shirley Elizabeth Murphy (HE); Emporia
 Robert Howard Musser (Ag);
 Milwaukee, Wis.
 Arthur Thomas Mussett (Ag);
 Leavenworth
 Ellsworth Dale Mustoe, Jr. (AA); Rexford
 Barbara Myers (HE); Topeka
 Evelyn Victoria Nagel (HE); Wichita
 Walter M. Naylor (CE); Burr Oak
 James Thomas Neill (Ag); Miltonvale
 Conrad Lundsgard Nelson (GS&V);
 Oklahoma City, Okla.
 Robert William Nelson (BA);
 Leavenworth
 Glenn Russell Nelson (CE); McPherson
 Junior Andrew Nelson (MuE); Gypsum
 Sheryl Arthur Nicholas (Ag); La Harpe

* Matriculated 1939-1940.

† Also pursuing graduate study.

SENIORS—Continued

William Phil Nichols (PE); Waterville
Chester Dale Nielsen (BA); Manhattan
Dorothea Marie Nielson (HE); Marysville
Albert Louis Niemoller (ME); Wakefield
Robert M. Niquette (Ag); Garden City
Theo Beatrice Nix (IJ);

Kansas City, Mo.

James Ancil Nixon (ME); Eureka
Paul Richard Noller (VM); Mankato
Dean Nonamaker (EE); Osborne
Pearl Signe Jane Norberg (GS); Winfield
Ingrid Leone Norden (HE); Marquette
John Patrick Nulty (ME); Jewell
Janet Yvonne Nutter (HE); Shelton, Neb.
Charles Frederick O'Brien (IC); Iola
George Herbert O'Brien (ME); Iola
LeVerne Maurice Odden (MI);

Buffalo, N. Y.

Barbara Marie Okerberg (IM&D); Ottawa
Angela Lillian Oliva (HE); Kensington
Margery Louise Olson (IM&D); Chanute
Max Charles Opperman (BA);

Yates Center

Arlene Octavia Orme (HE); Kansas City
Robert Orpin (ArE); Newton
Miriam Sophia Ostlund (HE); Washington
Dorothy Frances Ott (GS); Wichita
Carolyn Jane Overholt (HE);

Milwaukee, Wis.

Margaret Louise Owen (HE); Edson
†Carroll Dean Owensby (ChE); Manhattan
Everett Oyster (Ag); Paola
Aileen Ozment (IM&D); Manhattan
Mary Anne Pafford (GS); Salina
Enid Lillian Palmer (BA); Parsons
Rex Lewis Parcels (EE); Hiawatha
Rosemary Parisa (HE&A); Lansing
William Thomas Parrott (BA); Colby
Kenneth Frederick Parsons (Ag);

Manhattan

Jane Lillian Partridge (HE);

Kansas City, Mo.

Leonard Bruce Patton (EE); Solomon
Willis Dey Payton (ChE); Arkansas City
James Russell Peddicord (AA); Belvue
Viola Anna Peter (HE); Manhattan
Harvey Lee Peterson (Ag); Wellington
Helen Isabel Peterson (GS); Howard
Melvin Raymond Peterson (Ag); Riley
†Ralph Edward Peterson (GS); Manhattan
Winzer James Petr (AA); Waterville
Carl Lea Pettyjohn (IC); Talmo
Mary Martha Phillips (BA); Manhattan
Paul Edward Phillips (VM); Ottawa
Buford Doyle Philpy (VM); Manhattan
Victor Raymond Piatt (ChE);

Santa Fe, N. Mex.

Gerald Elsworth Pierce (AA); Garrison
James Arthur Pierce (Ar); Topeka
Mavis Lucille Plattner (MuE); Sabetha
Harry Plotkin (Ag); Pittsburgh, Pa.
Melvin Clark Poland (AA); Barnes
Maurine Pollom (HE&A); Manhattan
Charles Edward Porter, Jr. (ME);

Junction City

Kathleen Mary Porter (HE); Stafford
Kenneth Boyd Porter (Ag); Stafford
Clarence Arthur Powers (ME); Alta Vista
Kenneth Herbert Praeger (AA); Claflin
Charles Albert Pray (GS); Hope
John Clyde Pretzer (Ag); Elmdale
Glenn Emerson Pribbeno (ME);

Sharon Springs

Albert Paul Price (CE); St. Paul
William P. Price (GS); Little River
Donald Calvin Pricer (MuE); Hill City

Marvin Andrew Pringle (ME); Eskridge
*Lynne LeMoine Prout (IJ); Wichita
Paul A. Puttroff (BA&A); Newton
Virgil Lyle Pyke (BA&A); Enterprise
Robert Howard Pyle (ME); Wellington
†Hontus Quarles (IM&D); Claremont, Cal.
Byron White Quimby (AH&V); Manhattan
Kenneth Willard Randall (CE); Haddam
Laura Virginia Randall (HE); Ashland
William Harvey Rankin (BA&A); Idana
†Wilbur Abe Rawson (AA); Wamego
Virginia Ray (HE); Kansas City
Arlene Florence Raynesford (HE); Salina
Lucy Josephine Reader (HE); Sterling
Matthew Allen Reber (ME); Oneida
Earl Lhwynd Redfield (GS); Bucklin
Maxine Virginia Redman (PE);

Manhattan

Joseph James Redmond (EE); Lillis
Thomas Morse Reed (AA); Circleville
Donald Dorman Reid (CE); Manhattan
Ervin Ellis Reid (GS); Manhattan
Ralph Emery Reitz (BA&A); Shady Bend
Robert Arthur Remington (EE);

Hutchinson

Leon Merle Reynard (PE); Manhattan
Elizabeth Richardson (HE); Cawker City
Maxine LaJune Richardson (PE);

Sharon Springs

Frank Edgar Rickel (GS); Manhattan
James Otto Ridenour (ME); Kismet
Merton Alvin Rietzke (AE); Kensington

*Lola Irene Riggs (HE); Welda
Gerald Moore Riley (GS); Concordia
William Armour Roark (ME); Lake City
Ralph Roy Roberts (MI); Phillipsburg
†Joseph Edmond Robertson (MI);

Brownstown, Ind.

Cecil Redford Robinson (Ag); Nashville
Walter Stuart Robinson (Ag); Nashville
Carl Robert Rochat (IJ); Wilsey
Jane Helen Roderick (HE); Manhattan
Elmer Rollins (ChE); Manhattan
Gwendolyn Frances Romine (IJ); Abilene
Bueford Talmage Roper (MuE); Atchison
Helen Rosander (IM&D); Lindsborg
Russel Leon Rose (ME); Kiowa
Nathan Matthew Rosenbaum (VM);

Yonkers, N. Y.

Stephen Francis Rosner (VM); Bucyrus
William Rosner (VM); Philadelphia, Pa.
William Ronald Rostine (CE); Hutchinson
Vernal George Levi Roth (Ag); Emporia
Brace Rowley (Ag); La Cygne
George Richard Rugger (IC); Topeka
Orel Dale Rundle (IM&D); Axtell
Wayne Allard Rutter (IC); Kensington
Joseph Peter Sachse (ChE); Kansas City
William Roy Sachse (CE); Easton
Grant Angus Salisbury (GS); El Dorado
Ralph Emanuel Samuelson (ChE);

Manhattan

Arthur LeRoy Saylor (Ag); Langdon
Melvin Eugene Scanlan (CE); Agra
Leroy Edward Schafer (VM);

Valley Center

Walter Schanfeldt, Jr. (IJ); Cimarron
Genevieve Estella Scheier, HE);

Manhattan

George Walter Schiller (MI); Frankfort
Leon Washington Schindler (ME); Topeka
Francis Noel Schlaegel (VM); Olsburg
Aaron Kurt Schmidt (AA); Newton
Winston Albert Schmidt (CE); Lyons
†Anna Martha Schloz (HE); Huron
Alice LaVerne Schroeder (HE); Lorraine

* Matriculated 1939-1940.

† Also pursuing graduate study.

SENIORS—Continued

- Genevieve Eleanor Schroer (IM&D);
Manhattan
- †Lawrence Curtis Schubert (IC);
Hutchinson
- George Davis Schumacher (GS); Lyons
Vincent Joseph Schweiger (VM); Lenexa
Myron Carl Scott (BA); Newton
Melvin Harry Seelye (PE); Fort Scott
Edward Frank Sefcik (ME); Cuba
William Bain Sellers (ME); Winfield
Bert Eugene Sells (ME); Wichita
James McCabe Shaffer (ME); Humboldt
Ruby Juanita Shamburg (HE); Scottsville
George Woodrow Shaw (GS); Moscow
John Alex Shaw (Ag); Joes, Colo.
Charles Junior Sheetz (CE); Topeka
John Aaron Sheetz (BA); Topeka
Val Gene Sherrard (MuE); Great Bend
Kenneth Thomas Sherrill (AA); Brownell
- †Marvin Roy Shetlar (MI); Bayard
Merle Mathias Shilling (CE); Manhattan
Gladys Marie Shoffner (HE); Manhattan
Robert Nurman Shoffner (Ag); Manhattan
Francis Benjamin Shoup (AA); Udall
George William Shrack (BA); Pratt
Frank Everett Sicks (PE);
Okmulgee, Okla.
- Ernest Christian Sieder (ME);
Schenectady, N. Y.
- Luella Velva Siek (HE); Hope
Virgil Leonard Simpson (ChE); Towanda
Walter Turner Singleton (ME); Tribune
Damaris Irene Sipes (IM&D); Le Roy
- †Ramond Edward Small (ME);
Conway Springs
Edward George Smerchek (Ag); Garnett
Milan William Smerchek (Ag); Topeka
Agnes Marie Smith (HE&A); Toronto
Clarence William Smith (CE);
Clay Center
Evelyn Avery Smith (IM&D); Salina
George Harmon Smith (ChE); Manchester
Ivan Roland Smith (ChE); Highland
William Edgerly Smith (VM);
Fowler, Cal.
- †Morton Smutz (ChE-1; Grad-2);
Manhattan
Charles Henry Snider (VM); St. Louis, Ill.
Don A. Snyder (ChE); Elkhart
James Wilmeth Speers (MI); Manhattan
Guy Roger Spencer (VM); Whiting
Otto Franklin Spencer (Ag); Leavenworth
Marjorie Nell Spillman (BA&A); Coyville
Betty Spoelstra (GS); Prairie View
Kenneth Earl Spring (GS); Sabetha
Beverly David Spragg (Ag); Manhattan
- †Allen Edward Starosta (AA); Pomona
Merwin Milton Stearns (AA); Haddam
John Wesley Steffens (IC); Kansas City
Herbert Carl Steinhausen (Ag);
Omaha, Neb.
Ann Steinkirchner (HE); Newton
George Stevens (Ag); Waterbury, Conn.
Kathleen B. Stewart (HE); Stockton
Vivian Lorraine Stewart (HE); Hartford
William Francis Stewart (MI);
Saffordville
Everett Clarence Stidham (BA);
Manhattan
Theda Stine (HE); Glasco
Harry Wayne Stockhoff (MI); Bethel
Harry James Stockman (ME); Wichita
Melvin Andrew Stoner (GS); Edson
Enid Lorraine Stoops (HE); Sawyer
Warren Wallace St. Pierre (EE); Ames
Joseph Jacob Straub (AA); Wathena
- Charles Lyman Streeter (AA); Milford
*Delora Ellen Stricker (GS); Highland
Kenneth Lee Stuckey (EE); Kansas City
Swanna Lee Suits (IM&D); Odessa, Mo.
John Dennis Sulton (Ar); Manhattan
Harold Eugene Summers (ME); Pittsburg
Robert Edward Summers (IJ); Manhattan
Roy William Swafford (IJ); Topeka
Thiel Holmes Sweet (ArE); Formosa
Linn Meredith Swenson (EE);
Council Grove
Fred S. Talbot (AA); Manhattan
Raymond Shields Tanner (AA); St. John
Waldo Tate (Ag); Junction City
Harold Edward Taylor (GS); Norton
Robert Lansdowne Teeter (ChE);
McPherson
Morgan William Tempero (VM);
Clay Center
Donald Bland Thackrey (IJ);
Camden, Ark.
Edmund Clyde Thomas (ME);
Kansas City
Elnora Jane Thomas (HE); Salina
†Arthur Henry Thompson (AE); Delia
Daniel Max Thompson (GS); Almena
Kermit Karl Thompson (ME); Wichita
Leslie Earl Thompson (ChE); Fort Scott
Robert Sanders Thornburrow (ArE);
Wetmore
Celeste Jane Throckmorton (HE);
Manhattan
Robert John Tindall (BA); Lakin
*Gwendolyn LeVerne Tinklin (HE);
Atchison
Helen Tipton (IM&D); Paola
Hobart Tipton (ME); Paola
Rex Franklin Toomey (ChE); Neodesha
Floy Frances Toothaker (HE); Protection
Fred Franklin Townsend (CE); Waverly
Leland Mark Townsend (BA);
Junction City
Benjamin Donald Trout (MI);
Boonville, Mo.
Harden Halleck Tubbs (ME); Elkhart
Mildred Darline Tuttle (GS); Coffeyville
Dorothy Ann Uhl (HE); Smith Center
Harold Wertz Underhill (ArE); Wichita
John Lee Urquhart (MI); Wamego
Helen Louise Van Der Stelt (PE);
Wakefield
Glen Benton Van Ness (VM);
Harrison, Ark.
†George Willits Vaught (CE); Iola
Elmer Leroy Vinson (EE); Garfield
William Waffer (CE); White City
Howard Oscar Wagner, Jr. (BA);
Arkansas City
Daniel W. Wagoner (EE); Manhattan
Keith Bennett Wagoner (Ag); Blue Rapids
Ralph John Warenbrock (ME);
Enterprise
Robert J. Walker (IC); Dodge City
Janet Ross Wallace (IM&D); Hays
Carl William Walsten (BA); Inman
Dixon Irving Wands (GS); Manhattan
Evelyn Elnora Ward (HE); Langdon
Verna May Ward (HE); St. Joseph, Mo.
*Etta Elizabeth Warner (GS); Glasco
John Henderson Washburne (BA);
Waterbury, Conn.
Horace Cledus Watson (AA); Lake City
Faith Ella Watts (IM&D); Havensville
Charles Elmer Webb (ChE); Hill City
Katherine Evelyn Weldon (HE);
Smith Center

* Matriculated 1939-1940.

† Also pursuing graduate study.

SENIORS—*Concluded*

- Homer Theodore Wells, Jr. (ChE&ME); Marysville
 William Walter Wempe (AH&V); Frankfort
 Roma Mae Wenger (HE); Sabetha
 †Homer Triss Wesche (AE-1; Grad-2); Manhattan
 Glenn Arnold West (MI); Manhattan
 Arthur Wexler (GS); New York City
 †Marcelle Melford Wheatley (GS-1; Grad-2); Gypsum
 Florence Josephine Wheeler (GS); Jewell
 Louis Monroe Wheeler (BA); Plevna
 Oren Dale Whistler (AE); Independence
 Alfred Marvin White (EE); Topeka
 Roger Ferris White (GS); Buda, Ill.
 Charles Kenneth Whitehair (VM); Abilene
 Merle Ray Whitlock (Ag); Elmdale
 Dean Duane Whitmore (Ag); Portis
 Walter Robert Wichser (MI); Beardstown, Ill.
 Esther Irene Wiedower (M); Spearville
 Edgar Howard Wilkerson (ME); Wichita
 Donald Keith Wilkin (EE); Nortonville
 Frances Mildred Wilkins (HE); Chapman
 Morris Brewer Willis (EE); Kirwin
 †Solon Luther Willsey (ChE); Anthony
 Alice Margaret Wilson (HE); New Cambria
 Clifford Eli Wilson (ME); Caney
 Evelyn Agnes Wilson (HE); Grantville
 Joe James Winderlin (AA); Scott City
 Fred Wiruth (CE); Manhattan
 Leonard Charles Witt (VM); Scribner, Neb.
 Francis Bamford Woestemeyer (EE); Bethel
 Sylvester Harlan Womer (Ag); Bellaire
 Gordon Harold Woodson (Ag); Sharon Springs
 Frank Edward Woolf (PE); Wichita
 John Robert Works (Ag); Humboldt
 Ray Edmond Wright (IC); Osawatomie
 Norma Geraldine Wunder (HE); Valley Falls
 Erma Gene Wunderlich (HE&A); Kansas City, Mo.
 Juanita C. Wyckoff (HE); Luray
 Vera Lucille Wycoff (MuE); Norcatur
 Irl Clarence Yeo (EE); Ellsworth
 Dale J. Yokum (VM); Colony
 Kenneth Morton Yoos (EE); Atwood
 Doyle Leroy Youngs (EE); Norton
 Nellie Leone Yount (GS); Bazine

JUNIORS

- Merrill Glee Abrahams (Ag); Wayne
 *Alvin Wayne Acker (ME); Severance
 Warren Hardin Acker (ChE); Junction City
 Charles Henry Adams (Ag); Wilsey
 John Beal Adams (IJ); Osborne
 James Otis Adams (CE); Eureka
 Kirk Eiler Adams (Ag); Atchison
 Raymond Voiles Adams, Jr. (GS); Manhattan
 Walter Alfred Adams (ME); Leavenworth
 Charles Warren Adeock (ME); Washington, D. C.
 Donald Dwight Adeo (PE); Wells
 *James Franklin Aiken, Jr. (IC-1; MI-2); La Harpe
 Louis Fred Akers (BA); Atchison
 Eugene Alford (EE); Arkansas City
 *Carl Ellsworth Alleman (ChE); Kansas City
 Richard Carl Allen (EE); Carthage, Mo.
 Lueve Alsop (GS); Wamego
 Enid Alene Altwegg (IJ); Junction City
 Loren Edward Amerine (EE); Great Bend
 Charles Cornelius Anderson (ME); Emporia
 Edith Hewitt Anderson (HE); Pleasanton
 Eugene Elria Anderson (GS); Greenleaf
 Wilfred Ira Anderson (CE); Clay Center
 Fernando E. Armstrong (VM); Ponce, Puerto Rico
 George Rankin Armstrong (VM); Gastonia, N. C.
 Oliver Wendell Armstrong (BA&A); Mound Valley
 Edwin M. Aronson (ME); Fort Scott
 Earl William Atkins (BA); Topeka
 Richard Elton Atkins (Ag); Manhattan
 Leroy Nichols Atkinson (VM); Hutchinson
 Ellita Bernice Atwell (HE); Utica
 *Glenwood August Ausburn (ME); Wichita
 Dorothy Elizabeth Axcell (IM&D); Chanute
 *Benson Floyd Bachue (ME); Abbyville
 Merton Bierman Badenhop (AA); Kensington
 Lawrence Roy Bain (VM); Pittsburg
 Mary Ann Bair (IJ); Wamego
 *James Culbertson Baker (ME); El Dorado
 Walter Bruce Ball (BA&A); Topeka
 *Robert Orrin Balsters (CE); Arkansas City
 Jack Junior Banks (BA); Winfield
 Virginia Lee Barnard (IM&D); Belleville
 Arthur C. Barney (ME); South Haven
 *Truman Morris Barrett (IA); Dodge City
 Wallace DeArmond Barry (AA); Manhattan
 *Laura Florence Bartholow (GS); Coffeyville
 *Emma Louise Baskin (HE&A); Kansas City
 Clyde Jennings Bateman (ME); Herington
 Frank Alexander Bates (ME); Topeka
 *James Jacob Batty (GS); Kansas City
 Fremont H. Baxter (SH); Larned
 Winifred Jean Bayer (HE); Manhattan
 Annabelle Bays (BA&A); Onaga
 Edwin Howard Beach (IC); Marysville
 Forest O. Beardmore (AE); Manhattan
 Clarence August Bechtold (AA); Gaylord
 William Daniel Beeby (ME); Topeka
 Maurice Wayne Beichley (BA&A); Longford
 Carroll Lee Bell (ME); Hutchinson
 Rena Laurretta Bell (HE); McDonald
 William Perry Bell (EE); Silver Lake
 George Robert Belt (EE); Lane
 Welcome A. Bender (HE); Plains
 *Bryce Ralph Benedict (IJ); Chanute
 Philip Frank Bennett (CE); Eskridge
 Maurice Wittry Bergerhouse (BA&A); Greeley
 Minnie Josephine Bergsma (HE); Goodland
 Helen Elizabeth Berlin (GS); Wakefield
 Frank H. Betton (ArE); Bethel
 James Grant Betts (VM); Randall
 Edwin Leroy Betz (AA); Enterprise

* Matriculated 1939-1940.

† Also pursuing graduate study.

JUNIORS—Continued

- *Ralph Julius Bieberly (Ag); Dodge City
 Ronald Leroy Biggs (MI); Potwin
 Maxine Beryl Bishop (HE); Abilene
- *Eloise Artis Black (GS); Coffeyville
 Jean Olivia Black (HE&N); Attica
 Pauline Isabel Blackwell (HE); Rozel
 Dwight Duane Blaesi (AA); Abilene
 Robert Hale Blair (IJ); Ottawa
 Victor Ross Blanks (IJ); Manhattan
 Kathryn Elizabeth Blevins (GS);
 Manhattan
 Betty Boehm (IM&D); Kansas City, Mo.
 Wayne Columbus Bogard (Ag);
 Junction City
- *Robert Edgar Bogue (EE); Oil Hill
 Emory Bond, Jr. (CE); Burlingame
 Ralph Edwin Bonewitz (Ag); Meriden
 James Frederick Booth (AA); Fairview
 Ross W. Booth (ME); Paradise
 Pauline Marie Borth (HE); Plains
 William Dale Bowerman (VM);
 Oklahoma City, Okla.
- *John Harrison Bowers, Jr. (BA);
 Kansas City
 Edward Allan Bowman (BA);
 Pawnee Rock
- *Mary Jane Boyd (MuE); Hutchinson
 Esther May Boys (HE&A); Linwood
 Harold Henderson Bozarth (ME);
 Eskridge
 James Thomas Bradley (EE); Sedan
 Edward Leo Brady (BA&A); Fredonia
 Al Merle Brecheisen (GS); Rolla
 Richard Harold Breckenridge (ME);
 Woodston
 Edward Francis Brenner (AA); Bazine
- *Elizabeth Ann Brenz (HE); Arkansas City
 David Henry Breuninger (BA); Manhattan
 George Daniel Brewer (ME); Wichita
- *John Gilbert Brewer (ChE);
 Arkansas City
 Harold Brickley (ChE); Emporia
 William Blount Briggs (MI);
 Landrum, S. C.
 Frances Lorraine Brooks (HE); Norton
 Arthur William Brower (VM); Emporia
 Jacquelyn Lonore Brower (HE); Attica
 Allen O. Brown (Ar); Osborne
 Arlo Allen Brown (Ag); Almena
 Clarence Bernard Brown (EE);
 Kansas City
 Dwight Carl Brown (ArE); Osborne
 Francis Richard Brown (AA); Fall River
 Lester Earl Brown (AA); Circleville
 Lewis Ernest Brown (ME); Chanute
 Paul Lawson Brown (Ag); Sylvan Grove
 Sara Davidson Brown (IM&D);
 Manhattan
 Wendell Lewis Brubaker (MI); Manhattan
 Kenneth Lee Bruce (VM); Orchard, Neb.
- *Joe Bruington, Jr. (EE); Kansas City
- *Oscar Benjamin Brunback (ChE);
 El Dorado
 Ruth Miller Brunner (GS); Wamego
 Robert William Brush (Ag); Wichita
 Joe Bryske (IC); Mankato
 Edith Louise Buckholtz (HE); Olathe
 Charles Adelbert Buck (ChE); Anthony
 Laurence Theodore Buening (BA&A);
 Valley Falls
 Raymond Martin Bukaty (ME);
 Kansas City
- *James Donald Bulger (AA); Cherryvale
 Curtis Ames Burgan (EE); Hoisington
 Wesley Burgan (ArE); Hoisington
 Max Morris Burger (IA); Randall
 Orville Brown Burtis (Ag); Hymer
- Bernard Busby (VM); Wakefield, Neb.
 Glenn Marton Busset (AA); Manhattan
 Sarah Jane Buster (HE); Larned
 Wilma Hortense Cade (GS); Manhattan
 Tarlton Aura Caldwell (BA); Manhattan
- *Roy Dell Call (EE); Manhattan
 Bessie Marie Campbell (HE); Concordia
 Mary Alice Campbell (HE); Concordia
 Ruth Pearl Campbell (HE); Lakin
 Lester Wendell Canny (BA);
 Mound Valley
 Gilbert Wilson Carl (VM); Hutchinson
 Doris Virginia Carlson (IM&D);
 Osage City
- *Howard Leon Carnahan (Ag); Parsons
- *John Eldon Carper (GS); Cherryvale
 Dean Robert Cassity (SH); Clifton
 James F. Cavanaugh (Ag); Dodge City
 Richard John Cech (IJ); Kansas City
 Severo Jose Cervera (Ag);
 Junction City
 Edward Eldridge Chambers (VM);
 Parsons
 Howard Wendell Channell (Ag);
 Kansas City
 Robert George Chapman (GS);
 Manhattan
 Walter Eugene Chappell (AA); Chanute
 Clayton Ralph Chartier (MuE);
 Concordia
- *Robert Ellis Chase (EE); Thayer
- *Robert Garfield Cheatum (ME);
 Hutchinson
- *William Graham Chester (ME);
 Kansas City, Mo.
 Ned Chestnutt (EE); Logan
 Garland Baxter Childers (CE); Augusta
 Clara Katharine Chubb (IJ); Topeka
 Thomas Riley Church (EE); Minneola
 Betty Jean Clapp (IM&D); Manhattan
 Bonnie Lue Clapp (HE&N); Manhattan
- *Doris Leota Clark (GS); Longton
 Lowell Warren Clark (MuE); Waterville
 Robert Hugh Clark (VM); Manhattan
 Margaret Ann Clarke (HE); Winfield
 J. Harold Clay (AA); Meade
 Donald Ernest Cleland (AE); Eskridge
 Paul Lawrence Clingman (BA); Harlan
 George Wilson Cochran (Ag); Topeka
 Charlotte Jean Cockerill (HE); Frankfort
 Robert Benson Coder (IA); Manhattan
 Charles Edwin Coffman (BA); Allen
 Robert Christian Colburn (AE);
 Spearville
- *Robert Lawrence Colby (GS); Hutchinson
 Wayne Robert Colle (AA); Sterling
 Clark C. Collins (VM); West Point, Neb.
 Jessie Margaret Collins (IM&D); Dwight
 Lawrence Keith Collins (AE);
 Junction City
 Kenneth Harold Colvin (ChE); Topeka
- *Kenneth Willard Colwell (ME); Emporia
- *Clarence Charles Compton (CE);
 Atchison
 Norman Travis Cook (CE); Monument
 Carleton Cooper (BA&A); St. John
 Richard Warren Cope (Ag); Holton
- *Eunice Adelle Corbus (BA&A);
 Kalamazoo, Mich.
 Keller Cordon (AE); Circleville
 Charles Joseph Correll (BA); Manhattan
 Robert Thomas Cotton (GS); Manhattan
 Arlene Ruth Cowan (HE); Athol
- *Alan Neil Cowles (EE); El Dorado
 Harry Cowman, Jr. (AA); Lost Springs
 Marie Jane Cox (IM&D); Iola
 James Jacob Cram (CE); St. Francis

* Matriculated 1939-1940.

† Also pursuing graduate study.

JUNIORS—Continued

- Elvin Wayne Cramer (GS); Glasco
 Virgil Eugene Craven (BA); Erie
 Arthur Joseph Crawford (ArE); Clements
 David Franklin Crews (MI); Manhattan
 *James Martin Cripps (IC); Manhattan
 Joseph Celester Crofton (Ag);
 Kansas City
 Leo Edward Cross (PE); Midian
 Sarah Ann Crotinger (HE); Bison
 Robert Earhart Crow (GS); Harper
 Edgar Crowley (ChE); Kansas City
 *Audie Lee Roy Curry (BA&A);
 Hutchinson
 Betty Jane Curtis (IM&D); McPherson
 Emerson Lyle Cyphers (Ag); Fairview
 Fay Anne Dale (GS); Coldwater
 Elizabeth Clara Danford (HE&N);
 Hutchinson
 Durward Clair Danielson (ChE); Clyde
 Clara Marie Darby (MuE); Morrowville
 Clayton Cunningham David (Ag);
 N. Topeka
 *Betty Lou Davis (BA); Severance
 Duane Richard Davis (EE); Beloit
 Shirley LeRoy Davis (VM); Fort Scott
 Thomas Clayton Davis (Ag);
 Thomasville, Ga.
 Max Lawrence Dawdy (Ag); Washington
 Robert Price Dawley (GS); Manhattan
 Lorene Dawson (IM&D-1; GS-2);
 Kansas City, Mo.
 Arthur Clarence Day (ChE); Ottawa
 *Robert Edward Deatz (ChE); Hutchinson
 Wayne Xavier Deaver (MI); Sabetha
 Warren James Dedrick (VM);
 Kansas City
 William Charles Deitchman (CE);
 Kansas City
 *Marieta Jane Delano (HE); Hutchinson
 Jean Chandler DeVault (ChE);
 Kansas City
 *Warren Eugene Dewlen (AA); Coffeyville
 *Irving Diamond (ChE); New York City
 Alma Lorraine Dickerhoof (IM&D);
 Chanute
 Dale Dietz (BA); Esbon
 *Mary Harding Dillin (MuE);
 Fort Worth, Tex.
 Millard Fay Dilsaver (AE); Athol
 Virgil Dilsaver (EE); Athol
 *Jean Berniece Dimsdale (HE);
 Kansas City
 *Helen Gordon Dodds (HE); Lawrence
 Robert Hollister Dodge (BA&A);
 Kansas City
 *Isabel Naomi Dodrill (HE); Stockton
 John James Dooley (ChE); Parsons
 Bert William Doran (AE); Macksville
 *Ruth Elma Douglas (HE); Coffeyville
 *Jack Edwin Downs (ME); Wichita
 Richard Eugene Dreyer (ME); Newton
 Leslie Albert Droge (PE); Seneca
 Joyce Lenore Dryden (HE); Stockton
 Alva Lease Duckwall (BA); Abilene
 Lillian Ruth Dumler (IM&D); Gorham
 John Wallace Dummermuth (AA); Barnes
 Glenn E. Duncan (VM); St. Francis
 Jane Cuthbert Dunham (HE); Topeka
 *Ray Charles Dunley, Jr. (GS-1; CE-2);
 Parsons
 Wellington John Dunn (AA); Tescott
 Wally Elsworth Dwy (CE);
 Waterbury, Conn.
 *Everett James Eastman (ME);
 Independence
 George W. Eberhart (VM); Jewell
 Howard Clayton Eberline (EE);
 Manhattan
 Paul Raymond Edwards (SH); Meade
 Vincent Henry Ellis (ME); Urbana, Ill.
 *Marion Claire Elmer (HE); Manhattan
 Rush Elmore, Jr. (MI); Topeka
 Helen Louise Ensign (IM&D); Garrison
 John Ernest Erickson (VM);
 Clairton, Pa.
 Aven LeMar Eshelman (CE); Abilene
 *Lela Elise Eshelman (BA&A); Wichita
 Melvin Eugene Estey (ME); Langdon
 Lola Grace Evans (HE); Hutchinson
 Wilma Florine Evans (HE); Hutchinson
 Shirley Frederick Eyestone (EE); Wichita
 Willard Halsey Eyestone (VM);
 Pittsburg
 *George Allen Fadler (ME);
 Carthage, Mo.
 *Blanchetta Fair (GS); Dearing
 Harry Eugene Fair (Ag); Alden
 Charles Edward Fairman (PE);
 Manhattan
 James Madison Fallis (IC); Luray
 *James Albert Farrow (ChE);
 Arkansas City
 Jack Featheringill (AA); Independence
 *Rachel Louise Featheringill (HE);
 Independence
 Elizabeth Anne Ferrier (GS); Seneca
 *Autumn Felton Fields (HE); McPherson
 Taylor Leland Fitzgerald (Ag);
 Silver Lake
 Helen Elaine Fleming (HE); Ottawa
 Edward Horton Fletcher (ME);
 Council Grove
 Reed Charles Fleury (Ag); Manhattan
 Frank Abram Flipse (VM); Monument
 Margery Anne Floersch (IJ); Manhattan
 Franklin James Flynn (BA); Wamego
 Merle Everett Foland (EE-1; MI-2);
 Almena
 *Floyd Greer Foley (ME); Norton
 John Lowell Foley (AA); Dellvale
 William Roy Ford (EE); Frankfort
 Harry Edward Foster (Ar); Hiawatha
 *Lowell Windell Fowler (GS); El Dorado
 Harold Robert Fox (AA); Rozel
 Hobart William Frederick (Ag); Burrton
 Lawrence Dale Freel (GS); Goff
 Forrest Elroy Freeman (Ag); Simpson
 Ray Day Freeman (ME); Paola
 Clarence Albert Frese (AE); Hoyt
 Evalyn Mae Frick (HE); Larned
 John Henry Frohn (EE); Manhattan
 LeRoy Frank Fry (AA); Little River
 Alma Deane Fuller (IJ); Courtland
 Margaret Lucille Munger Furbeck (HE);
 Manhattan
 Paul Louis Furbeck (AE); Larned
 *Michael Edward Gallagher (ME); Horton
 *Erma Katherine Gamby (HE); Everest
 Alva Rodell Gardner (ME); Pomona
 Bertram Wallace Gardner, Jr. (Ag);
 Carbondale
 Neva Marguerite Garrett (GS);
 Clay Center
 Warren Harley Garrett (BA); Manhattan
 John VanAtta Gates (ME); Goff
 Lloyd Reed Gebhart (CE); Culver
 William Burris Geery (CE); Burrton
 Gerald Geiger (BA&A);
 Belvidere, N. J.
 Alexander Rinaldo Geldhof (EE);
 Pittsburg
 Jackson George (Ag); Lebo

* Matriculated 1939-1940.

† Also pursuing graduate study.

JUNIORS—Continued

- Dale Edsel Gibson (GS); Winchester
 Mahlon H. Giffin (ME); Sedgwick
 Paul Gilbert, Jr. (CE); Pawnee Rock
 Robert Albert Gilles (CE); Kansas City
 John Gifford Gish (VM); El Dorado
 Margaret Jane Goble (IJ); Riley
 George William Godfrey (ME); Haven
 *Harold Raymond Godown (Ag);
 Linden, Iowa
 *Dave John Goertz (Ag); Hillsboro
 Florence Clarice Gosney (HE); Mulvane
 Virginia Lee Goss (IM&D); Dwight
 Kenneth Herbert Graham (BA);
 Framingham, Mass.
 Madalene Mildred Graves (IM&D);
 Clifton
 Richard Loy Gray (BA); Wichita
 Dorothy Mae Green (HE); Wichita
 Wilbert Greer (Ag); Council Grove
 Mary Jean Grentner (IJ); Junction City
 *Leland Leon Groff (Ag); Parsons
 Emory Allen Groves (AA); Burlingame
 Warren Gerald Grubb (ChE);
 Phillipsburg
 Melvin Ferdinand Gruber (AA); Hope
 David Edward Guerrant (IJ); Manhattan
 Mildred Joyce Gurtler (HE); Summerfield
 Mary Alice Guy (HE); Longford
 *Thomas DeForest Guy (BA); Liberty
 Florence Verda Gwin (HE);
 Junction City
 Dorothy Elizabeth Hacker (HE); Pratt
 Richard Henry Hagadorn (GS); Gaylord
 William August Hagen (ME); Atchison
 Robert John Haggerton (ME);
 Junction City
 Eugene Hicks Hall (EE); Amoret, Mo.
 Ethel Dorothy Haller (IM&D); Alma
 Glenn Clough Halver (VM); Crane, Mont.
 Kenneth Blaine Hamlin (EE); Manhattan
 Donald Frederick Hansen (ME); Topeka
 Lois Jeanette Hanson (HE&N); Olsburg
 *Howard Ronald Hanson (IC); Kansas City
 *Ruth Agnes Hanson (GS); Chantute
 *Paul Ernest Harbison (AE); Johnson
 Orval Albert Harold (AA); Oberlin
 Wilton Eugene Harry (AA); Home
 Evelyn Hart (BA&A); Blue Rapids
 *Doris Elizabeth Harvey (HE); Wichita
 Robert Carl Harvey (IC); Minneapolis
 Jane Louise Hastings (HE); Lakin
 *Don Franklin Hathaway (BA); Coffeyville
 Eugene Edmond Haun (AE); Larned
 Milruth Hawkinson (HE); McPherson
 Pattie Patrice Hay (HE); Eskridge
 John Norris Haymaker (MI); Manhattan
 Richard Neil Heaton (BA); Norton
 Ruth Opal Hefty (HE&N); Valley Falls
 Lewis Ernest Heiney (ME); Bloom
 Eldon Heitz (ME); Fort Scott
 Carl Helm (CE); Chantute
 John Gunion Helm (IJ); Simpson
 Sherman Nelson Helm (AA); Abilene
 Donald Dwight Hesselbarth (BA);
 Abilene
 Frank Albert Hetzke (ChE);
 Moundridge
 Jerry J. Hickey (ME); Russell
 William Herbert Hickman (IJ); Kirwin
 Russell Lacy Hightower (EE); Centralia
 Orville Slocum Hill (AA); Bloom
 Viola May Hill (HE); Hope
 James Robert Hoath (GS); Anthony
 Edward Vaughn Hobbs (ME); Manhattan
 Elwon Dean Hoffman (BA); Hope
 Herbert Dale Hollinger (IJ); Chapman
 Gertrude Lucille Hollis (Ar); Holton
 Arthur Vernon Holman (EE); Wichita
 Norris Everett Holstrom (BA); Topeka
 Raymond L. Hook (ME); Osborne
 John Wentworth Hopkins (CE); Topeka
 Jack Louis Horacek (BA); Topeka
 *Allison Lynn Hornbaker (GS); Hutchinson
 Charles Kendal Horner (MuE); Abilene
 *Marcella Arlidene Horner (HE);
 Haviland
 Warren Thomas Hornsby (GS); Topeka
 *Bernice M. Horton (BA); Wayside
 Gilbert Edwin Hotchkiss (CE);
 Manhattan
 Frank Wilson Howard, Jr. (Ag); Oakley
 Vaughan Henry Howard (GS);
 Washington, D. C.
 Dorothy Elizabeth Howat (HE);
 Wakeeney
 Gordon Clark Howell (VM); Kansas City
 Herbert Winston Howell (VM);
 Kansas City
 Robert Vern Huffman (ME);
 Kansas City, Mo.
 Howard McCune Hughes (Ag); Formosa
 Rees Woodford Hughes (AA); Fort Scott
 *Mary Ellen Hull (HE); El Dorado
 Dale Craig Hupe (Ag); Perry
 *Henry George Hurtig (GS); Hanover
 Estella Hutter (HE); Neodesha
 Robert Donald Immenschuh (VM);
 San Diego, Cal.
 *Ann Elizabeth Jackson (BA); El Dorado
 Helen Maurine Jackson (GS); Salina
 Ruth Christine Jacobs (HE&N); Harper
 Harold Rolland Jaeger (Ag); Vesper
 Verland Thomas Jahnke (BA); Woodbine
 *Madelyn Frances James (HE); Parsons
 Kenneth Ralph Jameson (AA); Ottawa
 Neal Mike Jenkins (GS); Manhattan
 Don Tallard Jensen (EE); Leavenworth
 Charles Franklin Johnson (EE);
 Kansas City, Mo.
 Earl Clinton Johnson, Jr. (ChE);
 Coffeyville
 Herbert Donald Johnson (Ag); Macksville
 Sammie Johnson (BA&A); Oswego
 *Susan Merilla Johnson (BA); Potwin
 Charles Fisher Jones (VM); Lisbon, N. Y.
 Dale Carl Jones (CE); Simpson
 Delmar Doyle Jones (Ag); Mulvane
 *Jake Roderick Jones (BA); Brodhead, Wis.
 Lloyd Charles Jones (Ag); Frankfort
 Robert Jonathan Jones (MI); Wichita
 Mary Margaret Jordan (HE); Wichita
 Tom Edward Joyce (ME); Ulysses
 Jean Margaret Kallenberger (HE); Edna
 Lester Loyd Kammerer (EE); Manhattan
 John Pershing Kane (BA&A); Rock Creek
 Mary Marvel Kantz (PE); Wichita
 Jacob Landers Karns (VM); Benton, Ky.
 *Shirley Evelyn Karns (GS); Coffeyville
 Charles Edmond Keating (ME); Liberal
 Martin Kadets (VM); Matick, Mass.
 Walter Marvin Keith (SH); Manhattan
 Edward Jacob Keller (VM); St. Francis
 Lawrence Edward Kelley (AA); Chapman
 *Mary Elizabeth Kelley (HE); Atwood
 Virgil Roscoe Kelley (VM); Arkansas City
 Harold Eugene Keltner (ArE); Hoisington
 James Martin Kendall (IJ); Dwight
 Charles Alvin Kennedy (VM);
 Kansas City
 Mary Evelyn Kennedy (SH); Lawrence
 Mary Keturah Kennedy (IM&D);
 Neodesha

* Matriculated 1939-1940.

JUNIORS—Continued

- *Anna Mae Kern (HE); Hiawatha
Paul Laurence Kewley (EE); Stockton
Ruth Vernita Keys (HE); Winchester
George Wendell Kilian (EE); Detroit
*Doris Chung Sook Kim (GS);
Honokua, Hawaii
Ruth Ella Kindred (BA); Bonner Springs
Elizabeth Windsor King (HE&N); Ottawa
*Helen Eunita King (HE); Hutchinson
*Max James King (IC); Manhattan
Robert Glenn King (BA); Hutchinson
Theron Lambert King (BA&A);
Manhattan
William Gregg King (CE); Fort Dodge
Alan Dean Kinney (CE);
Hainesburg, N. J.
Helen Eunice Kirk (IM&D); Wellington
Orville Kenneth Kirkpatrick (Ag); Bucklin
Marianna Kistler (IJ); Manhattan
Doris Marie Kittell (PE); Topeka
Dorothy Maye Knaus (HE); Neodesha
Jean Marie Knott (IM&D); Independence
Hugo Adolph Koester (ChE); Herington
Richard Benton Koger (VM); Belvidere
*Harvey Ruben Kopper (Ag); Ingalls
Louis Daniel Kottmann (ChE); Ellsworth
Tom Frederic Kropf (ME); Wamego
*Joseph Lewis Lacey (EE); Hoxie
*William Edward Lacy (ChE);
Kansas City
Glover Wilson Laird (VM);
Kansas City, Mo.
*Roberta Jean Lamb (IM&D); Ottawa
Oliver Diston Lambirth (ME);
Elida, N. Mex.
*Caralee Laming (IM&D); Tonganoxie
William James Langworthy, Jr. (CE);
Leavenworth
Josephine Estelle Lann (HE); Axtell
Betty Lou LaPlante (MuE); Minneapolis
Robert Dean Laramey (Ar);
Pueblo, Colo.
John Henry Larkins (EE); Le Roy
Doyle Wayne LaRosh (AA); Natoma
Harlan Ray Larson (IJ); Topeka
Carl Ernest Latschar (IC); Manhattan
*Henry S. C. Lau (IC); Arkansas City
Miriam Lucille Wagaman Leeper (HE&A);
Manhattan
Leo Raymond Leggitt (ME); Russell
Clifford Alonzo Lemen (VM); Manhattan
Yvonne Joy Lemen (GS); Manhattan
*Jack Conroy Leonard (ChE);
Junction City
Max Clarence Leuze (IA); Sabetha
Emery John Levin (ChE); Lindsborg
Carol Byron Lewis (Ar); Salina
Frank Everett Lichlyter (VM); El Dorado
Elizabeth Lillibridge (HE&N); Hutchinson
Mildred Florence Limb (HE);
Kansas City, Mo.
*Barney Lee Limes (ME); La Harpe
*Alfred Lindgren, Jr. (CE); Salina
James Worth Linn (GS); Manhattan
Mary Jo Linscott (HE); Cummings
Ralph Iden Lipper (AE); Sterling
Cam Fackler Logan (ME); Paola
*Helen Mae Lohmeyer (HE); Newton
Kenneth LeeRoy Lohmeyer (GS); Bern
Frank Robert Lonberger (BA);
Manhattan
Dudley Randolph Londeen (BA&A);
Abilene
David Hale Long (Ag); Abilene
Roscoe Dean Long (Ag); Drexel, Mo.
*Orville Walter Love (AA);
Neosho Rapids
*Katherine Jane Lovitt (IJ); Great Bend
Harley Eugene Lucas (CE); Dearing
Charles Clarence Lucy (EE); Wichita
*Harriet Jeanette McArthur (BA);
Kansas City
Dean McCandles (GS); St. John
Edward Joseph McCarthy (ChE);
St. Marys
John Donnelly McClurkin (ME);
Clay Center
Robert James McColloch (GS);
Manhattan
Boyd Homer McCune (Ag); Stafford
*Kenneth McEntire (EE); Pittsburg
Joseph Thomas McGinity (EE);
Humboldt
*William Richard McGrew (GS);
Coffeyville
*Marjorie Jane McKee (IM&D); Wichita
Noel LeRoy McKee (AA); Havensville
Martha Roseline McKenna (HE);
Kingman
Nolan G. McKenzie (AA); Solomon
Virgil Keith McMahan (VM); Manhattan
Harold William McMillan (ME); Formosa
Wilbur Doyle McNeese (ChE); Atchison
Freda Lenore McNickle (HE); Zenith
Raymond Charles McPeck (VM);
Ramsey, N. J.
Helen McVey (IM&D); Hill City
Jennie Marie Madsen (IJ); Dwight
*Frances Isabella Magill (HE); Wichita
Kenneth Edwin Makalous (AA); Cuba
Donald Regis Makins (IJ); Abilene
Arthur Charles Mangelsdorf (AA);
Atchison
David Oscar Manley (VM); Wakarusa
Milton Lloyd Manuel (AA); Havensville
Wyatt Parkman Marbourg (CE); Emporia
Melvin Wayne Marcoux (Ag); Havensville
Hazel Marguerite Marlow (GS);
Manhattan
*Gerald Leonard Marsh (EE); Troy
*George William Marshall (ME); Joliet, Ill.
*Helen Rowena Marshall (HE);
Wheaton, Ill.
*Jerome Edward Marshallinger (ME);
Pittsburg
Marlin Wray Martin (EE); Hutchinson
*Ralph Edward Martin (GS); Solomon
Ruth Eleanor Martin (HE);
Kansas City, Mo.
*Jessie Marguerite Mason (HE); Redfield
Mary Alice Matchette (HE);
Kansas City, Mo.
V. Evelyn Matson (IM&D); Miltonvale
Donald Bain Mayhew (Ag); Belpre
Thurmon Adrian Mayhew (Ag);
Trousedale
Forrest Eugene Mears (AA); Eskridge
Jack Lewis Medaris (VM); Parsons
Friedrich Edward Meenen (Ag); Clifton
Lester Lee Mehaffey (ME); Farmington
Carl Arthur Mehl (ChE); Robinson
Willard Meinecke (MI); Herkimer
Raymond L. Meisenheimer (EE);
Hiawatha
Ethel Marie Melia (HE); Ford
George Atholstone Mellard (ME); Russel
Victor Graham Mellquist (ME);
Leavenworth
*Gertrude Lucille Mensch (HE);
Independence
Bert Meriweather (VM); Chetopa
Dick G. Merryfield (AA); Minneapolis
Donald Herman Merten (GS); Morganville
*William Arthur Metcalf (ME);
Kansas City, Mo.
Mary Henrietta Meyer (HE&N); Lillis

JUNIORS—Continued

- Kathryn Louise Millard (HE); Zenda
 Frank Miller, Jr. (GS); Milford
 Joan Miller (HE); Milford
 Russell Wayne Miller (AA); Lebanon
 *Walter McNab Miller (AE); Tonganoxie
 Maxine Mae Milner (GS); Republic
 *Donald Edward Miltner (EE); Wichita
 Alden Borthwick Miner (GS); Ness City
 Evan Lynn Mitchell (IA); Wichita
 Charles Lehman Mohler (Ag);
 Arkansas City
 Virginia Monahan (IM&D); Leavenworth
 Dorothy Mae Montgomery (IM&D);
 Sabetha
 Dale Lewis Moore (Ag); Ashland
 John Richard Moore (BA); Atchison
 Somers Moore, Jr. (IC); Woodland, Cal.
 Willis E. Moore (EE); Goff
 William Dennis Moran (EE); Weir
 Marjorie Lucile Moree (MuE); Belleville
 Virgil Fred Morford (Ag); Olsburg
 *Thomas Francis Morrey (ME); Coffeyville
 *Eloise Morris (BA); Wichita
 Ray Morrison (AA); Larned
 Ruth Eileen Morrow (IM&D); Larned
 Marylee Mossman (HE); Manhattan
 *Evelyn Mae Moyer (HE); Dodge City
 Wendell Austin Moyer (Ag); Manhattan
 Glen Edward Mueller (BA); Anthony
 John Thomas Muir (BA); Norton
 Earl Lawrence Mundell (VM);
 Kansas City
 Donald Lee Munzer (BA); Herington
 Dennis Everett Murphy (ChE);
 Manhattan
 Don James Murray (BA); Beloit
 J. Donald Musil (EE); Manhattan
 Bernard Carlton Nash (BA); Lakin
 Jesse Eugene Nease (EE); Jamestown
 Russell Carl Nelson (Ag); Falun
 Willard Dean Nelson (MI); Haddam
 Joan Nethaway (HE&A); Salina
 Rex Allan Neubauer (GS); Manhattan
 *Robert Walter Neve (BA); Enterprise
 *John Elmer Newacheck (EE); El Dorado
 Charles Clarence Newhart (VM);
 Delaware Water Gap, Pa.
 David Edgar Newman (BA);
 Junction City
 Mildred Elsie Nipper (GS);
 Jefferson, Okla.
 Robert Spalding Nixon (AA); Virgil
 Norman Lynn Noble (CE); Johnson
 Louis Etzold Noel (ME);
 Webster Groves, Mo.
 Avery Albert Norlin (ME); McCracken
 Robert Bruce Norton (Ag); Wichita
 Phil Fred Novak (EE); Ottawa
 Mabel Ruth O'Brien (IM&D); Muscotah
 Marvin Alvin Ochsner (MI); Tribune
 Jewel Martin Ogden (GS); Frederick
 Richard Henry Ogle (ME); Scotia, N. Y.
 Dorothy Ruth O'Loughlin (HE); Lakin
 *Auriel Lee Olson (GS); Erie
 Gordon O'Neill (CE); Ransom
 Maxine Alma O'Neill (IJ); Manhattan
 Harry Otto (BA); Manhattan
 George Van Noy Packer (ChE);
 Manhattan
 Robert Kerr Page (MI); Topeka
 Corliss Athol Paramore (Ag); Delphos
 *Florence Loretta Parker (GS); Highland
 John Marchbank Parker (GS); Manhattan
 *Fred Mac Parris (IJ); Burlington
 Kent Leonard Patton (AA); Chase
 Thornton Jones Patton (Ar); Hamilton
 Cecil Lewis Paulsen (VM); Onaga
 Frank George Paulson (CE); Whitewater
 James Wilbur Paustian (BA); Manhattan
 Loyal Cobb Payne (VM); Manhattan
 Ellen Peak (IJ); Manhattan
 Ivan Carlton Peck (AA); Soldier
 Velva Aldene Peffly (IM&D); Waldron
 George H. Peircey (BA);
 Waterbury, Conn.
 *Jessie Adeline Pelham (GS);
 Spartanburg, S. C.
 Keith Pohl Pendergraft (AE); Emporia
 Carl Adolph Peterson (GS);
 Kansas City, Mo.
 Gladys Alberta Peterson (HE); Garrison
 *Harry Alfred Peterson (EE);
 Kansas City, Mo.
 *Robert Allen Peterson (EE); Jasper, Mo.
 *Isabelle Marjorie Phelan (BA);
 Kansas City, Mo.
 *Helen Genevieve Phillips (HE&N);
 Parsons
 Leroy Albert Pierce (VM); Manhattan
 Helen Leona Pilcher (IM&D); Gridley
 *William Leotis Pitts (IC); Fort Scott
 *Vernon Leslie Plattner (BA); Coffeyville
 Ray Hanlon Pollom, Jr. (BA); Manhattan
 John Germann Poole (Ag); Manhattan
 Cheryl Gertrude Poppen (IM&D);
 Burr Oak
 Rodney Iverson Port (VM);
 Cheyenne, Wyo.
 Leland Cyril Porter (CE); Dellvale
 *Earl George Powell (AA); Carlyle
 Herman Albert Praeger (Ag); Claffin
 Elwin Raymond Prather (VM); Eureka
 Carroll Wayne Preusch (GS); Healy
 LaVone Anna Puckett (PE); Manhattan
 Louis Earl Raburn (EE); Manhattan
 *Emy Lou Ragland (HE); Hutchinson
 Marion Albert Ramage (PE); Manhattan
 Cleda Doris Rambo (IM&D); Paola
 *Vinson Leroy Rambo (CE); Wichita
 Ruth Pauline Ramsay (IM&D); Beloit
 Wallace Edward Rankin (ChE);
 Manhattan
 John Parke Ransom (ME); Homewood
 Robert B. Rathbone (IJ); Manhattan
 William Joseph Ratloff (MI); Manhattan
 Lowell Robert Ray (IC); Wilsey
 Donald Reber (BA&A); Sabetha
 Tom M. Redding (Ag); Garden City
 *John Willis Reed (AA); Iola
 Myron Dale Reed (VM); Smith Center
 Harlan Edward Rees (EE-1; GS-2);
 Beloit
 Arden Reiman (Ag); Byers
 Charles Dixon Renfrow (VM);
 West Plains, Mo.
 Gerald Dale Ressel (Ag); Colony
 Meredith Hooker Reynolds (Ar);
 Chicago, Ill.
 Mary Jo Rhine (HE); Manhattan
 Ralph Warren Rhodes (AA); Silver Lake
 Doris Louise Rice (BA); Smith Center
 Vivian Rice (HE); Greensburg
 Harriett Frances Richardson (HE);
 Oswego
 *Mary Pauline Richarz (HE); Coffeyville
 Oliver Virgil Riley (EE); Stafford
 Charles William Rindom (ME); Liberal
 Kathleen Roberts (IM&D); McPherson
 *Leila Alouise Roberts (HE); Parsons
 Robert Max Roelfs (GS); Bushton
 Clifford Albert Rogers (BA&A); Caldwell
 Robert Rex Rogers (IJ); Manhattan
 John Richard Romig (ChE);
 Bethany, Mo.

* Matriculated 1939-1940.

† Also pursuing graduate study.

JUNIORS—Continued

- Joseph Jackson Rosacker (AA); Emporia
James Leroy Rose (EE); Council Grove
Margaret Frances Roseman (HE);
New Cambria
William David Ross (Ar); Coffeyville
*Bette Elaine Roth (GS); Moundridge
Donald Lee Rousey (ME); Horton
Paul Jay Ruckel, Jr. (ChE);
Arkansas City
Eugene Elroy Ruff (CE); Russell
Frances Lillian Ruhl (IJ); Hiawatha
Ruth Roberta Ruhlen (HE); Madison
Wayne Winston Rumold (BA&A); Elmo
Fred Lafayette Rumsey (SH); Kinsley
*Jack Harman Rupe (ME); Kansas City
Robert Truman Rush (MI-1; BA-2);
Neodosha
Ruth Elizabeth Salley (HE); Silver Lake
Moutrie Wilbur Salter (Ag); Wakefield
Ivan Wilbur Salts (AE); Mayetta
*LeRoy Francis Sanderson (ME);
Hamilton
Paul Everett Sanford (Ag); Milford
Alice Mary Santner (HE); Gaylord
Ruth Elouise Santner (HE); Gaylord
*Mary Frances Sauder (IJ); Madison
Harold Elwood Saum (BA&A); Oberlin
Norris Elwood Sayre (BA&A); Ensign
Charles Paul Schafer (IC); Vermillion
Samuel Arthur Schendel (VM); Richmond
Marcine E. Scheurer (IJ); Gypsum
Keith Merrill Schmedemann (BA&A);
Junction City
August Mangelsdorf Schmeling (EE);
Atchison
Frances Maxine Schmidt (MuE); Lorraine
Virginia Helene Schmidt (HE); Raymond
Bernard Lee Schmitt (BA&A); Powhattan
*Margaret Winnifred Schnacke (HE);
La Crosse
Clara Isabel Schnellbacher (HE); Colby
Marc Marion Schowalter (IJ); Halstead
*Robert Edward Schreiber (EE-1; BA-2);
Garden City
Elmer William Schwartz (ArE);
Hoisington
*Albert Erwin Schwerin (ME);
Kansas City, Mo.
Jean Jewett Scott (HE); Manhattan
Eldon Ralph Sechler (ArE); Hutchinson
Helen Marie Sellens (HE); Hoisington
John Victor Sette (CE); Corona, N. Y.
*Margaret Alma Sewing (HE);
Kansas City
Manette Sexson (HE); Goodland
*Rule O. Seymour (GS); Ottawa
Emerson Hugh Shade (ChE); Rantoul
Don Henry Sharp (BA); Hutchinson
Ophelia Deborah Sharp (HE); Great Bend
John Alden Shaver (Ar); Salina
Jack C. Sheets (EE); Cozad, Neb.
Claude Wesley Shenkel (GS); Lyons
Helen Aileen Shepard (HE); Erie
Lorrayne Gladys Shepardson (HE);
Junction City
Kathleen Olive Sheppard (IM&D);
Manhattan
Lois Mae Sherman (PE); Grantville
Tasker Bryan Sherrill (GS); Republic
Joseph Clyde Short (Ag); Manhattan
Raymond Lee Sigg (AA); Soldier
Norma Margaret Simons (IM&D);
Stockton
Ernest Harold Simpson (Ag);
Conway Springs
Henry Lyman Singer (AA); Parker
Ralph Murray Skinner (BA&A); Topeka
George Sklar (ChE); Manhattan
*Frank Allan Slead (AA);
Neosho Rapids
Laurence Oscar Shief (EE); Greensburg
Alice Lamborn Sloan (HE); Manhattan
Irene Eloise Sloan (HE); Stratford, Tex.
Henry Joseph Smies (Ag); Courtland
Charles Combie Smith (VM);
Kansas City, Mo.
Charles Lewis Smith (VM); Harveyville
Clarence Paul Smith (ME); Marysville
*Hattie Alice Smith (HE); Highland
Paul Elbert Smith (Ag); Lebanon
Vernon Eugene Smith (AA); Bloomington
Allen Ellwood Smoll (EE); Wichita
Vernon Edwin Snyder (PE); Mayetta
Galen Max Sollenberger (ArE);
Hutchinson
Mary Pauline Spain (HE); Beloit
Hazel Aldine Spessard (IM&D);
Junction City
Carmin Barton Sprague (ChE); Augusta
Margaret Elaine Sramek (HE&N);
McDonald
Blanche LaVaughn Stacy (HE); Byers
Raymond William Stanzel (VM);
La Harpe
Lloyd Arnold Starkweather (BA&A);
Clay Center
Rollin Max Starosta (AA); Pomona
Ann Steinheimer (IJ); Hutchinson
Dorothy Jane Steinkirchner (HE);
Newton
Evelyn Lucille Stener (GS); Courtland
*John Murray Stevenson (EE); Hutchinson
Mary Louetta Stewart (IM&D);
Saffordville
Raymond Stewart (AA); Manhattan
Arthur Stiebe (Ag); Rozel
Marvin Dean Stitt (VM); Clearwater
*Victor Dale Stockebrand (CE);
Yates Center
Ray Elmer Stokely (BA); Hutchinson
Lawrence Iver Stoland (GS); Lawrence
*Charles Marling Stroker (GS);
Kansas City
Mailand Rainey Strunk (ChE);
Kansas City
George Lester Sundgren (Ag); Coldwater
*William L. Sutherland (CE); Highland
Farnestine Alice Sutter (HE); Leon
*Gloria Joyce Swanson (HE&N);
Hutchinson
Robert Vernon Swanson (BS);
Waterbury, Conn.
Wallace Albert Swanson (GS);
Sharon Springs
Richard William Swart (VM); Manhattan
Ralph Wilson Swearinger (EE); Courtland
Perrin Kent Symms (Ag); Atchison
*Rosalie Syres (HE); Hutchinson
Arlene Grace Taylor (HE); Enterprise
Lloyd Campbell Teas (CE); Manhattan
Maribelle Teichgraber (HE); Eureka
Benjamin Wickham Tempero (Ag);
Clay Center
James Dow Thackrey (ME);
Camden, Ark.
John Otis Thisler (IJ); Chapman
Don Thomas (VM); Oswego
Ralph Theodore Thomas (ChE);
Independence
Clarence Henry Thompson, Jr. (VM);
Ozawkie
Orval Elmer Thrush (AA); Wakefield
Henry Albert Thurstin (ME); Chanute

* Matriculated 1939-1940.

JUNIORS—Concluded

- Constance Patricia Thurston (IM&D); Elmdale
 Mina Fay Tillman (HE); Topeka
 Alvin Paul Timmons (AA); Geneseo
 Elizabeth Lurene Titus (HE); Cottonwood Falls
 Raymond Dwayne Topham (AA); Wichita
 Theodore J. Torkelson (EE); Everest
 David Salem Totah (Ag); Victoria, Tex.
 Earl Clair Toynton (VM); Dodge City
 Mary Belle Trapp (HE&N); Manhattan
 Eleanor Earlene Trekel (HE&A); Manhattan
 *Henry Earl Tremain (IC); Salina
 *Marvin Elmer Trembly (GS); Chanute
 Thomas Edmund Trenkle (BA); Topeka
 Wilbur Gerald Trostle (VM); Hope
 *Charles Turk (EE); Kansas City
 Lewis Mack Turner (PE); El Dorado
 Lois Belle Turner (GS); Manhattan
 Donald Radell Tutcher (ChE); Overbrook
 R. V. Tye (GS); Hanover
 Max K. Tysor (CE); Anthony
 Joseph Uhrin (GS); New York City
 Dean Urquhart (IA); Wamego
 Jane LaVerne Utterback (HE); Yates Center
 William Henry Vanderbilt (VM); Eureka
 Cornelius John Vanderwilt (ME); Solomon
 Loren Lauffler Van Petten (Ag); Washington
 Dorothy Mae Van Tuyl (HE); Basehor
 Gerald Thomas Van Vleet (AE); Danbury, Neb.
 Blossom Rose Vaughn (HE); Newton
 Roberta Viola Vawter (HE); Oakley
 Victor Theodore Volsky (IJ); Pittsfield, Mass.
 *Hans von Unwerth (ME); Kansas City, Mo.
 Katherine Jean Wadley (IM&D); Silver Spring, Md.
 Arthur Edgar Wagar (EE); Manhattan
 *John Vernon Waggoner (IC); Fort Scott
 Norma Irene Waits (PE); Wichita
 James Harvey Walker (ME); Emporia
 Ruth Marie Wall (GS); Mahaska
 Frieda Fay Wallace (HE); Douglass
 Joe Harrison Walser (CE); Manhattan
 Guy Edward Warner (EE); Bucklin
 Jack Winfred Warner (EE); Clay Center
 Robert Buchanan Washburn (EE); Manhattan
 Lindley Eugene Watson (Ag); Peck
 Garold Benjamin Way (EE); Wichita
 John Franklin Weary (EE); Junction City
 *Edmond Lee Weber (ChE); Kansas City
 Vanora Arlene Weber (HE); Caldwell
 John Raymond Weddle (AA); Fort Scott
 Ila Hall Wells (HE); Manhattan
 Oliver Rex Wells (BA); Marysville
 Robert Blaine Wells (Ag); Manhattan
 William Henry Wells (GS); Colony
 Leo Theodore Wendling (AE); Halstead
 Cecil Monroe Wenkheimer (SH); Hutchinson
 Morris Windfred Werner (Ar); Corning
 Robert Wilson West (CE); Manhattan
 *Donald Hamilton Wetmore (AE); Wichita
 *Francis Everett White (ME); Emporia
 Roby Byron White, Jr. (ME); Neodesha
 *Wilbur Waldo White (Ag); Winfield
 Don Oliver Whitney (VM); Phillipsburg
 Elaine Wicker (MuE); Manhattan
 Charles Joseph Widman (Ag); Mead, Neb.
 *Dorothea Marie Wiles (HE); Parsons
 Margaret Ann Wilkerson (GS); Smith Center
 Nancy Patricia Wilkins (MuE); Steelville, Mo.
 *John Marks Williams (IJ); Parsons
 *Laura Jean Williams (BA); Kansas City, Mo.
 Robert Dean Williams (GS); Manhattan
 Abbie Jeanette Wilson (HE); Manhattan
 Byron Kimble Wilson (Ag); Manhattan
 Garl Alton Wilson (Ag); Quenemo
 George Lincoln Wilson (ME); Hoisington
 Mark Francis Wilson (AH&V); Ashland
 William Horn Wilson (ME); Augusta
 Marjorie B. Windhorst (GS); Glasco
 Blanche Maida Winkler (HE); Riley
 John Stanley Winter (Ag); Dresden
 *Keith Leon Witt (ME); Independence
 Carlyle Philip Woelfer (MI); Manhattan
 Betty Catherine Wolf (HE); McPherson
 Joy Edna Wolfling (HE&N); Manhattan
 Keith Woodard (ME); Glen Elder
 Thomas Richard Woods (ChE); Burden
 Eugene Ellsworth Woolley (MI); Osborne
 *Charles Edward Works (Ag); Humboldt
 Martha Jane Wreath (HE); Manhattan
 Elizabeth Barclay Wright (HE); Salina
 Mack Yenzer (Ag); Saffordville
 Robert Warren Yeoman (GS); Kingman
 Ben Colby York (Ag); Manhattan
 Ralph Edgar York (BA&A); Dunlap
 Donald Allan Yost (Ag); La Crosse
 Evelyn Ernestine Yost (HE); Downs
 Burneta Lucile Young (HE); Cheney
 Norman Alfred Young (BA&A); Hutchinson
 Albert Warren Yoxall (AA); Woodston
 Dale Edwin Zabel (IA); Westmoreland
 Joseph Brewer Zahn (GS); Miltonvale
 *Howard Miller Zeidler (EE); Girard

SOPHOMORES

- Maynard Lynn Abrahams (Ag); Wayne
 Harry Clyde Achenbach (BA); Manhattan
 Mary Kathleen Ahearn (MuE); Manhattan
 Francis George Ahrendes (VM); Miltonvale
 Martha Lou Alexander (HE); Hutchinson
 Thomas James Alexander (IJ); Herington
 *Robert Ray Allen (IC); Burlingame
 Paul L. Allison (CE); Delphos
 Margaret Ellen Alsop (HE); Manhattan
 Jeanne Amos (IJ); Manhattan
 *Christine Irene Amthauer (IC); Dwight
 Addo Lee Mae Anderson (HE); Topeka
 Howard Rowles Anderson (AA); Partridge
 Mary Bernice Anderson (MuE); Manhattan
 *Robert Tracy Anderson (ChE); Salina
 Walter Glen Andrea (ME); Holyrood
 Chester Laroy Andres (EE); Newton
 Robert Warren Annis (EE); Gypsum
 Wayne Leroy Appleton (VM); Manhattan
 Beverly Junior Asher (AE); Stafford
 Wilbur Eldon Ashton (BA); Manhattan
 Delmar Wallace Atchison (CE); McPherson

* Matriculated 1939-1940.

† Also pursuing graduate study.

SOPHOMORES—Continued

- Louis Clyde Ate (SH); Wellington
 John Mitchell Atherton (ME);
 Waterbury, Conn.
 Ruth Margaret Ausherman (HE); Topeka
 Jack Shupe Austin (ME); Wilmore
 *Gladys Irene Babb (HE&N); Manhattan
 Shirley Louise Baker (HE&N); Hutchinson
 Ben Stockwell Baldwin (IC); Anthony
 Lynn K. Baldwin (Ag); Abilene
 Bernice Grace Bale (PE); Clay Center
 Maurice Ball (VM); Newport, R. I.
 Ralph Edward Barker (Ag); Douglass
 *Orville Curtis Barnes (ME); Topeka
 Robert Lee Barnett (BA&A); Glen Elder
 Willard Marshall Barry (AA);
 North Topeka
 Shirley Ruth Bartholomew (GS); Norton
 William John Bassler (Ag);
 Valley Stream, N. Y.
 *Jay Clarence Bayha (AA); Kismet
 *Marie Hunt Baylies (PE); Fort Riley
 Robert Edwin Beardsley (IC); Manhattan
 Evelyn Belle Bearman (HE); Wamego
 Kermit Edwin Beary (AA); Edson
 *Betty Lee Beatty (HE&A); Ellsworth
 Kenneth Lewis Bechtold (ME); Formosa
 Henry Vorce Beck (GS); Colby
 Wayne E. Beer (Ag); Larned
 *Dorothy Grace Beezley (HE); Girard
 Robert Verle Behrent (EE); Selden
 Elizabeth Louise Bell (HE&A); Osborne
 James Bell, Jr. (BA); Cottonwood Falls
 Harold Nolan Benham (GS); El Dorado
 *David Benjamin (Ar); Arkansas City
 Marjorie Jane Benson (HE); Sabetha
 *Ada May Bentley (HE&N); Shields
 *Thomas Ragan Benton (Ag); Olathe
 Sylvia Louise Bergling (BA); Ludell
 George Albert Berlin (IJ); Wakefield
 Waldemar T. Berner (VM);
 Santa Rosa, Cal.
 Donald Earl Bertholf (AA); Spivey
 Leo Russel Best (ChE); Bushong
 John Richard Bickwell, Jr. (PVM);
 Parsons
 Hedden L. V. Biffer (EE); Wichita
 Phyllis Evelyn Billings (IM&D); Topeka
 Clara Jane Billingsley (M); Belleville
 Ema Lou Bireline (IJ); Lewis
 William Royce Bixler (ME); Emporia
 Floyd Harris Bjurstrom (AA); Woodruff
 Wilbur Eugene Black (ChE); Mulvane
 Joe Loren Blattner (CE); Rozel
 Ralph Willard Blazier (VM);
 Junction City
 Lyle Thomas Boley (VM-1; PE-2);
 Manhattan
 Marian Frances Boomer (BA);
 Kansas City
 Myron Allison Boone (Ag); Neal
 Jean Evelyn Botkin (HE); Harper
 Harry Phillips Bouck (IJ); Manhattan
 Marie Joan Bourdon (HE); Topeka
 James Alfred Bower (MI); Norton
 Don Raymond Bowers (GS); Downs
 Muriel Elaine Bowman (HE);
 Neosho Rapids
 James Marston Bowyer (ME); Courtland
 Darrell Ray Bozarth (AA); Liberal
 Virginia L. Brand (IM&D); Kingman
 Gilbert Branda (Ag); Wilson
 Lester Joseph Brenneis (Ag); Hollenberg
 Elizabeth Louise Brewer (MuE);
 Minneapolis
 Albert Brickell, Jr. (Ag); Saffordville
 Cruger Lane Bright (VM); Junction City
 James Eugene Bright (VM);
 Arlington, N. J.
 Allen Lee Brite (VM); Kansas City
 Sydney George Bromell (BA);
 Leavenworth
 *Ralph Stanley Brooks (ME); Coffeyville
 Marcene Irene Brose (PE); Clay Center
 Acton Richard Brown (Ag); Sylvan Grove
 Dale Edward Brown (Ag); Manhattan
 *Dean William Brown (Ag); Circleville
 Donald Wayne Brown (BA&A); Paradise
 Douglas Wilbur Brown (BA); Abilene
 *Esther Brown (HE); Partridge
 John Leon Brown (IA); Great Bend
 Lloyd N. Brown, Jr. (BA); Manhattan
 Peggy Jane Brown (HE); Manhattan
 Robert Myran Brown (EE); Natoma
 Sealy Mark Brown (BA&A); Manhattan
 *Teloir Marie Brown (IM&D); Ashland
 Thomas Ragan Brown (MI); Manhattan
 Wayne Edward Brown (BA); Manhattan
 Ralph A. Bruce (VM); Prescott
 Jeanette Murium Brunscher (PE);
 Mulvane
 Ben Raleigh Bryant (GS); Garnett
 Wesley F. Buchele (AE); Cedarvale
 Carroll LaRhue Buck (HE); Welda
 Herbert Lawrence Bunker, Jr. (GS);
 Junction City
 Orley Glade Burgess (PE); Arnold
 Charles Floyd Burket (ChE); Elkhart
 Wilfred Eugene Burnham (GS);
 St. Francis
 Cornelia Lee Burtis (IM&D); Hymer
 Margie Marion Burton (IJ); Manhattan
 *Freda Lenore Butcher (HE); Coldwater
 *Barbara Ann Butler (BA); Oswego
 Martin Eugene Butler (ME); Hoxie
 Cecil Eugene Byers (ME); Ulysses
 Max W. Cables (MuE); Concordia
 *Laura Vivia Cadwallader (IM&D); Corbin
 Richard Lee Cadwell, Jr. (Ag); Marquette
 John Dale Cady (VM); Arlington, Neb.
 Leslie James Callahan (GS); Manhattan
 Hugh Port Callaway (VM);
 Grand Pass, Mo.
 George Baldwin Callow (EE); Garnett
 *Frank Paul Campbell (GS); Manhattan
 Geneva Ruth Campbell (HE); Hiawatha
 *Jean Walton Campbell (IJ); Coffeyville
 John Carl Campbell (AE); Wisley
 Ronald Wayne Campbell (Ag); Cherryvale
 Everett Elwin Cannon (EE); Manhattan
 Lillie Martin Carleton (HE); Abilene
 Lyle Pattan Carmony (MI); Manhattan
 Robert Alfred Carpenter (ChE-1; GS-2);
 Oswego
 Lois Marceil Carr (HE); Goddard
 *Maude Elaine Carson (IM&D);
 Manhattan
 *Clara Mae Carter (PE); Kansas City
 Clifford Erle Case (Ag); Coldwater
 *Frank A. Cash (MuE); Fredonia
 Ward Elmer Cavender (BA); Abilene
 Beverly Ross Chapin (ME); Wichita
 Doryce Lillian Chapin (GS); Manhattan
 Chatalyn May Chapman (GS);
 Manhattan
 Cora Margaret Chapman (HE);
 Scotia, N. Y.
 Leo Ramey Chapman (BA&A);
 Clay Center
 William Edward Charlson (IC-1; ME-2);
 Manhattan
 Richard George Checksfield (ChE);
 Topeka
 Donald Keith Christian (VM); Manhattan
 Paul Quintin Chronister (Ag); Abilene
 Clifford Lawrence Claar (Ag); Rexford
 Charles Eldan Clark (AA); Paxico

SOPHOMORES—Continued

- Jack Kenneth Clark (BA); Manhattan
 Shirley Louise Clay (BA); Meade
 *Gerald Wayne Claywell (ME);
 Kansas City
 Lorraine Florence Clements (IM&D);
 Havensville
 Ralph Eldon Cogswell (AA); Topeka
 Robert Lee Collard (BA); Leavenworth
 Dale Collins (CE); Kingman
 Max Raymond Colwell (ME); Centralia
 Neel Leon Conley (PVM); Wellington
 *Frances Juanita Constance (HE); Shawnee
 Harry Hunt Converse (AE); Eskridge
 William Frohman Cook (PE); Manhattan
 *Frank Thomas Cookingham (ME); Topeka
 Lowell Edwin Cooper (ME); Peabody
 Robert Vaile Corns (ME-1; BA-2);
 Greensburg
 Don Wallace Coulson (ME); Wichita
 Marjorie Jean Courter (HE); Severy
 James Harry Cowie (IJ); Herington
 Lyle Ashton Cox (ChE); Atchison
 *Lowell Elton Crabb (EE); Colby
 John Dudley Crain (EE); Fort Scott
 Glen Thomas Crawford (Ag); Manhattan
 Chester Lee Crotts (AA); Turon
 *Hilmer Artie Crumrine (ME); Rose
 Marshall Jeremiah Currier (ArE);
 Topeka
 *Clarence Richard Curtis (PE); Lenora
 James Robert Cushing (Ar); Manhattan
 Edna Marguerite Dailey (HE&A);
 Manhattan
 George Ted Dalziel (VM);
 San Francisco, Cal.
 Sylves Carroll Dam (ME); Marysville
 C. Bertil Danielson (Ag); Lindsborg
 *Gloria Jane Danielson (HE); St. Francis
 *Jackie Ruth Dannels (HE&N); Iola
 Edwin Speight Darden (BA&A);
 Manhattan
 John Henry Darnell (MI);
 Los Angeles, Cal.
 William Elsworth Daseler (VM);
 Oroville, Cal.
 Galen F. Davidson (EE); Plevna
 MacDowel Davidson (BA); Manhattan
 William Russell Davis (EE); Topeka
 Joseph Dale Davison (EE); Newton
 Lail Keith Dawley (PVM); Manhattan
 Walter Wilson Dawley (IJ);
 Lakewood, Ohio
 *Virginia Gene Dawson (BA); Wichita
 Clifford Wayne Day (AA); Weir
 Nelson Woodrow Dayhoff (CE); Abilene
 William Paul Deam (Ag); Manhattan
 Leonard Austin Deets (AA); South Haven
 Donald Pitman Deibler (IC); Manhattan
 *Virginia Rosamond Delano (HE);
 Hutchinson
 Martha Lorraine DeMand (HE);
 Lincolnville
 Ethel Dorothy Denio (IM&D) Woodston
 Walter Eugene Dent (ME); Junction City
 *Mina Margaret Depew (GS); Wichita
 Catherine Eileen Detrich (MuE);
 Chapman
 Hiram Benjamin Dickson (PE); Admire
 Junior Charles Diehl (GS); Manhattan
 Evan Davis Dildine (ArE); Delphos
 Charlotte Baenen Dixon (IJ);
 Junction City
 George Lafayette Doak (AA); Stockton
 Betty Lee Doctor (HE); Belleville
 Thello Clarence Dodd (Ag); Manhattan
 *Calvin Arthur Doile (AA); Emporia
 Harold Raymond Domoney (ArE); Downs
 Mary Jane Donham (HE); Manhattan
 Lois Elaine Douce (GS); Narka
 Terryll Dougherty (ME); Manhattan
 Keith Warnell Downey (VM);
 Appleton, Wis.
 Donald Kenneth Dubois (MI); Burlingame
 Esther Tabea Dumler (HE); Gorham
 William Emanuel Dumler (AA); Russell
 Harold Dunlap (EE-1; Ag-2); Liberal
 Robert Matthew Dunlap (ME); Liberal
 Donald Kent Duwe (ME); Lucas
 Dale Hamlin Dyer (AE); Clearwater
 James Francis Eagan (MI); Axtell
 Kenneth Gilbert Eastman (BA); Wichita
 Von Eastman (HE); Matfield Green
 John Springer Eaton (AE); Hutchinson
 Velma S. Eberhart (BA); Westmoreland
 *Richard Ward Eddington (AE); Courtland
 Harry Leslie Eddy (BA); Topeka
 Lyle Harris Edelblute (GS); Manhattan
 Leslie Ruel Edrington (VM); Manhattan
 Theodore Max Ellert (Ag); Neodesha
 Victor Einsel (Ag); Greensburg
 Edward Himes Elling (MI); Manhattan
 Lucille Elizabeth Elmore (BA);
 McCracken
 Perry C. Emmons (PE); Lenora
 Elton A. Endicott (Ag); Manhattan
 Barbara Ruth Enlow (PE);
 Silver Springs, Md.
 Winifred Jane Enns (HE); Inman
 Glenys Marie Erichsen (HE); Manhattan
 Dorothy Rachel Erickson (HE); Cleburne
 Loren Dean Eshelman (ArE); Abilene
 Raymond Keith Eshelman (BA&A);
 Sedgwick
 *Harold Dale Evans (PVM); Peoria, Ill.
 Kendall Evans (IJ); Manhattan
 Richard Lewis Evans, Jr. (Ag);
 Hutchinson
 Robert Stephenson Eyestone (ME);
 Pittsburg
 Jean Elaine Falkenrich (HE); Manhattan
 Clifford Earl Fanning (AE); Melvern
 Violet Hazel Farmer (GS); Fredonia
 Max Clifford Farrar (ME); Norwich
 *Judith Fehr (IJ-1; HE-2);
 Kansas City, Mo.
 *Nick Fent (GS); Newton
 George J. Feters (EE); Manhattan
 Jack Byron Fields (SH); Manhattan
 John Edward Fieser (VM); Norwich
 Lois Maureen Filson (HE); Bartlett
 Raymond Elmer Finsham (Ag); Waterville
 John Finley (ChE); West Mineral
 *Elbridge Gerry Fish (ME-1; BA-2);
 Salina
 Gerald Keith Fish (AA); Neodesha
 William Halpin Fitzsimmons (ME);
 Macksville
 James Patrick Fitzwilliams (EE); Wichita
 Don Edwin Fleming (MI); Ottawa
 Mary Jane Flower (IJ); Junction City
 *William Rex Fockele (Ag); Ottawa
 William Page Folck (GS);
 Junction City
 *Betty Lou Ford (GS); McPherson
 *Charles Clinton Ford, Jr. (CE); Wichita
 *Eric Beaumont Fowler (GS);
 Milbank, S. Dak.
 Jack Elbert Fox (VM); Kansas City
 Lowell Enos Fox (Ag); Manhattan
 *Marvin Eugene Fox (ME); Larned
 Arthur Lloyd Francis, Jr. (Ag);
 St. John
 Helen Mae Frasier (HE); Sharon Springs
 Elgene Roy Freeman (GS); Eureka

SOPHOMORES—Continued

- Homer Woodrow Freeman (CE-1; GS-2); Chapman
 Anne Fry (IM&D); Morrill
 *Louis Jewell Fugitt (EE); Kansas City
 Mabyn Belle Fuller (HE); Manhattan
 Walker Dale Furst (BA); Goff
 Jane Frances Galbraith (HE&N); Cottonwood Falls
 John Pershing Garrett (VM); Joplin, Mo.
 Theodore Elden Garrett (BA&A); Shawnee
 William Samuelson Gaston (VM); Axtell
 Nancy Katharine Gentry (HE); Salina
 Warren Leo Gibbs (ArE); Kansas City
 Gerald Bowen Gibson (BA&A); Kensington
 Harlan Henry Giese (EE); Cottonwood Falls
 *Geraldine Marie Giffin (HE); Spring Hill
 Alma Lou Gillett (IJ); Westmoreland
 Eldon Dale Gladow (AA); Alma
 Margaret Jane Glass (HE); Wichita
 *Shirley Rose Glens (HE); Dighton
 Charles Jerome Glotzbach (GS); Paxico
 Oscar Joseph Glotzbach (AA); Paxico
 *Gracey Edythe Goertz (HE); Moundridge
 Charles Richard Goff (BA); Estelline, S. Dak.
 *Roger Lewis Goff (ME-1; BA-2); Bucklin
 William Arnold Gonser (Ar); Leavenworth
 Janice Goodhue (GS); Goodland
 Edythe Elaine Goodwin (HE); Gypsum
 Virginia Alberta Goodwin (HE); Hiawatha
 Richard John Gorman (VM); East Hartford, Conn.
 Kenneth Max Gould (VM); Broken Bow, Neb.
 Alice Elizabeth Grandfield (HE); Manhattan
 Loren Courtney Gray (ChE); Salina
 J. Wyeth Green (EE); Mound City
 *Mont John Green (ArE); Manhattan
 Blanche Marie Greene (HE); Manhattan
 Norman Jay Griffith (AA); Clayton
 Leland Bradford Grimes (GS); Olsburg
 Mary Elizabeth Griswell (IM&D); Manhattan
 James Gordon Groves (ChE); McPherson
 Frank Whaley Gudge (BA); Edmond
 Geraldine Gundy (M); Manhattan
 Alice Crosby Gunn (HE&A); Kansas City, Mo.
 Lyle Woodrow Gunter (EE); White City
 Hugh Leon Gurwell (BA); Wichita
 James L. Guseman (Ag); Coldwater
 *Edward Luther Gustafson, Jr. (ChE); Lindsborg
 James Wylie Guy (ME); Chicago, Ill.
 *William Donald Guy (AA); Liberty
 Roy Emerson Gwin (Ag); Leoti
 *Dorothy Regina Haberthier (IM&D); Wichita
 John Henry Haeberle (GS); Clearwater
 Eula Marie Hagan (IJ-1; HE-2); Manhattan
 Freeman Milton Hall (VM); Kansas City
 Harold John Hamilton (CE); Corning
 John Harvey Hancock (BA&A); St. Francis
 Wilma Mae Hannah (HE); Osborne
 Ardyce Louise Hanson (GS); Garrison
 *Archie Ray Hartla (AE); Meade
 Irene Mayfield Harbour (HE); Osage City
 *Harold Dale Hardy (Ag); La Harpe
 George Harner (GS); Memphis, Tenn.
 Dorothy Mariann Harper (IJ); Topeka
 *Roberta Jean Harrill (IM&D); Augusta
 Ernest Owen Harris (Ag); Havensville
 *Genevieve Jean Harris (HE); Havensville
 LaVetta Lela Harris (IM&D); Fowler
 Paul Eugene Harrison (EE); Gridley
 Eleanor June Harsh (HE&A); Argonia
 Wilbur Wynn Hart (AA); Mayetta
 William Eugene Hartman (SH); Hoxie
 Robert Emmett Hauke (VM); Meriden
 Jane Haymaker (HE); Manhattan
 *Raymond Wesley Headrick (Ag); Beardsley
 Marie Katherine Healy (HE); Herington
 Harvey Harlan Hefner (BA); Gove
 Kenneth Eugene Hein (EE); Rose Hill
 Vernon Lee Heitman (Ag); Dellvale
 Alice Marie Hejtmánek (HE); Delia
 Robert Henry Hellemer (BA); Wichita
 *Clara Elizabeth Hellmer (HE); Olpe
 John Mearl Hemphill (ME); Greensburg
 Wilbur Ellis Hendershot (Ag); Hutchinson
 Neva Nadine Hendricks (HE); Lebanon, Neb.
 Keith Donald Henrikson (GS); Manhattan
 Alma Katherine Henry (HE); Everest
 Eugene Charles Hersche (MI); Bucyrus
 Waid Heter (Ag); Sterling
 George Hickman (VM); Venice, Cal.
 Robert Lester Higginbottom (ME); Fredonia
 Thaine Robert High (PE); Abilene
 Bert Hildreth, Jr. (EE); Leon
 Margaret Louise Hill (HE); Topeka
 *Milt Dean Hill (IJ); Kansas City, Mo.
 *Raymond Barton Hill (Ag); Carlyle
 John Albert Hineman (CE); Dighton
 Clyde Ivan Hinrichs (EE); Leonardville
 Wilbur Floyd Hiser (EE); Manhattan
 *Vernon Eugene Hisey (ME); Lenora
 Charles Willis Hodgson (AE); Little River
 Etta May Hodgson (HE); Harveyville
 Eva Mae Hodgson (MuE); Little River
 Lucille Eileen Hoffman (BA); Haddam
 Emily Sarah Hofess (IM&D); Partridge
 Helen Virginia Holbert (HE-1; GS-2); Manhattan
 Wilber Glen Hole (EE); Topeka
 Orvin Hugh Holler (GS); Conway
 Don Franklin Holshouser (EE); Dwight
 Arthur Herman Holste (AE); Ludell
 Joseph Benedict Hoover (ChE); Greenleaf
 Josephine Ann Hoover (HE); Greenleaf
 Julia Janes Hoover (HE); Kansas City
 Leonard Ralph Hoover (CE); Manhattan
 Anna Marie Horn (HE); Horton
 Myron Finley Hornbaker (Ag); Hutchinson
 William Mixon Horton (EE); Wichita
 Harold William Hossfeld (EE); Willis
 Harry Earl House, Jr. (ME-1; GS-2); Cheyenne, Wyo.
 Murlin Thomas Howerton (ChE); Newton
 Eula Merna Hudson (HE); Wilsey
 H. Paul Hudson (ME); Topeka
 Fred Morrison Huey (BA); Louisville
 Edward Barrett Huff (PE); Marysville
 Ralph LaVerne Huffman (Ag); Chanute
 *Griffith Richard Hughes (AA); Fort Scott
 June Delore Hull (GS); Dodge City
 Dean Almond Hunt (Ag-1; GS-2); Osborne
 Donald Munro Hunt (Ag); Manhattan
 Gorman Earl Hunt (ME); Leavenworth
 Charles Calvin Hunter (EE); Ottawa
 Howard Edwin Hunter (AE); Emporia

SOPHOMORES—Continued

- *Louis Anthony Hurtig (GS); Hanover
 Betty Elaine Hutchinson (HE); Goddard
 Thomas Junior Hutchison (ChE);
 Burlingame
 Archie Richard Hyle (CE); Madison
 Clarence Imel (Ag); Spearville
 George Nelson Inskeep (Ag); Manhattan
 Kenneth Edgar Ireland (ChE); Toronto
 Don Keith Issitt (ME); Woodbine
 Conrad Jackson (Ag); Elsmore
- *Ledia Mae Jackson (HE); Carneiro
- *Thomas Page Jackson (ME); Kansas City
 Arthur Otto Jacobs (AA); Harper
 Brutus Leonard Jacobs (Ag); Harper
 Jeanne Frances James (HE&A);
 Manhattan
- *Robin Joan Jefferis (IM&D); Lewis
 Dwight Hillis Jenkins (ArE); Woodbine
 Ralph Vincent Jennings (ME); Arnold
 Quentin Ellsworth Jeppersen (VM);
 Garden City, Minn.
- Alice Marie Johnson (HE); Olsburg
 Cecil Loring Johnson (ChE); Wamego
 Dorothy Ruth Johnson (HE); Manhattan
- *Frances Louise Johnson (GS); Wichita
 John Franklin Johnson (GS); Nemaha
 Lorraine Lawrence Johnson (ME);
 Concordia
- Mary Lucile Johnson (IM&D); Osage City
 Melvin Louis Johnson (EE); Quinter
 Neil Theodore Johnson (Ar); Topeka
 Romaine Edwin Johnson (GS); Manhattan
 William Pitner Johnson (VM); Manhattan
 Robert Fones Johnitz (CE); Winston-
 Salem, N. C.
- Earl Dwight Jones, Jr. (EE); Wichita
 Herbert Andy Jones (BA); Mulvane
 Mona Marie Jones (HE); Wichita
 Salem Ford Jones (ChE); Junction City
 Wilbur Fred Jones (GS); Wichita
 Gladys June Jordan (HE); Goff
 William Wade Justus, Jr. (IC); Hill City
 David Edwin Karnowski (AA); Paxico
 Ed Karns III (ME); Coffeyville
 Dorris Mae Kastner (HE&A); Manhattan
 Philip Gibbs Kaul (GS); Holton
- *Robert Dinsmore Keel (IC); Abilene
 Ray Albert Keen (SH); Topeka
 Vernon Dennis Keim (AA); Manhattan
 Richard McClanahan Keith (M);
 Manhattan
- William Gibbens Kelly (MI); Hutchinson
 Scott Winfield Kelsey (Ag); Topeka
 Raymond Orville Keltner (GS);
 Hoisington
- *John Thomas Kennedy (AA); Blue Mound
- *Stella Ruth Kennerly (GS);
 Louisville, Ky.
- Margaret Belle Kerr (HE&A);
 Hackensack, N. J.
- Richard John Kilian (ME); Detroit
 Marjorie Vivien Kimsey (HE&A);
 Barnard
- Janet Elizabeth King (PE-1; HE&N-2);
 Wichita
- *Karleen Junette King (HE&N);
 Hutchinson
- *Leroy King (CE); Hesston
 Reva Alma King (GS); Council Grove
 Murray Luther Kinman (Ag);
 Louisville
- Carlton Miller Kinzler (Ag);
 Sturgis, Mich.
- *William Mastin Kipp, Jr. (ChE);
 Madison
- Arthur Durward Kirk (VM); Scott City
 Edward Earl Kirkham (ME); Topeka
- Floyd Ernest Kirkland (ChE-1; BA&A-2);
 Junction City
- *Caroline Kiser (IM&D); Clayton
 Luther Cleveland Kissick (Ag);
 Mount Hope
- Wilma Margaret Kjellin (HE); Garrison
 Arnold Frank Klahr (AA); Topeka
 Doris Charlotte Klaumann (IM&D);
 Belleville
- *Austin Foster Klous (BA&A); Tulia, Tex.
 Lyle Herman Knapp (ME); Topeka
 Virginia Carolyn Knauer (BA); Manhattan
 James William Knox (VM);
 Overland Park
- Kwok Lau Ko (Ag); Canton, China
- *Glenn Alfred Koby (AA); Sedgwick
 John Marshall Koger (GS); Cheney
 Donald Ely Kortman (BA); Manhattan
 Charles Edward Krause (AA-1; GS-2);
 Belleville
- Elberta June Krehbiel (HE); Detroit
 Laura Lee Kubin (HE); McPherson
 Ralph Jennings Kueker (MI); Belleville
 Helen Kunkel (IM&D); Waverly
 Elward E. Kunze (MI); Garrison
 Leona Marie Kurtenbach (GS); Herington
- *Edwina Lambertson (HE); Fairview
 Charles William Lamer (GS); Hays
 Sherman Luis Lampl (EE); Wichita
 Freda Martha Landis (GS); St. George
 Floreine Edith Langenegger (HE); Burns
 Herschel Rex Larkin (BA); Manhattan
 Marion Joseph Larkin (PE); Baileyville
- *Mack Lattimore (IJ); Topeka
- *Robert L. Lawrence (BA); Topeka
- *Eloise Lear (BA-1; HE-2); Hiawatha
 Harold Francis Leckron (CE); Abilene
 George Edward Lee (PE); Topeka
 Marjorie Ruth Lee (HE); Manhattan
 Theodore William Levin (Ag); Agra
 John Kenneth Lewis (EE); Arlington, Va.
 Mildred Josephine Lewis (HE);
 Dodge City
- Don Malcolm Liebengood (VM);
 Kentland, Ind.
- *Kenneth Sprecher Liggett (ME);
 El Dorado
- June Elaine Light (PE); Liberal
 Lona Faye Lillie (HE); Atwood
 Marjorie Anne Lindgren (BA); Dwight
 Fred Ray Lindsey, Jr. (ME);
 Scotia, N. Y.
- Merlin Elmer Line (AA); Sabetha
 Leland Leroy Linn (VM); Clyde
- *Fred J. Little (SH); Parsons
 Lyman Parker Long (IC); Fowler
 Rector Philip Louthan (ChE); Simpson
 Clarence Alvin Love (VM); Coffeyville
- *Roberta Maude Lowe (HE); Clyde
- *Jodie Ray Lowrance (Ag); Midian
 Hal Arthur Lund (ChE); Manhattan
 Margaret Ann Lupfer (IJ); Larned
 Arlene Minnie Luthi (IM&D); Wakefield
 William Allen Lytle (Ag); Wellsville
 Hazel Juanita McAninch (HE); Stockdale
 Cecilia Emma McCandless (HE&N);
 St. John
- Verle Orlo McClellan (BA); Wichita
 Robert David McClure (Ag);
 Highland Park, Ill.
- Arlan Wilbur McClurkin (Ag);
 Clay Center
- Robert Clendenin McClymonds (Ag);
 Walton
- Don Frederick McCune (Ag); Stafford
 Margaret Ella McCutchan (HE);
 St. George

SOPHOMORES—Continued

- Edward James Peter McDonald (VM); Peabody
- *Terrence Eugene McDonald (PVM); Kansas City
- Wesley William McDowell (ME); Garfield
- John Gerald McEntyre (CE); Topeka
- Arthur Douglas McGovern (ME); Schenectady, N. Y.
- *Marjorie Lucille McGrew (PE); Coffeyville
- *Beatrice Cozette McGuire (HE&N); Morland
- Fred Harmon McHugh (ChE); Liberal
- Leo Melvin McIlvain (ChE); Smith Center
- Robert Beitzel McIntire (ChE); Manhattan
- James King McKie (BA&A); Salina
- Mary Rowene McMaster (HE&N); Eskridge
- Donald Wallace McMillan (BA&A); Manhattan
- Joseph Allen McMillen (BA); Coldwater
- *Keith Eugene McNeal (ME); Kansas City, Mo.
- Lois Marie McVay (HE); Junction City
- *Burt Randolph MacKirdy (CE); Manhattan
- Roderick Elwyn MacRae (VM); Evanston, Ill.
- Helen Jane Macredie (HE); Clearwater
- Edward Jay Mahler (VM); Salina
- Mildred Marie Major (IM&D); Wilson
- Hurst Kreek Majors (IJ); Manhattan
- Ben Verden Makinney (EE); Columbus
- Robert Drury Manly (GS); Manhattan
- Virgil Lawrence Marak (EE); Everest
- Frank Lucius Marey (Ag); Milford
- Darwin Elton Markwell (IA); Kingman
- Ramon Frescas Marquez (ME); Mulvane
- *John Alexander Marten (Ag); Winfield
- Audwin Joseph Martin (CE); Norwich
- Dwight Murray Mason (IJ); Manhattan
- Bette Helen Mattes (HE); Kansas City, Mo.
- *Wanda Lois Matthaei (HE); Washington
- Arlene Venita Mayer (MuE); Alta Vista
- *Edward Hanson Mayo (MI); Indianapolis, Ind.
- William Arthur Meade (EE); Moline
- *Leonard Paul Mealy (ME); Summerfield
- Orval H. Meinecke (VM); Marysville
- Newell Clyde Melcher (Ag); Ottawa
- *Harold Raymond Melia (Ag); Bucklin
- *George Lester Mendenhall, Jr. (ME); Belleville
- *Howard Kludos Merriam (EE); Hiawatha
- Bettie Jean Merrill (IJ); Ellis
- Everett Russel Meyer (BA); Basehor
- Leonard Milton Meyer (BA); Basehor
- Kenneth Benton Middleton (VM); Manhattan
- Bob Glenn Miller (BA); Belleville
- Marion Andlauer Miller (AE); Topeka
- Harold Elwin Milligan (Ar); Manhattan
- Harriette Louise Minton (HE&N); Harper
- Evelyn Elnora Mitchell (HE); Topeka
- Louis Fred Moeller (BA&A); Hill City
- Carroll Alvin Mogge (Ag); Goodland
- *Loren Charles Molz (ME); Wichita
- Beatrice Marie Montgomery (HE); Hazelton
- Ralph Ungeheuer Moody (EE); Mound City
- *Robert Beckwith Moody (PVM); Greeley
- Ellen Lucille Moon (HE); Manhattan
- Isabel Moore (GS); Alta Vista
- Keith Franklin Morey (Ag); Manhattan
- Lois Lorraine Morgan (GS); Manhattan
- Mary Belle Morris (IJ); Chapman
- *Edward Walter Morrison (MI); Denton, Tex.
- Neil Alden Morton (Ag); Green
- *Bruce Henderson Mosbacher (ME); Wichita
- Donald George Moss (EE); Miltonvale
- Gladys Lucille Mudge (HE); Eskridge
- Joseph William Mudge (Ag); Gridley
- William Lowe Mundy (GS); Salina
- Joe Andrew Murphree (EE); Kansas City, Mo.
- *Jean Murphy (GS); Abilene
- Mabel Lois Murphy (IM&D); Manhattan
- Ray V. Murphy (SH); Manhattan
- Ray Patrick Murray (EE); St. Marys
- Raymond Lee Mussatto (ME); Burlingame
- Imogene Gale Myers (HE&A); Sharon Springs
- *Robert Kirkland Nabours (GS); Manhattan
- Franklin Conrad Nagle (ChE); Topeka
- Eugene Crawford Neeland (MI); Salina
- *Arthur Lewis Nelson (PE); Coffeyville
- Edwin Lee Nelson (EE); Allen
- Elva Ann Nelson (HE); Concordia
- Warren B. Nelson (AA); Manhattan
- Donald Orion Neubauer (ME); Manhattan
- Margaret Anne Newcomb (BA); Kansas City, Mo.
- Lloyd Edward Newcomer (EE); Russell
- Clarence Eugene Newell (ME); Wellington
- Mac Donald Newsom (CE); Scott City
- Mary Evelyn Nielson (IM&D); Atchison
- Elmer LeRoy Nieman (BA); Herkimer
- John William Nininger (EE); Olathe
- Wilburt Gates Nixon (Ag); Virgil
- Oscar Woodrow Norby (AA); Pratt
- Richard William Nordeen (GS); Manhattan
- Harold Sylvester Novak (ME); Ottawa
- Harold LeRoy Nus (ME); Arlington, Iowa
- Marion Ernest Oberhelman (GS); Manhattan
- Otto Frederick Oberhelman (EE); Manhattan
- Fred Connell Officer (BA&A); Topeka
- Anna Bernice Olson (HE); Manhattan
- Benjamin Eric Olson (ChE); Manhattan
- Bruce Wallace Olson (ME); White City
- Earl Leroy Olson (EE); Axtell
- George Norman Olson (ChE); Wichita
- Mary Marie Olson (HE); Dwight
- Jennie Catherine Orr (HE); Kanona
- Lloyd Rueben Orrell (Ag); Peck
- Robert Leo Osborne (Ag); Rexford
- *Mary Ann Ott (IM&D); Madison
- Lindell Cook Owensby (GS); Manhattan
- Peggy Paddock (HE); Manhattan
- James Thomas Painter (EE); Meade
- Charles Robert Palmer (GS); Anness
- Patricia Palmer (BA); Kansas City
- Aubrey Glen Park (EE); Oakley
- Gerard Anthony Pascale (ChE); Coffeyville
- *Phyllis Opie Patrick (IJ); Omaha, Neb.
- David Junior Patterson (ChE); Marysville
- William Henry Patterson (SH); Holton
- Martha Ann Pattison (IM&D); Manhattan
- Doris Elaine Paustian (HE); Manhattan

SOPHOMORES—Continued

- Clifford Marvin Payne (EE); Manhattan
 Martha Marie Payne (HE); Manhattan
 Mary Jean Peak (IM&D); Manhattan
 Carson Stuart Peck (BA); Salina
 Clyde Wilson Pence (AA); Topeka
 Marla Eileen Pendergraft (HE); Emporia
 Helen Catherine Perkins (IM&D);
 Kansas City
 Ralph Hamilton Perry (BA&A);
 Oskaloosa
 Orland Joseph Peterka (IA); Manhattan
 George William Peterkord (ME); Greeley
 Richard Lewis Peters (AE-1; PE-2);
 Valley Falls
 *Alge Peterson (IA); Kansas City, Mo.
 Esther Peterson (HE&A); Kinsley
 Harold Elof Peterson (Ag); Bridgeport
 Ronald Thornton Peterson (EE);
 Courtland
 Vernon Hendrick Peterson (EE); Weskan
 John Richard Petford (AA); Saffordville
 Benjamin Rankin Petrie, Jr. (ChE);
 Greensburg
 *Peggy Ann Pfenning (IM&D); Hutchinson
 Charles Louie Pfenninger (AA); Nekoma
 Harlan Ralph Phillips (PVM-1; Ag-2);
 Manhattan
 Roger Neil Phillips (Ag); Manhattan
 Maxine Lesta Pickering (IJ); Pratt
 Marjorie Clara Pierson (HE); Clay Center
 Edwin Moats Pincomb (BA);
 Overland Park
 John Russell Piper (ME); Emporia
 Charles Irving Platt (BA); Junction City
 *Lewis Eugene Poggenmeyer (AA); Topeka
 *Shirley Alice Pohlenz (HE); Freeport
 Claude Arthur Poland, Jr. (ChE);
 Manhattan
 Arthur Wayne Pope (AA); Durham
 Irma Lucille Popp (HE); Marion
 Harriet Elizabeth Port (HE&N);
 Cheyenne, Wyo.
 Jerald Garman Porter (GS); Dellvale
 Walter H. Porter (AA); Council Grove
 Winfred Laurine Porter (IJ); Belleville
 Ethan Potter (MI); Peabody
 John William Prager (MI);
 Irvington, N. J.
 Anthony Joseph Prasnika (VM);
 Mulberry
 Louis Arthur Prechal (Ag); Omaha, Neb.
 Frank Robinson Prentice (EE);
 Clay Center
 Alma Lenora Pressgrove (HE&A);
 Tecumseh
 Allan Eugene Preston (Ag); Baldwin
 Hubert Glen Priddy (ME); Topeka
 Vinton Wylie Prickett (BA&A);
 Manhattan
 Clarence Alfred Quigley (ME);
 Great Bend
 Norbert Laverne Raemer (MI); Herkimer
 Harold Edward Rall (Ag); Menlo
 *Ruth Arline Ramsey (IM&D); Nortonville
 Emma Belle Randall (HE); Ashland
 DeVere Frank Ratliff (VM); Portis
 Emily Jane Rawson (HE); Wamego
 Cordelia Jayne Reazin (HE); Harper
 Edward Anthony Reed (Ag); Lyons
 Eleanor Edith Reed (HE&N); Circleville
 *Jean Kathryn Reed (IJ); Salina
 Nyla Frances Reed (MuE); Selden
 Wilbur Bernell Reed (ChE); Marysville
 Jerome Alexander Rehberg (ME);
 Bennington
 Helen Florence Reiman (HE); Byers
 Marie Katherine Reinhardt (HE); Russell
- Melvin Ransom Reust (BA); Frankfort
 Glenn Meredith Revell (ArE); Chase
 Jay Reynolds (VM); Parsons
 William Dewitt Rhodabarger (ChE);
 Russell
 John Lenhart Rice (CE-1; BS-2);
 Leavenworth
 Mildred Joyce Rice (HE); Alma
 John Hartman Rickenbacker (EE-1;
 BA-2); Turlock, Cal.
 Doris Ethelyn Riley (HE); Stafford
 Earl Stratton Ripley (ME); Salina
 Paul Roach (ME); La Crosse
 John Norris Roberts (ChE); Hoisington
 Robert Hugh Roberts (ME); Wellington
 Claire Milton Robertson (ME); Holton
 Ellen King Robertson (GS); Wichita
 Lois Mary Robinson (IJ); La Crosse
 *Mary Louise Robinson (HE&N);
 Kansas City
 *Virginia Frances Robinson (HE); Harper
 Walter Frederick Robohn (CE);
 Burlington
 *Lois Haroldine Roessler (HE);
 Medicine Lodge
 *Fred Henry Rogers (ME); Elk Falls
 Joseph Samuel Rogers (Ag); Horton
 Marjorie Jane Rogers (IJ); Manhattan
 *Thomas Truscott Rogers (ChE);
 Manhattan
 Raymond Ruben Rokey (Ag); Sabetha
 Virginia Elizabeth Roller (HE);
 Circleville
 Sylvia Frances Roper (IJ); Manhattan
 Margaret Maxyne Rugg (HE); Scottsville
 John B. Rush (ChE); Haviland
 Francis Joseph Ryan (EE);
 Waterbury, Conn.
 Joyce Carmel Sahlberg (IM&D); Wichita
 *Margaret Elizabeth Salser (HE); Wichita
 George Arthur Sample (ME);
 Council Grove
 *Winston Norton Sanders (AE); Miller
 *James Glenn Sanford (BA); Salina
 Harold Jay Santer (BA&A); Gaylord
 Richard Victorian Sardow (ME); Topeka
 Lorraine Sawyer (HE); Kensington
 Kent Navarra Schaffer (EE); Lucas
 Marguerite Annabeth Schlotzhauer
 (HE); Bucyrus
 Clarence Wilbur Schmitz (GS); Alma
 *Joan Elizabeth Schramm (IJ);
 Arkansas City
 Alva Esther Schroeder (HE); Hillsboro
 *Clarence William Schulze, Jr. (Ag);
 Blue Springs, Mo.
 Lloyd Joseph Schurr (BA&A); Wamego
 Glenn Orville Schwab (AE); Gridley
 *Orville Arthur Schwanke (AA);
 Maplehill
 Daniel Ralph Scott (GS); Garfield
 Margaret Lenore Scott (HE&N);
 Louisville
 Robert DeForest Scott (ChE);
 Manhattan
 *Marguerite Eliza Seal (HE); Wakefield
 James Harris Sealey (ArE); Pratt
 Evelyn Margaret Seeberger (GS);
 Hanover
 Marjorie Maxine Segrist (HE&A);
 Manhattan
 Ben Shambaugh, Jr. (VM); Ottawa
 *Richard Dean Shannon (ME);
 Kansas City
 Mary Ellen Shaver (HE&A); Salina
 *Ann Ella Shaw (HE); Belleville
 Robert Ulrick Shaw (IA); Topeka

* Matriculated 1939-1940.

SOPHOMORES—Continued

- *John Charles Shea (Ar); Arkansas City
Richard Alan Shea (VM); Kansas City
Aline Bernice Sheeley (HE); Emporia
Raymond Leander Sherlock (GS);
Wanego
Grant Brooks Sherwood (GS);
Independence
Nadine Shields (IM&D); Council Grove
Gladine Tiny Shirley (IM&D); Perry
Jonny Dale Shoemaker (IJ); Centralia
Irene Esther Shriver (HE); Lake City
DeArline LaVere Shull (PE); Kansas City
Charles Otho Shumaker, Jr. (ChE);
Wichita
Virginia G. Siebert (HE&N);
Pretty Prairie
Ernest Allen Siegel (VM);
San Francisco, Cal.
Claredon Hickman Sigley (ME); Canton
*Marjorie Elizabeth Simmons (HE);
Barnard
Kenneth Sinclair (BA);
New Brunswick, N. J.
Robert Ralph Singleton (Ag); Kansas City
Henry Augustine Sirridge (ME); Topeka
*Joseph Ellis Skaggs (Ag); Leavenworth
Leland Richard Skaggs (AA); Salina
Harold Milton Skella (ChE); Blue Rapids
Loran Alvin Slaughter (BA&A);
Manhattan
Margaret Smies (HE); Courtland
*Audrey Jean Smith (IM&D); Washington
Beth Aileen Smith (HE); Bloomington
*Clayton LeRoy Smith (ME);
Kansas City, Mo.
*Dreda Maxine Smith (BA); Vermillion
Floyd William Smith (AA); Shawnee
Glenn McKinnis Smith (EE); Uniontown
Marcia Gertrude Smith (HE); Amy
*Leland Roscoe Smoot (ArE); Parsons
Dean Waldron Snow (ChE-1; IJ-2);
Neodesha
*Nancy Marie Snyder (GS); Hutchinson
John Christopher Sobba (ME); Fowler
Gene Lowell Solt (BA); Waterville
Ralph Andrew Sunday (CE);
Sharon Springs
*Edith Margaret Southard (HE);
Stockton
Reed Clement Sparks (BA); Great Bend
Robert Spatz, Jr. (IJ); Lebo
Laurence Eldon Spear (ME);
Kansas City, Mo.
Nadine Alfreda Spellman (HE); Salina
Charles Eldon Springer (CE); Stockdale
Clifford Raymond Springer (CE-1;
AA-2); Stockdale
Marjorie Jean Spurrier (GS); Kingman
Wilma Marie Staehli (HE); Abilene
*Herbert Dean Stauffer (ME); Grenola
Ray Virgil Stauffer (ChE); Onaga
*Ben Frank Steele (ChE); Glasco
*Floyd Owen Steele (VM); Halstead
Robert Charles Stephens (AA);
Manhattan
Lenora Jeanne Stephenson (HE); Larned
*Ervin Leland Stever (Ag); Ulysses
Betty Jean Stewart (HE); Topeka
*Helen Jean Stewart (HE);
Colorado Springs, Colo.
Kemp Graham Stiles (GS); Topeka
Evelyn Irene St. Lawrence (IJ); Fowler
Jean Maxine Stoltzenberg (HE);
Hiawatha
James Mark Stoneberger (ME); Lindsborg
*Helen Jean Stout (HE); Kansas City, Mo.
Marshall Stover (PE); Manhattan
- John Quentin Stratton (Ar); Minneapolis
*James Roswell Streeter (CE); Johnson
Nita Mae Stricklin (HE); Webster
Floyd Jay Stryker (ME); Blue Rapids
*Monroe Carl Suderman (ChE); Hillsboro
Elver Henry Swart (GS); Seneca
*Phillip Matthew Sweet (ME); Ottawa
Dorothy Jean Swingle (GS); Manhattan
*Cecil Emery Tackett (CE); Parsons
Lenora Jean Taddiken (HE); Morganville
Jeanne Marie Tarvin (GS); Marysville
Delbert Gail Taylor (Ag); Meade
*Glenn Watson Taylor (AA); Lebo
Ocie Alice Taylor (HE); Tribune
*Allan George Teague (Ag); La Harpe
Roy J. Tebo, Jr. (Ag); Morland
Robert Crowley Tedrow (CE);
Kansas City, Mo.
Margaret Ruth Teel (IM&D); Morland
Joye Jean Teeple (IM&D); Manhattan
George Louis Templeton (EE);
Great Bend
Joyce Jacqueline Terrass (HE); Alma
Glen Junior Thomas (GS); Riley
Walter Ross Thomas (GS); Belleville
Harley Franz Thompson (BA); Kinsley
Keith Lewis Thompson (Ag); Wichita
*Roy Arthur Thompson (ME); El Dorado
Wilma May Thompson (HE); Almena
Merrill Wayne Toburen (IC); Manhattan
Melvin Kenneth Todd (EE); Kansas City
Richard Allen Toole (IJ); Goodland
Leland Oscar Townley (EE); Kirwin
*James Justin Trindle (CE); Hugoton
Dorothy Jean Triplett (GS); Humboldt
Frederick Cecil Trippel (AE); Burrton
*Florence Ada Truan (HE); Hays
*Clyde Duane Tryon (Ag); Grantville
Robert Emmett Turkleson (ChE); Troy
Carl Norman Turner (IA); Manhattan
George Kendrick Turner (GS); Waterville
William Dick Turner (AA); Manhattan
Howard Robert Turtle (ME); Quinter
Wilbur David Van Aken (BA); Lyons
Rose Marie Van Diest (HE); Prairie View
Thelma Laverne Vandiver (IJ); Norton
Doris Van Landingham (HE); Topeka
Virginia Cassandra Van Meter (HE&A);
Ada
Robert Edward Van Scoyoc (BA);
Manhattan
*Edna Mae Van Tuyl (HE); Burns
Charley Raymond Vavroch (Ag); Oberlin
Clyde Maurice Venneberg (AA);
Havensville
Carl Joseph Voelker (VM); Manhattan
*Nadine Vivian Wade (IJ-1; HE&A-2);
Independence
Anna Dean Wagaman (IM&D); Manhattan
*Rachael Phebe Wagaman (HE); Emporia
*Robert Earl Wagner (Ag); Garden City
Gerald Sigurd Wagstad (MI); Osseo, Wis.
Paul John Waibler (ME); Great Bend
Frederic Barber Walker, Jr. (VM);
San Diego, Cal.
*William Ray Wallace (SH);
Montrose, Colo.
Keith Wallingford (M); Manhattan
*Gerald William Walrafen (Ar); Topeka
John Austin Walters (CE); Manhattan
*Leota Ferne Walters (HE); Wetmore
Theodore Parker Walton (IA);
Manhattan
*Marjorie May Wanamaker (HE); Barnes
Arlin Bruce Ward (MI); Manhattan
Oliver Howard Wardlow (ArE); Topeka
Alice Elizabeth Warren (Ar); Manhattan

SOPHOMORES—*Concluded*

- Leon Arthur Warta (CE); Ellsworth
Robert Gless Waters (BA);
Junction City
Bruce Cornell Watson (VM); Shawnee
Valena Glee Weber (IM&D); Clifton
Maurice John Weckerling (ME);
Manhattan
Dean Keats Weckman (Ag); Holton
Bernard Morris Weiner (VM);
Irvington, N. J.
Richard Gale Wellman (Ag); Sterling
*Mary Jane Welsh (IJ); Kansas City, Mo.
Francis Wempe (Ag); Frankfort
Delbert Oscar Wendt (VM);
Bonner Springs
Max Miller Wenrich (ME-1; Ag-2);
Oxford
William Joseph Werts (Ag); Smith Center
Leland Wertz (GS); Manhattan
Gordon B. West (IJ); Manhattan
William Roger West (VM); Manhattan
William Earl West (GS); Hiawatha
Hazel Ruth Weygandt (HE); Manhattan
Pierce Uhlman Wheatley (MI); Gypsum
Gertrude Eunice Wheeler (MuE);
Manhattan
Irene White (GS); Kingsdown
*Vivian Esther White (HE); Delphos
*Frank Wellington Wichser (MI);
Beardstown, Ill.
Fairy Faye Wickham (GS); Oberlin
Ray Franklin Wilkie (ME); Topeka
*Paul Halbert Wilkins (IC-1; MI-2);
Walnut
Earle Ellwood Wilkinson (AE); Quinter
Charles Horner Williams (BA);
Marysville
Glenn Lawrence Williams (IJ);
Manhattan
John Jasper Williams, Jr. (BA);
Pawnee Rock
Nellie Lou Willis (HE); Manhattan
*William Frederick Willner, Jr. (ME);
Solomon
Frank Ance Wilson (Ag); Maple Hill
John Hoffman Wilson (ME); Augusta
Robert Dolan Wilson (ME); Manhattan
Shirley Maycele Wing (IM&D); Columbus
Rosalie June Winger (HE); Johnson
Mary Elizabeth Wingfield (HE); Norton
Harlan Clark Wingrave (Ag); Severy
Ronald C. Wishart (IA); Manhattan
Lucille Nell Wolford (BA); Eskridge
Richard August Wolgast (GS); Alta Vista
Helen Iona Woodard (HE); Topeka
Milton Maurice Woodrick (GS);
Scott City
Harold Duane Woods (ChE); Greensburg
Pauline Henrietta Worland (IM&D);
Topeka
George Carl Wreath (Ag); Manhattan
Jean Frances Wright (MuE); Manhattan
Paul Lee Wright (Ar); Osawatimie
Leo Gerald Yeo (PE); Ellsworth
Eileen McGhee Young (HE); Manhattan
Robert Youngmans (Ag); Piper
Dorothy Mae Zerbe (HE); Salina

FRESHMAN

- *George Edward Abbott (EE); Salina
Eugene Mitchell Adams (MI-1; PE-2);
Osborne
Melville E. Adams (PVM); Wellborn, Fla.
*William Newman Akers (AE); Corbin
*Lawrence Leonard Alden (GS); Manhattan
*Harold Edward Alfors (AE); Denton
*Jean Frances Alford (HE&D);
Riverside, Ill.
David Keith Allen (ME); Glen Elder
*Floyd William Allen (CE);
Michigan Valley
*Joyce Allen (BA); Strool, S. Dak.
*Vivian June Allingham (HE); Manhattan
*Austin Gilligan Alm (PVM); Manhattan
*Carl Leo Anderson (Ag-1; AE-2);
Longton
*Carlye Leona Anderson (HE); Longton
*Clair Sherman Anderson (CE); Clyde
*Florence Kathryn Anderson (HE);
Seneca
*John Anderson, Jr. (GS); Olathe
*Ruby Nadine Anderson (HE);
Kansas City, Mo.
*Van Keith Anderson (CE); Osage City
*William Bernard Anderson (ME);
Wilmington, Del.
*William Leroy Anderson (EE);
Kansas City
James V. Andrews (BA); Manhattan
*Elaine Lenore Anthony (HE); Hoisington
Arthur Allen Appleton (GS); Manhattan
*Mary Margaret Arnold (IJ); Manhattan
*Mildred Arth (HE); Great Bend
*Ralph Marion Atchison (ME);
Leavenworth
*Robert Claude Atkins (VM); Parsons
*George William Atkinson (VM);
Hutchinson
*Alice Louene Attwood (HE);
Smith Center
*Merritt Charles Atwell (Ag); Utica
*Joanne Marie Aubel (BA); Manhattan
*Charles Lyman Ault (BA); Belvue
*Edna Maxine Austin (IJ); Concordia
*William Bruce Bachelor (EE); Belleville
Floyd Arnold Bacon (Ag); Sylvan Grove
*Gerald Meynard Bainter (IJ); Colby
*Martha Joanne Baird (IJ); Manhattan
*Richard Kelly Baird (IJ); Hunter
*Opal Mae Bairow (GS); Wamego
*Robert Crary Baldrige (GS); Manhattan
*Julius John Ballagh (Ag); Oskaloosa
*Paul Elden Ballinger (GS-1; ME-2);
Norton
Jean Louise Banbury (HE); Wichita
*Sybil Janice Bangs (HE); Merriam
*Merlin Jasper Banker (Ag); Salina
*Earl Clair Barb (EE); Hamilton
*Robert Vernon Barber (GS); Randolph
*Patti Lou Barnard (HE);
Kansas City, Mo.
*Glen Alden Barnes (ME); Corning
*Lester Kenneth Barnes (PE); Fontana
Frank Henry Barnhart, Jr. (GS);
Fort Riley
*Gordon Lee Bartholomew (Ag); Alton
*Violet LuJean Base (HE); Sedgwick
*Reva Jean Baxter (BA&A); Onaga
Robert C. Bayles (CE); Manhattan
*Margaret June Bayless (HE); Wakarusa
*Virginia Bransford Baylies (HE);
Fort Riley
*Paul Raymond Beach (PVM);
Havensville
*Ralph Gordon Beach (SH); Marysville
*Chas. Raymond Beardmore (ArE);
Concordia
Larry Beaumont (BA); El Dorado
*Floyd Edwin Beaver (PVM); Olathe
Neil Dwane Beckenhauer (VM); Delavan
*James Edward Beesby (Ag); Gove

FRESHMAN—Continued

- *Patricia Anne Beezley (HE); Girard
 *Patricia Jean Bell (IM&D); Perry
 *Wendell Dean Bell (EE); Silver Lake
 *Harold Le Roy Bellairs (AA); Wakeeney
 *Henry Bender (VM); Coffeyville
 *John Daniel Bender (EE);
 Washington, D. C.
 *David Bendersky (ME); Nassau, N. Y.
 *Max Bernard Benne (AA); Morrowville
 *Vivian Pearl Bennett (HE); Mankato
 *Charles Eugene Landon Benney (IC);
 Fort Riley
 *Tod Francis Benson (BA); Herington
 *Leo Grant Berg (AA-1; PVM-2);
 Harper
 *Gale Vernon Berger (MuE); Abilene
 *Denzile Wallace Bergman (GS);
 Manhattan
 *Bessie Irene Bergsma (HE&N); Goodland
 *Robert Arnold Bergsten (AA); Randolph
 *Melvin Henry Bernhart (CE); Herington
 *Willis Granville Betts (PVM); Topeka
 *Herbert William Beyer (CE); Sabetha
 *Clifford Duane Beyler (VM); Harper
 *Freeman Almer Biery (Ag); Stockton
 *Jack DeWayne Bigham (Ag); Muncie
 *Phillip Eugene Bigham (GS); Larned
 *Warren Paul Bilderback (GS); Nortonville
 *Lloyd Calvin Billings (MI); McLouth
 George J. Bird (Ag);
 San Juan, Puerto Rico
 *Leland Merle Bitner (EE-1; BA&A-2);
 Kinsley
 *Herschel Emerson Blackburn (ME); Alma
 *Thelma Nadene Blackwell (GS); Rozel
 *Margaret Mae Blaylock (HE); Mankato
 *Alan Gail Blecha (GS); Manhattan
 Leon Philip Blender (IJ);
 Kansas City, Mo.
 *David Jesse Blevins (ME); Manhattan
 *Roy Victor Blood (EE); Garnett
 *Robert Chaffer Blount (ChE); Jetmore
 *Ernest John Boehner (ME); Glen Elder
 *Wendell Dean Boettcher (Ag); Holton
 *Ellis Keating Boldra (ME); Topeka
 *Howard Clae Bond (GS);
 San Leandro, Cal.
 *Case Artman Bonebrake (ME); Woodston
 *Sarah Elizabeth Boonecutter (HE);
 Smith Center
 *Sylvia Ellen Bonjour (HE); Onaga
 *Walter Keith Bonner (PVM);
 Memphis, Tenn.
 *Winifred Caroline Boomer (HE&A);
 Kansas City
 *Gladys Lucile Boone (HE); Toronto
 *Marguerite Hester Boren (BA);
 Manhattan
 *Warren Jay Boring (Ag-1; PE-2);
 Kansas City
 *Don Richard Borthwick (IJ); Beeler
 *Robert Orville Bostwick (ME); Syracuse
 *Lucy Mae Botkin (IM&D); Harper
 *Marjorie Agnes Botkin (HE&A); Harper
 *Barbara Bouck (HE); Manhattan
 *Jess Boughton, Jr. (CE); Salina
 *Barbara Lee Bower (IJ-1; HE-2);
 Manhattan
 *Mont Otto Bower (AA); Hazelton
 Gordon Frank Boy (Ag); Raymond
 *Hugh Charles Boyd (BA); Concordia
 *Joe Elliott Boyle (ME); Spivey
 *Mary Elizabeth Brabb (HE&N);
 Alta Vista
 *Kermit Lee Brandes (PVM); Kensington
 Edward Charles Brann (EE); Wichita
 *William Earl Brant (BA); Winfield
 *Gale Eugene Breed (AA); Havensville
 *Arthur Gordon Brewer (CE); Winfield
 *Marie Louise Brewer (MuE); Great Bend
 *Richard Mack Brewer (Ag); Mount Hope
 *Elizabeth Lorraine Bridgford (IJ);
 Silver Lake
 *John Edward Brighton (BA); Coffeyville
 *Louise Josephine Brockelman (HE);
 Holton
 *Juster Marvin Brookan (AA);
 Lincoln, Neb.
 *Eugene Alfred Brooks (EE); Bentley
 *Irma Eline Brooks (HE&A); Norton
 *Jack Pennock Brooks (GS); Norton
 *Robert Lee Brooks (GS); Norcatur
 *Francis Hoyt Brown (VM); Manhattan
 *James Seba Brown (ME); Sterling
 *Margaret Lucille Brown (GS); Miltonvale
 *Mary Kathleen Brown (GS);
 Kansas City, Mo.
 *Doris Nathalie Brubaker (HE&A);
 Manhattan
 *Eugene Clifford Brunner (Ag); Oneida
 *Robert Bruce Brunson (Ag); Leavenworth
 *Ellen Clara Brush (IJ-1; HE-2);
 Wichita
 *Bruce Keith Bryan (PVM); Manhattan
 *Morris Eugene Brickman (MI); Olathe
 *Jeanne Keller Buckmaster (HE&A);
 Topeka
 *Ben Buehler, Jr. (ME); Bushton
 *Alma Hope Buffington (HE); Marquette
 *Raymond Elmore Bull (ME); Marysville
 *Rex Burden (BA); Chase
 *William Edward Burger (VM);
 Kansas City
 *Lester Harlan Burkert (VM);
 Valley Falls
 *Robert William Burns (PVM);
 Atlantic City, N. J.
 *Merle Lester Burr (CE); Le Roy
 *Edward George Buss (Ag); Holton
 *Burson George Bussert (VM); Manhattan
 *T. Louis Byerley (BA); Minneola
 *Arden Byers (CE); Jewell
 *Mildred Mussette Cade (IM&D);
 Manhattan
 *Richard Davis Cain (EE); Topeka
 *James Charles Caldwell (EE); Fort Riley
 *Joan Cosette Callais (GS); Haven
 *George Frederic Campbell (ArE);
 Wichita
 *Kenneth Evan Campbell (EE); Topeka
 *Robert Duncan Campbell (PVM);
 Junction City
 *Thomas Clark Campbell (VM);
 Laurel, Neb.
 *Ralph Morris Canfield (Ag); Miltonvale
 *Janette Claire Carlsen (IM&D);
 Manhattan
 *Joseph Ivan Carpenter (PVM); Mulberry
 *Merle Delbert Carr (Ag); Goddard
 *Ray Eugene Carr (ChE); Kansas City
 *Roy Burman Carres (PVM); Topeka
 *Merry Elizabeth Carroll (IJ);
 Kansas City
 *Cedric H. Carter (CE); Dodge City
 *Dale Hill Carter (ME); Louisburg
 *John Wilford Carter (Ag); Paola
 *Patrick Eugene Carter (ME); Manhattan
 *Riley Darrel Carter (EE); Louisburg
 *Victor Barnes Carter (Ag); Fairview
 *Donald Max Casselman (ME);
 Conway Springs
 *Philip Dean Cazier (AE); Wakarusa
 *Janet Isabelle Chamberlin (IM&D);
 Hiawatha
 *Donna Dean Chandler (IM&D); Esbon
 *Mary Jane Chase (HE); Lyons

FRESHMAN—Continued

- Maurice Edward Chase (Ag); Effingham
 *Ivan Lee Cheney (CE); Abilene
 *Marian Alice Cherry (HE);
 Redwood Falls, Minn.
 *Loren Blaine Childers (GS-1; CE-2);
 Cawker City
 Harry Earl Chiles (PVM); Topeka
 *Marvin Lester Chindberg (ME);
 McPherson
 *Olga Ruth Chitty (GS); Bigelow
 *Joseph Robert Chrisman (BA); Abilene
 *Mina Jane Coffenberger Chrisman (BA),
 Abilene
 *Grace Eleanor Christiansen (IJ); Columbus
 *Phillip Harlan Christophersen (PE);
 Manhattan
 *Aleta Faye Clapp (IJ); Manhattan
 *Marvin Brown Clark (Ag); Belvue
 *Gordon Dwain Cloepfil (ME); Hunter
 *Kenneth Dwayne Close (AE); Toronto
 *Clarence Otho Closson (Ag); Kingman
 *June Lorraine Cluff (GS); Lyndon
 Albert Swift Coates, Jr. (VM);
 Kansas City
 *Glenn Wristen Coberly (Ag); Gove
 *Ruth Barbara Cocherell (IM&D);
 Denver, Colo.
 *Roger Bragg Coffman (PVM); Overbrook
 *Audrey Beryl Cogdill (HE); Menlo
 *Mary Patricia Collard (IJ); Leavenworth
 *Margaret Leslie Collins (MuE);
 Manhattan
 *Robert Neal Collins (PVM);
 Frankfort, Ill.
 *Warren Emil Collins (PVM);
 West Point, Neb.
 *Valdine Oral Combs (Ag); Almena
 *Katharine Jane Condit (HE); Centralia
 *Martha Winnifred Connet (GS);
 Manhattan
 Arlen Duane Conrad (Ar); Clay Center
 *Mary Charles Contompasis (PE);
 Schenectady, N. Y.
 *Alma Ella Conwell (HE); Alma
 *Gerald Max Conzelman (GS); Republic
 John Daniel Cook (AA); Abilene
 *Keith LeRoy Cook (ME); Liberal
 *Raymond Hollis Cook (PVM);
 Courtland
 Norman Eugene Cooley (BA); Newton
 *Betty Adeline Coon (MuE); Meade
 *Ivan Arthur Cooper (MI-1; GS-2);
 Lyons
 *Richard Elbert Cooper (PVM); Columbus
 *Homer Jack Jacob Cornwell (Ag);
 St. John
 *William W. Corzine (BA); Caldwell
 *Lewis Doyle Covert (EE); Hutchinson
 *Katheryn LaVonne Coxsey (GS);
 Leavenworth
 *Lawrence Edgar Craig (ArE); Wichita
 *Thomas Arthur Craig (ChE); Belvue
 *Cline Orland Cramer (GS); Glasco
 *Elden Doyle Cramer (PE); Gardner
 *Eula Houston Crawford (HE); Burns
 *Walter Ivan Crawford (PVM); Overbrook
 *Helen Frieda Crist (HE); Brewster
 *Roger Herman Crome (PVM);
 Westphalia
 *Norman LeRoy Crook (ME); Ogden
 *Nile Delbert Crowder (PVM); Augusta
 *Mary Agatha Cummings (GS); Neodesha
 *Roy George Currie (Ag); Manhattan
 *George Walter Curtis (Ag); Toronto
 *Robert Lee Curtis (GS-1; SH-2);
 Manhattan
 *Wilmer Lytle Dague (EE); Topeka
 *Chester Eugene Dale (Ag); Coldwater
 *Mary Elizabeth Dane (HE); Manhattan
 *Roy Vaden Daniels (ME); Smith Center
 *Evelyn Mae Dannar (HE); Wichita
 *Vance Leroy Darland (Ag); Codell
 *Betty Jean Davidson (IJ);
 Oklahoma City, Okla.
 *Marjorie Gladys Davies (HE); Lebo
 *Clara Lou Davis (IJ); Manhattan
 *Edith Margaret Dawley (HE); Manhattan
 *Dorothy Helen Deal (HE);
 Westfield, N. J.
 Joe DeBord (BA); Centralia
 *Keith Columbus Deck (ME); Circleville
 *Margaret Mary DeDander (IJ); St. Marys
 *John Hadley DeFord (AA); Alton
 *Don Deer Depew (ArE); Neodesha
 *Jay Williams DeTar (ME); Paola
 *Walter Neil Detrich (BA); Chapman
 *Alice Isabel DeVault (HE); Kansas City
 Gladys Love Devore (HE); Haddam
 *Melvin Howard Dewees (AA); Greenleaf
 *Paul Franklin DeWeese (IJ); Cunningham
 Dwain Edward DeWitt (IA); Ogden
 *Dave Odo Dexter (IJ); Frankfort
 *Virgil Lee Dial (CE-1; GS-2);
 Manhattan
 LeRoy Ernest Dietrich (VM); Wichita
 *Melvin Leonard Dietrich (PVM); Newton
 *Albert Dietz (GS); Wakeeney
 *Curtis Clarence Dietz (GS-1; AA-2);
 Esbon
 *Willis Leon Diggs (ME); Emporia
 *Donald Lee Dimond (MuE); Manhattan
 *Norma Jean Diven (HE); Smith Center
 John Saylor Doak (BA); Olathe
 *Gilbert Reid Dodge (BA&A); Dighton
 *Glen Francis Doel (ME); North Topeka
 *Vernon Merle Domoney (BA); Dowus
 Dennis Ralph Donahue (VM);
 Bonner Springs
 *James Ian Doner (BA&A); Seward
 *Edwin Scott Donovan (IJ); Manhattan
 *Darcy Doryland (BA); Manhattan
 *Richard Arthur Doryland (BA);
 Manhattan
 *Claude Caesar Douglass (EE); Holton
 *Augustus R. Douthitt (PVM); Winfield
 *Carl Downing, Jr. (AA); Wichita
 *Lee Warren Doyen (AA); Rice
 *Donald James Doyle (BA); Lakin
 *Angela Louise Dragoo (UE); Salina
 *Helen Frances Drake (IM&D); Corbin
 *Lois Evelyn Droegemeier (HE); Geneseo
 *Dorothy Vera Duckers (PE); Wetmore
 *Harry Garfield Duckers, Jr. (Ag);
 Netawaka
 *Max Robert Dudley (AA); Cawker City
 *Anna Elizabeth Dueser (GS); Chase
 *Charles William Duff (CE); Scott City
 *Lawrence Arthur Duncan (Ag); Lucas
 *Merrill Edwin Dunn (BA&A); Topeka
 *Audrey Jean Durland (Ar); Manhattan
 *Daniel Durniak (Ag); Germantown, N. Y.
 *Paul Dutton (GS); Harlan
 *William Keith Dyson (Ag); Hutchinson
 *John Dean Easter (Ag); Abilene
 Norman Curtis Eatinger (Ag); Raymond
 *Cleatus Franklin Ebaugh (MI); Stockdale
 *Karl Frederic Eberle (CE); Kansas City
 *Clarence Herbert Eddy (ME); Topeka
 *Charles Myers Edmonds (EE); Wichita
 *Kenneth Floyd Eicher (ME); Brewster
 *Jacqueline Roberta Eidson (HE);
 Manhattan
 *Dorothy Marie Eikelberger (HE&N);
 Scott City

FRESHMAN—Continued

- *Ralph Donald Einsel (PVM); Greensburg
 *Charles Ella Elliott (HE); Wichita
 William Dean Elliott (VM); Elmo
 *Norman Charles Ellis (BA&A); Robinson
 *Roscoe Ellis, Jr. (Ag); Havensville
 *Thomas Jay Ellis, Jr. (ME); Topeka
 *Virginia Anne Elmer (HE); Chicago, Ill.
 *Mary Louise Emery (HE); Manhattan
 *Francis Imogene England (HE);
 Coldwater
 *Glen Eugene Engler (Ag); Topeka
 *Esther Eileen English (HE); Belpre
 *Francis Reuben Dean Engwall (GS);
 Jamestown
 *Gwendolyn Lucille Ensign (GS); Garrison
 *Oscar Erickson (PE); Neodesha
 Robert Nathaniel Erickson (VM);
 Orland, Cal.
 *Grace Eskeldson (IM&D); Ramona
 *Lawrence Harold Eslinger (Ag);
 Manhattan
 *Arnold Edward Eulert (PVM); Holton
 *Armstead Joseph Evans (ChE);
 Valley Falls
 *Merl Winston Everhart (AA); Gypsum
 *Lila Maxine Ewing (HE); Sabetha
 *Everett Eugene Fager (ME); Miller
 *Gerald Nelson Farley (CE); Corning
 *Robert Gene Farris (EE-1; GS-2);
 Cheney
 *Betty Ann Faubion (IM&D); Manhattan
 *Cleo Lloydine Fear (IM&D); Bala
 *Vincent Gerald Fenney (EE); Elmo
 *Arthur Edward Fillmore (ME); Augusta
 *Leon Dean Findley (EE); Kiowa
 *Chester Otto Fischer (ArE); Wichita
 *Madeline Maurice Fisher (HE); Caldwell
 *Robert William Fisher (EE); Greensburg
 *John Halbert Fitzgerald (Ag);
 Silver Lake
 *Harry James Flatte (Ag); Lancaster
 *Naomi Marie Flentie (HE); Centralia
 *Robert Both Fleske (ME); Albert
 Eugene Miller Fletcher (ME); Kismet
 *Max Fletcher (GS); Concordia
 *Thomas Jesse Fletcher (ME); Horton
 *Robert Carl Floersch (BA&A); Manhattan
 *Leslie Orval Foelschow (PVM);
 Manhattan
 *John Matthew Folz (ChE); Marysville
 *Daniel Hugh Forbes, Jr. (BA); Wichita
 *Marjorie Lee Force (IM&D); Wheaton
 *Warren Vernon Ford (Ag); Johnson
 Thomas Earl Forester (ME); Wichita
 Loyal Delbert Fortmeyer (IA); Ruleton
 *Doyle Lavern Foss (EE); Edmond
 *William James Foster (PVM);
 Kearny, N. J.
 *John Oliver Franklin (Ag);
 Amarillo, Tex.
 Harold William Frasier (AA);
 Sharon Springs
 *Corwin Earl Freeman (Ag); Simpson
 George Henry Fritz (Ag); Lake City
 *John Paul Froom (BA&A); Vermillion
 *William Albert Frusher (ME); Jetmore
 *Harley Milton Fry (ME); Miltonvale
 *Mary Eleanor Fry (IJ); Spearville
 *Mary Maxine Fry (HE); Morrill
 *John Harvey Fulks (EE); Turon
 *Margaret Mae Fulmer (IJ); Wamego
 *Mary Elizabeth Funkhouser (IM&D);
 Manhattan
 *William Howard Funk (ME); Abilene
 *Robert Dale Gahagen (IJ); Manhattan
 *Ralph Hayes Gamber (MuE); Abilene
 *Wilma Rose Gantenbein (IM&D); Elmo
 *Edwin Frederick Garbe (Ag);
 Valley Stream, N. Y.
 *John Phil Gard (CE); Salina
 *Marvin DeForest Garlow (ArE); Hazelton
 *Robert Calvin Garrison (AA); Goodland
 *Douglas Edmond Geary (ME); Larned
 *Scott Harold Gasche (ME); Hartford
 *Anthony Gaspich (PVM);
 Far Rockaway, N. Y.
 *David Murray Gates (GS); Manhattan
 *Virginia Jane Gates (HE); Goff
 *Anita Naxube Gatrost (HE); Eskridge
 *Wilford Eugene Gault (EE); Glen Elder
 *Nathan Jacob Geering (CE); Vesper
 *Norma Adele Gellart (GS); Abilene
 *Mary Lou Genung (IJ);
 Fort Branch, Ind.
 *Philip Woodbury George (Ag); Lebo
 *George Jacob Gerber (PVM); Kingman
 *Merrill Claiborne Gerkin (MI); Fredonia
 *Fred Clark Germann (Ag); Manhattan
 *Lyman Earl Gessell, Jr. (ChE);
 Manhattan
 *Owen Melchior Gettler (BA); Kansas City
 *Avis Mauritta Gifford (HE); Haviland
 *Robert Moore Giger (Ag); Elmdale
 *David Brice Gilbert (ME); Rantoul
 *John James Gilkison (Ag); Larned
 *Gwen Ann Gillespey (HE); Augusta
 *Wendell Dallas Gillman (CE); Oakley
 *William Gist (IA); Manhattan
 *Richard George Gleue (GS-1; Ag-2);
 Bremen
 *Edmund John Glick (GS); St. Marys
 *Robert John Glick (GS); St. Marys
 *Edgar Nicholas Glotzbach (GS); Paxico
 *Edmond Godfrey, Jr. (BA); Kansas City
 *Wayne Laurence Godsey (AA); Netawaka
 *Martha Olive Goheen (HE); Manhattan
 *Meyer Ben Goldfarb (GS-1; Ag-2);
 Newark, N. J.
 *William Robert Goodwin (ME);
 Mound City
 Peter Earl Gory (VM); Hoisington
 *Francis Henry Gould (EE); Dodge City
 *Marjorie Pauline Gould (MuE);
 Manhattan
 *Virginia Frances Gould (HE); Beloit
 *Mildred Frances Graham (HE);
 Kensington
 *Marjorie Clare Grant (HE); Ellinwood
 *Rex DeMonte Grauerholz (BA&A); Esbon
 *Duane Marvin Green (ME); Leoti
 *Marjorie Jane Gregg (HE); Caney
 *Paul Eugene Griffin (BA); Manhattan
 *Gordon Lamar Griffith (EE); Bogue
 *Kenneth Edward Griffith (Ag); Larned
 *Clayton Bronaugh Griffith, Jr. (VM);
 Sacramento, Cal.
 *James William Grinter (AE);
 Williamstown
 *Dean Rollin Gross (PVM); Russell
 *Clarence Michael Grossman (PVM);
 Chokio, Minn.
 Gene J. Guerrant (PVM); Manhattan
 *Robert Ellis Guilfoil (PVM); Kansas City
 *Gerald Gurs (VM); Burlingame
 *Lyle William Gurs (PVM); Burlingame
 *Merlin Dewayne Gustafson (EE-1;
 GS-2); Randolph
 *Georgia Irene Gutsch (HE);
 Cottonwood Falls
 *William Evers Guy (VM); Kansas City
 *Francis Burdette Gwin (IJ); Leoti
 *Marvin Duan Gwinn (ChE); Hutchinson
 *Dolores Belle Haas (IJ); Herington

FRESHMAN—Continued

- *Glenn Warren Haas (GS);
Kansas City, Kan.
- *Albert William Hackerott, Jr. (Ag);
Bloomington
- *Robert James Hadorn (Ag); Wellington
- *Gordon Emerson Hair (ME); Wichita
- *Edwin Conrad Hake (MI); Salina
- *Betty Jean Hale (IM&D); Mankato
- *Gail Lavene Haley (IM&D); Great Bend
- *Donna Ruth Hall (HE); Powhattan
- *Hubert Hall (CE); Turner
- Jack Hall (ChE); Salina
- Junior Charles Ham (ME); Marysville
- *Leslie Esbond Ham (AA); Marysville
- *James Wayne Hamburg (GS); Marysville
- *Elmer Rolin Hammett (EE); Manhattan
- Stanley Darwin Hammett (IC);
Blue Rapids
- Robert Thomas Handel (VM);
Napa, Cal.
- William Augustus Hanly (GS); Manhattan
- *Edith Elsie Hanna (IM&D); Manhattan
- *Harold Melvil Hanna (CE); Winfield
- *Ruth Cornelia Hanson (HE); Olsburg
- *Margaret Barkley Hardenbrook (HE);
Alta Vista
- *Pauline Hardy (IJ); Silver Spring, Md.
- *LaVerne Collins Harold (Ag); Parker
- *Marjorie Mabel Harper (IM&D);
Frankfort
- *Charles Stephen Harris (AA); Garrison
- *Louis Dwight Harris (AA); Pratt
- *Warren G. Harris (Ag); Havensville
- *June Marie Harrison (HE); Syracuse
- *Eugene Frederick Hart (Ag); Williamsburg
- *Dorothy Evelyn Hartley (HE); Merriam
- *John Robert Hartman (SH); Hoxie
- *Dorothy Elaine Hartsook (HE); Ashland
- Roy Sears Harvey (BA&A);
Junction City
- *Earl Jerry Havel (AA); Cuba
- *Daryl Warren Hawkins (EE); Cedarvale
- *Alfred Simpson Hawkinson (ArE-1;
BA-2); McPherson
- *Laird Vincent Hawley (EE); Belpre
- *Helen Alberta Hays (HE); Beloit
- *Clarence Gard Heath (AE); Leoti
- Virginia Mary Hecht (AA); Seneca
- *Phillip Alport Hedman (SH); Kansas City
- *Jack Ambrose Heflebower (IA); Bucyrus
- *Donald Clare Hejtmanek (BA&A); Delia
- *Edward John Hellmer (CE); Olpe
- Herman Delford Haltzel (MuE); Atchison
- *Russell Preston Hemphill (GS);
Greensburg
- Irma R. Henderson (HE); Dover
- *Elden Herman Henke (ME);
Lost Springs
- Robert Wayne Hentzler (VM); Topeka
- *Norma Lee Herold (IM&D); Ellinwood
- *Roger Alberm Herrick (ArE); Topeka
- *Harry Hershey, Jr. (CE); Westmoreland
- *Mary Sevilla Hershey (HE); Eskridge
- James Sterling Hervey (VM); Belle Plaine
- *Thomas M. Hess (Ag); South Haven
- Robert William Hester (AA); Kansas City
- Jack Heter (AA); Manhattan
- *Donald Phillip Hewitt (EE); Crisfield
- *Kenneth Dean Hewson (EE); Larned
- *Elizabeth Hope Hickman (GS); Kerwin
- Jess William Hicks (BA&A); Herington
- *Walter Hicks (Ag); Valley Stream, N. Y.
- *Warren George Hicks (EE); Moline
- *Granger Louis Hiel (BA);
Junction City
- *Lawrence Andre Hill (PVM); Horton
- *Stephen Rufus Hill (ME); Kansas City
- *James Hiller (ME); Salina
- *Phoebe Lahr Hillmon (HE); Manhattan
- *Glenn Frederick Hilts (MI);
Kansas City, Mo.
- *Clayton Reed Hilyard (Ag); Severy
- *Kalo Albert Hineman (PVM); Dighton
- *Richard Elmer Hineman (PVM); Dighton
- C. Leigh Hines (Ag); Kanorado
- *Lee Thomas Hinkle (Ag); Powhattan
- Eulene Gayle Hirmon (HE); Cuba
- *Doris Marie Hiser (GS); Manhattan
- *Donald Eugene Hiskey (IJ); Hiawatha
- *Buell Elbert Hoagland (EE); Hoesington
- *Gordon Elmer Hoath (AA); Anthony
- *Josephine Agnes Hoch (HE); Wilson
- Jack Coyle Hodshire (ME); Coffeyville
- *Dora Mae Hoffman (IJ); Haddam
- *William Junior Hofman (AA); St. George
- *John Henry Hoins (PVM); Leavenworth
- *Theodore Lewis Holcomb (AA); Zenda
- Doris Beatrice Hollis (BA); Manhattan
- *William Glen Holm (PVM); Kansas City
- *Harry Richard Holmes (ME); St. George
- *Virginia June Holmes (IM&D);
Manhattan
- *Morton Holzman (PVM); Camden, N. J.
- *Virginia Davis Hoover (GS); Abilene
- *Dewi Augustus Hopkins (ArE); Topeka
- *Theodore Claude Hopper (GS-1; ArE-2);
Ellsworth
- *Albert Edward Horner (IJ); Salina
- Dorothy May Horstiek (HE); Richmond
- *Clarence Beyler Hostetler (VM); Harper
- *Max Hubert Hostetler (PVM); Moscow
- *Lois Aileen Hostinsky (GS); Manhattan
- *Florence Louise Houghton (HE); Tipton
- *Max Sherman Houston (BA); Colby
- *Jack Vance Howard (BA&A);
Los Angeles, Cal.
- Daniel Frederick Howe (AgE-1, Ag-2);
Stockdale
- *Robert LeGrand Howell (EE);
Kansas City, Mo.
- *Lois Louisa Hubbard (HE); Leoti
- *Lola Fern Hubbard (HE); Leoti
- *Charles William Huber (ME); Iola
- *Arthur Eugene Hudson (ME); Nashville
- *Lawrence Keith Hudson (ChE); Wilsey
- *Bernard Robert Huettner (CE);
Kansas City
- *Alice Bernice Hughes (IM&D); Olathe
- *Harry Keith Hughes (Ag); Salina
- *Francis Neal Hugos (PE); Manhattan
- *Janice Fern Hunt (HE); Blue Rapids
- *William Samuel Hunt (BA); Burlingame
- *Robert Austin Huser (AA); Deerfield
- *Alfred Carl Huttig (MI); Kansas City
- *Kathryn Marcella Ingenthron (HE);
Topeka
- *Theda Fayne Inslee (HE); Isabel
- *Raymond Warren Irwin (ME-1; PVM-2);
Wilsey
- *Lloyd Linell Isaacson (PVM);
Osage City
- *Warren Robert Iwig (Ag); Tecumseh
- *S. Lester Jackson (PVM); Parker
- *Joseph Edward Jagger (Ag); Minneapolis
- *Jack Edward James (IJ); Mayetta
- *Everett Edward Janne (CE); Wilson
- *Eldon Joseph Janson (PVM);
Clarion, Iowa
- Catherine E. Janssen (HE&A); Lorraine
- *Joseph Ambrose Jarvis (IA-1; PE-2);
Ulysses
- *Melvin LeRoy Jarvis (ME); Salina
- *Wayne Derwood Jaynes (AA-1; IA-2);
Yates Center

* Matriculated 1939-1940.

FRESHMAN—Continued

- *Frank William Jedlicka (EE); Ness City
Walker John Jelinek (ArE); Beloit
- *Betty Laming Jenkins (GS-1; HE-2);
Kansas City, Mo.
- *Ruth Elizabeth Jenkins (HE); Manhattan
- *Samuel Oliver Jewett (ME); Dighton
- *Berneice Bernadine Johansen (HE&A);
Holyrood
James Edward Johns (EE); Topeka
- *Jimmie Lincoln Johns (MI); Manhattan
- *Darolyn Eileen Johnsmeyer (IJ);
Topeka
- *Arnold Vivian Johnson (ArE); Salina
- *Dorothy Maxine Johnson (IM&D);
Macksville
- *Louis Bruce Johnson (EE); Liberal
- *Malvin Gilbert Johnson (Ag); Moran
- *Margaret Helen Johnson (IJ); Topeka
- *Marianna Johnson (HE); Potwin
- *Milo Larson Johnson (GS); Topeka
- *Nolah Marie Johnson (HE&N);
Circleville
- *Norval Abner Johnson (Ag); Sylvia
- *Sylvia Marie Johnson (HE&A);
Kansas City, Mo.
- *William Edwin Johnson (BA); Sterling
- *Alvin Melvin Johnston (ME); Emporia
- Charles Otis Johnston (Ag); Manhattan
- *Dorothy Marie Johnstone (HE); Milford
- *Charles Alfred Jones (ME); Hoisington
- *George Robert Jones, Jr. (BA); Wamego
- Joyce Jarene Jones (HE); Hanover
- *Keith Gordon Jones (Ag); Penalosa
- *Relda Louise Jones (HE); Goodland
- *Paul Harrison Jorgenson (CE); Manhattan
- *Guy Dulin Josserand (EE); Pratt
- *Irene Anna Joy (HE); Robinson
- Emil Wm. Karl (IJ); Abilene
- *Emil Richard Kaspar (EE); Wilson
- *Donald Lewis Kastner (PVM); Manhattan
- *Donald Audie Katz (BA); Manhattan
- *Frank William Kaul (ME); Holton
- *Paul Leo Kelley (AA); Solomon
- *Donald Dexter Kempton (ChE);
Hiawatha
- *William Perry Kennedy (ME); Topeka
- *Geneva Faye Kensler (HE); Manhattan
- *Russell Lowell Kershner (PVM); Colby
- *Rosemary Kest (HE); Cuba
- *Edith Helen Kessler (HE); Newton
- *Rose Annetta Keys (HE); Winchester
- *Abdul-Rahim Mousa Khalaf (Ag);
New York, N. Y.
- *Clara Belle Kientz (HE); Manhattan
- *Charles Edward Kier (BA); Mankato
- Gerald I. Kier (BA); Mankato
- *James Franklin Kilian (ME);
Fort Riley
- James Knight Kilian (ArE); Chapman
- *Donald Ross Kimball (GS); Lane
- Kenneth E. C. Kimbell (VM); Caney
- *Neville Clair King (ME);
Cottonwood Falls
- *Milton George Kingsley (EE); Formosa
- *Keith Egleston Kinyon (AE);
Maplewood, N. J.
- *Kenneth Myron Kirchhofer (IJ); Peabody
- *Harry Lee Kirk, Jr. (Ag); Topeka
- *Robert Nay Kirk (IJ); Topeka
- *Joseph Eldon Kirkpatrick (BA); Bogue
- *Albert George Kistner (EE); Topeka
- *Charles Willard Kjellin (Ag); Garrison
- *Gerald Wilbert Klema (BA&A); Wilson
- George Klover (VM); Ramona
- *Arthur Glenn Kluck (PVM);
Richland, Neb.
- *John Harold Knoche (AA); Paola
- Ralph William Knoche (VM);
Adrian, Minn.
- *Donald Morris Kohake (EE); Seneca
- *Robert Wolfe Kohn (ChE); Atchison
- *Roy Wayne Koons (BA); Sharon Springs
- *Walter John Kornelsen (AE); Cimarron
- William Daniel Kretsinger (ME); Emporia
- *George Edgar Kruse, Jr. (SH); Manhattan
- *Norman Leroy Kruse (Ag); Barnes
- *William Kurinan (PVM);
Woodbine, N. J.
- *Alfred Raymond Kutina (Ag); Ellis
- *Florence Adeline Kutina (IM&D); Ellis
- *Charles Evans Lacey (GS-1; ChE-2);
Republic
- *Otho Perry Lamb (CE); Elsmore
- Robert Faulkner Lamborn (Ag);
Leavenworth
- *Stanley Willis Lamer (BA); Hays
- Catherine R. LaMont (IJ); Clifton
- Jack Duncan Lamont (VM); Manhattan
- *Paul Albert Lamont (EE); Turon
- *Charlotte Lucy Lander (HE&A);
Kansas City, Mo.
- *Virginia Ethel Landis (HE); Abilene
- *Theodore Roosevelt Langdell (Ag);
Wilton, N. H.
- *Thomas Purcell Lanman (ArE); Larned
- *June Marguerite Larrick (HE&A);
Topeka
- *Elsie Florene Larson (HE); Madison
- *Gertrude Phyllis Larson (HE); Tescott
- *Gordon Edward Latta (GS); McDonald
- *Murray Eugene Lawson (Ag); Baldwin
- *Dick Dillon Leaird (CE); Mankato
- *Fred William Leimkuhler (Ag);
Tonganoxie
- *Thomas Edward Levick (GS); Seneca
- *Evalyn Leota Boyce Levin (IJ-1;
HE-2); Kensington
- *George Willis Lewis (MI);
Conway Springs
- *Donald Samuel Lichtenhan (PVM);
Dwight
- *Katharine Sophia Lienhardt (HE);
Manhattan
- *Dean Thomas Lill (PE); Mount Hope
- *Bessie Laurene Lilliequist (IM&D);
Medicine Lodge
- *Irene Eleanor Limper (HE); Manhattan
- Mervina Coram Line (AA); Sabetha
- *Joanne Linn (IJ); Marysville
- *Leta Marie Linville (HE); Chase
- *Warren Linville (AA); Eskridge
- *Emery James Lippoldt (ME); Kinsley
- *Evelyn Faye Little (HE&N); Topeka
- *John M. Palmer Little, Jr. (ME);
Wichita
- *William Bishop Little (ME); Wichita
- *Maryanna Lock (HE); Mayetta
- *Oree Locke (GS); Kansas City
- *Dan Benoit Loeb (BA); Junction City
- *Bernice Evangeline Long (GS); Manhattan
- *Edward Ernest Long (PVM); Abilene
- Joe Grove Loriaux (Ag); Herington
- *Harry Lott, Jr. (ChE); Valley Falls
- *Kenneth Barrett Lucas (CE); Manhattan
- *Marion Rebecca Lucas (HE); Hoisington
- *Martin Phillip Ludwig (GS-1; EE-2);
Clements
- *Nolan Albert Ludwig (VM); Parsons
- *Paul Milan Lukert (Ag); Sabetha
- *William Valjean Lumb (PVM);
Manhattan
- *Donald Wesley Lunt (VM);
Yankee Hill, Cal.
- *David Arthur Lupfer (ChE); Larned

FRESHMAN—Continued

- *Wilma Bernice Luthye (HE); Silver Lake
 *Elmer Vincent Lutz (IJ); Manhattan
 *William Atkinson Lynch (AE-1; BA&A-2); Peoria, Ill.
 *Harry Oliver Lytle, Jr. (BA&A); Junction City
 *Norman George McAsey (AA); Effingham
 *Velma McCall (HE); Wakeeney
 *Johnny Franklin McCammon (MI); Americus
 *Harry Willis McCann (PVM); West Plains, Mo.
 *Robert Everett McCann (EE); Hardtner
 *Donley Valerious McCarty (Ag); Ashland
 *Jennie Marie McCaslin (HE); Hoyt
 *Margaret Ann McClymonds (IJ); Lincoln, Neb.
 *Jerome Edgar McConnell (ChE); Salina
 *Mary Ruth McCoy (HE); Pratt
 *Irene Elizabeth McCully (HE); Broughton
 *Robert Irwin McCutchan (CE); St. George
 *Kenneth Earl McDiffett (GS); Alta Vista
 *Joseph Gerald McDonald (EE); Topeka
 *Arthur Wendell McFadden (BA); Mullinville
 *Howard Anderson McGee (EE); Leavenworth
 *Noel Gabriel McGrath (GS); Greenleaf
 *Marvin Woodrow McGuire (Ag); Onaga
 *Robert Bruce McIlrath (Ag); Kingman
 *Donald Evert McKenzie (PVM-1; Ag-2); Wayne
 *William A. McKinley (ME); Greensburg
 *Mervin Ross McKinsey (Ag); Soldier
 *John Francis McKown (ChE); Udall
 *Ernest Lowe McLain (ME); Kansas City
 *Elizabeth Ruby McLeod (HE); Manhattan
 *Virginia Louise McMichael (IJ); Cheney
 *Julia Marie McMillan (PE); Manhattan
 *William Ray McMillan (Ag); Quenemo
 *Bonnie Jean McRill (BA&A); Peabody
 *Mary Virginia McVay (GS); Wichita
 *Robert Edmund McVay (IA-1; Ag-2); Junction City
 *Mary Alice MacArthur (GS); Mount Tremper, N. Y.
 *Merton Francis MacGregor (ME); Waterbury, Conn.
 *John William Machin, Jr. (EE); Wamego
 *Margaret Gardiner Mack (IJ); Manhattan
 *William Elliot Mackender (PE); Riley
 *James Thomas Mackintosh (BA&A); Kansas City, Mo.
 *Wayne Hendrix MacKirdy (CE); Manhattan
 *Frank Philip Mackler (ME); Brooklyn, N. Y.
 *Alan Joseph Madsen (GS); Corbin
 *Clifford Dale Makalous (EE); Cuba
 *Grant Charles Marburger (ArE); Lyons
 *Shirley H. Marlow (MuE); Manhattan
 *Vivian Faye Marlow (HE); Meade
 *Ann Marie Marshall (BA); Manhattan
 *John Stanley Martin, Jr. (PE); Rossville
 *Kathleen Verna Martin (IJ); Lewis
 *Kenneth Earl Martin (BA); Ellis
 *Thomas Martin (ChE); Topeka
 *Harold Zephania Mason (BA&A); Vermillion
 *Claude W. Matthews (GS); Great Bend
 *Phyllis Luella Mattson (IM&D); Assaria
 *Leon Edwin Mauck, Jr. (IJ); Lyons
 *Eleanor May (IJ); Independence, Mo.
 *Alvin Henry Meier (Ag); Hanover
 *William Hugh Meredith (PVM); Lincoln
 *Norman Rockwell Meriweather (GS); Chetopa
 *George Hamlin Merrill (GS); Manhattan
 *George Moore Merriman (PVM); Carsonville, Mich.
 *John Jacob Merryman (ChE); Kiowa
 *Ralph Leonard Messer (VM); Lawrence
 *Michael Frederick Metzger (Ag); Council Grove
 *Gilbert Joseph Meyer (EE); Lillis
 *Mary Christine Meyn (HE); Hanover
 *William Burhl Miesse (PVM); Marion
 *Clarence Ernest Might (VM); Hutchinson
 *William Harvey Milford (Ag); Kingman
 *Betty Jean Milhon (HE); Garfield
 *Dorothy Miller (HE); Kansas City
 *Edsel Leo Miller (ChE); Overbrook
 *Everett William Miller (PVM); Holton
 *Helen Gertrude Miller (HE); Manhattan
 *Kenneth Comer Miller (BA); Cullison
 *Max Mayne Miller (MI); Newton
 *Rufus Arnold Miller (PVM); Hiawatha
 *Ward McClellan Miller (ME); Syracuse
 *William Baker Miller (Ag); Arlington, Va.
 *Roy Edward Milleret (PVM); Kansas City
 *Bertrand Hall Milliard (MI); Manhattan
 *Carroll R. Mills (VM); Barrett
 *Glenn Canaday Mills (Ag); Mulvane
 *Anders Pete Mindedahl (IA); Bethel
 *Eugene Russell Mingle (EE); Oakley
 *Russell Galbraith Minnis (PVM); Manhattan
 *John Walter Mistler (Ag); Leavenworth
 *Kenneth Peter Mitchell (PVM); Axtell
 *Marian Jeannette Moeller (HE); Hiawatha
 *Alex John Molnar (PVM); Perth Amboy, N. J.
 *Willard Ames Monahan (EE); Leavenworth
 *George Clyde Money (ArE); Wichita
 *Earl Lawrence Montgomery (VM); Parsons
 *Ted Roger Montgomery (PVM); Oskaloosa
 *Edwin Louis Moody (IJ); Onaga
 *Avis Marie Moore (HE); Cottonwood Falls
 *John Lester Moore (EE); Abilene
 *Virginia Sue Moore (GS); Junction City
 *Walter Ashton Moore (Ag); Dresden
 *Marion Ferris Morgan (GS-1; ME-2); Smith Center
 *Morris Peter Morgenson (SH); Junction City
 *Dale Newton Morlan (AE); Courtland
 *Margaret Bel Morphew (HE); Herington
 *Keith Noel Morrell (ME); Beloit
 *Olin Wayne Morris (VM); St. Paul
 *Orpha Katherine Morris (HE); Riley
 *Larry Lee Morrow (AA); Liberty
 *Joseph Jerome Morse (BA); Salina
 *Laurance Frederick Mortensen (ChE); Leavenworth
 *Robert M. Mortimer (BA); Delphos
 *Myrnus Cletus Morton (PVM); Toronto
 *George Edward Mount (IA); Weskan
 *Bernard Francis Mowery (VM); Wilsey
 *Eda Maurine Mowery (HE&N); Dighton
 *Thula Mae Muchow (HE&A); Topeka
 *Melville Rhodes Mudge (GS); Eskridge
 *Fred Hartnau Mueller (BA); Topeka
 *Harry Acea Muir (ME); Manhattan
 *Reah Jone Muir (IM&D); Manhattan

FRESHMAN—*Continued*

- *John Ward Mullinix (Ag); Kansas City
 *Paul Wayne Murphey (Ag); Cheney
 *John Black Murphy (Ag);
 Long Beach, Cal.
 *Roger Gregg Murphy (Ag); Norton
 *Channing Wayne Murray (GS);
 Manhattan
 Hiram Clawson Mussett (Ag);
 Leavenworth
 *Jack Leon Mustard (ME); El Campo, Tex.
 Bill John Myers (VM); Bethel
 *Carl Thompson Myers (BA); Circleville
 *Charlie Truce Myers (ME); Marquette
 *Donald Kivett Myers (EE); Topeka
 *Duane Chambers Myers (ME);
 Junction City
 *Thora Dagny Mykland (HE); Chapman
 *Marjorie Ellen Nace (IJ); Dwight
 *Carl Kehl Nall (ArE); Johnson
 *John Richard Nash (MI); Lakin
 *Charles Franklin Neece (EE);
 Kansas City
 *Allan Bakewell Neely, Jr. (Ag);
 Minneapolis
 *Arthur William Neff (GS); Ulysses
 *Mervyn Leland Neis (ME); Abilene
 *Betty Maurine Nelson (HE); Alma
 *Robert Kenneth Nelson (VM);
 Chicago, Ill.
 *Lila Ellen Neubauer (HE&A);
 Manhattan
 John Porter Newman (VM); Manhattan
 *Juanita May Nicholas (IM&D); Johnson
 *Merlyn J. Nichols (IA); Mankato
 *Virginia Ann Nichols (HE); Topeka
 *Fred Wayne Nickelson (ME); Topeka
 *James Melvin Nielson (AA); Marysville
 *Norman Frederick Niemeier (EE);
 Manhattan
 Russell Bernard Nixon (BA); Manhattan
 *Mildred Esther Noble (HE); Oberlin
 *Mary Belle Noe (HE); Wamego
 *Drusilla Marie Norby (HE); Pratt
 *Marcile Mary Norby (HE); Cullison
 *Nelda Mae Northrup (IJ-1; HE-2);
 Syracuse
 *Glen Dean Norton (IA); Carbondale
 *LaVerne Robert Novak (Ag); Herington
 *George Quentin Nowels (MI); Glasco
 *Jack Olmsted Nutter (Ag); Morrowville
 *Bob Oscar Obenland (EE-1; GS-2);
 Clay Center
 *Richard Corwin Odgers (Ag); Salina
 *Max Frederick Oelschlaeger (CE);
 Enterprise
 Charles Offen (BA&A); Topeka
 *Ray Dan Offutt (ME); Wichita
 *Marjorie Louise Oliver (HE); Hamilton
 *Zoe Elizabeth Oliver (HE);
 Junction City
 *Mary Margaret O'Loughlin (HE); Lakin
 *Julia Viola Olson (HE); Inman
 *Oscar Myron Olson (AE); Russell
 *Wilford Russel Oney (ChE); Manhattan
 *Dean Hauer Orem (AA); Meade
 *Seymour Jay Ornstein (PVM);
 New York, N. Y.
 Lois Louise Orrell (HE); Peck
 Ina Elizabeth Orrick (M); Manhattan
 *Leonard Lawrence Orth, Jr. (ME);
 Moundridge
 *Eleanor Ruth Osborn (IJ); Topeka
 *Cordon Udelmer Osburn (EE); Chapman
 *Carl Benjamin Overley (AA);
 Belle Plaine
 *Harold Byron Overton (BA);
 Kansas City, Mo.
- *Lucille Iva Owen (HE); Edson
 *William Henry Packer (ChE);
 Manhattan
 *Geraldine Carol Paddock (HE); Oberlin
 *Eunice Eleanor Paden (HE); Topeka
 *Betty Louise Paine (HE&N);
 Hutchinson
 *Hermagene Palenske (IM&D); Alma
 *Albert Earl Palmberg (AE); Meriden
 *Ina Ernestine Palmer (HE); Sabetha
 *Kenneth Elwood Palmer (ChE); Murdock
 *Orlando Karl Pan Kratz (ME); Stafford
 *Warner Pape, Jr. (Ag); Robinson
 *Jeanne Eileen Parcels (IM&D); Hiawatha
 *Duane Irvin Parr (BA&A); Rossville
 *Frances Darlene Parrick (GS);
 Manhattan
 *Anna Helen Parsons (PE); Wamego
 *Margaret Hila Parsons (HE); Manhattan
 *Rodney Lewis Partsch (Ag); Bird City
 *Fred Pasamanick (PVM); Brooklyn, N. Y.
 *Leroy Paschke (CE); Topeka
 *James Ernest Paterson (IC); Norton
 *Frank Elmer Patten (AA); Atwood
 *Lillian Belle Patten (HE); Atwood
 *Duane Marshall Patterson (ME);
 Kansas City
 *Robert Lee Peddicord (BA); Wamego
 *Albert Dean Peer (EE); Kensington
 *William Jennings Peery (EE); Johnson
 *Marian Frances Penley (GS); Manhattan
 *Lowell Hubert Penny (Ag); Lawrence
 *Dale Eugene Percival (Ag); Beverly
 *Earl Ellis Perkins (CE); Belleville
 Charles Ross Perry (PE); St. George
 *Leo William Peterman (Ag); Beattie
 *John Howard Peterson (PV); Clearwater
 *Merrill Darial Peterson (BA); Manhattan
 *Raymond Gustave Peterson (IC);
 Enterprise
 *Robert Lewis Peterson (IJ); Enterprise
 *William James Peycke, Jr. (EE);
 Alta Vista
 *Kenneth Alvin Pfaff (AA); Hazelton
 *Marian Francis Pfrimmer (HE&N);
 Oberlin
 *Donald Phinney (ChE); Russell
 *Phil Edwin Pierce (EE); Marion
 *Helen Irene Pierpoint (HE&A); Benedict
 Russell Herbert Pierson (PVM);
 East Haven, Conn.
 *Mary Alice Pile (HE); Liberal
 *Arthur Leon Pincomb (GS); Olathe
 *Murray Wayne Pippin (PVM); Fredonia
 *Glen Wallace Pishny (Ag); Waterville
 Kenneth Eugene Plumb (Ag);
 Manhattan
 *Clyde Lee Plumer (ArE); Sedgwick
 *Jean Pommier (GS); Frankfort
 *Anna Adaline Poole (HE); Manhattan
 *Robert Lee Poppenhouse (PVM);
 Manhattan
 *Henry Dean Porter (PVM); Mount Hope
 *John Jefferson Porter (PVM); Selma
 *Edward Charles Potter, Jr. (BA-1;
 ME-2); Oswego
 *George Christian Potter (IC);
 Bennington, Vt.
 *Richard John Powell (GS);
 Kansas City, Mo.
 *Emmett Wayne Pratt (AE); Colby
 *Joseph Charles Prchal (PVM);
 Omaha, Neb.
 *Lois Mae Pribbeno (HE); Sharon Springs
 *James Schneider Prideaux (MI);
 Manhattan
 *Rex Leroy Pruett (GS); Culver

FRESHMAN—Continued

- Earl Carleton Pugh (PVM); Salina
 *Robert James Purinton (Ag);
 Overland Park
 *Mary Elizabeth Pyle (HE); Hamlin
 *Robert Lee Pyles (PVM); Kansas City
 *William Kay Quick (ME); Beloit
 Donald Henry Raine (BA); Maplehill
 *Dale William Rake (Ag); Tecumseh
 *Robert Fielding Randle (AA); Riley
 *John Karl Rankin (IC); Topeka
 *Dorothy Francis Ratliff (IM&D);
 Manhattan
 *Gerald Goggesh Ray (ME); Delavan
 Virginia Lee Ray (HE); Wilsey
 *Betty Jane Reed (BA); Topeka
 *John Robert Reed (EE); Salina
 Quentin S. Reed (IJ); Topeka
 *Frederick Milton Reeder, Jr. (ME);
 Silver Lake
 *Charles Robert Reid (ME); Topeka
 *Marvin Emor Reinecke (ME); Great Bend
 *Thelma Ruth Remick (HE); Manhattan
 *Marvin Robert Repstine (PE); Atchison
 Wilma Elizabeth Reynolds (HE);
 Kansas City
 Charles O. Rhea (ME); Drexel, Mo.
 *Kenneth Elmer Rice (EE); Greensburg
 *Thomas Oliver Richardson (GS); Kingman
 *Wallace Franklin Richardson (EE);
 Kingman
 *Mary Ellen Richter (IM&D);
 Dodge City
 *Francis Raymond Rickard (BA);
 Manhattan
 *Jane Louise Riddell (HE&N); McPherson
 *Gerald Frank Ridenour (AE); Emporia
 *Marie Veronica Rizek (HE); Belleville
 *Wayne Keith Roark (PE); Manhattan
 *Richard Gale RoBards (VM);
 Arkansas City
 Arthur D. Robb (VM); Wamego
 *David Daw Robb (EE); Salina
 *Marvin Jacob Roberts (CE); Syracuse
 *William Bruce Robertson (Ag); Barnard
 *Leonard Gale Robinson (AA); Viola
 Ralph Raymond Robinson (PE); Wilsey
 Andrew Scott Robson (EE); Westmorland
 *Margaret Ellen Robson (GS); Waverly
 *Nicholas Benjamin Robson (MI); Salina
 *Ned Warren Rockey (GS); Manhattan
 *Merrill Dean Rockhold (PVM); Herington
 *Fern Irene Roelfs (IM&D); Bushton
 *Bernard William Rogers (CE); Fairview
 *Earl Williams Rogers (SH); St. Francis
 *Lila Faye Rogers (IM&D); Glasco
 *Richard Dean Rogers (BA); Manhattan
 *Ronald Keith Rohlfling (MuE);
 Bennington
 *Wenonah Louise Roller (HE); Parsons
 *Evelyn Grace Romberger (HE); Abilene
 *Hautesse Etoile Rondeau (PVM);
 Great Bend
 *Saul Rosen (PVM); Fitchburg, Mass.
 *Robert Rubin Rosenfeld (Ar);
 Bronx, N. Y.
 *Norman Roy Ross (ME); Manhattan
 *Russell Morgan Roth (Ag); Emporia
 *Almon Leonard Rowe (Ag); Manhattan
 *Floyd Everett Rowland (GS-1; AA-2);
 Marysville
 *Joseph Raymond Rowlen (ME); Eskridge
 *Charles Hunter Roy (Ag); Overland Park
 *Frank Raymond Ruda (Ag); Atwood
 *Jess Wayne Reef (VM); Arkansas City
 *Elizabeth Winifred Runberg (HE);
 Lindsborg
 *Darrell Arden Russel (Ag); Canton
 *Edwin Francis Rutschmann (EE);
 Maplehill
 *Robert Ray Rutter, Jr. (BA); Udall
 *Russell Ora Sage, Jr. (ME); Kansas City
 *Robert Frank Sager (GS); Manhattan
 Virgil Edward Salts (PE); Mayetta
 *Alma Alberta Salzer (HE&N); Wamego
 *Harold Ralph Sanborn (BA); Manhattan
 *Henry Carl Sand (ME); Fort Riley
 *Robert Merele Sanneman (AA); Idana
 *Radamis Santiago (PVM);
 Penuelas, Puerto Rico
 *Patrick Henry Sauble (Ag); Newton
 *Jack Harold Sayre (IJ); Manhattan
 *John Harding Schafer (AE); Perry
 *Charles Frederick Schiebler (BA&A);
 Salina
 Marguerite Mary Scheier (HE);
 Manhattan
 *Barbara Anne Schenk (HE);
 Kansas City, Mo.
 *David Eugene Schieff (BA);
 Kansas City
 *Ruth Schermerhorn (HE); Wilson
 *Warren Schlaegel (EE); Olathe
 *Louise Rosella Schlicher (HE&N); Hoxie
 *Bernard Paul Schlim (AA); New Almelo
 *Barbara Schmidt (GS-1; HE-2);
 Junction City
 *Marian Caroline Schmitt (HE); Park
 *Esta Wilma Schneider (IM&D);
 Manhattan
 Raymond Clinton Schneider (Ar.);
 Manhattan
 *Edwin Andrew Schoen (Ag); Lenora
 *Dorothy Avis Schoepfel (HE&A);
 Hoisington
 *Robert Cooley Schoepfel (GS); Hoisington
 *Earl Robert Schreiber (BA&A); Ransom
 *Raymond Lee Schrock (EE); Kiowa
 *Nettie Arlene Schump (GS); Herington
 *Mary Louise Schuricht (BA); Osborne
 *Charles Blades Schwab (Ag); Morrowville
 *Lou Anne Schwartzkopf (IM&D-1;
 GS-2); Bison
 *Roger Leathon Scillian (IJ); Onaga
 Lucille Marie Scofield (IM&D); Perry
 *Royal Charles Seal (EE); Wakefield
 *Ansel Burton Searles (IC); Wetmore
 *John Whitney Sears (CE); Wichita
 Lorrain Oscar Sebree (VM); Kansas City
 *John Wesley Serres (CE); Lansing
 *Robert Guy Sesler (PE); Wamego
 *Freda Elena Seth (IM&D); Parkerville
 Edward George Seufert (Ag);
 Tonganoxie
 *Lloyd Dale Sexton (EE); Solomon
 *Frank Leslie Seymour (IJ); El Dorado
 *Robert Howard Shaffer (ME-1; BA-2);
 Great Bend
 *Clarence Leroy Shandy (AA); Wakefield
 *Charles Kenneth Shane (PVM);
 Junction City
 *Jean McIntyre Shane (HE); Junction City
 *Lewis Willard Shankel (IC); Florence
 *Leo Shapiro (ME); Bronx, N. Y.
 *Dan Luther Shattuck (AE-1; GS-2);
 Ashland
 *Shirley Anne Shaver (HE&A); Salina
 *Howard W. Shaw (GS); Meade
 *John Winton Shaw (CE); Moscow
 *Max Sherman Sheehy (VM); Belle Plaine
 *Virginia Lee Sheets (HE); Topeka
 *Selvin Edward Shields (EE);
 Council Grove
 Ross Freeman Shook (GS); Sterling

* Matriculated 1939-1940.

FRESHMAN—Continued

- George Edward Short (VM); Concordia
Glenn LeRoy Shriver (AA);
Medicine Lodge
*Roy Raymond Shriver (Ag); Gardner
*Wilma Jean Shull (HE); Manhattan
*Everett Otto Siegle (CE); Princeton
William James Simic (VM);
Superior, Neb.
*Lynn Howard Simons (SH); Garnett
Ruth Viola Simpson (HE&N); Manhattan
*Elizabeth Jean Sirridge (PE); Topeka
*Kimble Urban Sitterley (CE); Manhattan
*Norbert Delain Slupianek (BA);
Marysville
*Shirley Mapes Small (HE&N); Wilson
*Dalbert Oliver Smith (Ag); Macksville
*Edward Lotan Smith (IC);
Lake Geneva, Wis.
*Harold Wilbur Smith (GS); Leavenworth
*James Joseph Smith (PVM); Axtell
James Taylor Smith (BA); Wichita
*Jean Frances Smith (HE); Manhattan
*Joseph Herbert Smith (IJ); Leavenworth
*Kenneth Gordon Smith (CE); Great Bend
*Ray Thomas Smith (EE); Fontana
Richard Wilkeson Smith (VM); Salina
*Robert Junior Smith (BA); Manhattan
*Richard Martin Smoll (ME); Wichita
*Harvey James Snapp (GS-1; AA-2);
Belleville
*Neal Warner Snow (ChE); Neodesha
*Bethel Alpha Snyder (CE); Hardtner
*Eugene Edward Snyder (PE);
Junction City
*William Frank Solbach (ME); Russell
*Wilbur Wayne Soeken (AA); Clifton
*Donald Dean Sollenberger (CE);
Manhattan
*Joseph Hall Somers (EE); Topeka
*Calvin Elliott Sorensen (IA); Manhattan
*Lura Maxine Sparks (HE); Kingman
*Eugene Floyd Spaun (ArE); Atchison
*Marietta Gertrude Spencer (IM&D);
Leavenworth
Ralph Norman Spencer (VM);
Leavenworth
*Gloria Marie Spiegel (IM&D); Topeka
*John Milton Spratt (BA); Wichita
*Joseph Vincent Stadler (Ag); Rossville
*Helen Esther Stagg (HE); Manhattan
*Mary Marguerite Stagg (HE); Manhattan
*Helen Stallard (IM&D); Topeka
*Harvey Ernest Stanfield (ArE-1; BA-2);
Wichita
*John Walter Starnes (BA); Leavenworth
*Wayne Robert Starr (ChE); Hiawatha
*Jay Wayne Staton (CE); Wichita
*George Eldon Stein (Ag); Smith Center
Roy Edward Steinhoff (Ag); Osage City
Ivan Verne Stephen (Ag); Hill City
*Harvey Barclay Stetson (PVM);
St. Johnsbury, Vt.
Homer Albert Stevens (Ag); Silver Lake
*Carol Margaret Stevenson (IM&D);
Oberlin
*Boyd Harold Stewart (ME); Manhattan
*Clarence Elden Stewart (EE-1; BA&A-2);
Hartford
*Helen Beth Stewart (MuE); Wamego
*John Tufts Stewart (GS); Eskridge
*Robert Hilmer Stewart, Jr. (CE);
Wellington
*Roy Don Stewart (PVM); Wichita
*Lou Ellen Stine (HE&N); Glasco
*Barbara Elma Stinebaugh (HE&N);
Princeton
*Cora Jane Stinson (HE&N); Princeton
- *Thomas Edward Stockebrand (Ag);
Yates Center
*John Buchanan Stockton (ArE);
Fort Riley
*Beth Rosalie Stockwell (GS); Manhattan
Edward Donald Stoddard (VM);
Manhattan
*Cleo Eugene Stone (EE); Emporia
*Ernest Kirk Stonebraker (PVM);
Leavenworth
Kenneth Paul Storey (Ag); Mulvane
*Betty Jane Stratton (HE); Hartford
Clyde Roe Stratton (CE); Greenville
*Lee Monroe Stratton (IJ); Topeka
Raymond Edward Streeter (ME);
Hutchinson
*Leonard William Stremel (Ag); Dighton
*Wilma May Stroup (HE); Bushong
*Donald Alvin Stuewe (GS); Alma
*Clanton Tillman Suiter (EE); Otis
*Aurel Marjorie Sullivan (HE);
Manhattan
*Gay Kenna Sullivan (HE); Kansas City
*Dorothy May Summers (IJ); Manhattan
*Julian Sundgren (EE-1; Ag-2); Falun
*Ernest Earl Swanson, Jr. (EE);
Kansas City
Ralph Herman Swart (AA); Riley
*James Robert Swenson (ChE);
Crowley, Colo.
Melvin John Swenson (VM); Concordia
*William Alcid Swim (EE); Wichita
Robert Turner Syler (EE); Topeka
J. Carlyle Symms (VM); Hutchinson
*John William Symms (Ag); Atchison
Ava Rice Tanner (HE); St. John
*Wiley Bevis Tanner (PVM); St. John
*Elizabeth Eleanor Taylor (HE); Salina
*Thomas Richard Taylor (Ag);
Great Bend
*William Allan Taylor (EE); Colby
*Wallace Templeton (MI); Northbrook, Ill.
John Harvey Tennyery (VM); Belle Plaine
Alice Mae Teply (IM&D); Hanover
*William Matthew Thies, Jr. (PVM);
Marion
*Roy Corley Thomas (VM); Parsons
*Jack Russell Thomasson (IJ); Belleville
*Loren Walter Thompson (GS); Harper
*Melvin Moore Thompson (Ag); Cheney
*Sivert Theodore Thompson (AE); Delia
*Victor Carl Thompson (GS); Ozawkie
*Wayne Wilbur Thompson (AA); Larned
*John Arthur Thorp (IA); Kansas City
*John Waldo Tillman (Ag); Topeka
Vaulien Guil Timberlake (GS); Colby
Max Eugene Timmons (AA); Fredonia
*Maurice Earl Tjaden (CE); Clearwater
*Elwin Todd (MI); Collyer
*Lewis Keith Tolson (Ag); Johnson
*David Eugene Totten (ME); Clifton
*Patricia Annabelle Townley (HE); Abilene
*Delbert Leroy Townsend (AA);
Danbury, Neb.
*Martha Aneta Townsend (HE); Oberlin
*Billie Louise Travis (HE&N); Cuba
*Monte Monroe Trimble (VM);
Kansas City
*Donald McLean Trotter (VM);
Dawson, Minn.
*Arthur Nellis Tunison (AA); Olathe
*Francis Jess Turley (ArE); Ellis
*Marvin LeRoy Turner (AE); Gardner
*Charles Y. Uchima (Ag); Kekoha, Hawaii
*Marcella Rae Uley (IM&D);
West Mineral
*Dean Albert Umberger (ME); Rozel

FRESHMAN—*Concluded*

- *James Alva Upham (Ag);
Junction City
Roy Walter Upham (VM);
Junction City
Edna M. Uppendahl (HE); Scott City
Duane O. Urban (IJ); McDonald
*Leona Marjorie Ustohal (HE&N);
Clay Center
*Merle Idel Van Beber (HE); Manhattan
*Josephine Vancil (HE); Whitewater
*Morris Van Daele (Ag); Olathe
*Lawrence Matthew Vanderwilt (EE);
Solomon
*Chester Leroy Van Hereke (ME);
Spring Hill
*Margaret Jean Van Horn (HE); Larned
*Phyllis Doris Van Meter (IJ); Ada
*Marian Roberta Vann (HE); Carbondale
*James Henry Vauroch (EE); Oberlin
*John Wm. Vawter (Ag); Oakley
*John Robert Vetter (Ag); Beloit
*George Brinton Vincent (Ag); Ottawa
*Theodore Charles Vining (ME); Horton
*Frank Lee Wachholz (GS); Anthony
*Francis Edward Wagner, Jr. (ME);
Burlington
*Page Paschal Wagner, Jr. (CE);
Webster Groves, Mo.
*Joyce Korine Wagoner (GS); Blue Rapids
*Warren William Wakeman (Ag); Wathena
*Orville Schuyler Walker (AA);
Eskridge
*Betty Jo Wallace (PE); White City
*Donald Glenn Wallace (GS); Hill City
*Robert LaVern Wallace (Ag); Colby
Mary Elizabeth Walters (HE&A);
Manhattan
*Judith Elizabeth Ward (GS); Belleville
*Beverley Ware (IJ); Overland Park
*John William Waring (EE); Salina
*Frances Nadine Warner (HE); Douglas
*Dale Martin Warren (PVM); Fort Scott
*Edwin Clinton Warren (EE); Sterling
*Jack Dura Warren (BA); Maplehill
*Dorothea Patricia Wassenburg (PE);
Marysville
James Wesley Watkins (PE); Manhattan
*George Milton Watts (GS-1; AE-2);
Parsons
Charles Gordon Waugh (PE); Mankato
*Glenn Jr. Weatherby (ChE); Neodesha
*Allen Nystrom Webb (IC); Manhattan
Lowell Madison Webb (VM); Beverly
*Vella Mae Webb (IM&D); Hardtner
Edwin August Weber (GS);
Annapolis, Md.
Rhena Corwin Webster (PE); Manhattan
*Barbara Mary Weigand (HE); Manhattan
*Ruth Louise Weigand (IJ); Topeka
*Milton Weinstock (Ag); Brooklyn, N. Y.
*Harry Edmond Welch (PVM); Marysville
*Margaret Mae Wellborn (HE); Wamego
*Uldene Edna Wells (HE); Seneca
*Rex Gordon Welty, Jr. (IC); Hill City
Charles Maurice Wempe (VM); Seneca
*Leo Ralph Wempe (PVM); Frankfort
*Ada Elizabeth Wendland (IM&D);
Randolph
*Dean Lamar Werner (BA&A-1; Ag-2);
Herington
*Richard Gibson West (PE);
New Haven, Conn.
*Benjamin Brunner Weybrew (ChE-1;
GS-2); Wamego
Everett Johnson Whearty (AA); Rossville
*Dorothy Louise White (HE); Greensburg
*Glen Earland White (EE); Salina
*Leah Maxine White (IM&D); Topeka
*Wilbur Wellington White (PVM); Delphos
*Frederick Arthur Whitfield (ME);
Punjab, India
*Charles Elmer Whiteman (VM);
Carrollton, Ill.
*Howard Elmer Whiteside (EE); Neodesha
*Keith Matthew Whitney (PE); Agra
*Paul Herbert Whitton (GS); Kiowa
Dan Hamilton Wicker (EE); Manhattan
*Eugene Frank Wieland (MI); Oakley
*Bernice Doris Wiggins (HE); Lawrence
*Betty Lou Wiley (HE); Tonganoxie
Kathleen Floy Wilkie (HE); Topeka
Lysle Max Wilkins (VM); Delphos
*Allen Stanley Williams (Ag); Alma
Evelyn Lucille Williams (HE&N); Topeka
*Nancy Williams (HE); Topeka
*Donald Wayne Willis (ArE); Manhattan
*Mary Marjorie Willis (IJ); Newton
*Amos Wilson (Ag); Manhattan
*Carol Buchanan Wilson (HE); Little River
*Chase C. Wilson, Jr. (Ag); Mulvane
*Jack Harlan Wilson (Ag); Burrtion
*James Burnett Wilson (PVM);
St. Croix Falls, Wis.
*James Walker Wilson (EE); Wichita
*Maurice Wayne Wilson (ME); Atlanta
*Robert Frazier Wilson (PVM); Quenemo
*Oid Lee Wineland (AA); Alton
*Frederick Dale Winger (EE); Johnson
John E. Winter (BA); Manhattan
*Robert Wayne Winter (PE); Hoisington
*Buford Dale Winters (VM); Parsons
*Ellis Rex Wise (ME); Conway Springs
*Howard DeWayne Woertendyke (EE);
Colby
*Esther Virginia Wolf (HE); Gardner
*Arch Wolffing (MI-1); Manhattan
*Donald Roy Wood (Ag); Trousdale
*John Francis Wood (BA&A); Topeka
Margery Wood (IJ); Omaha, Neb.
*Gerald Dale Woolsey (Ag); Parker
*Waldron Carl Workman (GS); Belleville
*Robert Paul Worthman (VM);
Lincoln, Neb.
*Donald Dean Wright (ArE); Abilene
*Robert James Wright (Ag); Manhattan
*Robert Lewis Wright (Ag); Holton
*Margaret Esther Wunsch (IJ); Topeka
*Virginia Fern Yapp (IM&D);
Manhattan
*Winifred Glee Yapp (IM&D); Esbon
*Kenneth Won Morn Yoon (PE);
Honolulu, Hawaii
*Elton Wayne Young (Ag); Cheney
*Homer Robert Young (GS); Sharon
Jack Seymour Young (Ag); Clearwater
*Mellis Henry Youss (BA&A);
Clay Center
*Orville Arthur Zimmermann (ME); Alma
*Elva May Zubler (HE); Sabetha
*Jack Eugene Zumbrunn (BA-1; EE-2);
Enterprise

* Matriculated 1939-1940.

SPECIAL STUDENTS

- Finley Acker (GS); Philadelphia, Pa.
 Wanda Marian Atkins (HE); Manhattan
 *Paul Eugene Baker (GS); Axtell
 *Orval Keith Beall (ChE); Le Roy
 *Jane Bicket (GS); Kansas City
 Dan Miller Blair (Ag); Belleville
 Robert Dean Bonnell (EE); Manhattan
 *Jonette Bradley (GS); Wellington
 *Ralph Franklin Champ (GS);
 Arkansas City
 *LeRoy John Chance (GS); Liberal
 *Nester Evan Cole (GS); Fort Riley
 Stanley Elbert Combs (Ag); Manhattan
 John Francis Cramer (GS); Gardner
 *Cleo Maud Daily (HE); Alma
 Warren Dittmore (GS); Severance
 Don D. Dodge (IA); Manhattan
 Thomas Doryland (GS); Manhattan
 Rollin Woodrow Dunahugh (GS);
 Manhattan
 Robert Joseph Edwards (GS); Jewell
 Barbara Ann Foster (GS); Enterprise
 John Jacob Groody (GS); Manhattan
 *Nathan Gessner Grumbine (GS);
 Council Grove
 *Norman Neal Hansen (ME); Greenleaf
 Julia Ruth Hartman (GS); Manhattan
 *Thomas Oskar Heller (Ag);
 Charlottesville, Va.
 John Joe Helmke (Ag); Preston
 *Harold C. Humfeld (GS); Fort Riley
 Wyndon Vernus Hurlock (IA);
 St. Francis
 *Edward Michael Kelleher (ChE);
 Arkansas City
 *Vale Gordon Kinsey (ChE); Barnard
 *Clark Edward Laughlin (Ag);
 Manhattan
 Doris Josephine McCammon (HE);
 Esbon
 Sterling Alfred McCollum (IA);
 Manhattan
 *Edward Ralph McDonald (GS);
 Clay Center
 *Cleon John McKnight (GS); Virgil
 Manoutchehre Mahin (Ag);
 Teheran, Iran
 Daniel Claire Marshall, Jr. (GS);
 Manhattan
 *Isabel Harriette May (HE); Atchison
 Ruth Elizabeth Miller (GS); Merriam
 Betty Eloise Muir (HE); Salina
 *Vernon Nonamaker (IA); Osborne
 Alvin Raymond Otte (ME); Herington
 Pauline Gwendolyn Paddleford (HE);
 Manhattan
 *Donald Clyde Parr (GS);
 Medicine Lodge
 *Mary Frances Pasley (GS); Topeka
 James Lindsey Pennington (GS);
 Atchison
 *Roland Dale Preusch (GS); Healy
 *Richard Milner Ragland (GS); Fort Riley
 *Vel Clifton Ramey (Ar); Winfield
 *Thelma Rienuts Reed (GS); Topeka
 *Helen Elizabeth Rolfs (GS); Lorraine
 *John Randall Salter (GS); Enterprise
 *Irene Elizabeth Scott (Ar); Manhattan
 *Harold Yorke Sewart (GS); Fort Riley
 Elizabeth Harriet Steele (HE); Waterville
 *Theda Alene Stunkel (HE-1; GS-2);
 Peck
 *Paul Ussary (GS); Dwight
 Oliver Rodger Vignery (Ag); Manhattan
 *Guido Von-Mayrhauser (Ag);
 Kansas City, Mo.
 William Howard Winner (Ag); Topeka
 *Donald Barrett Wolfersberger (ME);
 Salina

* Matriculated 1939-1940.

Summer School Students

Nine-week Summer School

MAY 31 TO JULY 29, 1939

GRADUATE STUDENTS

- Alice Rodebaugh Alnquist; Cleburne
 Edith Evelyn Ames; Brewster
 Lena Ellen Anderson; Waterville
 Adelaide Anne Aschmann; Charleroi, Pa.
 Dewey Axtell; Manhattan
 Virgil Earl Baer; Chapman
 Max Monroe Barber; Council Grove
 Nora Elizabeth Bare; Protection
 Lawrence Leonard Becker; Logan
 Theda L. Bixby; Wetmore
 Lee Ella Blake; Kansas City
 James A. Blodgett; Blodgett, Ore.
 Francis Woodrow Boyd; Mankato
 Amelia Blanche Brooks; Manhattan
 Carl William Brown; Mildred
 *Joseph Oscar Brown; Hill City
 Vira Brown; Edmond
 Jean Durand Burt; Manhattan
 Martha Marie Caldwell; El Dorado
 Marjorie Willis Call; Manhattan
 Merrill Levern Carter; Smith Center
 Arthur Adam Case; Manhattan
 Charles Loyd Cassel; Culver
 Edna Neetta Chapin; Augusta
 Marybelle Churchill; Topeka
 Mary Josephine Coffman; Manhattan
 Christine Helen Coleman; Pine Bluff, Ark.
 Margaret Adeline Coleman; Wichita
 Tate Benton Collins, Jr.; Kuttawa, Ky.
 Lawrence LaRue Compton; Manhattan
 Orville Wesley Connett; Peoria, Ill.
 Majel Muriel Coopridge; Wichita
 Hazel Sophia Cox; Blue Mound
 Golda Mildred Crawford; Manhattan
 Vada Faye Crawford; Little River
 John Carl Crawley; Elkhart
 Veola Mae Crouch; Houston, Tex.
 *Leonard Elden Croy; Cottonwood Falls
 Margaret Elizabeth Crumbaker; Manhattan
 Alfred Charles Curtiss; Beeler
 *Reynold George Dahms; Lawton, Okla.
 Lucile Florence Dauner; Junction City
 Laura Pettice Davis; Lexington, Mo.
 Marguerite Rose Davis; Independence
 Myron Samuel Dendurent; Goodland
 Ethel Faye Dennis; Dodge City
 John L. Derrick; Hollenberg
 Arthur William Devore; Manhattan
 Dorothy Lou Dickson; El Dorado
 Paul Lawrence Dittmore; Manhattan
 William R. Donovan; Conneaut, Ohio
 Nina Edelblute; Manhattan
 James Bernard Edwards; Manhattan
 Hal Field Eier; Manhattan
 Harold Chester Elder; Smith Center
 Vera May Ellithorpe; Russell
 Kenneth Leroy Enright; El Dorado
 Sylvia Mae Epler; Scott City
 Naomi Grace Fent; Newton
 Alva L. Finkner; Akron, Colo.
 Lorena Catherine Foreman; Hutchinson
 Helen Marguerite Foster;
 Williston, N. Dak.
 Caroline Ruth French; Lyndon
 Lyman Phillip Frick; Kansas City, Mo.
 Robert Jerome Frick; Kansas City
 Emma Thompson Galbraith;
 Cottonwood Falls
 Alice Chapin Gaston; Downs
 Henry Isely Germann; Fairview
 Margaret Priscilla Gibson; Lindsborg
 Dora Eloise Gilmore; Chetopa
 Otis Benton Glover; Manhattan
 Ernest Constance Goforth; Winfield
 Amy Houchin Goldsmith; Manhattan
 Mabel Lillian Good; Kensington
 Calvin Gustav Gordon; Enterprise
 Stanley Douglas Gralak; Manhattan
 Lloyd George Grandfield; Wichita
 Albert Wendell Grundmann;
 Salt Lake City, Utah
 Ralph L. Gustafson; Bagley, Minn.
 Anna Lucile Hadden; Manhattan
 Charles W. Hadley; Winfield
 Sarah Elizabeth Harman; Beatrice, Neb.
 Edward Eugene Harnden; Stillwater, Okla.
 John Harris, Jr.; Havensville
 Ira Miller Hassler; Chapman
 Wilda Marguerite Hay; Belleville
 Lois Willson Headrick; Winfield
 Elmer F. Herman; Carlton
 Lester Lee Hermon; Jetmore
 Garnet Isal Hill; Westmoreland
 Zelma Ellen Hockett; Manhattan
 Norma Holshouser; Dwight
 Phyllis Wheatley Honesty; Kansas City
 John Lester Hooper; Robinson
 Kenneth Bert Hoover; Detroit
 Mignon Corwin House; Manhattan
 Miriam Hill Houston; Milwaukee, Wis.
 William Luther Hoyle; Arkansas City
 Veal Nathan Huff; Norton
 Martha Evelyn Hughes; Emporia
 Irene Monica Hughes; Wichita
 Hazel Lenore Hyde; Augusta
 Allee Winifred James; Seguin, Tex.
 Maggie Lorene Jeffrey; Elmdale
 Earl William Johnson; Salina
 Dale Vincent Jones; Herington
 Eneas Dillon Kane; San Francisco, Cal.
 Glenn Walter Kerr; Rossville
 John William Kirk, Jr.; Council Grove
 Phyllis Haslam Kirk; Council Grove
 Earl McKee Kroth; Denison
 Doris Alene Kubin; McPherson
 Harold LeRoy Kugler; Abilene
 George Herbert Larson; Lindsborg
 Alvin George Law; Hill City
 Nathan Mossell Lee; Quindaro
 Florence May Lehman; Abilene
 Morrison Loewenstein; Kearney, Neb.
 Sam Long; Abilene
 Mary Catherine McBride; Leavenworth
 Max Elton McCluggage; Manhattan
 June Rosetta McIntire; Wichita
 Emily Mae McKenzie; Wayne
 Beulah Marie Macklin; Ottawa
 Charles Mantz; Downs
 Rachel Martens; Hutchinson
 Edgar Martin; Manhattan
 Arthur James Mattis; Valley Falls
 Calvin J. Medlin; Manhattan

* Matriculated 1939-1940.

GRADUATE STUDENTS—*Concluded*

- Anna Lora Miller; Salina
 Elsie Lee Miller; Manhattan
 Esther Iola Miller; Walton
 Hans David Oliver Miller; Manhattan
 Kenneth William Miller; Manhattan
 Merna Beatrice Miller; Kansas City
 Darrel Emmett Moll; Hutchinson
 Harry Earl Molzen; Newton
 Tom Allen Montgomery; Hill City
 Francis Earl Mordy; Manhattan
 Dorothy Jeanne Morris; Winfield
 Flossie Davis Myers; Salina
 *Ward L. Neel; Kansas City
 Benjamin Ambrose Neill; Sharon Springs
 Myrtle Newbold; Norton
 Chester Winfield Ofelt; Minneapolis, Minn.
 Marthel Lucile Oldham; Alta Vista
 Harry B. Olson; Cuba
 Daisy Marietta Osborn; Elmont
 Maxine Josephine Osbourn; Manhattan
 Lorena Freda Otte; Great Bend
 Joenetta Orlena Owens; Manhattan
 Cecil H. Pankratz; Whitewater
 Ruth Areta Persell; Harper
 Iver Eugene Peterson; Concordia
 Maurice Lewellen Peterson; Manhattan
 Roland Winfield Peterson; Riley
 Eugene Harold Pietsch; Manhattan
 Staley Leon Pitts; Willard
 George B. Price; Triplett, Mo.
 Wilma Kathryn Price; Manhattan
 William Morrow Proudfit; Powhattan
 Inez Rash; Wichita
 *Oscar Earl Reece; Silver Lake
 Addison Doyle Reed; Manhattan
 Margaret Etzold Reed; Liberal
 Luella May Reeve; Winfield
 Harold G. Regier; Hillsboro
 Charles Edward Reitz; Riley
 Clarence Walter Rice; Grand Rapids, Mich.
 Martha Richardson; Kansas City, Mo.
 Frances Susan Ripley; Salina
 Jayne Glenn Robinson; Houston, Tex.
 Joy Belle Sinyard Ross; Bryan, Tex.
 Marshall Minton Ross; Wichita
 George Edgar Ruggles; Pittsburg
 Paul Wilfred Russell; Harper
 Amy Louise Rust; Manhattan
 Mary Elizabeth Rust; Manhattan
 Robert Jacob Rychel; Almena
 Kathryn Patricia Scheier; Manhattan
 Ruth Louise Schmidt; Newton
 William George Schrenk; Manhattan
 Betsy Ruth Sesler; Wamego
 Martha Gene Shelden; El Dorado
 Emma Frances Shepek; Narka
 Roger Turner Shepherd; Manhattan
 Lee Edward Shirley; Lucas
 Louis Raymon Shobe; Waverly
 Francis Leo Showacy; Mahaska
 Curtis Daniel Sides; St. George
 Mary Margaret Simpson; Barnard
 Sister Mary Catherine Floersch;
 Kansas City
 Sister Anselm O'Brien; St. Louis, Mo.
 Sister Rose Ellen O'Neil; Leavenworth
 Sister Mary Martha Scott; St. Louis, Mo.
 Blaine Edmunds Sites; Salina
 Laurence Nelson Skold; Haxton, Colo.
 Berniece Ethel Sloan; Manhattan
 Alta Taylor Smith; Wichita
 Doris Maurine Smith; Atlanta
 Dorothy Regina Smith; Axtell
 Edna Marie Smith; Kingman
 Ethel S. Smith; Hempstead, Tex.
 Genevieve Margaret Smith; Chicago, Ill.
 Grace Louise Smith; Kansas City
 Sam Joseph Smith; Manhattan
 Glenna Louise Sowers; Topeka
 Frieda May Steckel; Virgil
 Jack Amos Stephens; Wichita
 Charlesanna Dorothea Stewart; Hutchinson
 Darrella Lynette Stewart; Hutchinson
 Evelyn Emma Stout; Lone Elm
 Hilmar Clinton Stuart; Garrison
 Pauline Julia Stutzman; Attica
 Harold Leroy Thuma; Palmer, Alaska
 Charles B. Tice; Beloit
 May Torkleson; Wichita
 Marvin John Twiehaus; Manhattan
 Leland Stanford Van Scoyoc; Manhattan
 Orla Virgil Washler; Penolosa
 George Harvey Wellington;
 Springport, Mich.
 Willard Malcolm West; Hutchinson
 Joseph Arthur Weybrew; Wamego
 Ulilla Allegra Wheatley; Gypsum
 Kathryn Whitten; Topeka
 Charles Peairs Wilson; Manhattan
 Ralph Ernest Wilson; Paxico
 Victoria Helen Jennie Wilson; Manhattan
 Lloyd Lander Woods; Wichita
 Helen Iams Wroten; Beattie
 Catharine Eva Zink; Lincoln

UNDERGRADUATE STUDENTS

- Gwendolyn Ellen Abbott; Alma
 Warren Harlin Acker; Junction City
 William Benton Ackley; Portis
 Harry Thomas Adamson; Keats
 Donald Dwight Adey; Wells
 Mary Kathleen Ahearn; Manhattan
 Karl Edward Akars; Stewartsville, Mo.
 Voma Alcott; Colby
 Thomas James Alexander; Herington
 Velma Dorothy Allen; Liberty
 Ruth Elizabeth Allison; Olathe
 Christine Irene Amthauer; Dwight
 Hilding August Anderson; Cleburne
 Kathryn Alice Anderson; Lancaster
 Maurine Eleanor Armour; Niles
 Orven Harry Armstrong; Garden City
 Edna May Arnold; Wichita
 Lenora Lucille Ash; Wichita
 Emma Jane Aushman; Abilene
 Ethel Evelyn Avery; Riley
 Eugene Ware Baird; Kansas City
 James Annison Baird; Dodge City
 Bruce Walter Ball; Topeka
 Lola Marie Barger; Alma
 Edith Woodruff Barleen; Munden
 Glen O. Barleen; Munden
 Marian Phyllis Barnes; Manhattan
 Earls Barriek; Miller, Mo.
 Tom Bruce Bash; Kansas City, Mo.
 Metta Lucille Baxter; Manhattan
 Virginia Faye Baxter; Manhattan
 Edwin Howard Beach; Marysville
 Ross Beach; Hays
 Vesta Geraldine Beam; Esbon
 Donald Gordon Beatson; Arkansas City
 Lee Wilson Beck; El Reno, Okla.
 Neil Dwane Bechenhauer; Delavan
 Alma A. L. Becker; Hartford
 Clair L. Belden; Kansas City, Mo.
 Charles Arthur Bell; Fort Scott
 William Woodrow Bell; Marysville
 Edna Merle Bennett; Morrowville
 Ferne Lucille Bennett; Morrowville
 Ada May Bentley; Shields

* Matriculated 1939-1940.

UNDERGRADUATE STUDENTS—Continued

- Leora Evalyn Bentley; Shields
 Leo Russell Best; Allen
 Anna Elizabeth Betts; Topeka
 Leland Wayne Biggart; Circleville
 Joan Ellen Black; Chanut
 Mary Virginia Blackwood; Wichita
 Frank LeRoy Blakely; Waterbury, Conn.
 Edna Florence Blaser; Marysville
 Russell William Blessing; Emporia
 Kathryn Elizabeth Blevins; Manhattan
 Adzianna Mary Blochlinger; Concordia
 Glenn Harold Boes; Pretty Prairie
 Robert Edgar Bogue; Oil Hill
 Margaret Elizabeth Bonifas; Centralia
 Robert Dean Bonnell; Frankfort
 William S. Bork; Miltonvale
 Ettie Mabel Bourm; Emmett
 Goldia Lenora Bourm; Emmett
 Louise Evelyn Boyle; Spivey
 James Thomas Bradley; Sedan
 Mary Dean Brainard; Carlyle
 William Ormond Breeden; Quinter
 Ray DeLore Brent; Alton
 Berniece Lanoda Brien; Bern
 Arlo Allen Brown; Almena
 Berniece Beatrice Brown; Toronto
 Lola Lucille Brown; Centralia
 Paul William Brown; Manhattan
 Wilma Alene Brown; Mildred
 Edith Carey Brownlee; Hutchinson
 Elvin Stanton Brumfield; Jetmore
 Elinor Althea Buenning; Hope
 Alice Geneva Buikstra; Cawker City
 Edward Erle Buller; Inman
 Dorothy Burgess; Esbon
 Gilbert Harold Burnett; **McPherson**
 Mildred Mussette Cade; Manhattan
 Tarlton Aura Caldwell; **Manhattan**
 George Baldwin Callow; Garnett
 Albert B. Cameron; Smith Center
 Geneva Ruth Campbell; Hiawatha
 Rosalie Adaline Cantrell; **Manhattan**
 Frances LaVone Carlson; Clifton
 Florence L. Carnahan; Stockdale
 Lyle Murphy Carson; **Dennis**
 Helene Carswell; Manhattan
 Charles Otis Carter; Morrowville
 Evelyn Josephine Carter; Wellington
 Grace Melvina Carver; Miltonvale
 Clifford Erle Case; Coldwater
 Lee Richard Cashman; Centralia
 Samuel Elliot Cashman; Powhattan
 Eloise Cellers; Auburn
 Nora Belle Chamberlain; Riley
 Maurine Chambers; Newton
 Mary Lorraine Chapman; **Axtell**
 Walter Eugene Chappell; Chanut
 Nettie Evelyn Chavey; Clyde
 Marion Chegavidden; Wilson
 Betty Jean Clapp; Manhattan
 Allen Roland Clark; Miltonvale
 Margaret Wilma Clark; Manhattan
 Mayselle LaVerna Clark; Independence
 Glenna Violetta Clements; Havensville
 Roy W. Cliborn; Marysville
 Alonzo Leon Cloninger; Chanute
 Albert Swift Coates, Jr.; Kansas City
 Rosa Elizabeth Coates; Havensville
 Ruth Elizabeth Cochran; Topeka
 Earl R. Coder; Haddam
 Donald Raymond Conard; Coolidge
 Margaret Ruth Conner; **Corning**
 Norma Elizabeth Cook; Monument
 Dorothy Pearl Cooley; Abilene
 Eleanor Cooper; Atwood
 Audrey Marie Corcoran; Manhattan
 Corinne Ruth Corke; Studley
 Mary Ellen Corman; El Dorado
 Carl J. Coulter; Leon
 Lucy Mildred Coulter; Willis
 Helen Virginia Courtney; Lebo
 Virginia Lee Coy; Kansas City
 LaVone Merle Crawford; Green
 Anna May Martin Cramer; Speed
 Agatha Neoma Crawshaw; Maplehill
 Geraldine Lucille Cross; Wilson
 Edna Marguerite Dailey; Manhattan
 George Ted Dalziel; San Francisco, Cal.
 William L. Daniels; Holliday
 Jessie Marie Danielson; Clifton
 Maxine Evelyn Danielson; Manhattan
 Alden Dannevik; Chapman
 Melba Caroline Darmstatter; Longford
 Robert Darnes; Sublette
 Virginia Darnes; Attica
 Audrey Marie Davidson; Miltonvale
 June Juanita Davidson; Miltonvale
 Margaret May Davidson; Madison
 Dent Catron Davis; Sedalia, Mo.
 Valoris Aeolia Davis; Hutchinson
 Lail Keith Dawley; Manhattan
 George Thomas Dean; Manhattan
 Oliver Williams DeGruchy, Jr.; Fort Riley
 LaRue Eldred Delp; Lenora
 Francis Gregory Dempewolf; Westmoreland
 Evelyn Irene Deschner; Beloit
 Mary Adeline Devor; Manhattan
 LeRoy Ernest Dietrich; Wichita
 George Edward Dillenbeck;
 Poultney, Vt.
 Max R. Diller; Morrowville
 Rose Geraldine Diller; Manhattan
 Gertrude Charlotte Dirks; Hillsboro
 Veona Ruth Dixon; Moran
 Alice Kathryn Dolifka; Hanover
 Murlin Stuart Dorei; White Cloud
 Thomas Doryland; Manhattan
 Robert Gilchrist Douglass; Walton
 Joyce M. Downard; Barnes
 Merrill Edward Downer; Manhattan
 Fern Louisa Downs; Wakefield
 Clarence Joseph Dreier; Kansas City
 Ruth Elizabeth Duck; Longford
 Katheryn Eloise Dull; Morrowville
 Lawrence Jack Duncan; Wichita
 Iona Marie Dunlap; Manhattan
 James J. Dunlop; Detroit
 Nada Neola Durvea; Bein
 Margaret Ellen Easton; Beattie
 Verla Lucile Easton; Beattie
 George Washington Eberhart; Jewell
 Velma Scritchfield Eberhart; Westmoreland
 Howard Clayton Eberline; Manhattan
 Leslie Ruel Edrington; Manhattan
 Aubrey Thornton Edwards; Junction City
 Karl D. Edwards; Manhattan
 Adah Lou Eier; Manhattan
 Millie Jennie Elias; Manhattan
 Howard Surber Elliott; Manhattan
 Marion Claire Elmer; Manhattan
 Elton A. Endacott; Manhattan
 Harold Edward Engle; Manhattan
 Helen Louise Ensign; Garrison
 Robert Nathaniel Erickson; Orland, Cal.
 Doris Arlene Espenshade; Abilene
 Mildred Berniece Esslinger; Broughton
 Hoy Boyd Etling; Copeland
 Blanchetta Fair; Dearing
 John Robert Farmer; Manhattan
 Willis Bert Faulkender; Holton
 Cleo Lloydine Fear; Leonardville
 Rachel Louise Featheringill; Independence
 Harold A. Fechter; Aurora
 Velma May Felker; Hoyt
 Elizabeth Anne Ferrier; Seneca
 Everett Leroy Fiedler; Manhattan
 Lucile Margaret Fincham; Blue Rapids
 Austin J. Fink; Lafontaine
 Margery Anne Floersch; Manhattan
 Merle Everett Foland; Almena

UNDERGRADUATE STUDENTS—*Continued*

Marie Annette Forceman; Vliets
 William Larry Fowler; Wakeeney
 Laurence Dale Freel; Goff
 R. Grant Freeman; Tongonoxie
 Francis Loyd Friedli; Roscoe, Ohio
 Mary Woolfolk Frye; Kansas City
 Mabyn Belle Fuller; Manhattan
 Virgil George Fulmer; La Harpe
 Jacob Cornelius Gaedert; Manhattan
 Phil McNabb Gainey; Manhattan
 Erma Katherine Gamby; Everest
 Jess Dudley Garinger; Harveyville
 Scott Harold Gasche; Hartford
 Ulah Maxine Gass; Esbon
 Everett Nelson George; Edwardsville
 Merrill D. Geraghty; Selden
 Juanita Cleo Germann; Oneida
 Ruth Adelaide Getty; Winchester
 Alberta Marie Gieber; Clifton
 Robert Newton Gist; Manhattan
 Mae Florence Glanville; Cottonwood Falls
 Catherine Elizabeth Gleason; Norton
 James Banks Godin; Wamego
 Charles Martin Good; Plevna
 William Gerald Gordon; Topeka
 Norma Adeline Granere; Clifton
 Maurice Alfred Grant; Scott City
 Sarah Estella Gravenstein; Stockdale
 Richard Loy Gray; Wichita
 Blanche Marie Greene; Manhattan
 Dorothy Helen Greeson; Partridge
 Harold Allen Gregg; Oil Hill
 Leo Raymond Griffing; Randolph
 Imogene Kemp Griffiths; Clay Center
 Ivan Charles Griswold; Marysville
 Eugenia Louise Grob; Randolph
 Norma LaVern Grob; Randolph
 Raymond Harry Groth; Bushton
 Warren Gerald Grubb; Phillipsburg
 Alice Ruth Gulick; Spring Hill
 Mildred Joyce Gurtler; Summerfield
 Celia Camilla Guthrie; Walton
 Mary Elaine Hadorn; Beattie
 LaVern Evelyn Hahn; Clay Center
 Vanneta Irene Hall; Westmoreland
 Frank Frederick Hamilton; Norton
 Florence Marie Hammett; Manhattan
 Vira Evelyn Hanchett; Clyde
 Paul V. Hannah; Osborne
 Helen Katherine Hanson; Olsburg
 Walter Edmund Hanson; Lyndon
 Odessa Jane Harman; Seneca
 Adrienne Edna Harper; Vermillion
 Dorothy Mariann Harper; Topeka
 Genevieve Jean Harris; Havensville
 Elizabeth Ruth Hartner; Clay Center
 Bernadette Margaret Hassur; Hanover
 Otto Ambrose Hauck; New York, N. Y.
 John Gilbert Hayden; Twin Falls, Idaho
 Barney Allen Hays; Princeton, Mo.
 Margaret Cecilia Hedlund; Clay Center
 Frank Conrad Hefner; Gove
 William Grant Hegarty; Hutchinson
 Hannah Lee Hemphill; Chanute
 Patricia Margaret Heptig; Horton
 Laura Elizabeth Herr; Abilene
 James Sterling Hervey; Belle Plaine
 Jerry J. Hickey; Russell
 Helen Marie Hildebrandt; Wamego
 Viola May Hill; Hope
 Wayne Hjort; Manhattan
 Marcella Genevieve Hobbie; Tipton
 Jack Coyle Hodshire; Coffeyville
 George Wesley Hofsess; Partridge
 Helen Virginia Holbert; Manhattan
 Vincent Benedict Holbert; Manhattan
 Marion Rufus Holean; Bronson
 Gertrude Lucille Hollis; Holton
 Helen Louise Hollis; Beloit
 Leo Michael Hoover; Greenleaf

Charles Kendal Horner; Abilene
 Edna Grace Hostetler; Harper
 Golda Irene Hough; Olsburg
 Robert LeGrand Howell; Clayton, Mo.
 Georgia May Howlett; Golden, Colo.
 Hazel Gertrude Huey; Louisville
 Wilma Vivian Humbert; Danville
 Hannora Maude Hummel; Towanda
 Albert Glenn Hunt; Larned
 Gorman Earl Hunt; Leavenworth
 Louise Grace Hunt; Blue Rapids
 Lucille Opal Inland; Gaylord
 Mary Grace Iorger; Harper
 Letha Pearl Irvine; Stafford
 Arlie Virgil Jackson; Hill City
 Verland Thomas Jahnke; Woodbine
 Jeanne Frances James; Manhattan
 Duane George Jehlik; Cuba
 Grace Gladys Jenkins; Jewell
 James R. Jesson; Ashland, Ohio
 Lillian Marcille Johnson; Washington
 Mae Maxine Johnson; Manhattan
 Helen B. Johnston; Logan
 Marguerite Nola Johnston; Green
 Arthur Clayton Jones; Wamego
 Betty Jean Jones; Salina
 Frances Jane Jones; Reading
 Anna Margaret Jueneman; Hanover
 Opal Irene Jurey; Clifton
 Gertrude Beulah Kammer; Lancaster
 Jacob Landers Karnes; Benton, Ky.
 Harriet Marie Karrigan; Bala
 Alvin Daniel Kaufman; Moundridge
 Wilford Amiel Kaufmann; Miltonvale
 Richard McClanahan Keith; Manhattan
 Alma Mary Keller; Bremen
 Grace Lea Kellogg; Lecompton
 Charles Alvin Kennedy; Kansas City
 Anita M. Kensler; Manhattan
 Wendell Robert Kerr; Mahaska
 Eleanor Constance Kershner; Paola
 Marjorie Ruth Kimball; Manchester
 Wandalea Ione Kimbrough; Palmer
 Donald Eugene King; Wichita
 Mildred King; Minneola
 Ray Carlyle King; Olsburg
 Ronald Bishop King; Manhattan
 Harry Melvin Kingsley; Hays
 Arthur Durward Kirk; Scott City
 Irma N. Kniestadt; Home
 James William Knox; Overland Park
 Kwak Lan Ko; Canton, China
 Irene Louise Koch; Clay Center
 Hugo Adolph Koester; Herington
 Eleanor C. Kohake; Seneca
 Donald Ely Kortman; Manhattan
 George Robert Kramer; Mankato
 Dorothy Elizabeth Kratzer; Alma
 Emory Harmon Lackey; Melvern
 Wilma Marie Lagergren; Mankato
 Gerald August Lake; Manhattan
 Margaret Lucille Lancaster; Minneapolis
 Lewis Emsley Landsberg; Bonner Springs
 Clark Edward Laughlin; Drexel
 Della Lefebvre; Havensville
 Eunice May Lefebvre; Havensville
 Delma Joyal Leidig; Washington
 Hulda Mildred Leiszler; Clifton
 Irene Lily Leiszler; Clifton
 Dorothea Leland; Manhattan
 Jack Conroy Leonard; Junction City
 Dorothy Merle Lerew; Portis
 Esther LaVerne Lewis; Home
 Mildred Josephine Lewis; Dodge City
 Irene Eleanor Limper; Manhattan
 Margaret Eleanor Lindahl; Cleburne
 Merlin Elmer Line; Sabetha
 Joanne Linn; Great Bend
 Maxine Elizabeth Litel; Republic
 Glenn Orville Lloyd; Oakhill

UNDERGRADUATE STUDENTS—*Continued*

Donald Kenneth Long; Neodesha
 Lyman Parker Long; Fowler
 Harry Wilbur Longberg; Soldier
 Helen Mae Loofbourrow; Scandia
 Charles Clarence Lucy; Wichita
 William Valjean Lumb; Manhattan
 Lucile Alice Lund; Manhattan
 Olive Mae McConnell; Clay Center
 Edward LeRoy McCoy; Manhattan
 Raedine McCulley; La Harpe
 Dorothy Louise McCully; El Dorado
 Emilie Angelina McDonald; Bremen
 Ernest Raymond McDonald; Salina
 Luella Anna McDonald; Bremen
 Marybelle McDonald; Bremen
 Beatrice Cozette McGuire; Morland
 Helen E. McGuire; Burlington
 James William McKinley; Manhattan
 Lester Alexander McLenon; Manhattan
 Wilbur Doyle McNeese; Atchison
 Helen Frances Macan; Edwardsville
 Avis Loretta Mack; Clay Center
 Alice Magdalene Magers; Parker
 Richard Merrill Mall; Manhattan
 Clara Creta Marey; Fall River
 Hazel Marguerite Marlow; Manhattan
 Shirley H. Marlow; Manhattan
 Harold Doig Martin; La Cygne
 Audrey Elizabeth Mason; Axtell
 Dwight Murray Mason; Manhattan
 Grace Elizabeth Mather; Grinnell
 Esther Carol Mathies; Alma
 Evelyn Laura Mathies; McFarland
 Bette Helen Mattes; Kansas City, Mo.
 Kenneth William Matthews; Mullinville
 John Stephen Maurer; Winfield
 Jeanne Eloise Meadows; Gaylord
 Agnes Meagher; Vermillion
 Jack Lewis Medaris; Parsons
 Raymond Meisenheimer; Hiawatha
 George Atholstone Mellard; Russell
 Flora K. Merrill; Wathena
 Edith Lenora Meyer; Leonardville
 Opal Aleen Meyer; Leonardville
 David Francis Mickey; Junction City
 Maxine Lucille Miles; Green
 Abbie Maurine Miller; Agra
 Carl William Miller; Manhattan
 Dolly Miller; Marysville
 Joan Miller; Milford
 Arthur Benoni Mills; Lakin
 Harriette Louise Minton; Harper
 Evelyn Mitchell; Axtell
 Edric Moate; Courtland
 Dorothy H. A. Modin; Olsburg
 Gertrude M. Moeka; Smith Center
 Fiona Grace Monaghan; Trousdale
 Naomi Elizabeth Monaghan; Trousdale
 Earl Atlas Moody; Kansas City
 Birdye Taliaferro Moore; McAlester, Okla.
 Ellen Wauneta Moore; Burden
 Isabel Moore; Alta Vista
 Alice Maxine Morey; Narka
 J. Wade Morey; Narka
 Wayne Delos Morgan; Ottawa
 Oren Albert Morris; Manhattan
 Vern Vencil Morris; Manhattan
 Ruthe Eileen Morrow; Larned
 Cecil Charles Mott; Marion
 Leonard Housden Moulden; Manhattan
 Alvin Edgar Mulanax; Enterprise
 Evelyn Rosella Mumert; Havensville
 Ray V. Murphy; Manhattan
 Vera Lois Murphy; Detroit
 Channing Wayne Murray; Manhattan
 Raymond Patrick Murray; St. Marys
 Bernice Marjorie Musil; Manhattan
 Alvin Erselle Myers; Centralia
 Richard Bright Myers; Bethel
 Fred H. Nace; Dwight
 Marjorie Ellen Nace; Dwight
 Evelyn Victoria Nagel; Wichita
 Walter M. Naylor; Burr Oak
 Leonard George Nehring; Harveyville
 Beulah Burnetta Nelson; Manhattan
 Frances Elvera Nelson; McPherson
 Harold Eugene Nelson; Holton
 Junior Andrew Nelson; Gypsum
 Lila Ellen Neubauer; Manhattan
 Grace Maxine Newquist; Cawker City
 Evelyn Ney; Dorrance
 Aileen Nicolay; Osage City
 Dorothea Marie Nielson; Marysville
 Marie Esther Nordstrom; Clay Center
 George Herbert O'Brien; Iola
 Mabel Ruth O'Brien; Muscotah
 Velma Irene Odgers; Morrowville
 Helene Marcene Oettinger; Green
 Benjamin Eric Olson; Manhattan
 Esther Selma Olson; Vermillion
 Kathryn Irene Olson; Axtell
 Margery Lou Olson; Chanute
 Vernie Elsie Beatrice Olson; Axtell
 Tom Raymond O'Neill; Ogden
 Leo Benedict Osterhaus; Marysville
 Miriam Sophia Ostlund; Washington
 Margaret Louise Owen; Edson
 George VanNoy Packer; Manhattan
 Lillie Marie Paquette; Miltonvale
 Rex Lewis Parsons; Hiawatha
 Margaret Naomi Parsons; Miltonvale
 Leota May Pascal; Morrowville
 Paul Ernest Patten; Manhattan
 Martha Ann Pattison; Manhattan
 Ellen Peak; Manhattan
 Grace Eva Peck; Dighton
 George Henry Peirce; Waterbury Conn.
 Mary Margaret Pejsa; St. Joseph, Mo.
 Viola Anna Peter; Manhattan
 Elvera Esther Peterson; Clyde
 Leona Christine Peterson; Junction City
 Lorrayne Geraldine Peterson; Randolph
 Ralph Edward Peterson; Manhattan
 Benjamin Rankin Petrie, Jr.; Greensburg
 Mary Martha Phillips; Manhattan
 Morris William Phillips; Stockton
 Ethel Marie Pierce; Clay Center
 James Maxwell Pierce; Burden
 Katherine Amelia Piercy; Lenexa
 Mavis Lucille Plattner; Sabetha
 Sylvia Beryl Plymire; Beloit
 Maurine Pollom; Manhattan
 Charles Edward Porter; Junction City
 Ruth Agnes Porter; Wakarusa
 Wilma Juanita Potts; Leonardville
 Lucile Ann Pralle; Bremen
 Louis Arthur Prechal; Omaha, Neb.
 John Henry Price; Triplett, Mo.
 Earl Carleton Pugh; Phillipsburg
 Paul Archie Puttroff; Newton
 Rhoda Putzig; Sylvan Grove
 Virgil Lyle Pyke; Enterprise
 Louis Earl Raburn; Manhattan
 Rolla Glenn Raines; Manhattan
 Marion Albert Ramage; Manhattan
 Iverne Ramsay; Beloit
 Ruth Pauline Ramsay; Beloit
 George Alfred Randel; Lewis
 Wallace Edward Rankin; Manhattan
 DeVere Frank Ratliff; Portis
 Donald Reber; Sabetha
 Lois Anita Reed; Wichita
 Anellen Mary Reeter; Marysville
 David Dale Relihan; Lebanon
 Mathilda Rempel; Hillsboro
 Jay Reynolds; Parsons
 Mary Jo Rhine; Manhattan
 Cecil Raymond Rhorer; Lewis

UNDERGRADUATE STUDENTS—*Concluded*

Merton Alvin Rietzke; Kensington
 Lola Irene Riggs; Welda
 Oliver Virgil Riley; Stafford
 Noel Neville Robb; Dodge City
 Lloyd Edwin Robbins; Belleville
 Edith Elizabeth Roesler; Junction City
 Virginia Belle Rooks; Manhattan
 Frank Pletcher Root, Jr.; Manhattan
 Bueford Talmage Roper; Atchison
 Earl William Rose; White Cloud
 Russel Leon Rose; Kiowa
 Francenia Routt; Paola
 Almon Leonard Rowe; Keats
 Iva Mina Rowe; Marysville
 George Richard Rugger; Topeka
 Anelda Rich Runnels; Wichita
 Robert Truman Rush; Neodesha
 M. Monica Ryan; Blaine
 Ruth Elizabeth Salley; Silver Lake
 Alice Mary Santner; Gaylord
 Ruth Elouise Santner; Gaylord
 Genevieve Estella Scheier; Everest
 Ruth Mildred Schooley; Green
 Alva Esther Schroeder; Hillsboro
 Genevieve Eleanor Schroer; Manhattan
 Mary Franciska Schroller; Marysville
 Betty Lou Schurr; Palmer
 Jean Scott; Manhattan
 Robert DeForest Scott; Manhattan
 Marguerite Eliza Seal; Wakefield
 Melvin Harry Seelye; Fort Scott
 William Bain Sellers; Winfield
 Hugh Shade; Rantoul
 Bernice Cecelia Shaffer; Barnes
 Ben Shambaugh, Jr.; Ottawa
 Ruby Juanita Shamburg; Scottsville
 Nellie May Sharp; Riley
 Rose Ellen Sharp; Riley
 Rosella Maybell Shaw; Seneca
 Richard Alan Shea; Kansas City
 Goldie Mae Sheldon; Mayfield
 Marion Thomas Shepherd; Ottawa
 Bonnie J. Sherrill; Turon
 Merle Mathias Shilling; Westphalia
 Elva Lou Shobe; Manhattan
 Fred William Siegmund; Kansas City
 Luella Velva Siek; Hope
 Imogene Ruth Siemers; Clay Center
 William James Simic; Manhattan
 Ruth Simpson; Leonardville
 Wilbert Homer Simpson; Bala
 Damaris Irene Sipes; Le Roy
 George Sklar; Manhattan
 Charles Lewis Smith; Harveyville
 Elvera Minnie Smith; Waterville
 Lavina Elizabeth Smith; Centralia
 Margie Marie Smith; Palmer
 Nellie Geneva Smith; Clay Center
 Olive Lucile Smith; Turon
 Ralph Edson Smith; Turon
 Genevieve Ferne Snapp; Barnard
 Allen Edward Starosta; Pomona
 Floyd Owen Steele; Halstead
 Pauline Steiner; Lebanon
 Arlabel Rosemary Stewart; Hutchinson
 Kathleen B. Stewart; Stockton
 Mary Lovetta Stewart; Saffordville
 Raymond Stewart; Manhattan
 Kemp Graham Stiles; Topeka
 Eula Elizabeth Strong; Moran
 Mailand Rainey Strunk; Kansas City
 Ivy Pearl Sutter; Wakefield
 Vera Jane Sutter; Wakefield
 Thiel Holmes Sweet; Formoso
 Ethel Spiers Tempero; Broughton
 John Harvey Tenny; Belle Plaine
 Donald George Tepfer; Fort Dodge, Iowa
 Laurel Ellen Terpening; Morrowville
 Margaret Anne Thomas; Baxter Springs
 Ralph Theodore Thomas; Independence
 Joe Earl Thompson; Almena
 Harold George Todd; Manchester
 Edgel Nadean Trusler; Junction City
 Lois Belle Turner; Manhattan
 Mabel Henrietta Vautravers; Barnard
 Carl Joseph Voelker; Manhattan
 William Alvis Wade; Hoxie
 Miriam Lucille Wagaman; Manhattan
 Howard Oscar Wagner, Jr.; Wellington
 Ruth Walker; Bucklin
 Janet Ross Wallace; Hays
 Joe Harrison Walser; Manhattan
 Mary Elizabeth Walters; Manhattan
 Dixon Irving Wands; Manhattan
 Arlin Bruce Ward; Manhattan
 Evelyn Elnora Ward; Langdon
 Etta Elizabeth Warner; Glasco
 Alice Elizabeth Warren; Manhattan
 John Henderson Washburne;
 Waterbury, Conn.
 Faith Ella Watts; Havensville
 Helen Katherine Weber; Liberty
 Katherine Evelyn Weldon; Smith Center
 Guy Justin Wells; Morrowville
 Homer Theodore Wells, Jr.; Marysville
 Janet Chalmers Wells; Belleville
 Delbert Oscar Wendt; Bonner Springs
 Homer Triss Wesche; Manhattan
 Nila Stewart West; Hutchinson
 Ira M. White; Effingham
 Margaret Elizabeth Whitehair; Abilene
 Hallie Elizabeth Whitney; Council Grove
 Esther Irene Wiedower; Spearville
 Lucile Ernestine Wiens; Glen Elder
 Leona Margaret Wilkerson; McFarland
 Margaret Ann Wilkerson; Smith Center
 Minnie Mildred Wilkes; Belleville
 Frances Mildred Wilkins; Chapman
 William Frederick Willner; Solomon
 Alice Margaret Wilson; New Cambria
 Daisy Mae Wilson; Irving
 Wilbert John Wilson; Manhattan
 Charles Asher Wimer; Penaloza
 William Howard Winner; Topeka
 Fred Wiruth; Manhattan
 John Edmond Wolfe; Kansas City
 Frances Jean Wood; Clay Center
 June Elizabeth Wood; Clay Center
 Thomas Richard Woods; Burden
 Gerald David Woody; Beverly
 Vera Lucille Wycoff; Norcatur
 Elsie L. Young; Clay Center
 Edward Brewer Zahn; Miltonvale
 Joseph Brewer Zahn; Miltonvale
 Katherine Zimmerman; Simpson

Four-week Summer School

JULY 3 TO JULY 29, 1939

GRADUATE STUDENTS

Lawrence Sylvester Alwin; Barnes	John Willis Jordan; Clifton
Clarence H. Anderson; Overbrook	Howard Hutcheson McGee; Olathe
Ralph Wayne Arnold; Manhattan	Irwin Alvin Miller; Holcomb
James Lister Baird; Berryton	*Leslie Clyde Nash; Hays
Chris Ray Bradley; Washington	Ben F. Pankratz; Hillsboro
Blaine Barton Brandenburg; Randolph	Dwight Patton; Stafford
Frank R. Brandenburg; Paola	Richard Donald Patton; Miltonvale
William Jacob Braun; Inman	Benjamin Rankin Petrie, Sr.; Greensburg
Curtis Angle Brewer; Topeka	Richard Bohumil Poch; McDonald
Oren Emery Campbell; Valley Falls	Fred C. Schopp; Wellsville
Emerson Dwight Chilcott; Kingman	Warren Edward Stone; Bazine
Carl Wesley Clair; Wheaton	Nye James Tucker, Jr.; Haskell, Okla.
Raymond Joseph Cohorst; Blue Rapids	Merle Alfred Webb; Parker
Charles Clayton Griffin; Pleasanton	Howard I. Wildman; Onaga
Albert Alexander Haltom; Benedict	Clemens Harry Young; Cherryvale
Travis Berkley Howard; New Madrid, Mo.	John Henry Young; Centralia
Julian Ahmon Johnson; Buhler	

UNDERGRADUATE STUDENTS

John Pershing Garrett; Joplin, Mo.

AUGUST PERIOD (In Absentia)

Anna Lucile Hadden; Primghar, Iowa

* In absentia

Students by States, Foreign Countries and Kansas Counties

STATES

Arkansas	5	Massachusetts	5	Oregon	2
California	28	Michigan	7	Pennsylvania	8
Colorado	13	Minnesota	12	Rhode Island	1
Connecticut	13	Missouri	98	South Carolina	2
Delaware	1	Montana	1	South Dakota	3
District of Columbia ..	3	Nebraska	30	Tennessee	4
Florida	1	Nevada	1	Texas	15
Georgia	1	New Hampshire	1	Utah	4
Idaho	2	New Jersey	18	Vermont	4
Illinois	25	New Mexico	5	Virginia	3
Indiana	8	New York	33	Washington	2
Iowa	6	North Carolina	3	Wisconsin	9
Kansas	4,489	North Dakota	2	Wyoming	3
Kentucky	2	Ohio	5		
Maryland	4	Oklahoma	13	Total	4,895

FOREIGN COUNTRIES

Alaska	2	Germany	1	Iran	1
Canada	1	Hawaii	3	Puerto Rico	3
China	3	India	1	Total	15
				Grand total....	4,910

KANSAS COUNTIES

Allen	35	Greenwood	32	Pawnee	35
Anderson	19	Hamilton	7	Phillips	23
Atchison	32	Harper	36	Pottawatomie	131
Barber	24	Harvey	44	Pratt	23
Barton	47	Haskell	1	Rawlins	17
Bourbon	16	Hodgeman	5	Reno	99
Brown	59	Jackson	50	Republic	67
Butler	58	Jefferson	36	Rice	44
Chase	26	Jewell	40	Riley	718
Chautauqua	4	Johnson	44	Rooks	17
Cherokee	10	Kearny	11	Rush	10
Cheyenne	11	Kingman	36	Russell	29
Clark	15	Kiowa	21	Saline	88
Clay	82	Labette	46	Scott	10
Cloud	57	Lane	14	Sedgwick	157
Coffey	26	Leavenworth	54	Seward	18
Comanche	13	Lincoln	21	Shawnee	187
Cowley	52	Linn	18	Sheridan	12
Crawford	17	Logan	7	Sherman	17
Decatur	18	Lyon	48	Smith	50
Dickinson	129	McPherson	43	Stafford	27
Doniphan	19	Marion	30	Stanton	10
Douglas	14	Marshall	117	Stevens	6
Edwards	21	Meade	17	Sumner	46
Elk	8	Miami	26	Thomas	25
Ellis	12	Mitchell	43	Trego	6
Ellsworth	24	Montgomery	57	Wabaunsee	74
Finney	10	Morris	49	Wallace	14
Ford	32	Morton	4	Washington	81
Franklin	39	Nemaha	66	Wichita	6
Geary	80	Neosho	25	Wilson	25
Gove	13	Ness	17	Woodson	12
Graham	24	Norton	39	Wyandotte	146
Grant	5	Osage	32		
Gray	5	Osborne	35	Total	4,489
Greeley	4	Ottawa	28		

Record of Enrollment and Degrees Conferred, 1863-1940

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				127		
1866-'67								118			11	7		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								103			26	10	2	2			143	2	1
1875-'76																	238	5	
1876-'77																	232	9	1
1877-'78								75			42	23	5	5			152	4	
1878-'79								1			89	89	16	12			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	5
1896-'97								6			321	163	69	62	46		734	55	8
1897-'98				6		9		15			316	174	77	82	57	10	803	69	10
1898-'99				26		35		40			306	177	92	65	40	21	871	53	10
1899-1900		24		57	47	50		32			376	163	109	69	27	22	1,094	58	3
1900-'01		47		72	109	79		23			348	183	80	74	40	52	1,321	60	9
1901-'02		41		66	125	87		19			396	206	120	65	32	59	1,396	52	3
1902-'03		63		38	123	78		36			471	229	141	86	24	57	1,574	55	
1903-'04		17	51	16	122	72		33			403	206	161	114	20	36	1,605	102	1
1904-'05		15	88	24	99	12		30			289	198	122	117	26	43	1,462	107	2
1905-'06		18	92	28	118			46			373	214	145	110	30	64	1,690	96	4
1906-'07		18	134	23	179			48		511	411	269	149	133	24	88	1,937	119	5
1907-'08		29	188	26	173			42		528	450	357	202	148	26	82	2,192	116	4
1908-'09		25	168	18	197			42		521	491	381	243	171	28	86	2,308	139	12
1909-'10		22	152	4	111	124		87		453	456	417	286	170	26	70	2,305	144	2
1910-'11		31	160	9	26	285		107		364	533	412	288	248	34	59	2,407	205	2
1911-'12		94	160	14		280		85		580	337	461	288	261	44	81	2,523	230	6
1912-'13	282	175	11	289		Eng. neering short course		129		654	444	432	355	268	55	166	2,928	230	4
1913-'14	370	149	12	223		112		112		658	516	431	324	327	64	159	3,027	283	8
1914-'15	472	127	18	199	98	120		120		560	575	368	383	321	48	200	3,089	223	6
1915-'16	536	85	17	207	188	175		175		484	605	454	305	401	76	219	3,314	341	18
1916-'17	586	103	14	228	191	172		172		422	693	471	378	282	68	279	3,339	197	13
1917-'18	481	84		119	135	138		138		231	483	349	294	238	36	190	2,406	216	17
1918-'19	519	25	5	160	400	199		199		216	810	322	254	201	34	144	2,991	167	7
1919-'20	415	57	3	117	362	271		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	249	14
1921-'22	820	19	10		59	173		221		297	931	628	422	296	125	813	3,560	272	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	53
1925-'26	947	12	11		41	29		89			1494	725	512	344	182	384	4,019	341	51

RECORD OF ENROLLMENT AND DEGREES CONFERRED, 1863-1940—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,
1926-'27...	959	...	18	...	52	...	71	...	19	...	1311	854	509	411	179	300	4,083	357	77
1927-'28...	966	...	20	...	57	...	88	...	7	...	1039	819	584	500	167	418	3,878	428	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	...	29	...	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	...	...	...	1326	947	774	623	440	634	4,457	521	90
1937-'38...	890	...	...	...	...	...	67	...	...	...	1297	972	810	787	409	537	4,695	637	92
1938-'39...	911	...	...	...	...	...	61	...	...	...	1246	959	864	855	463	559	4,800	720	86
1939-'40...	920	...	...	...	...	...	61	...	...	...	1306	958	926	871	490	622	4,910	....	....

† Figures above this column include neither graduate students in summer session, nor undergraduate students pursuing graduate work.

College Registration, 1939-1940

THE DIVISIONS.	Men.	Women.	Total.
The Division of Agriculture	851	4	855
Graduate students.....	76	.....	76
Seniors.....	171	2	173
Juniors.....	169	1	170
Sophomores.....	178	.....	178
Freshmen.....	248	1	249
Special students.....	9	.....	9
The Division of Veterinary Medicine	234	.....	234
Graduate students.....	2	.....	2
Seniors.....	58	.....	58
Juniors.....	62	.....	62
Sophomores.....	51	.....	51
Freshmen.....	61	.....	61
The Division of General Science	922	379	1,301
Graduate students.....	79	29	108
Seniors.....	144	81	225
Juniors.....	172	71	243
Sophomores.....	172	92	264
Freshmen.....	332	97	429
Special students.....	23	9	32
The Division of Home Economics.....	.....	904	904
Graduate students.....	.....	51	51
Seniors.....	.....	171	171
Juniors.....	.....	186	186
Sophomores.....	.....	221	221
Freshmen.....	.....	267	267
Special students.....	.....	8	8
The Division of Engineering and Architecture	1,188	7	1,195
Graduate students.....	42	1	43
Seniors.....	249	1	250
Juniors.....	270	2	272
Sophomores.....	269	1	270
Freshmen.....	346	1	347
Special students.....	12	1	13
Totals.....	3,195	1,294	4,489
Counted twice.....	106	29	135
Net totals	3,089	1,265	4,354
The Summer Schools (1939)	436	484	920
Totals.....	3,525	1,749	5,274
Counted twice.....	222	142	364
Net grand totals	3,303	1,607	4,910
The Division of Graduate Study	305	185	490
Graduate students in regular sessions.....	170	70	240
Graduate students in summer schools.....	150	115	265
Counted twice.....	44	11	55
Net (in summer school only).....	106	104	210
Graduate students in absentia (included in above figures).....	15	2	17
Undergraduates carrying graduate work.....	29	11	40

Degrees Conferred in the Year 1939

DIVISION AND CURRICULUM (OR MAJOR STUDY).	Men.	Women.	Total.
Division of Agriculture (B. S.)	135		135
Agriculture.....	114		114
Milling Industry.....	21		21
Division of Engineering (B. S.)	162	2	164
Agricultural Engineering.....	11		11
Architecture.....	3	2	5
Architectural Engineering.....	1		1
Landscape Architecture.....	1		1
Chemical Engineering.....	16		16
Civil Engineering.....	47		47
Electrical Engineering.....	45		45
Industrial Arts.....	1		1
Mechanical Engineering.....	37		37
Division of General Science	137	68	205
Commerce (B. S.).....	44	11	55
General Science (B. S.).....	37	29	66
Industrial Chemistry (B. S.).....	17		17
Industrial Journalism (B. S.).....	23	15	38
Music Education (B. S.).....	3	9	12
Music (B. M.).....		1	1
Physical Education (B. S.).....	13	3	16
Division of Home Economics (B. S.)		148	148
Home Economics.....		142	142
Home Economics and Nursing.....		6	6
Division of Veterinary Medicine (D. V. M.)	68		68
Veterinary Medicine.....	68		68
Total of undergraduate degrees.....	502	218	720
Division of Graduate Study (M. S.)	47	31	78
Agricultural Economics.....	1		1
Agricultural Engineering.....	1		1
Agronomy.....	1		1
Applied Mechanics.....	1		1
Bacteriology.....	1		1
Botany.....	1		1
Chemistry.....	6		6
Chemical Engineering.....	1		1
Child Welfare and Euthenics.....		4	4
Clothing and Textiles.....		7	7
Education.....	11	1	12
Electrical Engineering.....	2		2
Entomology.....	3		3
Food Economics and Nutrition.....		7	7
General Home Economics.....		5	5
Horticulture.....	1		1
Household Economics.....		4	4
Institutional Management.....		2	2
Journalism.....	1		1
Mathematics.....	1		1
Mechanical Engineering.....	2		2
Milling Industry.....	1		1
Pathology.....	1		1
Physics.....	3		3
Poultry Husbandry.....	2	1	3
Shop Practice.....	2		2
Zoology.....	4		4
Division of Graduate Study (Ph. D.)	2		2
Bacteriology.....	1		1
Entomology.....	1		1
Professional Degrees	6		6
Civil Engineering.....	3		3
Electrical Engineering.....	2		2
Mechanical Engineering.....	1		1
Total of degrees conferred in 1939	557	249	806

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		Counted twice.....		Net totals.....		Net Grand Totals.....
V.	M.	M.	W.	M.	W.	Total.
8	12	6		616	255	871
5	16	6	1	667	259	926
0	10	20	6	650	308	958
8	11	40	7	947	359	1,306
.....	.....	.....	1	44	17	61
1	49	72	15	2,924	1,198	4,122
2	9	178	131	109	239	348
3	58	250	146	3,033	1,437	4,470
.....	.....	.....	.....	170	70	240
.....	.....	44	11	106	104	210
.....	.....	15	2	.....	.....	.....
.....	.....	.....	.....	29	11	40
.....	.....	59	13	305	185	490
3	58	309	159	3,338	1,622	4,960
2	7			35	15	50
1	51			3,303	1,607	4,910

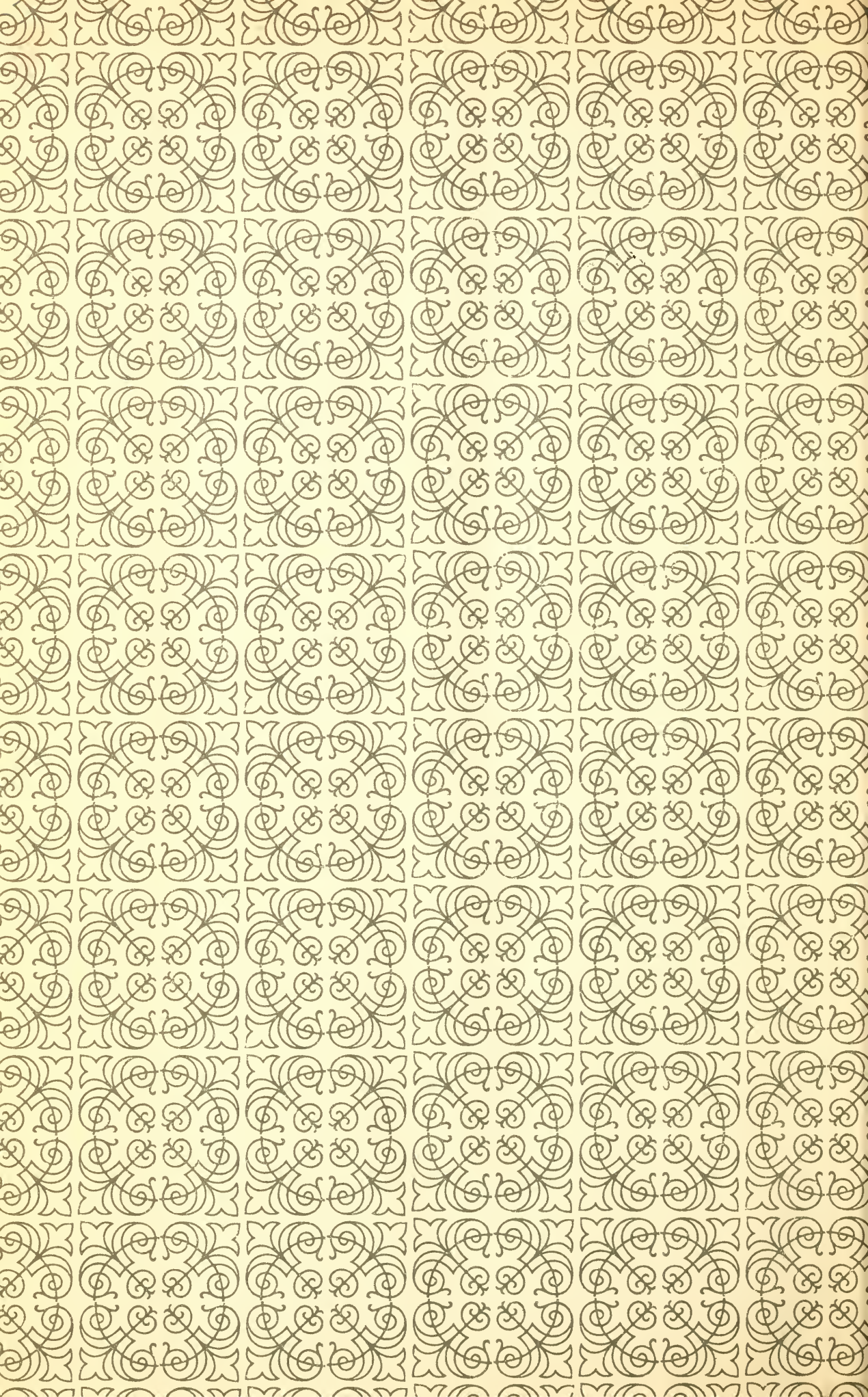
Degrees Conferred in the Year 1939

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Agricultural Engineering.....	11		11
Architecture.....	3	2	5
Architectural Engineering.....	1		1
Landscape Architecture.....	1		1
Chemical Engineering.....	16		16
Civil Engineering.....	47		47
Electrical Engineering.....	45		45
Industrial Arts.....	1		1
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Agronomy.....	1		1
Applied Mechanics.....	1		1
Bacteriology.....	1		1
Botany.....	1		1
Chemistry.....	6		6
Chemical Engineering.....	1		1
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Clothing and Textiles.....		7	7
Education.....	11	1	12
Electrical Engineering.....	2		2
Entomology.....	3		3
Food Economics and Nutrition.....		7	7
General Home Economics.....		5	5
Horticulture.....	1		1
Household Economics.....		4	4
Institutional Management.....		2	2
Journalism.....	1		1
Mathematics.....	1		1
Mechanical Engineering.....	2		2
Milling Industry.....	1		1
Pathology.....	1		1
Physics.....	3		3
Poultry Husbandry.....	2	1	3
Shop Practice.....	2		2
Zoology.....	4		4
Division of Graduate Study (Ph. D.)	2		2
Bacteriology.....	1		1
Entomology.....	1		1
Professional Degrees	6		6
Civil Engineering.....	3		3
Electrical Engineering.....	2		2
Mechanical Engineering.....	1		1
Total of degrees conferred in 1939	557	249	806

Analysis of Registration, 1939-1940

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