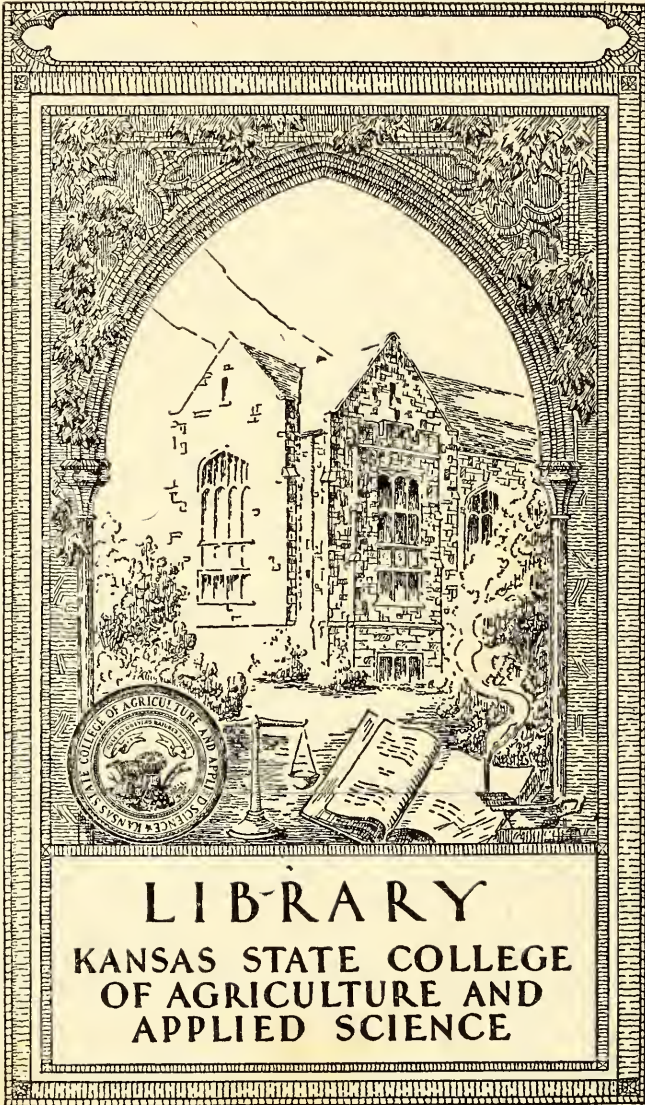




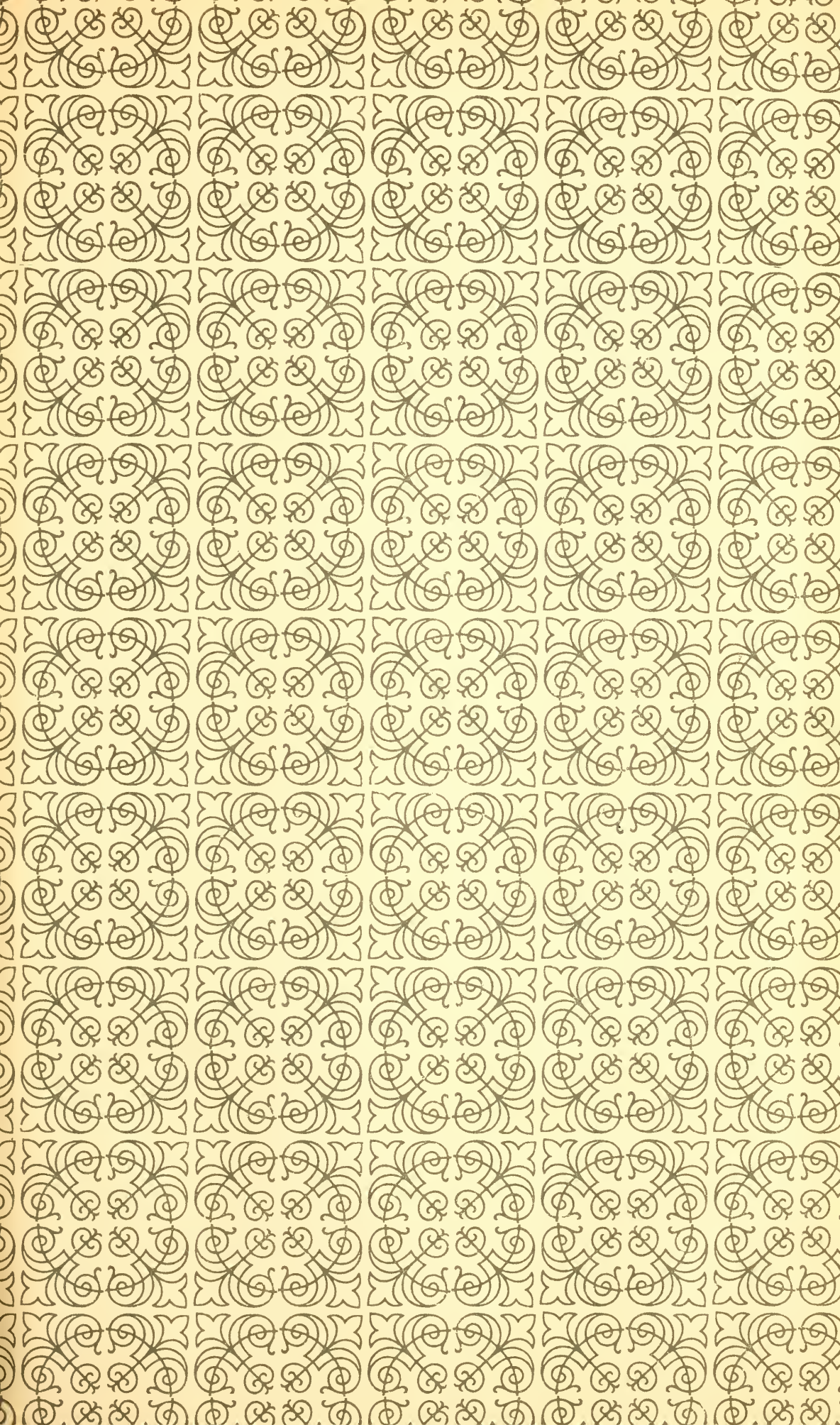
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APPLIED SCIENCE















# KANSAS STATE COLLEGE BULLETIN

VOLUME XXVI

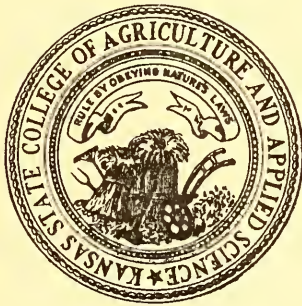
AUGUST 15, 1942

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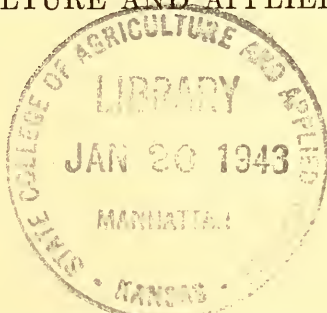
## COMPLETE CATALOGUE NUMBER

SEVENTY-NINTH SESSION

1941-1942



KANSAS STATE COLLEGE  
OF AGRICULTURE AND APPLIED SCIENCE



MANHATTAN, KANSAS

Published by the College

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PRINTED BY KANSAS STATE PRINTING PLANT  
W. C. AUSTIN, STATE PRINTER  
TOPEKA, 1942  
19-4267

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VOLUME XXVI

JANUARY 1, 1942

NUMBER 1

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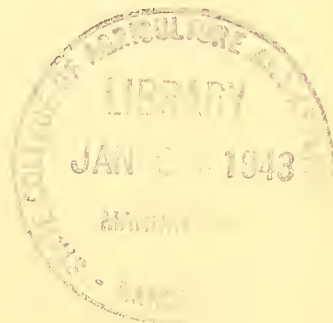
SEVENTY-NINTH SESSION, 1941-1942

ANNOUNCEMENTS FOR THE SESSION OF 1942-1943



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, 1942  
19-1720

**146694**

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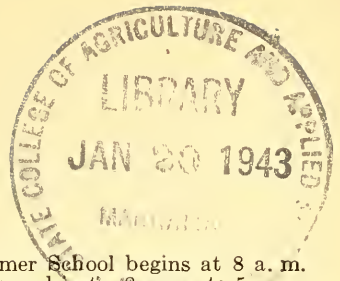
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# CALENDAR

1942

1943

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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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										
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31	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..	..	..	..	..	..	..											
JUNE							DECEMBER							JUNE							DECEMBER																
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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										
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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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## THE COLLEGE CALENDAR

### SUMMER SCHOOL, 1942

- May 27, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.  
May 27, Wednesday.—Examination for students deficient in entrance subjects, 8 a. m. to 5 p. m.  
May 27 to July 25, Wednesday to Saturday.—Nine-week Summer School in session.  
May 30, Saturday.—Memorial Day, holiday.  
June 1 to 6, Monday to Saturday.—4-H Club Round-up.  
June 25, Thursday.—Scholarship deficiency reports to students and deans are due.  
June 29 to July 25, Monday to Saturday.—Four-week Summer School in session.  
July 4, Saturday.—Independence Day, holiday.  
July 24, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.  
July 25, Saturday.—Summer School closes at 5 p. m.  
August 1, Saturday.—Reports of all grades for Summer School are due in registrar's office.

### FIRST SEMESTER, 1942-1943

- August 15, Saturday.—All preparatory school credentials and college credentials should be filed with the vice-president of the College not later than this date.  
September 10, Thursday.—Assigners meet with committee on schedule at 2 p. m. in W 115, and with deans at 3 p. m.  
September 11, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.  
September 11, Friday.—Registration and assignment of freshmen.  
September 12, Saturday.—Induction exercises for freshmen.  
September 14 and 15, Monday and Tuesday.—Induction exercises for freshmen.  
September 14, 15, and 16, Monday, Tuesday, and Wednesday.—Registration and assignment of all other students.  
September 16, Wednesday.—Opening convocation at 11 a. m.  
September 16, Wednesday.—Classes meet according to schedule beginning at 1 p. m.  
September 25, Friday.—Annual all-college mixer at 8 p. m.  
October 10, Saturday.—Examinations to remove conditions.  
October 17, Saturday.—Scholarship deficiency reports to students and deans are due.  
November 11, Wednesday.—Armistice Day, holiday.  
November 14, Saturday.—Mid-semester scholarship deficiency reports to students and deans are due.  
November 25, Wednesday.—Thanksgiving vacation begins at 12 m.  
November 28, Saturday.—Thanksgiving vacation closes at 6 p. m.  
December 19, Saturday.—Christmas vacation begins at 6 p. m.  
January 2, 1943, Saturday.—Christmas vacation ends at 6 p. m.  
January 26 to 30, Tuesday 1 p. m. to Saturday 12 m.—Examinations at close of semester.  
January 30, Saturday.—First semester closes at 12 m.  
January 30, Saturday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.

### SECOND SEMESTER, 1942-1943

- February 1, Monday.—Assigners meet with committee on schedule at 2 p. m. in W 115.  
February 1, Monday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.  
February 2, 3, and 4, Tuesday, Wednesday, and Thursday.—Registration and assignment of all students.  
February 4, Thursday.—Classes meet according to schedule beginning at 1 p. m.  
February 6, Saturday.—Reports of all grades for first semester are due in registrar's office.  
February 9 to 12, Tuesday to Friday.—Farm and Home Week.  
February 16, Tuesday.—Founder's Day. The College was located at Manhattan on February 16, 1863.  
February 22, Monday.—Washington's Birthday, holiday.  
February 27, Saturday.—Examinations to remove conditions.  
March 6, Saturday.—Scholarship deficiency reports to students and deans are due.  
April 3, Saturday.—Mid-semester scholarship deficiency reports to students and deans are due.  
April 22, Thursday.—Easter vacation begins at 6 p. m.  
April 26, Monday.—Easter vacation closes at 6 p. m.  
May 19 to 25, Wednesday to Tuesday.—Examinations for seniors graduating May 31.  
May 26 to 29, Wednesday to Saturday.—Examinations at close of semester.  
May 29, Saturday.—Awarding of commissions at 9 a. m.  
May 29, Saturday.—Alumni Day. Business meeting at 2 p. m.; banquet at 6 p. m.  
May 30, Sunday.—Baccalaureate exercises at 7:30 p. m.  
May 31, Monday.—Eightieth annual Commencement at 7:30 p. m.  
June 1, Tuesday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.  
June 7, Monday.—Reports of all grades for second semester are due in registrar's office.



## SUMMER SCHOOL, 1943

- June 2, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.  
 June 2, Wednesday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.  
 June 2 to July 31, Wednesday to Saturday.—Nine-week Summer School in session.  
 June 7 to 12, Monday to Saturday.—4-H Club Round-up.  
 July 1, Thursday.—Scholarship deficiency reports to students and deans are due.  
 July 6 to 31, Monday to Saturday.—Four-week Summer School in session.  
 July 5, Monday.—Holiday (Independence Day).  
 July 30, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.  
 July 31, Saturday.—Summer School closes at 5 p. m.  
 August 7, Saturday.—Reports of all grades for Summer School are due in registrar's office.

## FIRST SEMESTER, 1943-1944

- August 14, Saturday.—All preparatory school credentials and college credentials should be filed with the vice-president of the college not later than this date.  
 September 9, Thursday.—Assigners meet with committee on schedule at 2 p. m. in W 115, and with deans at 3 p. m.  
 September 10, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.  
 September 10, Friday.—Registration and assignment of freshmen.  
 September 11, Saturday.—Induction exercises for freshmen.  
 September 13 and 14, Monday and Tuesday.—Induction exercises for freshmen.  
 September 13, 14, and 15, Monday, Tuesday, and Wednesday.—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 1942-1943, arranged according to the initial letters of their last names:

### FIRST SEMESTER

#### SCHEDULE FOR FRESHMEN STUDENTS

FRIDAY, SEPTEMBER 11, 1942

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

#### SCHEDULE FOR ALL OTHER STUDENTS

MONDAY, SEPTEMBER 14, 1942

<i>Hours</i>	<i>Initial letters</i>
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. ....	C
10:00 to 10:45 a. m. ....	E, G, Q
12:00 to 12:45 p. m. ....	S
12:45 to 1:30 p. m. ....	D, O, U
1:30 to 2:15 p. m. ....	Wa-Wi
2:15 to 2:45 p. m. ....	Any students who failed to report during the period provided for their group.

TUESDAY, SEPTEMBER 15, 1942

7:45 to 8:30 a. m. ....	Wj-Wy, J, N
8:30 to 9:15 a. m. ....	A, F
9:15 to 10:00 a. m. ....	P, T
10:00 to 10:45 a. m. ....	Ba-Bra
12:00 to 12:45 p. m. ....	Bre-By, L
12:45 to 1:30 p. m. ....	M
1:30 to 2:00 p. m. ....	Any students who failed to report during the period provided for their group.

WEDNESDAY, SEPTEMBER 16, 1942

8:00 to 8:45 a. m. ....	I, K, Y, V
8:45 to 10:00 a. m. ....	Special students and any students who failed to report during the period provided for their group.

*Kansas State College*

SECOND SEMESTER  
SCHEDULE FOR ALL STUDENTS

TUESDAY, FEBRUARY 2, 1943

<i>Hours</i>	<i>Initial letters</i>
7:45 to 8:30 a. m.....	M
8:30 to 9:15 a. m.....	I, K, Y, V
9:15 to 10:00 a. m.....	Ba-Bra
10:00 to 10:45 a. m.....	Bre-By, L
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.....	C
2:15 to 2:45 p. m.....	Any students who failed to report during the period provided for their group.

WEDNESDAY, FEBRUARY 3, 1943

7:45 to 8:30 a. m.....	E, G, Q
8:30 to 9:15 a. m.....	Ha-Hol
9:15 to 10:00 a. m.....	Hom-Hy, R, X, Z
10:00 to 10:45 a. m.....	S
12:00 to 12:45 p. m.....	D, O, U
12:45 to 1:30 p. m.....	Wa-Wi
1:30 to 2:00 p. m.....	Any students who failed to report during the period provided for their group.

THURSDAY, FEBRUARY 4, 1943

8:00 to 8:45 a. m.....	Wj-Wy, J, N
8:45 to 10:00 a. m.....	Special students and any students who failed to report during the period provided for their group.

## The Board of Regents

---

Name and address	Term expires December 31
FRED M. HARRIS, <i>Chairman</i> , Ottawa.....	1944
DREW McLAUGHLIN, Paola.....	1942
GROVER POOLE, Manhattan.....	1942
MRS. ELIZABETH REIGART, Baxter Springs.....	1942
WILLIS N. KELLY, Hutchinson.....	1943
LESTER McCOY, Garden City.....	1944
W. T. MARKHAM, Topeka.....	1945
OSCAR S. STAUFFER, Topeka.....	1945
MRS. ELIZABETH HAUGHEY, Concordia.....	1945

---

HUBERT BRIGHTON, Topeka, *Secretary of the Board of Regents*  
 FRANK E. MILLIGAN, 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
Acting Dean of the Division of Engineering and Architecture, and Director of the Engineering Ex- periment Station .....	L. E. CONRAD
Dean of the Division of General Science.....	R. W. BABCOCK
Dean of the Division of Home Economics, and Di- rector of the Bureau of Research in Home Eco- nomics .....	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.....	HELEN MOORE
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

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\* Also included in the general alphabetical list.



# Officers of Administration, Instruction and Research\*

On September 30, 1941

- 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.*, 1913. F 101.
- CHARLES HENRY ADAMS, Graduate Research Assistant in Animal Husbandry (Sept. 1, 1941).  
B. S., K. S. C., 1941. E. Ag 3.
- JOHN HAROLD ADAMS, Professor of Physical Education (1940).  
B. S., University of Southern California, 1926. Stadium.
- 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 110C.
- 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.
- CORAL KERR ALDOUS, Assistant Professor of Child Welfare and Euthenics (1940; Sept. 1, 1941).  
B. S., Utah State Agricultural College, 1912; M. A., Columbia University, 1940. C 214.

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\* 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:

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

- 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 101B.
- JAMES FORREST ALLEN, Instructor in Chemistry (Sept. 1, 1941).  
A. B., Berea College, 1934; M. A., University of Kentucky, 1937. W 212.
- JAMES SIRCOM ALLEN, Associate Professor of Physics (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.
- INEZ ALSOP, Associate Professor of History and Government (1923; Sept. 1, 1941).  
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, 1939).  
B. S., Massachusetts Agricultural College, 1927; M. S., K. S. C., 1928. EA 202.
- JOHN EDMOND ANDERSON, Instructor in Milling Industry (1932, 1933); Assistant Milling Technologist, Agricultural Experiment Station (1933).  
B. S., K. S. C., 1932; M. S., *ibid.*, 1933. E. Ag 101A.
- KLING LEROY ANDERSON, Assistant Professor of Pasture Improvement (1936, 1938); Assistant Agronomist, Agricultural Experiment Station (1936, 1938).  
B. S., University of California, 1936; M. S., K. S. C., 1938. E. Ag 206A.
- MILDRED EUGENE ANDERSON, Assistant Professor and District Home Demonstration Agent (Jan. 1, 1941).  
B. S., University of Illinois, 1935; M. S., *ibid.*, 1940. EA 101.
- EDWIN LEE ANDRICK, Capt., Inf., U. S. A.; Professor of Military Science and Tactics (Sept. 1, 1941).  
B. S., K. S. C., 1931; M. S., K. S. C., 1936. N 204.
- 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.
- LEAH ASCHAM, Associate Professor of Food Economics and Nutrition (1926; Sept. 1, 1941); Food Economist, Agricultural Experiment Station (Sept. 1, 1941).  
A. B., Ohio Northern University, 1903; B. S., Ohio State University, 1918; Ph. D., Yale University, 1929. C 107A.
- 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); Swine Specialist, Agricultural Experiment Station (1926).  
B. S., Pennsylvania State College, 1915; M. S., K. S. C., 1917; Ph. D., University of Minnesota, 1935. E. Ag 12A.

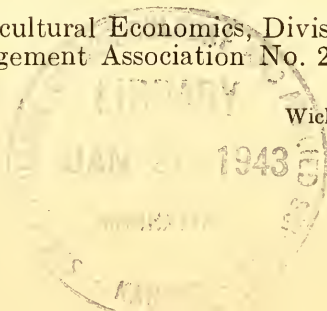
- MADALYN AVERY, Assistant Professor of Physics (1928).  
B. S., K. S. C., 1924; M. S., *ibid.*, 1932. W 201A.
- RODNEY WHITTEMORE BABCOCK, Dean of Division of General Science (1930).  
A. B., University of Missouri, 1912; A. M., University of Wisconsin, 1916; Ph. D., *ibid.*, 1924. A 122B.
- EDGAR SYDNEY BAGLEY, Assistant Professor of Economics (1940; July 1, 1941).  
B. A., University of Southern California, 1935; M. A., *ibid.*, 1937. W. Ag 308.
- HARRY CHARLES BAIRD, Assistant Professor of Agricultural Extension; District Agent, Division of College Extension (1920; Apr. 21, 1941).  
B. S., K. S. C., 1914. EA 101.
- CLARENCE POTTER BAKER, Instructor in English (1937, 1940).  
B. S., Haverford College, 1933; A. M., Harvard University, 1936. A 223.
- GLADYS BAKER, Head Cataloguer, College Library (1935, 1938).  
B. L. S., University of Illinois, 1924. L 202.
- MONTEE ROBERT BAKER, Graduate Research Assistant in Animal Husbandry (1940).  
B. S., University of Nebraska, 1940. E. Ag 15.
- NORA ELIZABETH BARE,<sup>4</sup> Instructor in Home Economics Education (1927, 1937); resigned, Oct. 24, 1940.  
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. E 221A.
- EDGAR LEE BARGER, Associate Professor of Agricultural Engineering (1930, 1938); resigned, Aug. 31, 1941.  
B. S., K. S. C., 1929; M. S., *ibid.*, 1934. E 216.
- HAROLD NATHAN BARHAM, Associate Professor of Organic Chemistry (1929, 1932); Industrial Chemist, Agricultural Experiment Station (1938).  
A. B., Bethany College, 1921; M. S., Ohio State University, 1922; Ph. D., University of Kansas, 1928. W 23.
- MARK ALFRED BARMORE,<sup>1</sup> 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.
- ESTHER FLAGG BARNES, Graduate Assistant in Child Welfare and Euthenics (1940).  
B. A., State College of Washington, 1940. 311 N. 14th.
- JANE WILSON BARNES, Instructor in Household Economics (1928, 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); Pomologist, Agricultural Experiment Station (1941).  
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.  
B. S., K. S. C., 1911. EA 105.
- JAMES CHARLES BATES, Assistant Professor of Botany (1935; Sept. 1, 1941).  
A. B., University of Kansas, 1927; A. M., *ibid.*, 1934; Ph. D., *ibid.*, 1935. D 204.

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

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



- WARREN RICH BATTLE, Graduate Research Assistant in Agronomy, Agricultural Experiment Station (July 1, 1941).  
B. S., Rutgers University, 1941. Plant Research Lab.
- 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, College Library (1916, 1918).  
L 101.
- EDWARD GEOFFREY BAYFIELD, Professor and Head of Department of Milling Industry (1939); Cereal Technologist, Agricultural Experiment Station (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 (1939); Associate Dairy Husbandman, Agricultural Experiment Station (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); Assistant Dairy Husbandman, Agricultural Experiment Station (1940).  
B. S., University of Idaho, 1936; M. S., K. S. C., 1938. W. Ag 106.
- RUSSELL JAMES BEERS, Instructor in Chemistry (1935); on leave, Sept. 1, 1940 to June 1, 1942.  
B. S., University of Nebraska, 1933; M. S., *ibid.*, 1935. W 310.
- STELLA LUCILLE BEIL, Graduate Assistant in Clothing and Textiles (Sept. 1, 1941).  
B. S., K. S. C., 1939. C 204.
- FLOYD WAYNE BELL, Professor of Animal Husbandry (1918, 1921).  
B. S., Cornell University, 1911. E. Ag 12B.
- JOHN GREGORY BELL, Assistant Professor of Farm Crops, Division of College Extension (1933, 1937); on leave.  
B. S., K. S. C., 1932. EA 202B.
- BALLARD KELLER BENNETT, Herdsman, Department of Dairy Husbandry (July 1, 1940).  
B. S., Oklahoma Agricultural and Mechanical College, 1938. 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, Assistant Professor of Agriculture, Department of Home Study, Division of College Extension (1936; July 1, 1941).  
B. S., Fort Hays Kansas State College, 1930; M. S., K. S. C., 1936. A 5C.
- CHARLES JOHN BIRKELAND, Graduate Research Assistant in Horticulture (1939); Assistant Pomologist, Agricultural Experiment Station (1941).  
B. S., Michigan State College, 1939. D 110A.
- HERMAN ALBERT BISKIE, Instructor in Agricultural Economics, Division of College Extension; Fieldman, Farm Management Association No. 2 (1940; resigned, July 31, 1941).  
B. S., University of Nebraska, 1917. Wichita, Kan.





- 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 101.
- KATHRYN ELIZABETH BLEVINS, Graduate Assistant in Physics (Sept. 1, 1941).  
B. S., K. S. C., 1941. W 38.
- ROBERT EDMUND BOCK, Custodian (1936, 1937).  
PP 110.
- BERNARD BENJAMIN BOHREN, Assistant in Poultry Husbandry (1939); Assistant Poultry Husbandman, Agricultural Experiment Station (1939).  
B. S., University of Illinois, 1937; M. S., State College of Washington, 1940.
- MARY ELSIE BORDER, Assistant Professor in Junior Extension; Assistant State Club Leader, Division of College Extension (1929; July 1, 1940).  
B. S., Ohio State University, 1926; M. A., Columbia University, 1939. A 111A.
- A. RUSSELL BORGMANN, Graduate Research Assistant in Dairy Husbandry (June 1, 1941).  
B. S., Colorado State College, 1941. W. Ag 106.
- RUTH THERESE BOTZ, Assistant Extension Editor, Division of College Extension (Jan. 1, 1941).  
B. S., University of Wisconsin, 1939. EA 306B.
- WILLIAM RAYMOND BRACKETT, Associate Professor of Physics (1919, 1923).  
A. B., University of Colorado, 1905. W 318.
- JULIA STOREY BRADLEY, Assistant in Animal Husbandry (1939); resigned, June 30, 1941.  
E. Ag 8.
- LOLA MAE BRADSHAW-GIBSON, Assistant to the Dean, Division of College Extension (Feb. 1, 1941).  
A 109.
- 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.
- L. WARREN BRANDT, Graduate Assistant in Chemistry (Sept. 1, 1941).  
A. B., Fort Hays Kansas State College, 1941. W 121.
- 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 222.
- JESSE LAMAR BRENNEMAN, Professor of Electrical Engineering (1920, 1928).  
B. S., University of Chicago, 1908; E. E., University of Wisconsin, 1913. E 121.
- TRAVIS BROOKS, Graduate Assistant in Botany and Plant Pathology (Jan. 27, 1941); resigned, May 31, 1941.
- GERALD JAMES BROWN,<sup>1</sup> Instructor in Agricultural Economics, Division of College Extension (1936, 1939); Fieldman, Farm Management Association No. 2 (1936; Aug. 1, 1941).  
B. S., K. S. C., 1936. Hutchinson, Kan.
- HALE H. BROWN,<sup>4</sup> Instructor in Vocational Education (1937); on leave, Dec. 18, 1940 to June 30, 1942.  
B. S., K. S. C., 1928; M. S., *ibid.*, 1937. G 103B.

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

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

- 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.
- JOSEPH JUNIOR BRYSCHE, Graduate Assistant in Chemistry (Sept. 1, 1941).  
B. S., K. S. C., 1941. W 121.
- 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.
- DOROTHY G. BUECHEL, Head Dispensary Nurse, Department of Student Health (1940).  
R. N., Wesley Hospital, 1936. A 217.
- BURNILL HOWARD BUIKSTRA, (Temporary) Instructor in Mathematics (1940).  
B. S., K. S. C., 1933; M. S., *ibid.*, 1941. X 104.
- FRANK SHERMAN BURSON, Instructor in Agricultural Economics, Division of College Extension (1935, 1939).  
B. S., K. S. C., 1934. EA 201.
- 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.
- LINUS H. BURTON, (Temporary) Instructor in Landscape Gardening, Division of College Extension (Sept. 15, 1941).  
B. S., K. S. C., 1939.
- MARJORIE BURTON, Instructor in Child Welfare and Euthenics (1938, 1940).  
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, Associate Professor of Geology and Paleontology (1930; Sept. 1, 1941).  
B. S., University of Chicago, 1927; Ph. D., *ibid.*, 1940.
- MARION JOHN CALDWELL, Instructor in Chemistry (1932, 1934).  
B. S., K. S. C., 1931; M. S., *ibid.*, 1933. W 212.
- 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, Lt.-Col., Inf., U. S. A.; Professor of Military Science and Tactics (1937; Feb. 1, 1941).  
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.
- WALTER MONROE CARLETON, (Temporary) Instructor in Agricultural Engineering, Division of College Extension (Oct. 1, 1940).  
B. S., K. S. C., 1938. E 131.
- IDA ALFREDA CARLSON, (Temporary) Instructor in Mathematics (1939); resigned, Jan. 25, 1941.  
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); Animal Husbandman, Agricultural Experiment Station.  
B. S., K. S. C., 1933; M. S., University of Nebraska, 1934. E. Ag 6A.
- WILBER JOHN CAULFIELD, Associate Professor of Dairy Husbandry (1927, 1940); Assistant Dairy Husbandman, Agricultural Experiment Station (1927).  
B. S., University of Minnesota, 1924; M. S., Pennsylvania State College, 1926. W. Ag 107.
- DENA C. CEDERQUIST, Technician in Food Economics and Nutrition (1937); resigned, May 31, 1941.  
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 306B.
- 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,<sup>2</sup> Road Materials, Engineering Experiment Station (1931).  
B. S., K. S. C., 1929. E 230.
- ALFRED LESTER CLAPP, Professor of Agronomy (1920, 1939); Agronomist, Agricultural Experiment Station (1939).  
B. S., K. S. C., 1914; M. S., *ibid.*, 1934. E. Ag 201A.
- FRANCIS EUGENE CLARK,<sup>1</sup> Associate Bacteriologist, U. S. D. A.; Soil Microbiology Investigations, Agricultural Experiment Station (1937); resigned, June 30, 1941.  
B. A., University of Colorado, 1932; B. D. E., *ibid.*, 1933; M. A., *ibid.*, 1933; Ph. D., *ibid.*, 1936. V 101.
- JOHN R. CLARK, Capt., C. A. C., Retired, U. S. A.; Assistant Professor of Military Science and Tactics (1940); resigned, Feb. 28, 1941. N 103.
- PEARL JEANNETTE CLARK, Assistant Postmistress (1940). A 120.
- EUGENE ARTHUR CLEAVINGER, Assistant Professor of Farm Crops, Division of College Extension (1926, 1931).  
B. S., K. S. C., 1925. EA 202B.
- GEORGE WILSON COCHRAN, Graduate Assistant in Botany and Plant Pathology (June 1, 1941).  
B. S., K. S. C., 1941. D 207.

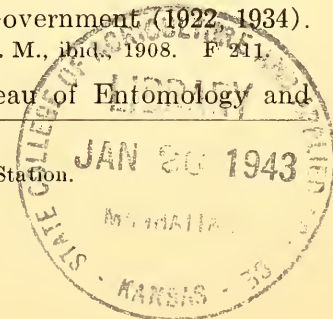
2. In coöperation with the Kansas State Highway Department.



- OWEN LOVEJOY COCHRANE, Assistant Professor of Physical Education (1939, 1940).  
B. S., K. S. C., 1931. Stadium.
- MAYNARD HENRY COE, Professor and State Club Leader, Division of College Extension (1922, 1927).  
B. S., University of Minnesota, 1917. A 111B.
- EMBERT HARVEY COLES,<sup>1</sup> 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, Extension Specialist in Recreation (1937; Aug. 11, 1941).  
B. S., Northwestern University, 1937; A. M., University of Southern California, 1941. EA 101B.
- LAURENCE LARUE COMPTON, Associate Professor of Soils, Division of College Extension (1930; July 1, 1941).  
B. S., K. S. C., 1930; M. S., *ibid.*, 1940. EA 202B.
- INEZ MARIE CONLEY, (Temporary) Instructor in Accounting (1940); resigned, June 30, 1941.  
B. S., Oklahoma Agricultural and Mechanical College, 1935; M. S., *ibid.*, 1939. W. Ag 206.
- 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); resigned, Aug. 16, 1941.  
B. S., K. S. C., 1932. Clay Center, Kan.
- LOWELL EDWIN CONRAD, Professor and Head of Department of Civil Engineering (1908, 1909); Civil Engineer, Engineering Experiment Station (1913); Acting Dean of Division of Engineering and Architecture (Dec. 1, 1940); Acting Director of the Engineering Experiment Station (Dec. 1, 1940).  
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, 1940).  
B. S., K. S. C., 1925; M. S., *ibid.*, 1932. EA 201.
- LLOYD MARION COPENHAFFER, Assistant Professor of Landscape Gardening, Division of College Extension (1938, 1940); on leave, Aug. 16, 1941, to June 30, 1942.  
B. S., K. S. C., 1933; M. S., *ibid.*, 1936. EA 202.
- ESTHER MARGARET CORMANY, Associate Professor of Clothing and Textiles (1936; Sept. 1, 1941).  
B. S., K. S. C., 1926; M. S., *ibid.*, 1932. C 219.
- CHARLES MECLAIN CORRELL, Professor of History and Government (1922-1934).  
B. S., K. S. C., 1900; Ph. B., University of Chicago, 1907; Ph. M., *ibid.*, 1908. F 211.
- RICHARD THOMAS COTTON,<sup>3</sup> Senior Entomologist, Bureau of Entomology and

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

3. In coöperation with the Kansas Agricultural Experiment Station.





- 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.
- MORRIS S. COVER, Instructor in Veterinary Anatomy and Physiology (1940).  
V. M. D., University of Pennsylvania, 1938. V 108.
- 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); Sheep Specialist, Agricultural Experiment Station (1930); on sabbatical leave, Oct. 1, 1940, to Aug. 31, 1941.  
B. S., Oklahoma Agricultural and Mechanical College, 1923; M. S., Iowa State College, 1925. E. Ag 8A.
- 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.
- CORNELIA WILLIAMS CRITTENDEN, Associate Professor of Modern Languages (1926, 1929).  
A. B., University of Nebraska, 1918; A. M., *ibid.*, 1926. A 224.
- JOHN CLAYTON CRUPPER, JR., Forest Nurseryman, Fort Hays Branch Agricultural Experiment Station (1940).  
B. S., Colorado State College, 1939. Hays, Kan.
- MARTHA REBECCA CULLIPHER, Assistant Reference Librarian (1928; Feb. 1, 1941).  
A. B., Indiana University, 1926; B. S. in L. S., University of Illinois, 1928; M. S., Columbia University, 1939. L 201.
- CLAUD C. CUNNINGHAM, (Temporary) Assistant Professor of Farm Crops, Division of College Extension (Jan. 1, 1941); resigned, June 30, 1941.  
B. S., K. S. C., 1903. EA 202B.
- EARL GILBERT DARBY, Instructor in Shop Practice (Sept. 8, 1941).  
B. S., K. S. C., 1923. S 108B.
- MERRITT IRA DARROW, Graduate Assistant in Poultry Husbandry (1940).  
B. S., Michigan State College, 1940. W. Ag 209.
- ROSE MARIE DARST, Assistant Professor of Art (1933, 1938).  
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.
- MARGARET S. DAUM, Assistant to the Dean, Division of Veterinary Medicine (1940).  
B. S., K. S. C., 1938. V 104.
- 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); on leave, Mar. 1, 1941, to May 31, 1941.  
B. S., K. S. C., 1933. R. F. D. 3, Parsons, Kan.
- CHARLES DEFOREST DAVIS, Associate Professor of Farm Crops (1921, 1939); Assistant Agronomist, Agricultural Experiment Station.  
B. S., K. S. C., 1921; M. S., *ibid.*, 1926. E. Ag 305A.

- ELIZABETH HAMILTON DAVIS, Reference Librarian, College Library (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.
- LAURA PETTIS DAVIS, Instructor in Household Economics (Feb. 1, 1941); resigned, May 31, 1941.  
B. S., Central Missouri State Teachers College, 1931; M. S., K. S. C., 1941. T 203.
- WILMER ESLA DAVIS, Professor of Plant Physiology (1909, 1927).  
Graduate, Ohio Normal University, 1894; A. B., University of Illinois, 1903. D 303A.
- EARLE REED DAWLEY,<sup>2</sup> Professor of Engineering Materials (1920, 1933); Assistant 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); Olericulturist and Florist, Agricultural Experiment Station (1941).  
B. S., K. S. C., 1924; M. S., University of Illinois, 1927. D 12.
- JOHN WESLEY DEMAND, (Temporary) Instructor in Education (1940); resigned, May 31, 1941.  
A. B., University of Kansas, 1937; M. S., K. S. C., 1940. G 102A.
- ROBERT COURTLAND DENNISON, Radio Operator, Division of College Extension (June 1, 1941).  
EA 306B.
- GRACE EMILY DERBY, Associate Librarian, College Library (1911, 1918).  
A. B., Western College for Women, 1905. L 205.
- ROSE GERALDINE DILLER, Class Reserves Assistant in Library (1938); on leave, Sept. 1, 1941 to June 15, 1942.  
L 1.
- PAUL LAWRENCE DITTEMORE, Editorial Assistant in the Agricultural Experiment Station (1939); Instructor in Journalism (1939; July 1, 1941).  
B. S., K. S. C., 1932. E. Ag 105.
- RAYMOND JOSEPH DOLL, Instructor in Agricultural Economics (1935, 1936); Farm Management, Agricultural Experiment Station (1935).  
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 201.
- 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); on sabbatical leave, Sept. 1, 1941 to May 31, 1942.  
A. B., James Millikin University, 1923; B. Mus., American Conservatory, 1928; M. S., K. S. C., 1932. M 105.

2. In coöperation with the Kansas State Highway Department.

- LESTER HENRY DRAYER, Chief Engineer, Heat and Power Department (1916, 1927).  
PP 105.
- DONALD PENDLETON DUNCAN, Instructor in Forestry, Department of Horticulture (Sept. 1, 1941); State Forester (Sept. 12, 1941); Forester, Agricultural Experiment Station (Sept. 1, 1941).  
B. S. F., University of Michigan, 1937; M. S., *ibid.*, 1939. D 110A.
- MERRILL AUGUSTUS DURLAND, Professor of Machine Design (1919, 1928); Assistant Dean, Division of Engineering and Architecture (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); Veterinarian, Agricultural Experiment Station (1935).  
D. V. M., Iowa State College, 1905. V 105.
- ROBERT PHILLIP EALY, Graduate Assistant in Horticulture (Sept. 1, 1941).  
B. S., Oklahoma Agricultural and Mechanical College, 1941. D 110A.
- NINA EDELBLUTE, (Temporary) Assistant in Food Economics and Nutrition (1940); resigned, May 31, 1941.  
B. S., K. S. C., 1931; M. S., *ibid.*, 1940. C 109B.
- DONALD JOHN EDGAR, Graduate Assistant in Chemistry (Sept. 1, 1940).  
A. B., Sterling College, 1937. W 121.
- SAMUEL ALLEN EDGAR, Technician and Instructor in Zoölogy (1937, 1938); resigned, Aug. 31, 1941.  
A. B., Sterling College, 1937; M. S., K. S. C., 1939. F 105.
- ROBERT JOHN EGGERT, Assistant Professor of Agricultural Economics (1938); resigned, Aug. 31, 1941.  
B. S., University of Illinois, 1935; M. S., *ibid.*, 1936. W. Ag 301A.
- HAL FIELD EIER, Instructor in Agricultural Engineering, Division of College Extension (1934, 1935).  
B. S., K. S. C., 1936. E 131.
- HELEN ELIZABETH ELCOCK, Associate Professor of English (1920, 1926).  
A. B., College of Emporia, 1907; A. M., University of Chicago, 1921. A 202.
- FRANKLIN ELDRIDGE, Graduate Assistant in Dairy Husbandry (Sept. 1, 1941).  
B. S., University of Idaho, 1941. W. Ag 106.
- CARL G. ELLING, Associate Professor of Animal Husbandry, Division of College Extension (1918, 1921).  
B. S., K. S. C., 1904. EA 202C.
- MARY MYERS ELLIOTT, Instructor in Public Speaking (1929, 1940); resigned, May 31, 1941.  
A. B., University of Kansas, 1926; M. S., K. S. C., 1934. G 205A.
- VERA MAY ELLITHORPE, Instructor in Home Management, Division of College Extension (1939, 1940).  
B. S., K. S. C., 1935; M. S., *ibid.*, 1939. EA 101B.
- OTTO HERMAN ELMER, Associate Professor of Botany (1927, 1937); Associate Plant Pathologist, Agricultural Experiment Station (1927).  
B. S., Oregon Agricultural College, 1911; M. S., *ibid.*, 1916; Ph. D., Iowa State College, 1924. D 207.
- WALTER TITUS EMERY,<sup>3</sup> 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.

3. In coöperation with the Kansas Agricultural Experiment Station.



- JOHN FREDERICK EPPLER, Instructor in Applied Mechanics (1940).  
B. S. in C. E., University of Wisconsin, 1937. E 117.
- ANDREW BRIAN ERHART, Assistant in Agronomy in charge of the Southwest Kansas Experiment Fields (1934, 1936).  
B. S., K. S. C., 1933. Meade, 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.
- GUSTAVE EDMUND FAIRBANKS, Second Lt., C. A. C., Res., U. S. A.; Assistant Professor of Military Science and Tactics (Mar. 1, 1941).  
B. S., K. S. C., 1941. N 102.
- WILLIAM LAWRENCE FAITH, Professor and Head of Department of Chemical Engineering (1933, 1939); Chemical Engineer, Agricultural Experiment Station (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); Pathologist, Agricultural Experiment Station (1929).  
D. V. M., K. S. C., 1926; M. S., *ibid.*, 1934. Vet. Research Lab.
- LUCY EMSLIE FARMAN, Housekeeper, College Hospital, Department of Student Health (1937).  
B. S., K. S. C., 1912. CH.
- 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, Assistant Professor in Home Furnishings, Division of College Extension (1939; July 1, 1941).  
B. S., Oklahoma Agricultural and Mechanical College, 1933; M. S., *ibid.*, 1936. EA 101B.
- FRANK DAVID FAULKNER, (Temporary) Instructor in Mathematics (1940).  
B. S., Kansas State Teachers College, Emporia, 1940. X 103.
- 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, Instructor in Mechanical Engineering (1939; Sept. 1, 1941).  
B. S., University of Illinois, 1938. E 104.
- HURLEY FELLOWS,<sup>1</sup> 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.
- FREDERICK CHARLES FENTON, Professor and Head of Department of Agricultural Engineering (1928); Agricultural Engineer, Agricultural Experiment Station (1929).  
B. S., Iowa State College, 1914; M. S., *ibid.*, 1930. E 214.
- JOHN MOSES FERGUSON, Instructor in Agricultural Engineering, Division of College Extension (1937).  
B. S., K. S. C., 1934. E 131.
- GEORGE ALBERT FILINGER, Associate Professor of Pomology (1931, 1937); Associate Pomologist, Agricultural Experiment Station (1931; July 1, 1941).  
B. S., K. S. C., 1924; M. S., *ibid.*, 1925; Ph. D., Ohio State University, 1931. D 107.

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



- KARL FREDERICK FINNEY,<sup>1</sup> 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); resigned, Oct. 10, 1940.  
B. S., Dakota Wesleyan University, 1931; Ph. D., University of Wisconsin, 1935.  
W 309.
- WILLIAM DAVID FITCH, Instructor in Music (Sept. 1, 1941).  
B. S. in Mus. Ed., K. S. C., 1935. M 105.
- 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); Clothing and Textiles, Agricultural Experiment Station (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, 1939).  
B. S., K. S. C., 1928; M. S., *ibid.*, 1934. EA 101B.
- ARTHUR ORAN FLINNER, Capt., C. A. C., Res., U. S. A., Assistant Professor of Mechanical Engineering (1929, 1934); on leave. Assistant Professor of Military Science and Tactics (Nov. 5, 1940).  
B. S., K. S. C., 1929; M. S., *ibid.*, 1933; M. S., M. I. T., 1937. N 102.
- EUSTACE VIVIAN FLOYD, Professor of Physics (1911, 1921).  
B. S., Earlham College, 1903. W 320A.
- VERNON DANIEL FOLTZ, Associate Professor of Bacteriology (1927; July 1, 1941); 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); resigned, May 31, 1941.  
A. B., Manchester College, 1927; A. M., Columbia University, 1936. C 103.
- HAROLD ROBERT FOX, Research Assistant in Agricultural Economics (July 1, 1941).  
B. S., K. S. C., 1941. W. Ag 301B.
- 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.
- JUSTUS CARL FRANKENFELD,<sup>1</sup> 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); Acting Head of Department of Civil Engineering (Dec. 1, 1940).  
C. E., Ohio State University, 1910. E 124.
- JOHN CARROLL FRAZIER, Assistant Professor of Botany (1936, 1939); Assistant Plant Physiologist, Agricultural Experiment Station (1936).  
A. B., DePauw University, 1925; A. M., University of Nebraska, 1926; Ph. D., University of Chicago, 1939. D 103.

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

- 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; M. S., K. S. C., 1941. F 112.
- CHARLES ROBISON FRIED, Graduate Assistant in Chemistry (1940).  
A. B., Hope College, 1940. W 121.
- ROY FRED FRITZ, Assistant Entomologist, Agricultural Experiment Station (1939).  
B. S., K. S. C., 1937; M. S., *ibid.*, 1939. Garden City, Kan.
- HAROLD FRY, Instructor in Machine Design (1940).  
B. S. in E. E., Colorado State College, 1937. S 201A.
- HOLLY CLAIR FRYER, Assistant Professor of Mathematics (1940).  
B. S., University of Oregon, 1931; M. S., Oregon State College, 1933; Ph. D., Iowa State College, 1940. X 118.
- 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.
- PERCY LEIGH GAINNEY, 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.
- ERNAL P. GALBRAITH, Industrial Research Fellow, Graduate Assistant in Chemistry (Feb. 1, 1941).  
B. S., Utah State Agricultural College, 1940. W 106, 37.
- JACK JAMES HAMLIN GARDENER, Assistant Professor of Physical Education (1939).  
B. S., University of Southern California, 1932. N 109A.
- ANNABEL ALEXANDER GARVEY, Assistant Professor of English (1920, 1927); on leave.  
A. B., Wellesley College, 1912; A. M., University of Kansas, 1914.
- FRANK CALEB GATES, Professor of Plant Taxonomy and Ecology (1919, 1928); Taxonomist and Ecologist, Agricultural Experiment Station (1919).  
A. B., University of Illinois, 1910; Ph. D., University of Michigan, 1912. D 301A.
- STEPHEN ARNOLD GEAUQUE, Custodian Emeritus (1918, 1939).
- OSCAR STRAND GELLEIN, Instructor in Economics (1939, 1940).  
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,<sup>2</sup> 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.

2. In coöperation with the Kansas State Highway Department.

- DORA LOIS GILMORE, Instructor in Clothing and Textiles (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 (1939).  
B. S., University of Minnesota, 1932; M. S., K. S. C., 1933; Ph. D., University of Minnesota, 1939. EA 202C.
- 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.
- OTIS BENTON GLOVER, Assistant Professor of Agricultural Extension; District Supervisor, Division of College Extension (1929, 1934).  
B. S., K. S. C., 1915. EA 101.
- GEORGE VERNON GOODING,<sup>1</sup> Junior Agricultural Aid, U. S. D. A.; Research Assistant in Agronomy, Agricultural Experiment Station (1940).  
B. S., University of Nebraska, 1940. Plant Research Lab.
- 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.
- CLARENCE OWEN GRANDFIELD,<sup>1</sup> 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, Associate Professor of Chemical Engineering (1937; July 1, 1941); Industrial Utilization of Farm Products, Agricultural Experiment Station (1939).  
B. S., University of Washington, 1926; M. S., Carnegie Institute of Technology, 1927; Ph. D., University of Pittsburgh, 1930. XX 105B.
- TOM GREER, Herdsman, Department of Animal Husbandry (1917).
- PAUL WILSON GRIFFITH, Instructor in Agricultural Economics, Division of College Extension; Fieldman, Farm Management Association No. 1 (1935; Aug. 18, 1941).  
B. S., K. S. C., 1934. Clay Center, Kan.
- WALDO ERNEST GRIMES, Professor and Head of Department of Economics and Sociology; Agricultural Economics, Agricultural Experiment Station (1913, 1936).  
B. S., K. S. C., 1913; Ph. D., University of Wisconsin, 1923. W. Ag 311A.
- HILDA ROSE GROSSMANN, 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.
- ALBERT WENDELL GRUNDMANN, Research Assistant in Entomology, Agricultural Experiment Station (1939); resigned, June 30, 1941.  
B. A., University of Utah, 1937; M. A., *ibid.*, 1939. Vet. Research Lab.
- MYRTLE ANNICE GUNSELMAN, Associate Professor of Household Economics (1926, 1937); Household Economist, Agricultural Experiment Station (1935).  
B. S., K. S. C., 1919; A. M., University of Chicago, 1926. T 204.

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



- PAUL N. GUSTAFSON, Instructor in Applied Mechanics (1940; Sept. 1, 1941).  
B. C. E., Ohio State University, 1940. E 117.
- HERBERT FRANK HAAS, Graduate Assistant in Bacteriology (1939).  
B. S., K. S. C., 1938. V 204.
- HOWARD JAMES HAAS,<sup>1</sup> Junior Agronomist, Division of Dry-land Agriculture,  
U. S. D. A. (1937).  
B. S., K. S. C., 1936. Garden City, Kan.
- EVERETT RAYMOND HALBROOK, Assistant Professor of Poultry Husbandry, Di-  
vision of College Extension (1934).  
B. S. in Agr., University of Missouri, 1930; M. S., University of California, 1936.  
EA 205.
- JOSEPH LOWE HALL, Assistant Professor of Chemistry (1922, 1933); Physical  
Chemical Investigations in Meat, Agricultural Experiment Station (1937).  
B. S., University of Illinois, 1919; M. S., *ibid.*, 1921; Ph. D., *ibid.*, 1922. W 205.
- LAWRENCE FENER HALL, Associate Professor of Vocational Education (1929;  
July 1, 1941).  
B. S., K. S. C., 1923; M. S., *ibid.*, 1927. G 103B.
- ALANSON LOLA HALLSTED,<sup>1</sup> Associate Agronomist, Division of Dry-land Agri-  
culture, 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.
- DOROTHY MAY HAMER, Social Director, Van Zile Hall (July 1, 1941).  
A. B., University of Illinois, 1921; M. A., Columbia University, 1927. A 118B.
- ALBERT R. HANKE, (Temporary) Assistant Chemist (1939, 1940); resigned, June  
30, 1941.  
B. S., University of Illinois, 1933; M. S., *ibid.*, 1936; Ph. D., *ibid.*, 1939. W 31.
- FLOYD JOSEPH HANNA, College Photographer (1922, 1930). I.
- EARL DAHL HANSING, Instructor in Botany (1940); Assistant Plant Patholo-  
gist, Agricultural Experiment Station (1940).  
B. S., University of Minnesota, 1933; M. S., K. S. C., 1937; Ph. D., Cornell University,  
1941. D 205.
- JOHN WILLARD HANSON, Assistant Physician, Department of Student Health  
(Sept. 1, 1940).  
B. A., University of Minnesota, 1930; M. D., *ibid.*, 1933. A 209.
- MURVILLE JENNINGS HARBAUGH, Assistant Professor of Zoölogy (1929, 1930);  
on leave.  
A. B., University of Montana, 1926; A. M., *ibid.*, 1930. F 113.
- LEONARD BEATH HARDEN, Instructor in Agricultural Economics, Division of Col-  
lege Extension; Fieldman, Farm Management Association No. 4 (1928, 1939).  
B. S., K. S. C., 1926. Holton, Kan.
- MARY THERESA HARMAN, Professor of Zoölogy (1912, 1921); Zoölogical Collabo-  
rator, Agricultural Experiment Station (1940).  
A. B., Indiana University, 1907; A. M., *ibid.*, 1909; Ph. D., *ibid.*, 1912. F 115.
- JOHN ORVILLE HARRIS, Graduate Assistant in Bacteriology (Sept. 1, 1941).  
B. S., K. S. C., 1939; M. S., University of Hawaii, 1941. V 101.
- VIDA AGNES HARRIS, Associate Professor of Art (1927; Sept. 1, 1941).  
B. S., K. S. C., 1914; A. M., University of Chicago, 1927. A 206A.

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

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



- 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.
- GEORGE THOMAS HART, 2d Lt., Inf., Res., U. S. A.; Assistant Professor of Military Science and Tactics (Oct. 3, 1940); resigned, May 31, 1941.  
B. S., K. S. C., 1937. N 102.
- 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; B. S. in Mus. Ed., Teachers College, Columbia University, 1940. M 206.
- E. LOVISA HASTINGS, Second Assistant to the Registrar (1927, 1928). A 105.
- ALBERT WILLIAM HAWKINS, Instructor in Chemical Engineering (1940); resigned, May 31, 1941.  
B. S. in Ch. E., University of Washington, 1935. XX 105B.
- WARD HILLMAN HAYLETT, Associate Professor of Physical Education (1928, 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, Professor of Public Speaking (1925; Sept. 1, 1941).  
A. B., University of Illinois, 1922; A. M., Stanford University, 1938. N 303.
- J. ELDRED HEDRICK, Instructor in Chemical Engineering (1936); resigned, May 31, 1941.  
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,<sup>1</sup> Assistant Professor of Agricultural Extension; District Agricultural Agent, Division of College Extension (1921, 1930); resigned, March 31, 1941.  
B. S., K. S. C., 1915. EA 101.
- AGATHA HERMON, Nurse, Department of Student Health (Sept. 1, 1940).  
R. N., Halstead Hospital, 1939. CH.
- EARL HOWARD HERRICK, Professor of Zoölogy (1935; July 1, 1941); Mammalogist, Agricultural Experiment Station (1935).  
B. S., K. S. C., 1926; M. S., *ibid.*, 1927; Ph. D., Harvard University, 1929. F 5.
- KATHERINE JANE HESS, Associate Professor of Clothing and Textiles (1925, 1931); Clothing and Textiles, Agricultural Experiment Station (1927).  
B. S., K. S. C., 1900; M. S., *ibid.*, 1926. C 203.

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

- ELMER GEORGE HEYNE,<sup>1</sup> Junior Agronomist, U. S. D. A.; Plant Breeder, Agricultural Experiment Station (1936, 1938).  
B. S., University of Nebraska, 1935; M. S., K. S. C., 1938. E. Ag 303.
- ELIZABETH H. HICKMAN, Nurse, Department of Student Health (1940); resigned, Feb. 28, 1941.  
R. N., Christ's Hospital, 1938. CH.
- JOHN CLIFFORD HIDE, Assistant Professor of Soils (1935, 1937); Assistant Agronomist, Agricultural Experiment Station (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; Rural Sociology, Agricultural Experiment Station (1929, 1935).  
B. S., K. S. C., 1924; M. S., *ibid.*, 1927; Ph. D., University of Missouri, 1929. W. Ag 307B.
- RAYMONA MAYME HILTON, Instructor in Institutional Management (1939; Sept. 1, 1941).  
B. S., University of Nebraska, 1937. T 201A.
- LORA VALENTINE HILYARD, Instructor in Clothing and Textiles, Division of College Extension (1930, 1936); on sabbatical leave, Sept. 10, 1941 to Feb. 10, 1942.  
B. S., K. S. C., 1930. EA 101B.
- JULIAN ADAIR HODGES, Professor of Agricultural Economics; Farm Management, Agricultural Experiment Station (1923; July 1, 1941).  
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.
- ALBERT SIDNEY HOLBERT, Graduate Research Assistant in Zoölogy (1940); resigned, Dec. 10, 1940.  
B. S., K. S. C., 1940. F 5.
- 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 Coöperative Experiments (1936, 1937); Assistant Agronomist, Agricultural Experiment Station (1937).  
B. S., K. S. C., 1937. E. Ag 202A.
- THOMAS R. HOLMES, Lt.-Col., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1938).  
B. S., St. John's College, 1917; Graduate, Infantry School, 1927. N 102.
- INA EMMA HOLROYD, Assistant Professor of Mathematics (1900, 1929).  
B. S., K. S. C., 1897; 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.

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

- ADRIAN AUGUSTUS HOLTZ, Men's Adviser and Secretary of Young Men's Christian Association (1919); Professor of Economics and Sociology (1929; July 1, 1941).  
A. B., Colgate University, 1909; Ph. M., University of Chicago, 1910; B. D., *ibid.*, 1911; Ph. D., *ibid.*, 1914. A 118D.
- ROBERT J. M. HORTON, Assistant Physician, Department of Student Health (1940); resigned, May 31, 1941.  
A. B., Princeton University, 1934; M. D., Western Reserve University, 1938. A 216A.
- MILDRED EILEEN HOSS, Graduate Assistant in Institutional Management (Sept. 1, 1941).  
A. B., Sterling College, 1931. T
- 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 (1932, 1937); resigned, July 31, 1941.  
A. B., University of Nebraska, 1917; M. S., Northwestern University, 1926; B. S., K. S. C., 1940. K 103B.
- HAROLD HOWE, Professor of Agricultural Economics (1925, 1934); Land Economist, Agricultural Experiment Station (1925).  
B. S., K. S. C., 1922; M. S., University of Maryland, 1923; Ph. D., University of Wisconsin, 1937. W. Ag 307B.
- HAZEL DELL HOWE, Instructor in Clothing and Textiles (1936).  
B. S., K. S. C., 1921; M. S., *ibid.*, 1935. C 201B.
- LEO EVERETT HUDIBURG, Assistant Dean, Division of General Science (1930; July 1, 1941); Associate Professor of Physics (1930; July 1, 1941).  
B. S., Kansas State Teachers College, Pittsburg, 1923; M. S., K. S. C., 1930. A 122A; W 38.
- EUGENE HARVEY HUFFMAN, (Temporary) Instructor in Chemistry (1940).  
A. B., University of Colorado, 1927; M. S., University of Washington, 1929; Ph. D., University of Illinois, 1937. W 310.
- 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.
- RAYMOND H. HUGHES, Assistant Physician, Department of Student Health (Sept. 1, 1941).  
B. S., K. S. C., 1933; M. S., *ibid.*, 1934; M. D., University of Chicago, 1938. A 215.
- 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); Geneticist, Agricultural Experiment Station (1919).  
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,<sup>1</sup> Assistant Professor of Agricultural Economics, Division of College Extension (1922, 1936).  
B. S., K. S. C., 1926. EA 301.
- ELDEN VALORIUS JAMES, Professor of History and Government (1912, 1924); deceased, Dec. 1, 1940.  
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).  
Graduate, American Conservatory of Music, 1921; B. Mus., *ibid.*, 1929. N 301D.
- DOLF JESSE JENNINGS, (Temporary) Instructor in Zoölogy (1940).  
B. S., Ottawa University, 1932; B. A., *ibid.*, 1933; M. S., K. S. C., 1939. F 113.
- RICHARD ROSLYN JESSON, Assistant Professor of Music (1929, 1931).  
B. Mus., Oberlin College, 1929. M 204.
- ERNEST D. JESSUP, 1st Lt., Inf. Res., U. S. A.; Assistant Professor of Military Science and Tactics (1940).  
B. S., K. S. C., 1937. N 102.
- ELLA MARIE JOHNSON, Assistant Professor of Home Economics Education (Sept. 1, 1941).  
B. S., University of Minnesota, 1926; M. A., Columbia University, 1941. G 106.
- GENEVA JOHNSON, Graduate Assistant in Child Welfare and Euthenics (June 1, 1941); resigned, July 31, 1941.  
B. S., K. S. C., 1935; M. S., *ibid.*, 1941. 311 N. 14th.
- J. HAROLD JOHNSON, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1927, 1935).  
B. S., K. S. C., 1927. A 111A.
- JOHN ALEXANDER JOHNSON, JR.,<sup>1</sup> Assistant in Milling Research (1940; June 1, 1941); Assistant Baking Technologist, Agricultural Experiment Station (July 1, 1941).  
B. S., North Dakota Agricultural College, 1940. E. Ag 101A.
- RICHARD CHARLES JOHNSON, Instructor in Farm Forestry, Division of College Extension (1940; July 1, 1941).  
B. S., Michigan State College, 1937. EA 202.
- CHARLES OTIS JOHNSTON,<sup>1</sup> Pathologist, U. S. D. A.; Cereal Rust Investigations, Agricultural Experiment Station (1919).  
B. S., K. S. C., 1918; M. S., *ibid.*, 1924. D 204.
- RODNEY WILLIAM JOHNSTON, Industrial Research Fellow, Graduate Research Assistant in Chemical Engineering (July 1, 1941).  
B. Sc. in Ch. E., University of Nebraska, 1941. XX 3C.
- 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,<sup>1</sup> 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.
- RUDARD ARTABAN JONES, Assistant Professor of Architecture (Oct. 6, 1940).  
B. S. in Arch. E., University of Illinois, 1936; M. S. in Arch. E., *ibid.*, 1939. E 223.

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



- AIMISON JONNARD, Instructor in Chemical Engineering (Sept. 1, 1941).  
B. S., K. S. C., 1938; M. S. in Ch. E., Columbia University, 1939. XX 105B.
- 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,<sup>1</sup> Associate Agronomist, U. S. D. A.; in Charge of Corn Investigations, Agricultural Experiment Station (1938).  
B. S., Iowa State College, 1934; M. S., *ibid.*, 1936; Ph. D., *ibid.*, 1940. E. Ag 301A.
- MARGARET M. JUSTIN, Dean of Division of Home Economics (1923); Head of Department of Home Economics, Agricultural Experiment Station.  
B. S., K. S. C., 1909; B. S. in Educ., Teachers College, Columbia University, 1915; Ph. D., Yale University, 1923. C 104.
- JUANITA I. KAHLER, Assistant in Institutional Management (Sept. 1, 1941).  
B. S., University of Colorado, 1941. T 201A.
- ROSAMOND KEDZIE, Assistant Professor of Art (1938; Sept. 1, 1941).  
B. S., Michigan State College, 1906; M. A., University of California, 1937. A 205.
- 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); deceased, Aug. 8, 1941.  
B. S., K. S. C., 1913; Ph. D., University of Chicago, 1924. W 308.
- SHERWOOD KEITH, (Temporary) Instructor in Public Speaking (Jan. 1, 1941); resigned, May 31, 1941.
- LEONE BOWER KELL, Associate Professor of Child Welfare and Euthenics (1927, 1938).  
B. S., K. S. C., 1923; M. S., *ibid.*, 1928. 311 N. 14th.
- WARREN FERDINAND KELLER,<sup>1</sup> Agent, Bureau of Plant Industry, U. S. D. A.; Research Miller, Agricultural Experiment Station (Sept. 15, 1941).  
B. S., K. S. C., 1935. E. Ag 102.
- 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.
- LENORE KENT, Instructor in Child Welfare and Euthenics (1940).  
B. S., Oregon State College, 1926; M. S., Ohio University, 1940. 311 N. 14th.
- 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 and in the Agricultural Experiment Station (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.

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

- EUNICE LEOLA KINGSLEY, Assistant Professor of Botany (1929; Sept. 1, 1941).  
B. S., North Dakota Agricultural College, 1926; M. S., K. S. C., 1931. D 202.
- CHARLES HOWARD KITSELMAN, Professor of Pathology (1919, 1933); Pathologist, Agricultural Experiment Station (1933); on leave, Jan. 6, 1941.  
V. M. D., University of Pennsylvania, 1918; M. S., K. S. C., 1927. V 211.
- 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 Dean of Women (1931; July 1, 1941).  
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.
- HILLIER KRIEGHBAUM, Associate Professor of Industrial Journalism (1938; July 1, 1941).  
B. A., University of Wisconsin, 1926; M. S., Northwestern University, 1939. K 103C.
- BERNICE LYDIA KUNERTH, Assistant Professor of Food Economics and Nutrition (1932, 1939); Food Economist and Nutritionist, Agricultural Experiment Station; on leave, Sept. 1, 1941, to July 30, 1942.  
B. S., Iowa State College, 1932; M. S., K. S. C., 1933; Ph. D., Columbia University, 1940. C 107A.
- JOSEPH BENJAMIN KUSKA,<sup>1</sup> 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. S., State University of Iowa, 1932. A 223.
- PAUL GRIFFITH LAMERSON, Assistant Entomologist, Agricultural Experiment Station (1932, 1936).  
B. S., K. S. C., 1927; M. S., *ibid.*, 1931. Wathena, Kan.
- COLTER ADIEL LANDIS, Industrial Research Fellowship, Graduate Research Assistant in Chemical Engineering (Sept. 1, 1941).  
B. S. in Ch. E., K. S. C., 1940. XX 102.
- DONALD EDWARD LANDIS, Graduate Assistant in Public Speaking (Sept. 1, 1941).  
A. B., Wabash College, 1939; M. A., Northwestern University, 1941. G 205.
- ROY CLINTON LANGFORD, Professor of Psychology (1925; Sept. 1, 1941).  
B. S., K. S. C., 1925; M. S., *ibid.*, 1926; Ph. D., Stanford University, 1934. G 108.
- MENDEL ELMER LASH, Associate Professor of Chemistry (1929; Sept. 1, 1941).  
A. B., Ohio State University, 1920; M. S., *ibid.*, 1922; Ph. D., *ibid.*, 1928. W 308.
- RALPH RICHARD LASHBROOK, Associate Professor of Industrial Journalism (1934, 1938); on sabbatical leave, Sept. 1, 1941, to June 30, 1942.  
B. S., K. S. C., 1929. K 206.
- CARL ERNEST LATSCHAR, (Temporary) Assistant in Chemistry (July 1, 1941).  
B. S., K. S. C., 1941. W 31.

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

- 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,<sup>1</sup> Professor of Farm Crops (1920, 1931); Agronomist, Agricultural Experiment Station (1931).  
B. S., K. S. C., 1911; M. S., Texas Agricultural and Mechanical College, 1918; Ph. D., University of Chicago, 1936. E. Ag 208.
- ELDEN EMANUEL LEASURE, Professor of Physiology (1926, 1935); on leave Nov. 1, 1940, to Aug. 31, 1941.  
D. V. M., K. S. C., 1923; M. S., *ibid.*, 1930. V 109.
- 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.
- GERTRUDE ELISE LIENKAEMPER, Instructor in Clothing and Textiles (Feb. 1, 1941).  
B. S., Oregon State College, 1921; M. A., University of Washington, 1938. C 201A.
- 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.
- 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 216.
- WILLIAM LINDQUIST, Professor and Head of Department of Music (1925, 1927).  
B. Mus., Cosmopolitan School of Music and Dramatic Art, Chicago, 1925. M 108.
- ROGER P. LINK, Assistant Professor of Veterinary Physiology (1935; July 1, 1941).  
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. EA 202C.
- CHARLES HOWARD LOCKHART, Instructor in Zoölogy (1940).  
B. S., K. S. C., 1934; M. S., *ibid.*, 1938. F 113.
- GLENN WESLEY LONG, Instructor in Economics and Sociology (1938).  
A. B., Baker University, 1926; M. S., K. S. C., 1940. W. Ag 308.
- 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.
- JOHN HALL LONNQUIST,<sup>1</sup> Agent, U. S. D. A.; Research Assistant in Agronomy, Agricultural Experiment Station (1940).  
B. S., University of Nebraska, 1940. E. Ag 302.
- THOMAS HENRY LORD, Instructor in Bacteriology (Sept. 1, 1941).  
B. S., Massachusetts State College, 1936; M. S., University of Illinois, 1938; Ph. D., University of Illinois, 1941. V 103B.
- 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.

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



- JOHN WALLACE LUMB, Professor of Veterinary Medicine, Division of College Extension (1924, 1937).  
D. V. M., K. S. C., 1910; M. S., *ibid.*, 1930. EA 205.
- GENEVIEVE LUNDVICK, Instructor in Clothing and Textiles (1940); resigned, Jan. 31, 1941.  
B. A., University of Iowa, 1936; M. A., University of Washington, 1940. C 201A.
- WILLIAM ALAN LUNS福德,<sup>3</sup> Graduate Research Assistant in Botany (1940).  
A. B., Miami University, 1940. D 103.
- 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.
- 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, Assistant Professor of Architecture (1937, 1940); resigned, June 30, 1941.  
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); Meat Specialist, Agricultural Experiment Station (1923).  
B. S., University of Minnesota, 1920; M. S., K. S. C., 1926. E. Ag 1.
- HOWARD SPENCER MACKIRDY, Lt.-Col., C. A. C., U. S. A.; Associate Professor of Military Science and Tactics (1939).  
B. A., Wesleyan University, 1914. N 102.
- 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.
- ALFRED MARSH, Instructor in Shop Practice (1940).  
B. A., Maryville College, 1928; M. A., University of Alabama, 1929; Ph. D., University of Indiana, 1934; LL. B., Woodrow Wilson College, 1939. S 105.
- RACHEL MARTENS, Instructor in Home Furnishings, Division of College Extension (1936, 1940); resigned, Dec. 31, 1940.  
B. S., K. S. C., 1936; M. S., *ibid.*, 1940. EA 101B.
- EDGAR MARTIN, (Temporary) Assistant Professor of Animal Husbandry (1939); resigned, May 31, 1941.  
B. S., K. S. C., 1919; M. S., University of Wisconsin, 1925. E. Ag 15.
- JAMES WILLIAM MARTIN, Instructor in Agricultural Engineering (1940); Farm Machinery, Agricultural Experiment Station (1925).  
B. S. in E. E., K. S. C., 1933; B. S. in Ag. E., *ibid.*, 1938; M. S., Iowa State College, 1939. E 216.
- KARL HAROLD MARTIN, (Temporary) Instructor in Electrical Engineering (Aug. 1, 1941).  
A. B., Northern State Teachers College of Michigan, 1930; A. M., University of Michigan, 1932. E 22.
- 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.

3. In cooperation with the Kansas Agricultural Experiment Station.



- WILLARD HUNGATE MARTIN, Professor of Dairy Husbandry (1925, 1928); Dairy Husbandman, Agricultural Experiment Station (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 101B.
- JAMES WARREN MATHER, Assistant Professor of Agricultural Economics, Division of College Extension (1936, 1939).  
B. S., K. S. C., 1934; M. S., *ibid.*, 1936. EA 201.
- 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); on leave, Jan. 21, 1941 to June 30, 1942.  
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.
- THOMAS MARK MCCALLA, Instructor in Bacteriology (1937); resigned, May 31, 1941.  
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 McCAULLEY, Assistant Professor of Architecture (1937); resigned, Oct. 5, 1940.  
B. S. in Arch. E., Massachusetts Institute of Technology, 1934; M. S., *ibid.*, 1936. E 223.
- MAX ELTON McCLUGGAGE,<sup>1</sup> Agent, Bureau of Plant Industry, U. S. D. A.; Milling Technologist, Agricultural Experiment Station (1937); resigned, June 30, 1941.  
B. S., K. S. C., 1935; M. S., *ibid.*, 1940. E. Ag 102.
- STERLING McCOLLUM, Instructor in Shop Practice (1930); resigned, Aug. 31, 1941. S 106.
- FRANK JAMES McCORMICK, Assistant Professor of Applied Mechanics (1939, 1940).  
B. S., Iowa State College, 1927; M. S., *ibid.*, 1931. E 135.
- JOHN HENRY McCoy, Instructor in Agricultural Economics (1940); Land Economics, Agricultural Experiment Station (1940).  
B. S., K. S. C., 1940. W. Ag 310.
- ELIZABETH McCracken, Instructor in Botany (1938, 1939).  
B. A., Wellesley College, 1929; M. A., *ibid.*, 1932; Ph. D., University of California, 1937. D 202.

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

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.

CHARLOTTE OPAL McGRATH, Registered Nurse, College Hospital (Apr. 1, 1941).

R. N., Halstead Hospital, 1939.

CH.

CARL FISH MCKINNEY, Col., Inf., U. S. A.; Professor and Head of Department of Military Science and Tactics (1939); resigned, Jan. 31, 1941.

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.

VIRGIL KEITH McMAHAN, (Temporary) Instructor in Pathology (June 1, 1941); Assistant in Agricultural Experiment Station (June 1, 1941).

D. V. M., K. S. C., 1941.

VH 51B.

EVA MYRTLE McMILLAN, Associate Professor of Food Economics and Nutrition (1930, 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, 1939).

A. B., Oberlin College, 1926; M. S., Washington University, 1928; Ph. D., *ibid.*, 1930. W 224.

JOHN D. McNEAL, Graduate Assistant in Geology (Sept. 1, 1940).

B. S., K. S. C., 1940.

F 3.

CALVIN J. MEDLIN, (Temporary) Instructor in Journalism; Graduate Manager of Student Publications (Sept. 1, 1941).

B. S., K. S. C., 1920; M. S., *ibid.*, 1941.

K 105D.

HENRY JOHN MEENEN,<sup>1</sup> Research Assistant in Agricultural Economics (1940; Aug. 16, 1941); Farm Management, Agricultural Experiment Station (1940; Aug. 16, 1941).

B. S., K. S. C., 1940.

W. Ag 310.

EDGAR PAUL HUBERT MEIBOHM, (Temporary) Instructor in Chemistry (Sept. 1, 1941).

B. S., Guilford College, 1936; M. S., University of North Carolina, 1939.

W 308.

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); resigned, May 31, 1941.

EA 306B.

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.

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

- HELEN EVELYN MERTZ, Assistant in Animal Husbandry (Aug. 1, 1941).  
E. Ag 9.
- DARREL SEYMOUR METCALFE, Graduate Research Assistant in Agronomy (1940).  
B. S., University of Wisconsin, 1940. Plant Research Lab.
- WILLIAM HAROLD METZGER, Associate Professor of Soils (1926, 1935); Associate  
Agronomist, Agricultural Experiment Station (1932).  
B. S., Purdue University, 1922; M. S., K. S. C., 1937; Ph. D., Ohio State University,  
1931. E. Ag 207A.
- BERNADINE HELEN MEYER, Instructor in Food Economics and Nutrition (1936);  
resigned, July 7, 1941.  
B. S. in Ed., University of Illinois, 1933; M. S., *ibid.*, 1936. C 107B.
- ELLA M. MEYER, Assistant Professor and District Home Demonstration Agent,  
Division of College Extension (1932; Dec. 20, 1940).  
B. S., K. S. C., 1907. EA 101.
- EDWIN CYRUS MILLER, Professor of Plant Physiology (1910, 1919); Plant Physi-  
ologist, Agricultural Experiment Station (1911).  
A. B., Lebanon College, 1906; A. B., Yale University, 1907; Ph. D., *ibid.*, 1910. D 102.
- ELSIE LEE MILLER, Instructor in Food Economics and Nutrition (Sept. 1, 1941).  
B. S., K. S. C., 1934; M. S., *ibid.*, 1941. C 107C.
- JOHN ORVILLE MILLER, Instructor in Plant Pathology, Division of College Ex-  
tension (1935, 1936).  
B. S., K. S. C., 1934. EA 202B.
- JOYCE W. MILLER, Assistant Professor, Department of Shop Practice (Dec. 1,  
1940).  
B. S., K. S. C., 1933. S 110A.
- MERNA BEATRICE MILLER,<sup>3</sup> Instructor in Institutional Management (1939, 1940).  
B. S., K. S. C., 1932. T 102.
- PHAYEE MIZELL,<sup>4</sup> Assistant in Education (1940); resigned, May 31, 1941.  
B. S., Oklahoma Agricultural and Mechanical College, 1930. T 201.
- CLIFFORD MERRILL MOELLER, Instructor in Civil Engineering (1939); on leave,  
Sept. 1, 1941 to May 31, 1942.  
B. S., University of Nebraska, 1936. E 220.
- MAURICE CHARLES MOGGIE, Associate Professor of Education (1933; Sept. 1,  
1941).  
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 Col-  
lege, 1925; M. S., K. S. C., 1933. N 107.
- GEORGE MONTGOMERY, Professor of Agricultural Economics (1925; July 1, 1941);  
Marketing, Agricultural Experiment Station (1925).  
B. S., K. S. C., 1925; M. S., *ibid.*, 1927. W. Ag 301C.
- RUTH MONTGOMERY-SHORT, Assistant College Physician (1938).  
B. S., Washburn College, 1932; M. D.; University of Kansas, 1937. A 210.
- 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 225.

3. In coöperation with the Kansas Agricultural Experiment Station.

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



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.

HELEN MOORE, Dean of Women (July 1, 1940).

A. B., University of Kansas, 1917; M. A., Columbia University, 1928. A 118B.

LEO ALBERT MOORE, Assistant Professor of Shop Practice (1935; July 1, 1941).

B. S., K. S. C., 1925; M. S., *ibid.*, 1940. S 101A.

MARIA MORRIS, Associate Professor of Art (1925; Sept. 1, 1941).

B. S., K. S. C., 1911; Graduate, New York School of Fine and Applied Art, 1924; M. S., K. S. C., 1927. A 205.

REED FRANKLIN MORSE, Assistant Professor of Civil Engineering (1929, 1934).

A. B., Cornell College, 1921; B. S., Iowa State College, 1923; M. S., K. S. C., 1933; Ph. D., Cornell University, 1941. E 220.

THIRZA ADALINE MOSSMAN, Assistant Professor of Mathematics (1922, 1926).

A. B., University of Nebraska, 1916; A. M., University of Chicago, 1922. X 102.

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 202C.

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, College Library (1929, 1938).

B. S., K. S. C., 1921; B. S. in L. S., University of Illinois, 1937. L 202.

HAROLD HAWLEY MUNGER, Industrial Research Fellow, Research Assistant in Applied Mechanics, Engineering Experiment Station (1939, 1940).

B. S., K. S. C., 1939; M. S., *ibid.*, 1941. E 112.

DONALD FARNHAM MUNRO, Associate Professor of Modern Languages (Sept. 1, 1940).

B. S., Acadia University, 1926; M. A., *ibid.*, 1927; Ph. D., University of Illinois, 1933. A 225.

GEORGE COLIN MUNRO, Associate Professor of Mathematics (1937; Sept. 1, 1940).

B. S., Acadia University, 1927; Ph. D., University of Michigan, 1930. X 104.

ERMA MARTZ MURRAY, Secretary of the Young Women's Christian Association (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, Assistant Professor of Home Management, Division of College Extension (1930; July 1, 1941).

B. S., K. S. C., 1929; M. S., Cornell University, 1939. EA 101B.

HAROLD EDWIN MYERS, Associate Professor of Soils (1929, 1937); Associate Agronomist, Agricultural Experiment Station (1939).

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); on leave.  
B. S., Monmouth College, 1934; M. S., University of Illinois, 1935. W 212.
- LEONARD FAY NEFF, Assistant Professor and District Supervisor, Division of College Extension (1939).  
B. S., Purdue University, 1922. EA 101.
- 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 103A.
- RUSSELL NELSON, Instructor in Dairy Husbandry (Sept. 1, 1941); Assistant Dairy Husbandman, Agricultural Experiment Station (Sept. 1, 1941).  
B. S., K. S. C., 1941. W. Ag 106.
- JOHN ARTHUR NEUSCHWANDER,<sup>1</sup> Agent (Under Scientific Aid) U. S. D. A.; Graduate Research Assistant in Agronomy (July 1, 1941); Corn Breeding, Agricultural Experiment Station (July 1, 1941).  
B. S., South Dakota State College, 1941. E. Ag 301.
- MARGARET ALICE NEWCOMB, Associate Professor of Botany (1925; Sept. 1, 1941).  
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,<sup>5</sup> Seed Analyst, Department of Agronomy (1938); Seed Analyst, Agricultural Experiment Station (1938).  
A. B., Nebraska Wesleyan University, 1915; A. M., University of Wisconsin, 1924; Ph. D., University of Nebraska, 1938. E. Ag 307A.
- PAULINE NUTTER, Assistant Professor of Food Economics and Nutrition (1938); resigned, Aug. 31, 1941.  
B. S., Nebraska State Teachers College, 1932; M. S., University of Arizona, 1934; Ph. D., University of Rochester, 1938. C 108A.
- EUGENE F. OAKBERG, Graduate Assistant in Zoölogy (1940).  
B. S., Monmouth College, 1940. F 112.
- WILLIAM WALLACE O'DONNELL,<sup>1</sup> Graduate Research Assistant in Milling Industry, Agricultural Experiment Station (Sept. 1, 1941).  
B. Sc., Ohio State University, 1941. E. Ag 101A.
- HAZEL M. OLNEY, Registered Nurse, Student Health Department (Sept. 1, 1941).  
R. N., Missouri Methodist Hospital at St. Joseph, 1931. CH.
- 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.
- DONALD HARRY OLSON, Graduate Assistant in Chemistry (Sept. 1, 1941).  
B. S., Bethany College, 1941. W 121.
- ERWIN THEO OLSON, Industrial Research Fellow, Graduate Assistant in Chemistry (Sept. 1, 1941).  
B. S., Bethany College, 1941. W 121.

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

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

- RAYMOND AUGUST OLSON, Graduate Assistant in Chemistry (1940); Industrial Research Fellow (Sept. 1, 1941).  
B. S., Bethany College, 1940. W 121.
- CHARLES K. OTIS, Instructor in Agricultural Engineering (1936); resigned, Oct. 19, 1940.  
B. S. in Agr., University of Wisconsin, 1932; B. S. in M. E., *ibid.*, 1933. E 217.
- MERTON LOUIS OTTO, Instructor in Agricultural Economics (1934, 1939); Land Utilization, Agricultural Experiment Station (1934).  
B. S., K. S. C., 1921. W. Ag 310.
- CAROL LEE OWSLEY, (Temporary) Class Reserves Assistant in Library (Sept. 1, 1941).  
B. S., K. S. C., 1932. L 1.
- 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, Professor of Entomology (1926; July 1, 1941); Associate Entomologist, Agricultural Experiment Station (1926).  
A. B., University of Texas, 1922; A. M., *ibid.*, 1924; Ph. D., Ohio State University, 1926. F 302.
- HARRIET SHIPLEY PARKER, Assistant Professor of English (1924, 1927).  
A. B., University of Kansas, 1909; A. M., Washington University, 1912. A 203.
- 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); Marketing, Agricultural Experiment Station (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 109A.
- 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.
- LEO WESLEY PATTON, Graduate Assistant in Physics (Sept. 1, 1941).  
B. A., Southwestern College, 1941. W 103.
- GEORGE RICHARD PAULING, Superintendent of Maintenance (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 (1939).  
S. B., Massachusetts Institute of Technology, 1913; M. S., Cornell University, 1937. E 208.

- 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); resigned, June 30, 1941.  
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, 1935. N 301E.
- ROYCE OWEN PENCE, Associate Professor of Milling Industry (1927, 1939); Milling Technologist, Agricultural Experiment Station (1927).  
B. S. in F. M. E., K. S. C., 1924; M. S., *ibid.*, 1930; Ph. D., *ibid.*, 1939. V 103.
- HENRY JAMES PEPLER, Instructor in Bacteriology (1939).  
B. S., University of Wisconsin, 1936; M. S., *ibid.*, 1937; Ph. D., *ibid.*, 1939. V 103.
- 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.
- DOROTHY HELEN PETERS, Assistant Loan Librarian (Feb. 1, 1941).  
B. S. in Ed., K. S. T. C. of Emporia, 1940. L.
- MILFRED JOHN PETERS, 1st Lieut., Inf., Res., U. S. A.; Assistant Professor of Military Science and Tactics (1935, 1940).  
B. S., K. S. C., 1934. N 102.
- EARL HERMAN PETERSON, Associate Professor of English (1939, 1940).  
A. B., University of Colorado, 1923; M. A., State College of Washington, 1928; Ph. D., University of Illinois, 1940. S 205.
- JOHN CHRISTIAN PETERSON, Professor of Psychology (1917, 1926).  
A. B., University of Utah, 1913; Ph. D., University of Chicago, 1917. G 104.
- WALTER JOHN PETERSON, Assistant Professor of Chemistry (1935, 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.
- LEO PETRI, Technician and Instructor in Zoölogy (Sept. 1, 1941); Zoölogical Technician, Agricultural Experiment Station (Sept. 1, 1941).  
A. B., Peru State Teachers College, 1937; M. A., University of Nebraska, 1941. F 105.
- 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, 1939; Diploma, Institut de Phonetique of University of Paris, 1939. A 229.
- HAZEL ELIZABETH TAYLOR PFUETZE, Secretary, Department of Education (1925).  
G 102.
- FLORENCE EMMA PHILLIPS, Instructor in Clothing and Textiles, Division of College Extension (Sept. 10, 1941).  
B. S., K. S. C., 1936. EA 101B.
- LUCILE PHILLIPS, Head Nurse, Department of Student Health (1938, 1940).  
R. N., Kansas City General Hospital, Kansas City, Missouri, 1938. CH.
- 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.
- WILFRED HAROLD PINE, Assistant Professor of Agricultural Economics (1934, 1938); Farm Management, Agricultural Experiment Station (1934).  
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; M. S., K. S. C., 1941. E 105.
- MILA MARGARET PISHNEY, Graduate Assistant in Home Economics Education (Sept. 1, 1941).  
B. S., K. S. C., 1933. G 106.
- 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.
- CHARLES M. PLATT, (Temporary) Instructor in Journalism (Sept. 1, 1941).  
B. S., K. S. C., 1938; M. S., *ibid.*, 1941. K 206.
- HELEN KING PLATT, (Temporary) Instructor in Education (1940); resigned, May 31, 1941.
- 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.
- LEON REED QUINLAN, Professor of Horticulture (1927, 1931); Ornamental Horticulturist, Agricultural Experiment Station (1941).  
B. S., Colorado Agricultural College, 1920; M. L. A., Harvard University, 1925. D 8.
- GEORGE ELLSWORTH RABURN, Professor of Physics, Emeritus (1910; Sept. 1, 1940).  
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 (1939).  
B. S., K. S. C., 1924; M. S., *ibid.*, 1928. C 112.
- GEORGE NATHAN REED, Instructor in Chemistry (1929); resigned, June 30, 1941.  
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); Associate Agronomist, Agricultural Experiment Station (1939).  
B. S., K. S. C., 1930; M. S., University of Nebraska, 1937. E. Ag 304C.
- 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); resigned, June 30, 1941. VZ.
- ADA RICE, Professor of English (1899, 1927).  
B. S., K. S. C., 1895; M. S., *ibid.*, 1912. A 202.



- WALTER ROACH, Assistant Professor of Public Speaking (Sept. 1, 1941).  
B. A., State University of Iowa, 1926; M. A., University of Wisconsin, 1941. G 205A.
- JULES HENRY ROBERT, Professor of Applied Mechanics and Hydraulics (1916, 1925).  
B. S., University of Illinois, 1914. E 112.
- MARY EILLEN ROBERTS, Documents Cataloguer, College 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, Assistant Professor of Agricultural Extension; District Supervisor, Division of College Extension (1923; July 1, 1941).  
B. S., K. S. C., 1923; M. S., *ibid.*, 1938. EA 301.
- NOBLE WARREN ROCKEY, Professor of English (1921).  
A. B., Ohio State University, 1905; A. M., *ibid.*, 1916. K 202.
- JANE ROCKWELL, Instructor in Industrial Journalism (1940; Sept. 1, 1941).  
A. B., Florida State College for Women, 1930. K 103B.
- LEE MILES RODERICK, Professor and Head of Department of Pathology (1938); Pathologist, Agricultural Experiment Station (1938).  
D. V. M., Ohio State University, 1915; M. S., North Dakota State College, 1922; Ph. D., University of Chicago, 1926. V 210.
- ALBERT G. ROODE, Assistant Physician, Department of Student Health (1940); resigned, Aug. 31, 1941.  
B. S., Muskingum College, 1935; M. D., Western Reserve University, 1939. A 215.
- GERTRUDE ROSKIE, Instructor in Vocational Homemaking (1939); resigned, June 30, 1941.  
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.
- FREDERICK GEORGE ROTH, Instructor in Architecture (Sept. 1, 1941).  
B. Arch., University of Minnesota, 1940. E 223.
- KATHARINE ROY, Professor and Head of Department of Child Welfare and Euthenics (1939).  
B. S., Columbia Teachers College, 1927; M. S., *ibid.*, 1932; Ph. D., Cornell University, 1939. C 213.
- 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.
- ADELBERT BOWER SAGESER, Professor of History and Government (1938; Jan. 27, 1941).  
A. B., State Teachers College, Wayne, Neb., 1925; M. A., University of Nebraska, 1930; Ph. D., *ibid.*, 1934. F 209.
- RALPH E. SAMUELSON, Industrial Research Fellow in Chemistry (Feb. 1, 1941); resigned, May 31, 1941.  
B. S., K. S. C., 1941. W 23.
- 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 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, 1939).  
B. S., K. S. C., 1934. EA 306B.
- LAWRENCE HENRY SCHOENLEBER, Assistant Professor of Agricultural Engineering (Jan. 1, 1941); Agricultural Experiment Station (Jan. 1, 1941).  
B. S., University of Nebraska, 1928; M. S., Iowa State College, 1929. E 216.
- CHARLES HENRY SCHOLER,<sup>2</sup> Professor and Head of Department of Applied Mechanics (1920, 1922); Materials Testing Engineer, Engineering Experiment Station (1920).  
B. S., K. S. C., 1914. E 111.
- WILLIAM GEORGE SCHRENK, Instructor in Chemistry (1938).  
A. B., Western Union College, 1932; M. S., K. S. C., 1936. W 20.
- LUKE M. SCHRUBEN, Assistant Professor of Agricultural Economics, Division of College Extension (1933, 1940).  
B. S., K. S. C., 1933; M. S., *ibid.*, 1939. EA 201.
- ARNOLD EDWARD SCHUMACHER, Assistant Professor of Poultry Husbandry (June 1, 1941); Nutritionist, Agricultural Experiment Station (June 1, 1941).  
B. S., Pennsylvania State College, 1936; M. S., Cornell University, 1939; Ph. D., *ibid.*, 1940. W. Ag 210.
- WILLIAM HENRY SCHUTTE, Instructor in Physical Education (1940).  
B. S., University of Idaho, 1933. Stadium.
- MARJORIE AILEEN SCHWALM, Graduate Research Assistant in Mathematics (Aug. 1, 1941).  
B. S., K. S. C., 1939. X 116.
- LOUISE SCHWENSEN, Secretary to the Dean, Division of Engineering and Architecture (1915, 1918). E 115.
- HAROLD MARTIN SCOTT, Associate Professor of Poultry Husbandry (1928, 1931); resigned, Feb. 15, 1941.  
B. S., Oregon Agricultural College, 1924; M. S., K. S. C., 1927; Ph. D., University of Illinois, 1938. W. Ag 210.
- HAZEL MARIE SCOTT, Graduate Assistant in Clothing and Textiles (Sept. 1, 1941).  
B. S., K. S. C., 1938.
- 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 205.
- ROY ANDREW SEATON, Dean of Division of Engineering and Architecture (1904, 1920); Director of the Engineering Experiment Station (1904, 1920); on leave.  
B. S., K. S. C., 1904; M. S., *ibid.*, 1910; S. B., Massachusetts Institute of Technology, 1911. E 115.
- VIRGIL FRANKLIN SECREST, (Temporary) Military Property Custodian (1940).  
N 104.

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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.
- RAYMOND EUGENE SELTZER, Industrial Research Fellow, Graduate Research Assistant in Agricultural Economics, Agricultural Experiment Station (1940).  
B. S., University of Illinois, 1940. W. Ag 308.
- HARNER SELVIDGE, Associate Professor of Electrical Engineering (1938; Sept. 1, 1941); on leave, Sept. 1, 1941, to May 31, 1942.  
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, Associate Professor of Dairy Husbandry (1939, 1940); Associate Dairy Husbandman, Agricultural Experiment Station (1935).  
B. S., University of Idaho, 1932; M. S., *ibid.*, 1932; Ph. D., Pennsylvania State College, 1935. W. Ag 108A.
- LESLIE M. SHAW, Instructor in Shop Practice (Sept. 1, 1941).  
B. S., K. S. C., 1939. S 115.
- 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.
- CHRISTIANA MARIE SHIELDS,<sup>4</sup> Assistant in Education (1931, 1937); resigned, May 31, 1941.  
B. S., K. S. C., 1928; M. S., *ibid.*, 1940. Capitol, Topeka, Kan.
- KARL GARDNER SHOEMAKER, Instructor in Agricultural Economics, Division of College Extension (1936, 1939).  
B. S., K. S. C., 1936. EA 301.
- CLARA MAGDALENE SIEM, Financial Secretary, Division of College Extension (1920, 1924). A 109B.
- DANIEL TELL SIGLEY, Associate Professor of Mathematics (1938; Sept. 1, 1940).  
A. B., University of Kansas, 1927; A. M., *ibid.*, 1928; Ph. D., University of Illinois, 1932. X 118.
- RALPH EDWARD SILKER, Instructor in Organic Chemistry (Sept. 1, 1941).  
B. A., University of Dubuque, 1927; M. S., State University of Iowa, 1931; Ph. D., *ibid.*, 1934. W 211.
- FREDERICK GRAY SINGLETON, (Temporary) Instructor in Chemistry (1940); resigned, April 26, 1941.  
B. S., University of Florida, 1935; Ph. D., *ibid.*, 1940. W 212.
- 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.
- 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); Assistant Agronomist, Agricultural Experiment Station (1938).  
B. S., K. S. C., 1938. E. Ag 202A.
- JACOB J. SMALTZ, Instructor in Shop Practice (Jan. 1, 1940).  
B. S., Bradley Polytechnic Institute, 1939. S 106.
- ARTHUR BOURNE SMITH, College Librarian (1911).  
Ph. B., Wesleyan University, 1900; B. L. S., University of Illinois, 1902. L 106.
- MABEL RACHEL SMITH, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1929, 1931); resigned, Aug. 31, 1941.  
B. S., K. S. C., 1926. A 111A.

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



- 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.
- 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, Assistant Professor, Department of Institutional Management (1939; July 1, 1941); Manager of Cafeteria (1939, 1940).  
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).  
A. B., Ohio University, 1929; M. A., *ibid.*, 1931. A 221B.
- FLORENCE MARGARET STEBBINS, Assistant in Genetics, Department of Zoölogy; Agricultural Experiment Station (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, Professor of Accounting (1926; July 1, 1941).  
A. B., University of Kansas, 1920; M. B. A., *ibid.*, 1926. W. Ag 206.
- EDWARD SIEMANTEL STICKLEY, Industrial Research Fellow, Graduate Research Assistant in Chemistry (Sept. 1, 1941).  
B. S., Washburn College, 1940. W 23.
- THOMAS BRUCE STINSON, Superintendent, Tribune Branch Agricultural Experiment Station (1924).  
B. S., K. S. C., 1924. Tribune, Kan.
- HAROLD EARL STOVER, Maj., C. A. C., Res., U. S. A.; Instructor in Agricultural Engineering, Division of College Extension. On leave. Associate Professor of Military Science and Tactics (1936; Sept. 1, 1941).  
B. S., K. S. C., 1929. N 102.
- CHARLES WILLIAM STRATTON, Associate Professor of Music (1927; Sept. 1, 1941).  
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,<sup>1</sup> Agent, U. S. D. A.; Soil Microbiology Investigations, Agricultural Experiment Station (1939); resigned, June 30, 1941.  
B. S., K. S. C., 1936; M. S., *ibid.*, 1937. V 101.

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



- ANNA MARIE STURMER, Associate Professor of English (1920, 1926).  
A. B., University of Nebraska, 1917; A. M., *ibid.*, 1920. A 203.
- CHARLES W. SULLIVAN, (Temporary) Instructor in Civil Engineering (1940);  
resigned, May 30, 1941.  
B. S. in C. E., Oklahoma Agricultural and Mechanical College, 1938. E 124.
- FRANCIS JOSEPH SULLIVAN, Instructor in Machine Design (1938).  
B. S. in M. E., Harvard University, 1936; M. S., K. S. C., 1941. S 201A.
- HARRISON BOYD SUMMERS, Professor of Public Speaking (1923, 1930); resigned,  
May 31, 1941.  
A. B., Fairmount College, Wichita University, 1917; A. M., University of Oklahoma, 1921;  
Ph. D., University of Missouri, 1931. N 303.
- ARTHUR FRITHIOF SWANSON,<sup>1</sup> 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; Associate Cereal Technologist,  
Agricultural Experiment Station (1906).  
A. B., Carleton College, 1899; M. Agr., University of Minnesota, 1905; Ph. D., Cornell  
University, 1922; Sc. D., Carleton College, 1940. W. Ag 9.
- EMERY CARLTON SWANSON, Industrial Research Fellow; Graduate Research  
Assistant in Milling Industry (Sept. 1, 1941).  
B. S., University of Minnesota, 1941. E. Ag 111.
- VERNE S. SWEEDLUN, Associate Professor of History and Government (Jan  
27, 1941).  
A. B., Bethany College, 1923; M. A., University of Kansas, 1929; Ph. D., University of  
Nebraska, 1940. F 211.
- LILLIAN JULIETTE SWENSON, Assistant Reference Librarian, College Library  
(1927); resigned, Jan. 31, 1941.  
A. B., Colorado College, 1924; S. B., Simmons College, 1927; A. M. L. S., University of  
Michigan, 1939. L 201.
- MARY B. SWYERS, Stenographer, Office of the Vice-President (1920).  
A 121.
- DELOS CLIFTON TAYLOR, Capt. C. A. C., Res., U. S. A.; Assistant Professor of  
Applied Mechanics. On leave. Assistant Professor of Military Science and  
Tactics (1931, 1940).  
B. S., K. S. C., 1925; M. S., *ibid.*, 1937. N 102.
- LOWELL WILLIAM TAYLOR, Graduate Assistant in Chemistry (Sept. 1, 1941).  
B. A., Kansas Wesleyan University, 1940. W 121.
- EARL HICKS TEAGARDEN, Assistant Professor of Agricultural Extension, Dis-  
trict Agent, Division of College Extension (1929, 1934).  
B. S., K. S. C., 1920. EA 105.
- RUSSELL I. THACKREY, Professor and Head of Department of Industrial Journal-  
ism and Printing (1940).  
B. S., K. S. C., 1927; M. S., *ibid.*, 1932. K 102.
- 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.

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

- WALTER W. THOMPSON, Assistant Professor of Pathology (1936, 1937); Assistant Pathologist, Agricultural Experiment Station (1936, 1937).  
D. V. M., Michigan State College, 1929. VH 201.
- WILLIAM T. THOMPSON, Assistant Professor of Applied Mechanics (1937, 1940); resigned, Apr. 19, 1941.  
B. S., University of California, 1933; M. S., *ibid.*, 1934; Ph. D., *ibid.*, 1938. E 113.
- 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 (1939); resigned, June 30, 1941.  
B. S., K. S. C., 1938. A 121.
- GALEN M. TICE, Consulting Radiologist, Department of Student Health (1939).  
A. B., McPherson College, 1922; M. D., University of Kansas, 1929.  
University of Kansas Hospital, Kansas City, Kan.
- FRANCIS LEONARD TIMMONS,<sup>1</sup> Associate Agronomist, Bureau of Plant Industry, U. S. D. A.; in charge of Noxious Weed Control Investigations, Fort Hays Branch Agricultural Experiment Station (1928, 1935).  
B. S., K. S. C., 1928; M. S., *ibid.*, 1932. Hays, Kan.
- THELMA TINCHER, Instructor in Education (Sept. 1, 1941).  
B. S., University of Nebraska, 1934; M. Sc., *ibid.*, 1941. G 107.
- ALMA MAXINE TINGLE, Graduate Assistant in the Department of Child Welfare and Euthenics (Sept. 1, 1941).  
B. S., Ohio University, 1938. 311 N. 14th.
- HORACE CARL TRAUlsen, Graduate Assistant in Agronomy (1940).  
B. S., University of Nebraska, 1931. E. Ag 305A.
- ANGUS CAMPBELL TREGIDGA, Instructor in Electrical Engineering (1939); resigned, Mar. 31, 1941.  
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, 1939).  
A. B., University of Illinois, 1917; M. A., *ibid.*, 1918. G 205C.
- ALONZO FRANKLIN TURNER,<sup>1</sup> Associate Professor, Field Agent, Division of College Extension (1917, 1920).  
B. S., K. S. C., 1905. EA 101.
- MARVIN JOHN TWIEHAUS, Instructor in Bacteriology (1937); on leave, May 16, 1941.  
D. V. M., K. S. C., 1936. V 203.
- 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); Food Economist, Agricultural Experiment Station (Sept. 1, 1941).  
A. B., Southwestern College, 1924; M. S., University of Chicago, 1927; Ph. D., University of Minnesota, 1939. C 118.

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

- 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 Emeritus (1908, 1940).  
Diploma, Iowa State College, 1904; B. S., K. S. C., 1929.
- PHILLIP HARRIS VARDIMAN, (Temporary) Instructor in Bacteriology (July 1, 1941).  
D. V. M., K. S. C., 1939. V 203.
- JAUNITA FRANCES VILANDER, Assistant to the Vice-President (July 1, 1941).  
A 121A.
- ROBERT PHILLIP WAGERS, Assistant Professor of Pathology (1937, 1939).  
D. V. M., Ohio State University, 1936; M. S., *ibid.*, 1937. V 207A.
- GEORGE B. WAGNER,<sup>1</sup> 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, (Temporary) Assistant in Art (1939; Sept. 1, 1941).  
B. A., State College of Washington, 1936. A 221B.
- JOHN A. WAGONER, Industrial Research Fellow, Graduate Research Assistant in Chemistry (1940).  
B. S., Kansas State Teachers College, Pittsburg, 1939; M. S., K. S. C., 1941. W 23.
- CARROL KRAMER WARD, Associate Professor of Economics and Sociology (1935, 1940).  
B. S., University of Kansas, 1930; M. B. A., *ibid.*, 1937. W. Ag 307.
- JOSEPH EVANS WARD, JR., Instructor in Electrical Engineering (1940).  
B. S. in E. E., University of Texas, 1937; M. S., University of Illinois, 1940. E 19.
- WALTER GILLING WARD, Professor of Architecture, in Charge of Engineering Extension, 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.
- EUGENE D. WARNER, Instructor in 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); Geneticist, Agricultural Experiment Station (1923).  
A. B., Indiana University, 1914; A. M., *ibid.*, 1917; Ph. D., Columbia University, 1923. W. Ag 209.
- 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, Assistant Professor of Architecture (1939; Sept. 1, 1941).  
B. S., University of Illinois, 1937; M. S., *ibid.*, 1939; Architect, State of Illinois, 1938. E 223.

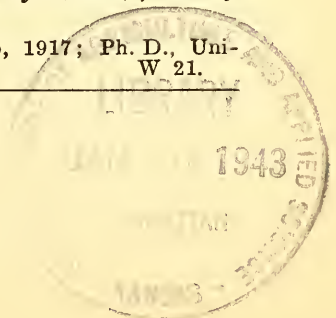
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1. In coöperation with the U. S. Department of Agriculture.



- IRENE MARGARET WASSMER, Graduate Assistant in Zoölogy (1940).  
B. S., K. S. C., 1938. F 5.
- ARTHUR D. WEBER, Professor of Animal Husbandry (1931); Beef Cattle Specialist, Agricultural Experiment Station (1931).  
B. S., K. S. C., 1922; M. S., *ibid.*, 1926; Ph. D., Purdue University, 1940. E. Ag 13.
- THELMA MAHESSA WEBER, Instructor in Food Economics and Nutrition (Sept. 1, 1941).  
B. S., Northeast Missouri State Teachers College, 1928; S. M., University of Chicago, 1941. C 107C.
- NORMAN COATES WEBSTER, Assistant Professor of Public Speaking (1937; Sept. 1, 1941).  
B. O., Geneva College, 1927; A. B., *ibid.*, 1928; M. S., K. S. C., 1940. 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.
- THOMAS A. WELDON,<sup>1</sup> Graduate Research Assistant in Agronomy, Agricultural Experiment Station (1940).  
B. S. A., Purdue University, 1940. E. Ag 207A.
- WILLIAM H. WELLS, Graduate Research Assistant in Zoölogy (Sept. 1, 1941).  
B. S., K. S. C., 1941. F 5.
- LEON ELBERT WENGER,<sup>1</sup> 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.
- OTTO ERNEST WENGER, Graduate Assistant in Entomology (Sept. 1, 1941).  
B. S., K. S. C., 1939. F 304B.
- BESSIE BROOKS WEST, Professor and Head of Department of Institutional Management (1928).  
A. B., University of California, 1924; A. M., *ibid.*, 1928. T 202.
- BEULAH DOROTHEA WESTERMAN, (Temporary) Assistant Professor of Food Economics and Nutrition (Sept. 1, 1941).  
B. S., University of Missouri, 1919; M. S., University of Chicago, 1923; Ph. D., University of Illinois, 1928. C 108A.
- GERTRUDE ALICE WHEELER, Secretary to Assistant Dean of Agriculture (1925).  
E. Ag 105.
- 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.
- 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.

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



- 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, Assistant Professor of Clothing and Textiles, Division of College Extension (1931, 1940).  
B. S., K. S. C., 1929; M. A., Columbia University, 1938. EA 101B.
- DONALD ALDEN WILBUR, Associate Professor of Entomology (1928; July 1, 1941); Associate Entomologist, Agricultural Experiment Station (1928; July 1, 1941).  
B. S., Oregon State College, 1925; A. M., Ohio State University, 1927. F 304D.
- JULIUS TERRASS WILLARD, College Historian (1883, 1936); Vice-President, 1918-1935; 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, 1939).  
A. B., University of Minnesota, 1916; LL. B., *ibid.*, 1918; A. M., *ibid.*, 1926. F 210.
- IRMEL LOUISE WILLIAMS, Instructor in Physical Education (1940).  
B. S., University of Nebraska, 1935. N 3.
- JENNIE WILLIAMS, Associate Professor of Child Welfare and Euthenics; Director of Nursing Education (1932, 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 202A.
- LUTHER EARLE WILLOUGHBY,<sup>1</sup> Associate Professor of Farm Crops, Division of College Extension (1917, 1926).  
B. S., K. S. C., 1912; B. S. in Agr., *ibid.*, 1916. EA 202.
- HELEN MILDRED WILMORE, Instructor in Food Economics and Nutrition (Sept. 1, 1941).  
B. S., K. S. C., 1929; M. S., *ibid.*, 1941. C 107B.
- CHARLES PEAIRS WILSON, Instructor in Agricultural Economics (1938).  
B. S., K. S. C., 1938; M. S., *ibid.*, 1940. W. Ag 301C.
- MANNIE RAY WILSON, Associate Professor of Shop Practice (1936); on leave, Dec. 1, 1940, to June 30, 1942.  
B. S., K. S. C., 1925. S 110A.
- EDWARD JOSEPH WIMMER, Professor of Zoölogy (1928; July 1, 1941).  
A. B., University of Wisconsin, 1925; A. M., *ibid.*, 1927; Ph. D., *ibid.*, 1928. F 114.
- LAURA I. WINTER, (Temporary) Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1925, 1939).  
Cornell University, 1916. EA 101.
- JOE NATE WOOD, Assistant Professor of Machine Design (1936; Sept. 1, 1941).  
B. S. in E. E., State University of Iowa, 1936. E 209.
- LEVELLE WOOD, Associate Professor of Institutional Management (1928, 1939).  
B. S., Oregon State College, 1921; M. S., Columbia University, 1928. VZ.

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

- JAMES KELLY WOODS, Graduate Assistant in Chemistry (Sept. 1, 1941).  
B. S., K. S. C., 1939. W 121.
- WALTON C. WOODS, Assistant Physician, Department of Student Health (Sept. 1, 1941).  
A. B., University of Kansas, 1937; M. D., *ibid.*, 1940. A 216A.
- MARGUERITE C. WORK, Assistant in Child Welfare and Euthenics (Feb. 1, 1941, to May 31, 1941).  
A. B., Occidental College, 1931; R. N., Methodist Deaconess Hospital, 1933; P. H. N., Stanford University, 1934. C 214.
- EARL BOOTH WORKING, Professor of Milling Industry (1923, 1939); Cereal Chemist, Agricultural Experiment Station (1923).  
A. B., University of Denver, 1917; A. M., *ibid.*, 1919; Ph. D., University of Arizona, 1922. E. Ag 111.
- HARRY DASHIELL YOUNG, Associate Chemist, Bureau of Entomology and Plant Quarantine, U. S. D. A. (1934).  
B. S., University of Nebraska, 1908. 1204 Fremont.
- HERMAN WILSON ZABEL, Instructor in Chemical Engineering (Sept. 1, 1941).  
B. S., K. S. C., 1935; M. S., Columbia University, 1936. XX 105B.
- JAMES WALTER ZAHNLEY,<sup>5</sup> Associate Professor of Farm Crops (1915, 1921); Associate Agronomist, Agricultural Experiment Station (1921).  
B. S., K. S. C., 1909; M. S., *ibid.*, 1926. E. Ag 308.
- ADELBERT HENRY ZINK, (Temporary) Instructor in Mechanical Engineering (Jan. 1, 1941).  
B. S. in M. E., Michigan State College, 1937. E 104.

## COUNTY AGRICULTURAL AGENTS

### Division of College Extension

- HENRY JOSEPH ADAMS, Republic county (1934). Belleville.  
B. S., K. S. C., 1917.
- DALE ALLEN, Pottawatomie county (1935; July 1, 1941). Westmoreland.  
B. S., K. S. C., 1922; B. S., *ibid.*, 1941.
- SAMUEL EDWARD ALSOP, Haskell county (1937, 1938); resigned, May 31, 1941. Sublette.  
B. S., K. S. C., 1935.
- MILBURNE CLINTON AXELTON, Jackson county (1929, 1935); resigned, Feb. 28, 1941. Holton.  
B. S., K. S. C., 1928.
- KIMBALL LINCOLN BACKUS, Wyandotte county (1932). Kansas City.  
B. S., K. S. C., 1931.
- EVANS E. BANBURY, Sherman county (1940; Nov. 15, 1940). Goodland.  
B. S., K. S. C., 1940.
- CLARENCE E. BARTLETT, Jewell county (1937). Mankato.  
B. S., University of Nebraska, 1929.
- JOHN K. BLYTHE, Morton county (1941; May 5, 1941). Elkhart.  
B. S., K. S. C., 1940.
- JAMES F. BOOTH, Mitchell county (1941; July 15, 1941). Beloit.  
B. S., K. S. C., 1941.

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



- HAROLD ANDREW BORGELT, Edwards county (1937). Kinsley.  
B. S., K. S. C., 1937.
- LEE JUSTIN BREWER, Ottawa county (1935; Apr. 2, 1941). Minneapolis.  
B. S., K. S. C., 1935.
- SYLVESTER ULRIC CASE, Crawford county (1934); deceased, March 23, 1941.  
Girard.  
B. S., K. S. C., 1923.
- FRANCIS WILLARD CASTELLO, Dickinson county (1934; Nov. 6, 1940). Abilene.  
B. S., K. S. C., 1933.
- FREDERICK M. COLEMAN, Allen county (1939, 1939); resigned, March 15, 1941.  
Iola.  
B. S., K. S. C., 1937.
- 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, 1939); resigned, Feb. 28, 1941.  
Elkhart.  
B. S., K. S. C., 1938.
- DON E. CRUMBAKER, Miami county (1941; July 7, 1941). Paola.  
B. S., K. S. C., 1941.
- HAROLD AMOS DAILY, Stafford county (1935, 1938). St. John.  
B. S., K. S. C., 1933.
- LAURENCE ROBERT DANIELS, Seward county (1934; Dec. 1, 1940). Liberal.  
B. S., K. S. C., 1933.
- ELMER A. DAWDY, Saline county (1938, 1939); resigned, Feb. 15, 1941. 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, 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); on leave, Aug. 31, 1941.  
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.
- F. DALE ENGLER, Clark county (1941; July 1, 1941). Ashland.  
B. S., K. S. C., 1940.
- HOY B. ETLING, Lane county (May 23, 1941). Dighton.  
B. S., K. S. C., 1939.

- 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); resigned, Aug. 17, 1941.  
Oberlin.  
B. S., K. S. C., 1934.
- RALPH L. GROSS, Rooks county (1940; Jan. 20, 1941). Stockton.  
B. S., K. S. C., 1940.
- PAUL BERNARD GWIN, Geary county (1921, 1925). Junction City.  
B. S., K. S. C., 1916.
- 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, 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, Meade county (1938; Nov. 19, 1940). Meade.  
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.
- ROLLA B. HOLLAND, Chautauqua county (1939); resigned, Dec. 12, 1941. 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, Jackson county (1935; Mar. 1, 1941). Holton.  
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, 1939). Hugoton.  
B. S., K. S. C., 1938.
- CHARLES I. KERN, Decatur county (1941; Aug. 18, 1941). Oberlin.  
B. S., K. S. C., 1940.
- OLIVER WILLARD KERSHAW, Smith county (1935, 1939). Smith Center.  
B. S., K. S. C., 1935.
- RICHARD FRANKLIN KING, JR., Allen county (1938; Apr. 1, 1941). Iola.  
B. S., K. S. C., 1938.
- ARTHUR WILLIAM KNOTT, Montgomery county (1927). Independence.  
B. S., University of Wisconsin, 1917.
- RALPH E. KRENZIN, Ellis county (1939; July 1, 1941). Hays.  
B. S., K. S. C., 1939.
- ROLAND A. KRUSE, Stanton county (1939; May 5, 1941). Johnson.  
B. S., K. S. C., 1940.
- ARTHUR F. LEONHARD, Coffey county (1939, 1940). Burlington.  
B. S., K. S. C., 1939.
- REUBEN CARL LIND, Marshall county (1933, 1939). Marysville.  
B. S., K. S. C., 1923.
- PHILIP WARNER LJUNGDAHL, Chase county (1936, 1939). Cottonwood Falls.  
B. S., K. S. C., 1936.
- CHARLES ENOCH LYNESS, Doniphan county (1923). Troy.  
B. S., K. S. C., 1912.
- VERL EPHRAIM McADAMS, Barton county (1934, 1939). Great Bend.  
B. S., K. S. C., 1928.
- RALPH WALDO McBURNEY, Graham county (1930; July 15, 1941). Hill City.  
B. S., K. S. C., 1927.
- FRANCES DEAN McCAMMON, Ford county (1934, 1936); resigned, June 20, 1941.  
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); resigned, Nov. 15, 1940.  
Meade.  
B. S., K. S. C., 1936.
- ERNEST LEE McINTOSH, Lyon county (1920, 1937). Emporia.  
B. S., K. S. C., 1920.
- ROBERT F. McNITT, Wallace county (1934; Apr. 1, 1941). Sharon Springs.  
B. S., K. S. C., 1933.
- M. NEAL McVAY, Lane county (1939, 1939); resigned, Apr. 10, 1941. Dighton.  
B. S., K. S. C., 1939.
- T. V. MARTIN, Hamilton county (Apr. 14, 1941). Syracuse.  
B. S., K. S. C., 1940.
- EARL THOMAS MEANS, Cowley county (1935, 1939); resigned, Feb. 28, 1941.  
Winfield.  
B. S., K. S. C., 1922.



- WILMER ABELE MEYLE, Atchison county (1934). Effingham.  
B. S., K. S. C., 1931.
- EDWARD F. MOODY, Phillips county (1939; Jan. 1, 1941). Phillipsburg.  
B. S., K. S. C., 1939.
- LAWRENCE DALE MORGAN, Sherman county (1933); resigned, Oct. 31, 1940.  
Goodland.  
B. S., K. S. C., 1935.
- HAROLD LEWIS MURPHEY, Comanche county (1930, 1936). Coldwater.  
B. S., K. S. C., 1928.
- GRAYSON E. MURPHY, Wallace county (1940, 1940); resigned, Sept. 30, 1941.  
Sharon Springs.  
B. S., K. S. C., 1940.
- HOWARD CECIL MYERS, Elk county (1938, 1939). Howard.  
B. S., K. S. C., 1938.
- PAUL HAROLD NELSON, Ellsworth county (1936; Nov. 6, 1940). Ellsworth.  
B. S., K. S. C., 1936.
- CHARLES HERMAN OLSON, Pottawatomie county (1938, 1939); resigned, June 16, 1941. Westmoreland.  
B. S., K. S. C., 1938.
- ROBERT THOMAS PATTERSON, Cherokee county (1928). Columbus.  
B. S., K. S. C., 1924.
- LEONARD WILLIAM PATTON, Greeley county (1933; June 9, 1941). Tribune.  
B. S., K. S. C., 1933.
- VICTOR E. PAYER, Woodson county (1939; Mar. 1, 1941). Yates Center.  
B. S., K. S. C., 1939.
- JOHN P. PERRIER, Ford county (1939; July 1, 1941). Dodge City.  
B. S., K. S. C., 1939.
- ALLISON GLENN PICKETT, Kiowa county (1935). Greensburg.  
B. S., K. S. C., 1935.
- EDWARD W. PITMAN, Nemaha county (1938; Apr. 1, 1941). Seneca.  
B. S., K. S. C., 1938.
- ROBERT LOUIS RAWLINS, Cowley county (1931; Mar. 17, 1941). Winfield.  
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, 1939). Garden City.  
B. S., K. S. C., 1937.
- VERLIN F. ROSENKRANZ, Saline county (1939; Mar. 21, 1941). Salina.  
B. S., K. S. C., 1939.
- BRACE D. ROWLEY, Haskell county (1941; June 1, 1941). Sublette.  
B. S., K. S. C., 1940.
- ARTHUR EUGENE SCHAFFER, Norton county (1937). Norton.  
B. S., K. S. C., 1937.
- WALTER O. SCOTT, Morris county (1939; Jan. 1, 1941). Council Grove.  
B. S., K. S. C., 1939.

- LESTER SHEPARD, Neosho county (1928). Erie.  
A. B., University of Iowa, 1913; B. S., Iowa State College, 1916.
- HAROLD D. SHULL, Washington county (1939, 1939). Washington.  
B. S., K. S. C., 1939.
- 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.
- BEVERLY D. STAGG, Chautauqua county (1940; Jan. 1, 1941). Sedan.  
B. S., K. S. C., 1940.
- ORIN GROVER STEELE, Lincoln county (1938, 1939). Lincoln.  
B. S., K. S. C., 1935.
- ALVIN HOWARD STEPHENSON, Sedgwick county (1935; Nov. 1, 1940). Wichita.  
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); resigned, Feb. 28, 1941.  
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, 1939). El Dorado.  
B. S., K. S. C., 1931.
- WARREN C. TEEL, Jefferson county (1939, 1939). Oskaloosa.  
B. S., K. S. C., 1939.
- OBED LEE TOADVINE, JR., Ness county (1934). Ness City.  
B. S., K. S. C., 1932.
- DWIGHT S. TOLLE, Osborne county (1939, 1939). Osborne.  
B. S., K. S. C., 1939.
- HAROLD OSMOND WALES, Crawford county (1936; Apr. 21, 1941). Girard.  
B. S., North Dakota Agricultural College, 1934; M. S., K. S. C., 1936.
- WILLIS R. WENRICH, Gray county (1939, 1939). Cimarron.  
B. S., K. S. C., 1939.
- HERMAN W. WESTMEYER, Barber county (1936, 1939). Medicine Lodge.  
B. S., University of Missouri, 1936.
- EARL LAVERNE WIER, McPherson county (1934). McPherson.  
B. S., K. S. C., 1931.
- CARL WILLIAMS, Clark county (1935); resigned, June 24, 1941. Ashland.  
B. S., K. S. C., 1932.

- RICHARD GORDON WILTSE, Miami county (1938); resigned, June 26, 1941. 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). La Crosse.  
B. S., K. S. C., 1931.
- JOSEPH ZITNIK, Wichita county (1936, 1940). Leoti.  
B. S., K. S. C., 1936.

**ASSISTANT COUNTY AGRICULTURAL AGENTS****Division of College Extension**

- DALE ALLEN, (1935); on leave, Feb. 1, 1941; resigned, June 30, 1941. Seneca.  
B. S., K. S. C., 1922; B. S., *ibid.*, 1941.
- M. C. AXELTON, (Apr. 14, 1941). Emporia.  
B. S., K. S. C., 1928.
- J. DEWEY AXTELL, (1940; Feb. 19, 1941); on leave, Sept. 6, 1941.  
B. S., K. S. C., 1939; M. S., *ibid.*, 1940.
- ROLLA E. BAUSMAN, (1935); resigned, Nov. 30, 1940. Parsons.
- FRANK G. BIEBERLY, (Sept. 29, 1941). Council Grove.  
B. S., K. S. C., 1938.
- GERALD J. BROWN, (1936); resigned, Aug. 1, 1941.  
B. S., K. S. C., 1936.
- EARL L. BUNDY, (Jan. 6, 1941). Anthony.  
B. S., Arkansas State College, 1940.
- GLENN M. BUSSET, (June 2, 1941). Topeka.  
B. S., K. S. C., 1941.
- LESLIE CLOW, (July 14, 1941); resigned, Aug. 13, 1941. Manhattan.  
B. S., K. S. C., 1940.
- EARL C. COULTER, (1939); resigned, Mar. 31, 1941. Marion.  
B. S., K. S. C., 1933.
- WILBUR W. DUITSMAN, (Sept. 29, 1941). Lyndon.  
B. S., K. S. C., 1940.
- DALE ENGLER, (Jan. 6, 1941); resigned, June 30, 1941. Marion.  
B. S., K. S. C., 1939.
- HO BART W. FREDERICK, (June 2, 1941). Dodge City.  
B. S., K. S. C., 1941.
- W. ALLAN GOODBARY, (Apr. 1, 1941).  
B. S., Oklahoma Agricultural and Mechanical College, 1941.
- LELAND L. GROFF, (June 2, 1941); resigned, June 7, 1941.
- DALE E. HALBERT, (1936). Hutchinson.  
B. S., K. S. C., 1933.
- CHARLES C. JONES, (1939). Hiawatha.



- EUGENE F. KEAS, (1938). McPherson.
- DONALD B. KINKAID, (Feb. 17, 1941). Altamont.  
B. S., K. S. C., 1940.
- LEWIS F. MADISON, (1940). Anthony.  
B. S., K. S. C., 1939.
- E. CLIFFORD MANRY, (1940). Larned.  
B. S., Oklahoma Agricultural and Mechanical College, 1940.
- HAROLD DOIG MARTIN, (Aug. 4, 1941). Effingham.  
B. S., K. S. C., 1940.
- EMORY L. MORGAN, (1939). Hiawatha.  
B. S., K. S. C., 1936.
- WENDELL A. MOYER, (July 21, 1941). Wellington.  
B. S., K. S. C., 1941.
- SHERYL A. NICHOLAS, (1940; Jan. 13, 1941); resigned, Sept. 6, 1941.  
B. S., K. S. C., 1940.
- ROBERT F. NUTTELMAN, (Sept. 8, 1941). Seneca.  
B. S., K. S. C., 1938.
- MELVIN C. POLAND, (Apr. 25, 1941); resigned, June 11, 1941. Topeka.  
B. S., K. S. C., 1940.
- KENNETH B. PORTER, (1940); resigned, June 10, 1941.  
B. S., K. S. C., 1940.
- RALPH W. RHODES, (July 15, 1941). Hiawatha.  
B. S., K. S. C., 1941.
- DONALD R. RICE, (1939); resigned, Mar. 22, 1941. Iola.
- CECIL E. RICHARDS, (1935). Iola.
- DEANE R. SEATON, (1939). Abilene.  
B. S., K. S. C., 1938.
- HAROLD C. STEVENS, (1936, 1939). Concordia.  
B. S., K. S. C., 1930.
- FRANK B. STUCKEY, (1936, 1939); resigned, Aug. 31, 1941. Leavenworth.
- MERLE B. THOMSON, (1937); resigned, Apr. 14, 1941. Topeka.
- ORVAL E. THRUSH (Apr. 14, 1941); resigned, Apr. 30, 1941.  
B. S., K. S. C., 1941.
- ABRAM B. THUT, (1936). Harper.
- FRANCIS J. TURNER, (1936). Manhattan.
- CORBIT WHITE, (Nov. 30, 1940); resigned, Feb. 14, 1941.  
B. S., University of Arkansas, 1940.
- RAY H. WHITENACK, (1937). Olathe.  
B. S., K. S. C., 1916.
- WAYNE C. WHITNEY, (1940). Kansas City.  
B. S., K. S. C., 1937.
- LOYD E. WILDMAN, (1940). Burlington.  
B. S., K. S. C., 1939.

SYLVESTER H. WOMER, (Jan. 2, 1941); resigned, Jan. 29, 1941.  
B. S., K. S. C., 1940.

CHARLES E. WORKS, (1941; Aug. 25, 1941). Belleville.  
B. S., K. S. C., 1941.

ROBERT L. ZILLIOX, (1939). Hays.

## COUNTY CLUB AGENTS

### Division of College Extension

WILLIAM G. ALSOP, Rice county (1939); resigned, Jan. 10, 1941. Lyons.  
B. S., K. S. C., 1939.

IVOR HAROLD DAVIES, Wyandotte county (1937, 1938); resigned, Mar. 31, 1941.  
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.

KENNETH E. JOHNSON, Labette county (1939, 1940); resigned, Feb. 21, 1941.  
Altamont.  
B. S., K. S. C., 1939.

CLAUDE LEWIS KING, Shawnee county (1934, 1936). Topeka.  
B. S., K. S. C., 1932.

RICHARD FRANKLIN KING, JR., Crawford county (1938, 1939); resigned, Mar. 31, 1941. Girard.  
B. S., K. S. C., 1938.

FREDERICK E. MEENEN, Wyandotte county (May 27, 1941). Kansas City.  
B. S., K. S. C., 1941.

ALBERT PEASE, Crawford county (May 5, 1941). Girard.  
B. S., K. S. C., 1932.

CHARLES W. PENCE, Labette county (Mar. 17, 1941). Altamont.  
B. S., K. S. C., 1938.

KENNETH B. PORTER, Rice county (1940; Jan. 11, 1941); resigned, Apr. 26, 1941. Lyons.  
B. S., K. S. C., 1940.

EUGENE WATSON, Rice county (May 15, 1941). Lyons.  
B. S., K. S. C., 1941.

## HOME DEMONSTRATION AGENTS

### Division of College Extension

ETHEL AVERY, Cherokee county (1940; Nov. 15, 1940). Columbus.  
B. S., K. S. C., 1940.

RUTH AVERY, Cowley county (1939, 1940). Winfield.  
B. S., K. S. C., 1939.

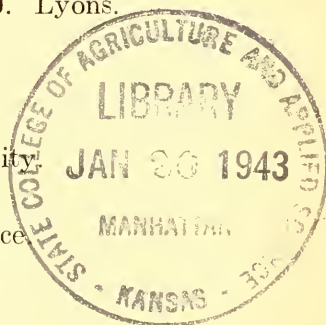
HELEN M. BLYTHE, Cloud county (1939, 1939). Concordia.  
B. S., K. S. C., 1937.

GRACE DOROTHY BRILL, Labette county (1936, 1939). Altamont.  
B. S., K. S. C., 1931; M. S., *ibid.*, 1932.

- ELLEN BROWNLEE, Pawnee county (1939; July 14, 1941). Larned.  
B. S., K. S. C., 1937.
- PAULINE CRAWFORD, Stafford county (1938, 1939). St. John.  
B. S., K. S. C., 1935.
- ELEANOR DALES, Wabaunsee county (1938, 1939). Alma.  
B. S., K. S. C., 1938.
- ANNABELLE J. DICKINSON, Allen county (1940; Jan. 15, 1941). Iola.  
B. S., Fort Hays Kansas State College, 1933.
- PAULINE DRYSDALE, Smith county (1938, 1939). Smith Center.  
B. S., K. S. C., 1938.
- VERNETTA FAIRBAIRN, Butler county (1928, 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, Miami county (1937, 1940). Paola.  
B. S., University of Nebraska, 1933.
- ISABEL GALLEMORE, Sumner county (1937; Dec. 1, 1940). Wellington.  
B. S., K. S. C., 1928; M. S., *ibid.*, 1932.
- MAE GORDON, McPherson county (1935, 1936); resigned, Nov. 9, 1940. McPherson.  
B. S., K. S. C., 1934.
- ALICE RUTH GULICK, Atchison county (1940, 1940). Effingham.  
B. S., K. S. C., 1940.
- GERSILDA GUTHRIE, Lyon county (1937, 1939). Emporia.  
B. S., K. S. C., 1934.
- AVIS HALL, Harper county (1938, 1940). Anthony.  
B. S., K. S. C., 1938.
- IDA HILDIBRAND, McPherson county (1940; Nov. 10, 1940). McPherson.  
B. A., Friends University, 1930.
- MAXINE HOFMANN, Saline county (1936, 1939); resigned, Jan. 31, 1941. Salina.  
B. S., K. S. C., 1936.
- MILDRED I. HOFMANN, Marion county (1938, 1939); resigned, Feb. 28, 1941.  
Marion.  
B. S., K. S. C., 1936.
- RUTH M. HOFSESS, Montgomery county (1938). Independence.  
B. S., K. S. C., 1938.
- IVA LUELLA HOLLADAY, Leavenworth county (1929). Leavenworth.  
B. S., K. S. C., 1929.
- RUTH KATHRINA HUFF, Doniphan county (1931, 1939). Troy.  
B. S., K. S. C., 1919.
- 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, 1937). Eureka.  
B. S., K. S. C., 1923; M. S., *ibid.*, 1936.
- NAOMI JOHNSON, Neosho county (1938, 1938). Erie.  
B. S., K. S. C., 1932.
- EDITH KELLEY, Cheyenne county (1938, 1939). St. Francis.  
B. S., Baker University, 1937.
- GRACE KELLOGG, Marion county (1940; Mar. 1, 1941). Marion.  
B. S., K. S. C., 1940.
- LEOLA KIRK, Saline county (May 12, 1941). Salina.  
B. S., Oklahoma Agricultural and Mechanical College, 1933.
- ALICE L. LANZ, Franklin county (1940; Jan. 20, 1941). Ottawa.  
B. S., University of Missouri, 1939.
- NELLIE LINDSAY, Rawlins county (1941; Sept. 10, 1941). Atwood.  
B. S., Pittsburg State Teachers College, 1935.
- FLORENCE LOVEJOY, Ellsworth county (1939, 1939). Ellsworth.  
B. S., K. S. C., 1939.
- HELEN MACAN, Osborne county (1940, 1940). Osborne.  
B. S., K. S. C., 1939.
- ELLA MABEL MEYER, Rice county (1932); resigned, Dec. 19, 1940. Lyons.  
B. S., K. S. C., 1907.
- ESTHER I. MILLER, Pratt county (1939, 1939). Pratt.  
B. S., K. S. C., 1939.
- MURIEL MORGAN, Ford county (1938; May 26, 1941). Dodge City.  
B. S., K. S. C., 1934.
- VERA L. MORGAN, Douglas county (1940; Nov. 1, 1940). Lawrence.  
B. S., K. S. C., 1940.
- IRENE MORRIS, Morris county (1937, 1938). Council Grove.  
B. S., K. S. C., 1934.
- EDYTHE LAVERNE PARROTT, Crawford county (1936, 1937). Girard.  
B. S., K. S. C., 1929.
- MINNIE BELLE PEEBLER, Sumner county (1932, 1937); resigned, Nov. 15, 1940.  
Wellington.  
B. S., University of Oklahoma, 1924; M. A., University of Colorado, 1929.
- KATHRYN PETERMAN, Ford county (1937, 1937); resigned, Apr. 30, 1941. Dodge  
City.  
B. S., K. S. C., 1936.
- FLORENCE PHILLIPS, Rawlins county (1936, 1937); resigned, Sept. 9, 1941.  
Atwood.  
B. S., K. S. C., 1936.
- MARY AGNES RADELL, Wyandotte county (1939, 1939). Kansas City.  
B. S., Kansas State Teachers College, Pittsburg, 1937.
- EVELYN E. REBER, Wilson county (1939, 1939). Fredonia.  
B. S., K. S. C., 1934.
- JUANITA LOUISE RILEY, Chase county (1939, 1939). Cottonwood Falls.  
B. S., K. S. C., 1939.



- CHRISTINE E. ROBINSON, Edwards county (1940, 1940). Kinsley.  
B. S., K. S. C., 1938.
- ELIZABETH RONIGER, Rice county (1936; Jan. 15, 1941). Lyons.  
B. S., K. S. C., 1933.
- ANNA RUESCHHOFF, Dickinson county (1936, 1937). Abilene.  
B. S., K. S. C., 1936.
- ANNA SCHOLZ, Bourbon county (1940; July 14, 1941). Fort Scott.  
B. S., K. S. C., 1940.
- BERNIECE E. SLOAN, Johnson county (1935, 1939). Olathe.  
B. S., K. S. C., 1928; M. S., *ibid.*, 1939.
- EDNA SMITH, Kiowa county (1940, 1940). Greensburg.  
B. S., K. S. C., 1928.
- MARY ETHEL STEWART, Finney county (1938, 1939). Garden City.  
B. S., K. S. C., 1938.
- LEONA ZOE TIBBETTS, Douglas county (1938, 1940); resigned, Oct. 31, 1940.  
Lawrence.  
B. S., K. S. C., 1938.
- MARGUERITE WHITTEN, Reno county (1938, 1938). Hutchinson.  
B. S., K. S. C., 1936.
- LAURA B. WILLISON, Sedgwick county (1937, 1939). Wichita.  
B. S., K. S. C., 1911.
- MARY DUNLAP ZIEGLER, Shawnee county (1928, 1930). Topeka.  
B. S., K. S. C., 1916.

### ASSISTANT HOME DEMONSTRATION AGENTS

#### Division of College Extension

- PAULINE M. BORTH, (June 2, 1941).  
B. S., K. S. C., 1941.
- BLANCHE BROOKS, (July 28, 1941).  
B. S., K. S. C., 1925.
- ISABEL N. DODRILL, (July 28, 1941).  
A. B., Fort Hays Kansas State College, 1937; B. S., K. S. C., 1941.
- RACHEL FEATHERINGILL, (May 27, 1941).
- ALBERTA L. PULLINS, (May 27, 1941); resigned, June 8, 1941.  
B. S., K. S. C., 1941.
- ANNE WASHINGTON, (Sept. 2, 1941).  
B. S., K. S. C., 1933.

## Standing Committees of the Faculty

ADMISSION: Jessie McD. Machir, L. M. Jorgenson, 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, G. A. Sellers, 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: Helen Moore, S. A. Nock, Frank L. Myers, Alpha Latzke, J. H. Robert, C. W. Mullen, R. P. Link.

CATALOGUE: S. A. Nock, I. V. Iles, J. O. Faulkner, E. T. Keith, Fritz Moore.

COMMUNITY CHEST EXECUTIVE: F. L. Parrish, H. T. Hill, Helen Moore, F. D. Farrell, A. A. Holtz, Jessie McD. Machir, Erma Murray.

CONTROL: I. V. Iles, Margaret M. Justin, R. A. Seaton, R. R. Dykstra, Helen Moore, R. J. Barnett.

EXAMINATIONS: A. E. White, C. W. Colver, B. B. Brainard.

FACULTY COUNCIL ON STUDENT AFFAIRS: Helen Moore, A. A. Holtz, L. E. Conrad, L. P. Reitz, Grace E. Derby, Harold Howe, LeVelle Wood, Jack Gardner.

FACULTY LOAN FUND: R. R. Dykstra, Helen Moore, 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 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, Bernice Kunerth.

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

RESIDENCE STATUS: S. A. Nock, W. F. Pickett, R. M. Kerchner, Martha S. Pittman, R. R. Dykstra, 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: Helen Moore, 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, Helen Moore, M. F. Ahearn, M. W. Husband, Bessie Brooks West.

STUDENT HONORS: R. F. Morse, R. W. Conover, B. L. Remick, A. B. Cardwell, W. F. Pickett, Martha S. Pittman.

USE OF ROOMS: R. A. Seaton, R. I. Throckmorton, Margaret M. Justin, A. E. White, S. A. Nock.

VOCATIONAL GUIDANCE: Helen Moore, 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**

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## **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.

## **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 instruction 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. 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, 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

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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. 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.

*Auditorium.* Erected, 1904.

*Calvin Hall.* Named in honor of Frances Henrietta Willard Calvin (1865—), librarian of the College, 1901-1903; professor of domestic science, 1903-1908. Erected, 1908. Division of Home Economics.

*Chemical Engineering Hall.* Erected, 1904.

*Dairy Barn.* Erected, 1933.

*Dickens Hall.* Named in honor of Albert Dickens (1867-1930), assistant in horticulture, 1899-1901; professor of horticulture, 1901-1930. Erected, 1907.

*Education Hall.* Erected, 1900.

*Engineering Hall.* Erected, 1909, 1921. Division of Engineering.

*Engineering Shops.* Erected, 1875, 1890, 1900, and 1905.

*Fairchild Hall.* Named in honor of George Thompson Fairchild (1838-1901), third president of the College, 1879-1897. Erected, 1894, 1903, and 1927. Division of Graduate Study.

*Farm Machinery Hall.* Erected, 1873.

*Heat, Power, and Service Building.* Erected, 1928.

*Horticulture Barn.* Erected, 1917.

*Illustrations Hall.* Erected, 1876.

*Infirmery.* Erected, 1866; enlarged, 1919.

*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.

*Library.* Erected, 1927.

*Mathematics Hall.* Erected, 1876.

*Memorial Stadium.* Erected, 1922, 1924.

*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.

*Nurses' Quarters.* Erected, 1888.

*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, 1891-1935; dean, Division of General Science, 1909-1930; vice-president, 1918-1935; college historian, 1936—. Completed, 1939.

*President's House.* Erected, 1923.

*Thompson Hall.* Named in honor of Helen Bishop Thompson (1875—), assistant in preparatory department, 1903-1907; professor of nutrition and dietetics, 1918-1922; professor of food economics and nutrition, 1922-1923; dean of the Division of Home Economics, 1918-1923. Erected, 1922.

*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, 1908-1940. Erected, 1926.

*Veterinary Hall.* Erected, 1908. Division of Veterinary Medicine.

*Veterinary Hospital.* Erected, 1923.

*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. Division of Agriculture.

*Experiment Station Building.* Erected, 1918.

*General-purpose Building.* Erected, 1918.

*Greenhouses.* Erected, 1910, 1927.

*Plant Museum.* Erected, 1907.

*Pump House.* Erected, 1924.

*Sheep Barn.* Erected, 1927.

*Shop Warehouse.* Erected, 1918.

*Tractor Laboratories.* Erected, 1918.

*Veterinary Research Laboratory Buildings.* Erected, 1914.



## Admission

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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. The 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 curriculums in Milling Industry and Veterinary Medicine is limited, students who wish to be admitted to those curriculums should read the statements entitled "Milling Enrollment Limited" and "Veterinary Enrollment Limited," under the divisions of Agriculture and 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 and Accounting (4 years)
- Dairy Manufacturing (4 years)
- Dietetics and Institutional Management (4 years)
- Floriculture and Ornamental Horticulture (4 years)
- Home Economics (4 years)
- Home Economics and Art (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 Adaptation (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)

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)
- Landscape Design (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 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. He 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.

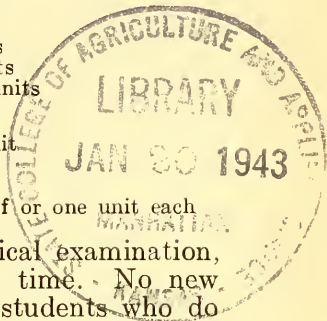
A student without high-school credit in one unit of algebra and one unit of geometry is not permitted to register for an engineering curriculum, the Curriculum in Industrial Chemistry, or the Curriculum in Milling Industry, until those fixed requirements are completed. Geometry, one unit, is offered 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	} 1 unit
		twelve weeks each, or	
		two of these, eighteen weeks each	
GROUP VII	.....	*Agriculture, one-half to four units	
	INDUSTRIAL	*Drawing, one-half or one unit	
	SUBJECTS	*Forging, one-half or one unit	
		*Home Economics, one to four units	
		*Printing, one-half, one, or two units	
		*Woodwork, one-half, one, or two units	
GROUP VIII	.....	Bookkeeping, one-half or one unit	
	COMMERCIAL	Commercial geography, one-half unit	
	SUBJECTS	Commercial law, one-half unit	
		Salesmanship, one-half unit	
		*Shorthand and typewriting, one-half or one unit each	



Every undergraduate student must have a complete physical examination, 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 requirements 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 the date of enrollment cannot be evaluated before the opening of College. An applicant from another state may 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. 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

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\* 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.



the dean of the division in which his major work is to be done, and the dean must approve each assignment. Such a permit is good for one semester only, but may be renewed in succeeding semesters.

Special students must present certificates of their preliminary training, and must give evidence of satisfactory preparation for the courses they wish to pursue. They are subject to all the general regulations and requirements of regular students, such as assignment to physical education and military training, payment of fees, regular attendance at classes, and maintenance of satisfactory scholastic standing.

**ADMISSION WITH ADVANCED CREDIT.** The applicant must 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 the date of enrollment.

In general, no student will be admitted to the College unless he is eligible to return to the institution 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 is specified.

**NOTE:** Transcripts of credits must come to the Committee on Advanced Credit directly from the institutions issuing them. 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 in 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  
 Hesston College, Hesston  
 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  
 Pratt Junior College, Pratt

##### PRIVATE

Central Academy and College, McPherson  
 College of Paola, Paola  
 Sacred Heart, Wichita  
 Saint John's College, Winfield  
 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 anyone assigned after the time set for the close of registration (see the College calendar).

## Undergraduate Degrees

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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 resident undergraduate work at this institution. Resident work includes 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; Dairy Manufacturing; Floriculture and Ornamental Horticulture; Landscape Design)
- 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; Dietetics and Institutional Management)
- 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

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### 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, 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 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, the student-union 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 FEE.** Undergraduate students pay a student-health fee of \$5 a semester, or \$2 for the nine-week summer school, for which they get the services of the Department of Student Health. Graduate students may pay the fee and get the same services. Graduate students carrying not fewer than ten hours during a semester or not fewer than six hours in summer school may receive the same services if they pay the student-health fee at the time of registration.

**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, plus tax, collected by the College with the fees levied by the state. Payment of the student-activity fee gives admission to athletic contests and to plays presented by the Manhattan Theater, membership in the Student Governing Association, and subscriptions 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 enjoying its benefits. In the nine-week summer school, every student pays a student-activity fee of \$1, plus tax.

**STUDENT UNION FEE.** In accordance with a vote by the student body and with section 4 of chapter 364 of the Kansas Session Laws of 1941, each student pays a student union fee of \$5 a semester or \$2 for the nine-week summer session. The fund so collected is to be used to provide a student union building.

**RECAPITULATION.** To make clear the amount of fees due at the opening of each semester of the College year, exclusive of laboratory charges and deposits, 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
Student Union (one semester).....	5.00	5.00
<b>Totals .....</b>	<b>\$52.50</b>	<b>\$42.50</b>

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
Student Union (one semester).....	5.00	5.00
<b>Totals .....</b>	<b>\$112.50</b>	<b>\$92.50</b>

**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 CHARGES AND DEPOSITS. 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 .....	\$20.00	\$11.00
Agricultural Engineering .....	14.50	15.00
Agriculture .....	20.00	11.00
Applied Music (not incl. sheet music and private lessons) .....	5.75	5.75
Architectural Engineering .....	12.00	13.50
Architecture .....	5.50	7.00
Business Administration .....	3.75	3.75
Business Administration and Accounting.....	3.75	3.75
Chemical Engineering .....	14.50	15.50
Civil Engineering .....	13.00	12.00
Dairy Manufacturing .....	19.50	15.00
Dietetics and Institutional Management.....	18.00	13.25
Electrical Engineering .....	14.50	17.50
Floriculture and Ornamental Horticulture.....	18.00	9.50
General Science .....	17.25	17.25
General Science Preveterinary.....	14.75	16.75
Home Economics .....	18.00	13.25
Home Economics and Art.....	18.00	13.25
Home Economics and Nursing.....	17.00	12.75
Industrial Arts .....	17.00	16.50
Industrial Chemistry .....	13.75	13.75
Industrial Journalism .....	15.50	6.75
Landscape Design .....	18.00	9.50
Mechanical Engineering .....	14.50	14.50
Milling Industry .....	16.50	6.50
Music Education (not incl. sheet music and private lessons) .....	6.00	5.75
Physical Education for Men.....	14.75	6.75
Physical Education for Women.....	12.75	6.75
Veterinary Medicine .....	20.25	22.75

MILITARY UNIFORM. Every 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. The War Department makes an allowance toward the cost of the uniform used in advanced courses.

LATE ASSIGNMENT FEE. Except in summer school, the fee for assignment after the close of the regular registration period is \$2.50.

AUDITION FEE. To persons not enrolled in or employed by the College, the fee for auditing classes is one dollar the semester hour of the course audited.

COMMENCEMENT FEE. On graduation and on receiving advanced degrees, students pay a commencement fee of \$7.50 to cover the cost of the diploma and commencement activities.

TRANSCRIPT FEE. Rules governing issuance of transcripts of record:

1. Students may have one transcript in duplicate without charge.
2. Each additional transcript in duplicate costs 25¢ for each year's record.

No student may get his degree or transcript 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. 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; 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 are 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.** Every woman taking physical education must have an approved gymnasium suit costing about \$2.75. In the major course the suit costs \$6.75.

The gymnasium suit for a man costs about \$3.50. In the major course the suit costs \$9.

**ROOMS.** Van Zile Hall is a residence for 130 women. Other rooms are not furnished by the College, but many 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 student's 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. No student is advanced in classification until he has completed these tests.



## 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. As 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 or dean 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 drop subjects from 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. Grades below passing of students withdrawing from college during the eighth and ninth weeks or the seventeenth and eighteenth weeks of a semester are recorded as midsemester or semester grades. 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 semester 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. After two automatic probations, or one probation and one dismissal, or two dismissals, any subsequent probation will result in automatic dismissal. The deans notify parents and guardians when students are dismissed.

### 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

Every student must appear at the first meetings 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 enrolls 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 a credit hour each semester, and no grades below passing.

All absences must be promptly reported on 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, at the discretion of the instructor, have his record of absence changed if at the end of the class he gives the instructor, on an 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 schedule (see College Calendar); students who are to be graduated at the close of the semester take their examinations earlier, usually at the regular hour for the respective courses.

No examination is given earlier than 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.

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 student. 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.

### 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 of F, Con, 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. Passing grades are not sent to students or parents unless a self-addressed, stamped envelope is left with the registrar with a request for grades.

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, except that grades below passing of students withdrawing from College during the eighth and ninth weeks or the seventeenth and eighteenth weeks of a semester are recorded as midsemester or semester grades. Regardless of the time of withdrawal, however, a final grade shall be reported, if all the required work of a course has been completed. If a student goes through the first half of the semester, but not the second half, a half-semester grade is reported for record, and designated as such; but a subject dropped at any time after midsemester on account of failure is given a semester grade of F.

In case of absence from a final examination, no semester grade is reported until the reason for such absence has been learned; within the week after the end of the semester, however, the instructor reports to the registrar a mark of Inc. If the student's absence is inexcusable, a semester grade is reported on the basis of zero for the final examination; but if the absence is excused or excusable, a reasonable time, usually not over one month, is allowed within which the examination may be taken.

The result of an examination to remove a condition is reported in quadruplicate to the dean of the student, who transmits copies to the registrar, the student, and the student's assigner. 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 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:

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

To obtain credit in 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.

### CIVIL PILOT TRAINING PROGRAM

The college coöperates with the Civil Aeronautics Administration in offering the ground-school work and supervising the general operations of both primary and advanced Civil Pilot Training Programs. The flight training for these programs is carried on at the Manhattan Municipal Airport, five miles southwest of the city on U. S. highway 40.

Students are chosen for this training largely upon a basis of college classification and scholastic record, in accordance with quotas set by the Civil Aeronautics Administration.

Professor C. E. Pearce, Head of the Department of Machine Design, is Coördinator of Civil Pilot Training at the college and should be consulted for detailed information.

### DEFENSE TRAINING AT K. S. C.

The College is participating in the national defense training program as authorized by Congress and administered by the U. S. Office of Education. The purpose of this program is to offer short courses of college grade in an effort quickly to supply the urgent need for trained help in industry and government which is required to carry on the rapidly expanding defense program.

There are no restrictions as to age, color, or sex, but there are certain definite educational and experience requirements, depending on the course.

Practically all the courses cover a period of twelve weeks, requiring about thirty-six hours a week of class and laboratory work with about twelve hours of outside preparation a week.

### 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 and Architecture.

### COLLEGE POST OFFICE

The College operates an office for the reception and delivery of mail. This is not a part of the United States postal service, but students and College officers may have their mail delivered there. Mail arrives from the Manhattan post office twice a day. 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 disabled 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. 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. 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 suitably furnished, well-equipped fireproof building of stone. Applications for rooms are considered in the order in which they are received. No applications will be accepted before January 1 of the year in which admission to the dormitory is desired. A deposit of \$10 is required to validate an application for residence in the hall; it will be refunded in case of a change of 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 cooperation 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

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### THE STUDENT GOVERNING ASSOCIATION

The governing association of the student body was organized in the spring of 1919, as the Student Self-governing Association, and reorganized in the spring of 1926 as the Student Governing Association.

The executive council of the association consists of seven members, elected by the student body each spring for the following school year. The council discharges all executive functions of the association, and sits as a court in disciplinary cases. Actions of the council are subject to approval by the faculty council. In cases of disagreement which are not compromised successfully, the decision of the president of the College is final.

Officers of the association are president, vice-president, secretary, and treasurer, elected by the council. Though the council sits as a committee of the whole in all its affairs, certain members are put in charge of certain activities, such as discipline, social affairs, etc. Membership in the student association follows 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. 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.

### OTHER RELIGIOUS ORGANIZATIONS

The Religious Federation of Kansas State College is composed of representatives of the College Y. M. C. A. and Y. W. C. A., and students in all church groups that wish to coöperate. Each fall the Federation sponsors Christian Affirmation Week; and during the year it fosters four union meetings of all the coöperative groups. It also promotes many activities of the member groups.

There are thirteen recognized religious organizations for College students sponsored by various Manhattan churches.

## HONOR SOCIETIES

### ALL-COLLEGE

Phi Kappa Phi. A national fraternity. Membership is open to honor students in all departments, on the basis of scholarship. The Kansas State chapter was installed in 1915.

Sigma Xi. A national fraternity. Members of the faculty and graduate students are eligible for election to active membership on the basis of achievement in original scientific investigation; seniors who have shown excellence in two departments of science are eligible for election to associate membership. The Kansas State chapter was installed in 1928.

### DIVISIONAL

Alpha Zeta. A national fraternity. Students in agriculture with outstanding records in extracurricular activities who rank scholastically in the upper two-fifths of their class are eligible for election to membership. The Kansas State chapter was installed in 1909.

Gamma Sigma Delta. A national fraternity. Seniors in agriculture and agricultural engineering, and fourth-year veterinarians are eligible for election by the faculty members of the local chapter on the basis of scholarship. The Kansas State chapter was installed in 1914.

Omicron Nu. A national sorority. A percentage of seniors and juniors in home economics are eligible for election to membership by the active faculty and student members of the local chapter on the basis of scholarship, leadership, and research in home economics. The Kansas State chapter was installed in 1915.

Sigma Tau. A national fraternity. Juniors and seniors in engineering and architecture are eligible for election to membership on the basis of scholarship, sociability, and practicality. The Kansas State chapter was installed in 1912.

## PROFESSIONAL ORGANIZATIONS

Election to membership is based on unusual achievement.

Alpha Kappa Psi.....	Business Administration
Alpha Mu .....	Milling
Eta Kappa Nu.....	Electrical Engineering
K Fraternity .....	Athletics
Mortar and Ball.....	Military
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
Pi Tau Sigma.....	Mechanical Engineering
Quill Club .....	Writing
Scabbard and Blade.....	Military
Sigma Delta Chi.....	Journalism, Men
Steel Ring .....	Engineering
Tau Epsilon Kappa.....	Architecture
Theta Sigma Phi.....	Journalism, Women

## HONORARY ORGANIZATIONS

Election to membership is based on leadership in student affairs.

Blue Key .....	Senior Men
Mortar Board .....	Senior Women

## 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 regularly once a month. All 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.

Departmental clubs of the division are the Agricultural Economics Club, Block and Bridle Club (animal husbandry), Dairy Club, Horticultural Club, Klod and Kernel Klub (agronomy), and the Poultry Club. Membership in these clubs is open to students and faculty of the division who are specially interested in the fields represented by the respective clubs.

The object of the clubs is to expand the interest and familiarity of the students in the fields and industries most closely related to the department in which they are majoring. Meetings and social affairs further the acquaintance of faculty and students. Student officers preside at the meetings and plan the programs, many of which are presented by students, though frequently faculty members or other speakers participate. Usually a student belongs to the club representing the department in which he is majoring, while many belong to more than one.

### ENGINEERING SOCIETIES

All students enrolled in the Division of Engineering and Architecture are members of the Engineering Association, which usually meets once each month. 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. Students in architecture are organized as a student branch of the American Institute of 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.

### THE FLYING WILDCATS

The Flying Wildcats is the organization of students enrolled in the Civilian Pilot Training Program.

### 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 Tuesdays 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, there are intramural sports and varsity games. 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.

Women as well as 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**

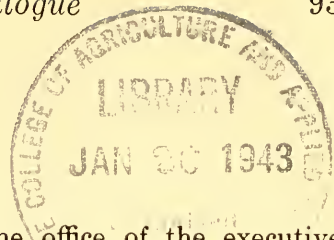
The literary societies of the College, four in number, are wholly student organizations, holding weekly meetings in the College buildings. The Ionian and Browning societies admit only women to membership; the Hamilton and Athenian societies admit only men. These societies jointly maintain an oratorical 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 Alumni Association of Kansas State College, Anderson Hall. A student wishing to apply for a loan from any fund listed below should address his request to Kenney L. Ford, secretary, Alumni Association, K. S. C.

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 parent 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, senior, 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 FUND

**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 \$82,000, 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.

Acknowledgement of additions to the life membership fund is made in this place from year to year. Since the last report, up to and including October 1, 1941, the following alumni have completed payments for life membership: Joyce Ansdell, Herb J. Barr, Floyd W. Berger, Francis L. Blaesi, Charles W. Bower, Dee Bowyer, Beth Byers, Lester Chilson, F. Monroe Coleman, Helen Dean, Homer Drier, Grace H. Dunlap, Vera Ellithorpe, Henry T. Enns, Katrina Eskeldson, T. M. Evans, John M. Ferguson, L. K. Firth, Kenneth A. Fisher, C. A. Frankenhoff, F. G. Gillett, E. Weir Hall, A. Martin Hanke, May Harland, Harold B. Harper, I. Keith Harrison, Mary J. Hill, Foster A. and Stella Baker Hinshaw, Leland S. Hobson, Maxine Hofmann, M. M. and Luella Schaumburg Hoover, Warren C. Jackson, Frank Larner, Glenn R. Long, Florence Lovejoy, Florence McKinney, C. C. and Vera Samuel McPherson, Hubert C. Manis, Fred Masek, Kenneth W. Miller, Madeline W. Milner, Paul C. Milner, Charles E. Mitchell, S. M. Mitchell, Royse P. Murphy, Margaret Newcomb, Paul T. Nomura, J. E. and Della Justice Norton, Oscar W. Park, V. Eugene Payer, Helen E. Paynter, Robert H. Perrill, Ruby Randall, Kenneth Rector, Guy C. Rexroad, Irving C. Root, Charles F. Sardou, Harold Scanlan, Karl G. Shoemaker, Evelyn Stout, Harry G. Walker, Max and Marjorie Cooper Wann, Byron K. Wilson, Edwin Winkler and T. F. Yost. This list brings the total of paid up life members to 1,079.

### 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:

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

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

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

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

ARTHUR F. CORLETT MEMORIAL. \$100, given by his sister, Christine M. Corlett, '91.

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

ALBERT DICKENS, '93, MEMORIAL. \$1,962.70, contributed by friends, alumni, and faculty members.

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

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

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

SAMUEL AND ELEANOR THACKREY MEMORIAL. \$746.75, given by their descendants.

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

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.

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

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

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

ALBERT DEITZ, '85, \$132.78.

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

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

DR. J. H. OESTERHAUS, '01, \$100.

WILLIAM VOLKER FUND. \$2,000. \$1,000, given by William Volker, and \$1,000, by H. W. Luhnnow, '17.

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

#### OTHER UNITS IN THE ALUMNI LOAN FUND

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

COSMOPOLITAN CLUB. \$750, for foreign members of the Cosmopolitan Club.

4-H CLUB. \$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.

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

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

**KANSAS CONGRESS OF PARENTS AND TEACHERS, INC., UNIT.** \$200, for students preparing to be teachers.

**KANSAS POTATO SHOW INCORPORATION,** \$477.17, for graduate students whose research problem is on some phase concerning the production, marketing or use of Irish potatoes or sweet potatoes.

**KANSAS STATE HORTICULTURAL SOCIETY.** \$500, for students in the Department of Horticulture.

**KLOD AND KERNEL KLUB UNIT.** \$600, for students in the Department of Agronomy.

**MANHATTAN CHAMBER OF COMMERCE.** \$3,023.72.

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

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

**TOPEKA HOME ECONOMICS CLUB UNIT.** \$50, for students in Home Economics graduated from any high school in Shawnee county.

**CLASSES:**

Class of 1916, \$150.00.

Class of 1926, \$9.13.

Class of 1923, \$76.16.

Class of 1927, \$3.10.

Riley County Alumni Unit, \$6.08.

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

Class of 1919, \$700.59.

Class of 1936, \$111.50.

Class of 1922, \$106.39.

Class of 1938, \$135.05.

Class of 1929, \$758.73.

Class of 1939, \$45.26.

Class of 1930, \$728.54.

Class of 1940, \$15.82.

Class of 1931, \$666.72.

Class of 1941, \$66.49.

Class of 1932, \$759.01.

Architectural Unit, \$20.00.

Class of 1935, \$57.50.

### 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.

HOUSEMOTHER'S 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. Winners of these scholarships must enroll in the Division of Agriculture. 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. Application for these scholarships is made through the county agent.

**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 someone 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.

**EASTERN STAR.** The Grand Chapter of Kansas, Order of the Eastern Star, has made available a scholarship of \$100, to be given on merit only to a junior for use in the senior year. The winner is selected by the college and approved by the Scholarship Board of the Grand Chapter. Those eligible are Masons, members of the Order of the Eastern Star, children of Masons of Kansas, and children of members of the Order of the Eastern Star of Kansas.

### 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

**KLOD 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 freshman, 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. N. D. Harwood, '18.** \$7.50 and \$7.50; to second-year students ranking highest in anatomy and in physiology.

**Dr. Benjamin F. Pfister, '21, and Dr. Earl F. Hoover, '24.** \$10 and \$5; to third-year students ranking highest in therapeutics.

**Dr. O. M. Franklin, '12.** \$10 and \$5; to fourth-year students ranking highest in pathology.

**Dr. C. W. Bower, '18.** \$10 and \$5; to fourth-year students leading in work in small animal clinic.

**Kansas Veterinary Medical Association.** \$15 and \$10; as prizes in general proficiency; to fourth-year students.

### MEDALS

**BLOCK AND BRIDLE CLUB.** Gold, silver, and two bronze; for stock judging.

**STUDENT DAIRY CLUB.** Gold, silver, and bronze; for dairy judging.

**ALPHA ZETA.** To the Agricultural student ranking highest in scholarship in the freshman year.



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 HANSON  
 Assistant Physician MONTGOMERY-SHORT  
 Assistant Physician WOODS  
 Assistant Physician HUGHES  
 Consulting Radiologist G. M. TICE

Head Dispensary Nurse BUECHEL  
 Head Hospital Nurse PHILLIPS  
 Nurse McGRATH  
 Nurse OLNEY  
 Nurse HERMON  
 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 special services, which are optional: (1) for X rays: \$1 for large-sized films, 50 cents for medium-sized films, 25 cents for small-sized films, and 10 cents for single dental 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 CULLIPHER  
Assistant Loan Librarian PETERS

Head Cataloguer BAKER  
Assistant Cataloguer MULLER  
Documents Cataloguer ROBERTS  
Continuations Assistant BAXTER  
Class Reserves Assistant DILLER  
Class Reserves Assistant OWSLEY

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, 1941, the Library contained 129,555 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

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.

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.

### 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) 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; (4) graduate assistants may pay incidental fees on an hourly basis, provided that they do not enroll for more than ten hours during a semester, nor more than six hours during a nine-week summer school.

### ASSIGNMENTS

Not more than sixteen hours, including research, may be assigned in a single semester, nor more than nine 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.

### 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

\* 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.

have been made in advance for the conferring of the degree *in absentia*. Applications 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 student's time is devoted to his major subject and one-third to one or more minor subjects. The word subject is used to designate a recognized field of study, and is not defined by the limits of a department. The nature and distribution of the majors and minors (program of study) are approved by the Graduate Council, upon the recommendation of the major instructor and the head of the department (M.S.), or of the supervisory committee (Ph.D.).

The approved program of study is 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 SCIENCES:

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

\* In graduate work in education, major emphasis is placed upon rural and vocational education.



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 academic 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, or four four-week and one 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. On completion, the thesis must be approved by the major instructor, the head of the department, and the Graduate Council.

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, Milling Industry, and Parasitology. 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.

**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 depart-



ment 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. Three 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, two copies 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 bond acceptable to the Graduate Council. If the thesis is not published in acceptable form within three years, 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. If publication of the thesis, entire or in part, is desired before the degree is conferred, permission must be obtained from the Graduate Council.

### 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, this credit, which is assessed on a pro rata basis, 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, on an hourly basis, 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 requirement 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
Bacteriology .....	2
Botany .....	1
Chemistry .....	5
Child Welfare .....	2
Civil Engineering .....	2
Dairy Husbandry .....	1
Entomology .....	1
Geology .....	1
Horticulture .....	2
Institutional Management .....	2
Machine Design .....	1
Mechanical Engineering .....	1
Milling Industry .....	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 Engineering .....	1
Agronomy .....	1
Animal Husbandry .....	2
Applied Mechanics .....	1
Botany .....	1
Clothing and Textiles .....	1
Horticulture .....	1
Shop Practice .....	1
Zoölogy .....	4

Industrial assistantships and fellowships:

<i>Subject</i>	<i>Number</i>
Agricultural Economics .....	1
Agronomy .....	5
Applied Mechanics .....	1
Chemical Engineering .....	2
Chemistry .....	1
Entomology .....	2
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

All divisions of the College offer graduate work in the summer school. Only under special conditions, however, can a student complete requirements for the master's degree without spending an academic year in residence. For information about exceptions to the rule, one should address the Dean of the Division of Graduate Study.

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, 1942

- May 27, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.  
 June 6, Saturday.—Preliminary reports on Masters' theses are due.  
 June 9, Tuesday.—Lecture on Thesis Preparation. 4 p. m. W 101.  
 June 24, Wednesday.—Doctors' theses are due.  
 June 26, Friday.—Masters' examinations may begin. Abstracts of theses due one week before examination.  
 July 11, Saturday.—Masters' theses approvals are due.  
 July 18, Saturday.—Final copies of Masters' theses are due.  
 July 21, Tuesday.—Last day for Masters' examinations.  
 July 24, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.

## FIRST SEMESTER, 1942-1943

- September 14, 15, and 16, Monday, Tuesday, and Wednesday.—Registration and assignment of graduate students.  
 December 5, Saturday.—Programs of study are due from candidates for the Master's Degree in 1943.

## SECOND SEMESTER, 1942-1943

- February 2, 3, and 4, Tuesday, Wednesday, and Thursday.—Registration and assignment of graduate students.  
 February 23, Tuesday.—Lecture on Thesis Prereparation. 4 p. m. W 101.  
 March 19, Friday.—Preliminary reports on Masters' theses are due.  
 April 19, Monday.—Masters' examinations may begin. Abstracts of theses due one week before examination.  
 May 1, Saturday.—Doctors' theses are due.  
 May 15, Saturday.—Masters' theses approvals are due.  
 May 22, Saturday.—Final copies of Masters' theses are due.  
 May 25, Tuesday.—Last day for Masters' examinations.  
 May 30, Sunday.—Baccalaureate services at 7:30 p. m.  
 May 31, Monday.—Eightieth annual Commencement at 7:30 p. m.

## SUMMER SCHOOL, 1943

- June 2, Wednesday.—Registration of students for nine-week Summer School begins at 8 a. m.  
 June 12, Saturday.—Preliminary reports on Masters' theses are due.  
 June 15, Tuesday.—Lecture on thesis preparation. 4 p. m. W 101.  
 June 30, Wednesday.—Doctors' theses are due.  
 July 2, Friday.—Masters' examinations may begin. Abstracts of theses due one week before examination.  
 July 17, Saturday.—Masters' theses approvals are due.  
 July 24, Saturday.—Final copies of Masters' theses are due.  
 July 27, Tuesday.—Last day for Masters' examinations.  
 July 30, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.



# The Division of Agriculture

LELAND EVERETT CALL, *Dean*

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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, landscape design, or floriculture and ornamental horticulture may substitute practical experience in their respective industries for farm experience.

A formal statement outlining farm experience or substitutions therefor must be filed in the dean's office during the last semester of the senior year.

The student who completes the freshman and sophomore years will have had basic studies in soils, farm crops, livestock, dairying, poultry husbandry, horticulture, and agricultural economics, giving him a general knowledge of the whole range of agriculture. More than one-third of his time will have been devoted to strictly agricultural courses.

During his junior and senior years, the student continues his studies of fundamental science and begins to learn to apply science to agriculture.

### **CURRICULUM IN DAIRY MANUFACTURING**

This curriculum provides special training in the manufacture of dairy products. It will afford the student an opportunity to specialize in dairy manufacturing and to select, by means of properly chosen electives, one of three fields of specialization: (a) dairy plant operator; (b) dairy plant manager; and (c) dairy products technician. Electives selected by the student must be approved in advance by the head of the Department of Dairy Husbandry and the Dean of the Division of 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 AGRICULTURAL ADMINISTRATION WITH PROFESSIONAL TRAINING IN JOURNALISM**

Students wishing to enter journalism as a profession, with extensive work in agriculture, may combine work leading to a degree in agriculture by pursuing the Curriculum in Agricultural Administration. The student will take 30 hours of work in the Department of Industrial Journalism, leading to a certificate in journalism, and at the same time he will meet the professional requirements of the American Association of Schools and Departments of Journalism.

Electives of such students must be approved by the head of the Department of Agricultural Economics, the head of the Department of Industrial Journalism, and the Dean of the Division of Agriculture. Such students will in general elect courses in journalism as outlined under the Curriculum in Industrial Journalism in the Division of General Science.

Students preparing for the field of agricultural journalism are expected to start such work in their sophomore year, and are encouraged to participate in the activities of professional journalistic organizations on the same basis as students pursuing the Curriculum in Industrial Journalism.

Those not expecting to make journalism a career may take minor work in journalism and at the same time major in any of the departments in the Division of Agriculture.

### **PRETHEOLOGICAL COURSES**

In coöperation with various theological seminaries, Kansas State College offers an opportunity for students who are preparing for the rural ministry to carry elective courses in the division of agriculture and in other divisions of the college which may be accepted as pretheological courses in a seminary.

Any person desiring to enter the rural ministry should acquaint himself with the requirements of the seminary of his choice. Special attention should be given to any language requirements.



Among the suggested electives that may be taken at Kansas State College would be courses in agricultural economics, economics, English literature, history and government, philosophy, psychology, rural sociology, sociology, and public speaking.

Persons desiring to prepare for the field of rural ministry will enter the Curriculum in Agricultural Administration. They should use the name of this curriculum in filling out information blanks in anticipation of enrollment in Kansas State College.

### **CURRICULUM IN LANDSCAPE DESIGN**

The Curriculum in Landscape Design is planned for students who wish to become draftsmen for professional landscape firms and various other private and public agencies. Special emphasis is given to plant materials, planting design, and the rendering of landscape plans. Those completing the curriculum are eligible to receive the degree of Bachelor of Science in Landscape Design.

### **CURRICULUM IN FLORICULTURE AND ORNAMENTAL HORTICULTURE**

This curriculum gives training to those who wish to enter one of the several fields of floriculture. There is opportunity to become trained for the improvement of greenhouse and other floricultural plants and for the growing and selling of flowers. Emphasis is placed on the utilization of flowers in floral arrangements.

Those taking Ornamental Horticulture receive training in Landscape Design with particular reference to the production and use of landscape materials.

### **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 attaining senior classification.

### **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.

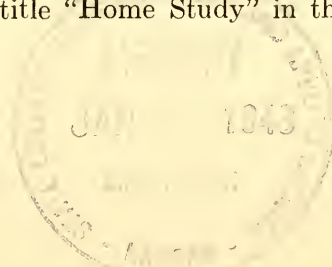
Minor electives .....	15
Principles of Secondary Education, Educ. 236.....	3
Educational Psychology, Educ. 109.....	3
Methods of Teaching Agriculture, Educ. 136.....	3
Teaching Participation in Agriculture, Educ. 161.....	3
Vocational Education, Educ. 241.....	3
General electives .....	17
Gas Engines and Tractors, Agr. Engg. 130.....	3
Farm Buildings, Agr. Engg. 101.....	3
Farm Machinery, Agr. Engg. 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		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. Sc. 102.....	1(1-2)
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Phys. Education M, Phys. Ed. 103,	R(0-2)
		Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
<hr/>		<hr/>	
Total .....	16	Total .....	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
El. of Horticulture, Hort. 107.....	3(2-3)	Prin. of Feeding, An. Husb. 152 <sup>2</sup> ..	3(3-0)
Organic Chemistry, Agr., Chem. 125,	3(3-0)	Economics I, Econ. 101.....	3(3-0)
Anat. and Physiol., Anat. 131.....	3(2-3) <i>or</i>	Farm Crops, Agron. 101.....	4(2-6) <i>or</i>
Plant Physiology I, <sup>3</sup> Bot. 208.....	3(3-0)	Soils, Agron. 130.....	4(3-2, 1)
Soils, Agron. 130.....	4(3-2, 1) <i>or</i>	General Zoölogy, Zoöl. 105.....	5(3-6)
Farm Crops, Agron. 101.....	4(2-6)	Infantry IV, Mil. Sc. 104.....	1(1-2)
Farm Poul. Pro., Poul. Husb. 101,	2(1-3)	Phys. Education M, Phys. Ed. 103,	R(0-2)
Infantry III, Mil. Sc. 103.....	1(1-2)	Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
Phys. Education M, Phys. Ed. 103,	R(0-2)		
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R		
<hr/>		<hr/>	
Total .....	16	Total .....	16

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Genetics, An. Husb. 221.....	3(3-0) <i>or</i>	Gen. Econ. Entomology, Ent. 203..	3(2-3)
Agr. Microbiology, Bact. 105 <sup>4</sup> ....	3(2-3)	Agr. Microbiology, Bact. 105 <sup>4</sup> ....	3(2-3) <i>or</i>
Plant Pathology I, Bot. 205.....	3(2-3)	Genetics, An. Husb. 221.....	3(3-0)
Farm Organization, Agr. Ec. 106..	3(2-3)	Agr. Journalism, Ind. Jour. 160....	3(2-3)
Elective .....	7	Elective .....	7
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
<hr/>		<hr/>	
Total .....	16	Total .....	16

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Elective .....	16	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Elective .....	16
		Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
<hr/>		<hr/>	
Total .....	16	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. Sometime 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 Agricultural 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(1-3)
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	
Elective .....	16	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Agr. Seminar,* Gen. Agr. 103.....	R	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	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 Agricultural 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 Dairy Manufacturing

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)	Chemistry II Rec., Chem. 103.....	3(3-0)
El. of Dairying, Dairy Husb. 101..	3(2-3)	Chemistry II Lab., Chem. 104.....	2(0-6)or
Freshman Lect., Gen. Agr. 102....	1(2-0)	Dy. Cattle Judg., Dairy Husb. 105,	2(0-6)
Infantry I, Mil. Sc. 101.....	1(1-2)	El. of An. Husb., An. Husb. 125..	3(2-3)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Library Methods, Lib. Ec. 101....	1(1-0)
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Infantry II, Mil. Sc. 102.....	1(1-2)
		Phys. Education M, Phys. Ed. 103,	R(0-2)
		Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
<hr/>		<hr/>	
Total .....	16	Total .....	16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Dairy Inspec., Dairy Husb. 106...	2(1-3)	Farm Crops, Agron. 101.....	4(2-6)
General Algebra Math. 108.....	5(5-0)	Milk Production, Dairy Husb. 108,	3(3-0)
Farm Poul. Pro., Poul. Husb. 101,	2(1-3)	Dairy Bacteriology, Bact. 111.....	3(1-6)
Gen. Microbiology, Bact. 101.....	3(1-6)	Economics I, Econ. 101.....	3(3-0)
Organic Chemistry, Agr., Chem. 125,	3(3-0)	Prin. of Feeding, An. Husb. 152...	3(3-0)
Infantry III, Mil. Sc. 103.....	1(1-2)	Infantry IV, Mil. Sc. 104.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Phys. Education M, Phys. Ed. 103,	R(0-2)
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
<hr/>		<hr/>	
Total .....	16	Total .....	17

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Genetics, An. Husb. 221.....	3(3-0)	Market Milk, Dairy Husb. 116....	3(2-3)
Cond. & Pwd. Milk, Dairy		Ice Cream Mkg., Dairy Husb. 130,	3(2-3)or
Husb. 128 .....	3(2-3)or	Cheese Making, Dairy Husb. 135..	3(2-3)
Prin. of Accounting, Econ. 136....	3(3-0)	Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Elective .....	10
Elective .....	10	<hr/>	
<hr/>		Total .....	16
Total .....	16		

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Butter Making, Dairy Husb. 110..	3(2-3)	Ice Cream Mkg., Dairy Husb. 130,	3(2-3)or
Bact. of Butter Cult., Bact. 235...	1(0-3)	Cheese Making, Dairy Husb. 135..	3(2-3)
Cond. & Pwd. Milk, Dairy		Dairy Seminar, Dairy Husb. 202..	1(1-0)
Husb. 128 .....	3(2-3)or	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Prin. of Accounting, Econ. 136....	3(3-0)	Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R	Elective .....	12
Elective .....	9	<hr/>	
<hr/>		Total .....	16
Total .....	16		

1. Four meetings each semester.

**Curriculum in Floriculture and Ornamental Horticulture**

**FRESHMAN**

**FIRST SEMESTER**

**SECOND SEMESTER**

College Rhetoric I, Engl. 101.....	3(3-0)
Gen. Botany I, Bot. 101.....	3(1-6)
Chemistry I, Chem. 101.....	5(3-6)
Engg. Drawing, Mach. Des. 101....	2(0-6)
Library Methods, Lib. Ec. 101....	1(1-0)
Freshman Lect., Gen. Agr. 102 ..	1(2-0)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or
Phys. Ed. W, Phys. Ed. 151.....	R(0-3)
Agr. Seminar, <sup>1</sup> Gen. Agr. 103.....	R

College Rhetoric II, Engl. 104.....	3(3-0)
Gen. Botany II, Bot. 105.....	3(1-6)
Chem. II Rec., Chem. 103.....	3(3-0)
Gen. Geology, Geol. 103.....	3(3-0)
G. H. Constr. & Mgt., Hort. 127..	3(3-0)
Infantry II, Mil. Sc. 102 (men)....	1(1-2)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or
Phys. Ed. W, Phys. Ed. 151.....	R(0-3)
Agr. Seminar, Gen. Agr. 103.....	R

Total ..... 15 or 16

Total ..... 15 or 16

**SOPHOMORE**

**FIRST SEMESTER**

**SECOND SEMESTER**

Lands. Gardening, Hort. 125.....	3(3-0)
Plant Propagation, Hort. 101.....	3(2-3)
Plant Pathology I, Bot. 205.....	3(2-3)
Soils, Agron. 130.....	4(3-2, 1)
Tax. Bot. Flrg. Plts., Bot. 225....	3(1-6)
Infantry III, Mil. Sc. 103 (men)....	1(1-2)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or
Phys. Ed. W, Phys. Ed. 151.....	R(0-3)
Agr. Seminar, Gen. Agr. 103.....	R

El. of Hort., Hort. 107.....	3(2-3)
Org. Chemistry (Agr.), Chem. 125,	3(3-0)
Genetics, An. Husb. 221.....	3(3-0)
Economics I, Econ. 101.....	3(3-0)
Writ. & Oral Sales., Engl. 123....	3(3-0)
Infantry IV, Mil. Sc. 104 (men)....	1(1-2)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or
Phys. Ed. W, Phys. Ed. 151.....	R(0-3)
Agr. Seminar, Gen. Agr. 103.....	R

Total ..... 16 or 17

Total ..... 15 or 16

**JUNIOR**

**FIRST SEMESTER**

**SECOND SEMESTER**

Plant Materials I, Hort. 102.....	3(2-3)
Plant Physiology I, Bot. 208.....	3(3-0)
Comm. Flori. I, Hort. 140.....	3(2-3)
Plant Genetics, Agron. 208.....	3(3-0)
Prin. of Actg., Econ. 136.....	3(3-0)
Electives .....	2
Agr. Seminar, Gen. Agr. 103.....	R

Plant Materials II, Hort. 103.....	3(2-3)
Plant Phys. III, Bot. 211.....	3(3-0)
Planting Design, Hort. 228.....	2(0-6)or
Bus. Mgt., Econ. 126.....	2(2-0)
Lit. of Hort., Hort. 208.....	2(2-0)or
Pub. Speaking, Pub. Spk. 107.....	2(2-0)
Agr. Jour., Ind. Jour. 160.....	3(2-3)
Electives .....	3
Agr. Seminar, Gen. Agr. 103.....	R

Total ..... 17

Total ..... 16

**SENIOR**

**FIRST SEMESTER**

**SECOND SEMESTER**

Lands. Design I, Hort. 238.....	3(1-6)
Forest Nurs. Pract., Hort. 120.....	3(2-3)
Floral Arrgt. I, Hort. 135.....	2(1-3)
Hort. Seminar, Hort. 235.....	1(1-0)
Gen. Econ. Ent., Ent. 203.....	3(2-3)
Electives .....	4
Agr. Seminar, Gen. Agr. 103.....	R

Spraying, Hort. 207.....	3(2-3)
Plant Ecology, Bot. 228.....	2(2-0)
Bus. Mgt., Econ. 126.....	2(2-0)or
Planting Design, Hort. 228.....	2(0-6)
Pub. Speaking, Pub. Spk. 107.....	2(2-0)or
Lit. of Hort., Hort. 208.....	2(2-0)
Hort. Seminar, Hort. 235.....	1(1-0)
Agr. Relationships, Gen. Agr. 105..	R(1-0)
Electives .....	5
Agr. Seminar, Gen. Agr. 103.....	R

Total ..... 16

Total ..... 15

**Suggested Electives**

*Floriculture*

*Ornamental Horticulture*

Meteorology, Phys. 146.....	3(3-0)
Floral Arrgt. II, Hort. 136.....	2(1-3)
Comm. Flori. II, Hort. 141.....	3(2-3)
Veg. Garden., Hort., 133.....	3(2-3)
Hort. Cash Crops, Hort. 214.....	2(2-0)
Modern Language .....	.....

Freehand Drawing I, Arch. 112....	2(0-6)
Domestic Arch., Arch. 124.....	2(2-0)
Theo. Lands. Des., Hort. 243.....	2(2-0)
Pencil Rend. & Sketch., Arch. 116,	2(0-6)
Silviculture, Hort. 119.....	3(2-3)
Lands. Constr., Hort. 227.....	3(2-3)

Total credits: Women, 125; men, 129.

1. Four meetings each semester.



## Curriculum in Landscape Design<sup>1</sup>

### 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)	Chem. II Rec., Chem. 103.....	3(3-0)
Hist. of Arch. I, Arch. 154A.....	2(2-0)	Hist. of Arch. II, Arch. 157A.....	2(2-0)
Library Methods, Lib. Ec. 101....	1(1-0)	Gen. Geology, Geol. 103.....	3(3-0)
Freshman Lect., Gen. Agr. 102....	1(2-0)	Current Hist., Hist. 126.....	1(1-0)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)	Infantry II, Mil. Sc. 102 (men)....	1(1-2)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or	Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or
Phys. Ed. W, Phys. Ed. 151.....	R(0-3)	Phys. Ed. W, Phys. Ed. 151.....	R(0-3)
Agr. Seminar, <sup>2</sup> Gen. Agr. 103.....	R	Agr. Seminar, Gen. Agr. 103.....	R
Total .....	15 or 16	Total .....	15 or 16

### SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Lands. Gardening, Hort. 125.....	3(3-0)	Plane Trig., Math. 101.....	3(3-0)
Freehand Draw., Arch. 112.....	2(0-6)	Freehand Draw. II, Arch. 113....	2(0-6)
Desc. Geom. A, Mach. Des. 107....	3(0-9)	Plant Ecology, Bot. 228.....	2(2-0)
Soils, Agron. 130.....	4(3-2, 1)	Agr. Journalism, Ind. Jour. 160....	3(2-3)
Tax. Bot. Flrg. Plts., Bot. 225....	3(1-6)	Economics I, Econ. 101.....	3(3-0)
Infantry III, Mil. Sc. 103 (men)...	1(1-2)	El. of Hort., Hort. 107.....	3(2-3)
Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Phys. Ed. W, Phys. Ed. 151.....	R(0-3)	Phys. Ed. M, Phys. Ed. 103.....	R(0-2)or
Agr. Seminar, Gen. Agr. 103.....	R	Phys. Ed. W, Phys. Ed. 151.....	R(0-3)
		Agr. Seminar, Gen. Agr. 103.....	R
Total .....	15 or 16	Total .....	16 or 17

### JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Theo. Lands. Des., Hort. 243.....	2(2-0)or	Planting Design, Hort. 228.....	2(0-6)or
Lands. Constr., Hort. 227.....	3(2-3)	Civic Art, Hort. 223.....	3(1-6)
Plant Materials I, Hort. 102.....	3(2-3)	Plant Materials II, Hort. 103.....	3(2-3)
Surveying I, Civ. Engg. 102.....	2(0-6)	Sur. III, Civ. Engg. 151, 155.....	3(2-3)
Pencil Rend. & Sketch, Arch. 116..	2(0-6)	Sh. & Shad. & Per., Mach. Des. 108,	3(0-9)
El. of Arch. I, Arch. 106A.....	3(0-9)	Water Color I, Arch. 118.....	2(0-6)
20th Cent. Europe, Hist. 234.....	3(3-0)	Electives .....	3
Agr. Seminar, Gen. Agr. 103.....	R	Agr. Seminar, Gen. Agr. 103.....	R
Total .....	15 or 16	Total .....	16 or 17

### SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Lands. Design I, Hort. 238.....	3(1-6)	Lands. Design II, Hort. 246.....	3(1-6)
Lands. Constr., Hort. 227.....	3(2-3)or	Civic Art, Hort. 223.....	3(1-6)or
Theo. Lands. Des., Hort. 243.....	2(2-0)	Planting Design, Hort. 228.....	2(0-6)
Silviculture, Hort. 119.....	3(2-3)	Gen. Econ. Ent., Ent. 203.....	3(2-3)
Forest Nursery Prac., Hort. 120...	3(2-3)	Agr. Relationships, Gen. Agr. 105..	R(1-0)
Plant Pathology I, Bot. 205.....	3(2-3)	Electives .....	7
Electives .....	2	Agr. Seminar, Gen. Agr. 103.....	R
Agr. Seminar, Gen. Agr. 103.....	R		
Total .....	16 or 17	Total .....	15 or 16

### Suggested Electives

Spraying, Hort. 207.....	3(2-3)	Hist. Arch. III, Arch. 158A.....	2(2-0)
Water Color II, Arch. 119.....	2(0-6)	Hist. Arch. IV, Arch. 160A.....	2(2-0)
El. of Arch. II, Arch. 107A.....	3(0-9)	Lit. of Hort., Hort. 208.....	2(2-0)
Highway Engg. I, Civ. Engg. 231..	2(2-0)	Hort. Probs., Hort. 244.....	.....
Dom. Arch., Arch. 124.....	2(2-0)	Hort. Seminar, Hort. 235.....	1(1-0)
Hist. Pt. & Sc., Arch. 179.....	3(3-0)	Sur. IV, Civ. Engg. 156, 157.....	3(2-3)

Total credits for the degree Bachelor of Science in Landscape Design: Women, 125; men, 129.

1. See, Entrance to College, Requirements for.  
2. Four meetings each semester.

## 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, <sup>1</sup> Mill. Ind. 218...	R	Phys. Education M, Phys. Ed. 103,	R(0-2)
		Milling Seminar, <sup>1</sup> Mill. Ind. 218...	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, <sup>1</sup> Mill. Ind. 218...	R	Milling Seminar, <sup>1</sup> Mill. Ind. 218...	R
Elective <sup>2</sup> .....	5	Elective <sup>2</sup> .....	6
Total .....	16	Total .....	16

### JUNIOR<sup>4</sup>

FIRST SEMESTER		SECOND SEMESTER	
Mkt. Grading Cereals, Agron. 115,	3(1-4, 2)	The Qualities of Wheat and Flour,	
Economics I, Econ. 101.....	3(3-0)	Mill. Ind. 212.....	3(3-0)
Milling Seminar, <sup>1</sup> Mill. Ind. 218...	R	Milling Seminar, <sup>1</sup> Mill. Ind. 218...	R
Elective <sup>2</sup> .....	10	Elective <sup>2</sup> .....	13
Total .....	16	Total .....	16

### SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Milling Seminar, <sup>1</sup> Mill. Ind. 218...	R	Milling Seminar, <sup>1</sup> Mill. Ind. 218...	R
Elective <sup>2</sup> .....	16	Agr. Relationships, Gen. Agr. 105..	R
		Elective <sup>2</sup> .....	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, Engl. 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.

1. One meeting each month in addition to Agricultural Seminar.
2. Major electives may be in milling administration, milling technology,<sup>3</sup> 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.
4. 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 attaining senior classification.

\* For juniors and seniors.

**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 Materials 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.....	3(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.	
Calculus I, Math. 114.....	4(4-0)	207 .....	4(1-6, 3)
Biochemistry, Chem. 231.....	5(3-6)	Colloidal Chemistry, Chem. 213...	2(2-0)
Quan. Anal., Chem. 241.....	5(1-12)	Adv. Wheat and Flour Testing,	
Gen. Microbiology, Bact. 101.....	3(1-6)	Mill. Ind. 210.....	2(0-6)
Wheat, Flour Test., Mill. Ind. 205,	3(0-9)	Chemical Microscopy, Chem. 245..	1(0-3)
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.

**Agricultural Economics**

Section of

**ECONOMICS AND SOCIOLOGY**

Professor GRIMES  
 Professor HOWE  
 Professor HILL  
 Professor HODGES  
 Professor MONTGOMERY  
 Assistant Professor PARSONS  
 Assistant Professor PINE

Assistant Professor DOLL  
 Assistant Professor WILSON  
 Instructor OTTO  
 Instructor McCOY  
 Instructor MEENEN  
 Instructor HOECKER

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 ACCOUNTING. 3(2-3); I and II. Prerequisite: Econ. 101. Pine, Doll, Meenen.

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.

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 NATURAL RESOURCES. 2(2-0); II. Prerequisite: Econ. 101; junior standing. Howe, McCoy.

218. LAND ECONOMICS. 3(3-0); I. Prerequisite: Econ. 101. Howe.

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. Wilson.

Livestock marketing services, functions, and prices.

240. PRINCIPLES OF COÖPERATION. 3(3-0); II. Prerequisite: Econ. 101. Montgomery.

Principles underlying successful coöperative activities.

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\* 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.

251. **MARKETING OF DAIRY PRODUCTS.** 3(3-0); I. Prerequisite: Econ. 101. Hoecker.

Factors affecting prices; dairy marketing organizations.

270. **AGRICULTURAL ECONOMIC PROBLEMS.** Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. 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 instructor. 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. Hill.

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**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 TRAUlsen

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 1943.) Prerequisite: Bot. 101. Davis, Traulsen.

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. Offered in 1942-'43 and in alternate years thereafter. 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.

Methods and historical development of experimentation; statistical analysis and interpretation of data. 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, an 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 1941-'42 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 1942-'43 and alternate years thereafter. Anderson.

Experimental methods; selection and breeding of pasture plants.

216. AGRONOMIC LITERATURE. 2(2-0); I. Prerequisite: Senior standing. Reitz, Myers.

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 1943.) 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-farming agencies on soil characteristics. Charge, \$1.

236. SOIL PROBLEMS. Credit to be arranged; I, and 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. METHODS OF SOIL INVESTIGATION. 2(0-6); I. Prerequisite: Agron. 130 and Chem. 103. Metzger. Chemical and physical laboratory studies of soils. Charge, \$4.

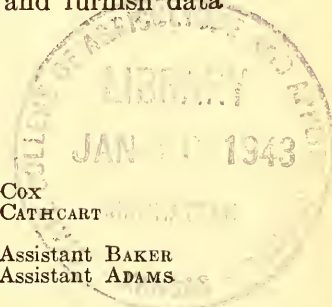
FOR GRADUATE CREDIT

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 MERTZ  
 Graduate Research Assistant BAKER  
 Graduate Research Assistant ADAMS



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 1943.) Staff. A survey of the field of animal husbandry, with special emphasis on the importance of livestock as a major phase of agriculture. 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 or Bot. 208 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: Foods II, 107. 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.

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. 125 and Anat. 131. 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 or 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.

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.

247. ADVANCED STUDIES IN BREEDS. 3(3-0); II. Prerequisite: Consult instructor. McCampbell. Present status, blood lines, and breeders of purebred beef cattle, horses, swine, and sheep.

250. PUREBRED LIVESTOCK PRODUCTION. 2(2-0); II. Prerequisite: An. Husb. 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, Shaw, 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.

311. THE WOOL INDUSTRY. 3(2-3); II. Prerequisite: An. Husb. 160. Cox. Supply and demand, production, marketing, manufacturing.



## Dairy Husbandry

Professor ATKESON  
 Professor MARTIN  
 Associate Professor BECHTEL  
 Associate Professor CAULFIELD

Associate Professor SHAW  
 Instructor BECK  
 Graduate Assistant ELDRIDGE

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. (Also summer of 1942.) 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 adulteration; practice in use of dairy and creamery score cards; state and city ordinances; duties of city, state, and government inspectors. Charge, \$1.

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 of 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 1942-'43 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 1942-'43 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 1942-'43 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 instructor. Staff.

Special investigation in dairy production or dairy manufactures which may form the basis of a master's thesis.

DAIRY REFRIGERATION. See Mech. Engg. 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.

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## General Agriculture

Dean CALL  
Associate Professor MULLEN  
Assistant Professor NEFF

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.

106. EXTENSION METHODS FOR MEN. 3(3-0); I. Neff.

Problems of organization, administration, and supervision of state extension work. Designed for persons interested in county agent or other types of extension work. For juniors and seniors only.

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## Horticulture

Professor PICKETT  
Professor BARNETT  
Professor QUINLAN  
Associate Professor FILINGER  
Associate Professor DECKER

Assistant Professor ABMEYER  
Instructor DUNCAN  
Research Assistant BIRKELAND  
Graduate Assistant EALY  
Student Assistant CAMPBELL

Instruction offered in the Department of Horticulture includes general horticulture, landscape design, vegetable gardening, floriculture, pomology, and forestry.

The four-year curriculum in landscape design leads to a degree of Bachelor of Science in Landscape Design and is intended for students who wish training in design and drafting. The four-year curriculum in Floriculture and Ornamental Horticulture is intended for those who wish to become florists or nurserymen with emphasis on the production and use of landscape materials. Thorough preparation for those interested in fruit growing or vegetable growing is provided through available groups of electives.

The horticultural farm, the campus, the greenhouses, and research laboratories provide plant materials and equipment for instructional and research use.



**COURSES IN GENERAL HORTICULTURE**

## FOR UNDERGRADUATE CREDIT

101. PLANT PROPAGATION. 3(2-3); I. Prerequisite: Bot. 101 and 105. Barnett.

Principles and practice of propagating horticultural plants.

*Laboratory.*—Laboratory and field work in the multiplication of horticultural plants. Charge, \$2.

107. ELEMENTS OF HORTICULTURE. 3(2-3); I and II. Prerequisite: Bot. 101 and 105. Staff.

Principles and practices in the several phases of horticulture.

*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: Junior or senior classification. Pickett, Flinger.

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 1942-'43 and alternate years thereafter. Flinger.

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. Cannot be taken for more than three credit hours.

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. 101 and 105. Duncan. Management and utilization of woodlots and tree belts. Charge, \$2.

119. SILVICULTURE. 3(2-3); I. Prerequisite: Bot. 101 and 105. Duncan. Ecology of the forest; regions, types. Charge, \$2.

120. FOREST NURSERY PRACTICE. 3(2-3); I. Prerequisite: Bot. 101 and 105. Duncan.

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, Ealy. Perennials and annuals for general ornamental planting; planting plans. Charge, \$1.

103. PLANT MATERIALS II. 3(2-3); II. Prerequisite: Hort. 102. Quinlan, Ealy.

Trees, shrubs, vines for ornamental planting; planting plans and reports. Charge, \$1.

125. LANDSCAPE GARDENING. 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 1943-'44 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. Engg. 151, 155. Offered in 1942-'43 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); II. Prerequisite: Hort. 103. Offered in 1942-'43 and alternate years thereafter. Quinlan.

The use of plants in landscape composition. Perspective and elevational sketches and plans. Charge, \$1.

238. LANDSCAPE DESIGN I. 3(1-6); I. Prerequisite: Hort. 103 and 125. Quinlan, Ealy.

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 1943-'44 and alternate years thereafter. Quinlan.

The economic and esthetic theory of design; taste, character, historic style, and composition; natural elements in design; planting design.

246. LANDSCAPE DESIGN II. 3(1-6); II. Prerequisite: Hort. 103, 238, and 243. Quinlan, Ealy.

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. 101 and 105. Barnett, Filinger.

Growing, harvesting, and marketing small fruits. Charge, \$2.

111. SYSTEMATIC POMOLOGY. 3(2-3); I. Prerequisite: Hort. 107. Filinger.

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. Filinger. 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 1943-'44 and alternate years thereafter. Barnett.  
Botany, geography and culture of subtropical fruits.

205. ADVANCED POMOLOGY. 3(2-3); I. Prerequisite: Hort. 111. Pickett, Filinger.

A course in the fundamentals of orcharding. Charge, \$2.

## COURSES IN VEGETABLE GARDENING AND FLORICULTURE

### FOR UNDERGRADUATE CREDIT

127. GREENHOUSE CONSTRUCTION AND MANAGEMENT. 3(3-0); II. Decker.  
Greenhouse maintenance, heating, ventilation, soils, and water.

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, \$3.

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, \$3.

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.

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## 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 or concurrent: Mill. Ind. 101 and Mach. Des. 101. Pence.  
The construction and assembling of a flow sheet. Charge, \$2.
107. PRINCIPLES OF BAKING. 3(1-6); 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. 3(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. Deposits, \$7.50.
207. EXPERIMENTAL BAKING. 4(1-6, 3); 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.

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## Poultry Husbandry

Professor PAYNE  
Professor WARREN  
Assistant Professor SCHUMACHER

Assistant BOHREN  
Graduate Assistant DARROW  
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, Schumacher, Bohren.

An introductory course dealing with numerous phases of poultry production. Charge, \$2.

103. POULTRY HUSBANDRY. 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. Schumacher.

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. Offered in 1942 and alternate years thereafter. Schumacher.

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.

## FOR GRADUATE AND UNDERGRADUATE CREDIT

202. PHYSIOLOGY AND NUTRITION OF THE FOWL. 3(2-3); II. Prerequisite: Poult. Husb. 101, An. Husb. 152, and Anat. 131. Offered in 1941-'42 and alternate years thereafter. Schumacher.

Designed for advanced students. The nutritive requirements of the fowl, metabolism of nutrients, reproduction, respiration, digestion and excretion.

*Laboratory.*—The feeding and care of chicks on various deficient diets. Influence of hormone administration on primary and secondary sex characters. Surgical technics. Charge, \$2.

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; consult instructors. Payne, Warren, Schumacher.

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, 109, 116, and 120; consult instructors. Warren, Payne, Schumacher.

Investigations which may form the basis of a master's or doctor's thesis.



## The Agricultural Experiment Station

LELAND EVERETT CALL, *Director*

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The Kansas Agricultural Experiment Station was organized under the provision 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.

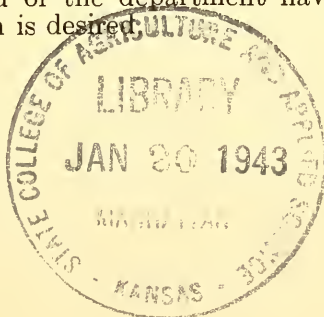
The Agricultural Experiment Station is, then, a research agency organized to ascertain facts of value to agriculture. It devotes its attention solely to the solution of problems of the farm and the farm home.

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**

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### **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

LOWELL EDWIN CONRAD, *Acting Dean*

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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 a 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.

By the selection of proper electives, the four-year curriculum in Industrial Arts may lead to the degree of Bachelor of Science in Industrial Arts 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. The curriculum has the necessary amount of chemistry and physics to meet the state requirements for teaching physical science. Five additional hours of mathematics will qualify for Class "A" high schools in Kansas.

## **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. Engg.		Farm Motors, Agr. Engg. 225....	4(2-6)
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, Engl. 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,	2(2-0)	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

Chemistry E-I, Chem. 107.....	4(3-3)
College Algebra,* Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101....	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Desc. Geometry A, Mach. Des. 107,	3(0-9)
Artillery I, Mil. Sc. 113.....	1(1-2)
Engg. Lectures, Gen. Engg. 101....	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

#### SECOND SEMESTER

Chemistry E-II, Chem. 108.....	4(3-3)
Plane Analytical Geom., Math. 110,	4(4-0)
College Rhetoric II, Engl. 104....	3(3-0)
Shades and Shadows and Perspec-	
tive, Mach. Des. 108.....	3(0-9)
Freehand Drawing I, Arch. 112....	2(0-6)
Artillery II, Mil. Sc. 114.....	1(1-2)
Engg. Lectures, Gen. Engg. 101....	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total ..... 17

Total ..... 17

### SOPHOMORE

#### FIRST SEMESTER

Engg. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
Freehand Drawing II, Arch. 113....	2(0-6)
El. of Arch. I, Arch. 106A.....	3(0-9)
Surveying I, Civil Engg. 102.....	2(0-6)
Artillery III, Mil. Sc. 115.....	1(1-2)
Engg. Assembly, Gen. Engg. 105..	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

#### SECOND SEMESTER

Engg. Physics II, Phys. 106.....	5(4-3)
Calculus II, Math. 115.....	4(4-0)
Economics I, Econ. 101.....	3(3-0)
El. of Arch. II, Arch. 107A.....	3(0-9)
Pencil Rend. and Sketch., Arch.	
116 .....	2(0-6)
Artillery IV, Mil. Sc. 116.....	1(1-2)
Engg. Assembly, Gen. Engg. 105..	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total ..... 17

Total ..... 18

### JUNIOR

#### FIRST SEMESTER

Applied Mechanics, Ap. Mech. 202,	4(4-0)
Bldg. Materials and Construction,	
Arch. 187A .....	3(3-0)
Architectural Design I, Arch. 142..	3(0-9)
Hist. of Arch. I, Arch. 154A.....	2(2-0)
Foundations, Civil Engg. 121....	2(2-0)
Law for Engineers, Hist. 167.....	2(2-0)
Public Speaking, Pub. Spk. 107....	2(2-0)
Engg. Assembly, Gen. Engg. 105..	R

#### SECOND SEMESTER

Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Work. Draw. and Spec., Arch. 191,	3(0-9)
Architectural Design II, Arch. 144,	3(0-9)
Hist. of Arch. II, Arch. 157A.....	2(2-0)
Water Color I, Arch. 118.....	2(0-6)
Illumination A, Elec. Engg. 116...	2(2-0)
Engg. Assembly, Gen. Engg. 105..	R

Total ..... 18

Total ..... 18

### SENIOR

#### FIRST SEMESTER

Stress Analysis I, Civil Engg. 202..	4(4-0)
Architectural Design III, Arch. 145,	5(0-15)
Hist. of Arch. III, Arch. 158A....	2(2-0)
Stress Analysis I Lab., Civil Engg.	
205 .....	2(0-6)
Soil Mechanics, Ap. Mech. 290....	2(0-6)
Elective† .....	2( - )
Engg. Assembly, Gen. Engg. 105..	R
Inspection Trip, Arch. 199.....	R

#### SECOND SEMESTER

Des. of Framed Struc., Civil Engg.	
246 .....	3(0-9)
Reinforced Concrete Design, Civil	
Engg. 250, 255.....	3(2-3)
Hist. of Arch. IV, Arch. 160A....	2(2-0)
Building Equipment, Arch. 188....	2(2-0)
Air Cond. A, Mech. Engg. 135....	3(3-0)
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 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)
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Total .....	16 or 17	Total .....	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)		
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Total .....	17 or 18	Total .....	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
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Total .....	17	Total .....	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		
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Total .....	17	Total .....	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

Chemistry I, Chem. 101.....	5(3-6)
College Algebra,* Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)
Engg. Drawing, Mach. Des. 101...	2(0-6)
Artillery I, Mil. Sc. 113.....	1(1-2)
Engg. Lectures, Gen. Engg. 101...	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total ..... 17

#### SECOND SEMESTER

Chemistry II Rec., Chem. 103....	3(3-0)
Chemistry II Lab., Chem. 104....	2(0-6)
Plane Analytical Geom., Math. 110,	4(4-0)
College Rhetoric II, Engl. 104....	3(3-0)
Desc. Geometry, Mach. Des. 106..	2(0-6)
Mach. Drawing I, Mach. Des. 111,	2(0-6)
Artillery II, Mil. Sc. 114.....	1(1-2)
Engg. Lectures, Gen. Engg. 101...	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total ..... 17

### SOPHOMORE

#### FIRST SEMESTER

Engg. Physics I, Phys. 105.....	5(4-3)
Calculus I, Math. 114.....	4(4-0)
English Literature, Engl. 172.....	3(3-0)
Chem. Engg. Materials, Chem.	
Engg. 201 .....	2(2-0)
Mechanism, Mach. Des. 121.....	3(3-0)
Artillery III, Mil. Sc. 115.....	1(1-2)
Engg. Assembly, Gen. Engg. 105..	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total ..... 18

#### SECOND SEMESTER

Engg. Physics II, Phys. 106.....	5(4-3)
Calculus II, Math. 115.....	4(4-0)
Economics I, Econ. 101.....	3(3-0)
Quan. Analysis, Chem. 241.....	5(1-12)
Artillery IV, Mil. Sc. 116.....	1(1-2)
Engg. Assembly, Gen. Engg. 105..	R
Phys. Educ. M, Phys. Ed. 103....	R(0-2)

Total ..... 18

### JUNIOR

#### FIRST SEMESTER

Applied Mechanics, Ap. Mech. 202,	4(4-0)
Phys. Chemistry I, Chem. 206....	5(3-6)
Org. Chemistry I, Chem. 266.....	5(3-6)
Industrial Stoichiometry, Chem.	
Engg. 205 .....	2(2-0)
Elective† .....	2( - )
Engg. Assembly, Gen. Engg. 105..	R

Total ..... 18

#### SECOND SEMESTER

St. of Mat. E, Ap. Mech. 216, 220,	4(3-3)
Phys. Chemistry II, Chem. 272...	3(3-0)
Org. Chemistry II, Chem. 267....	4(2-6)
Unit Operations I, Chem. Engg.	
220, .....	4(3-3)
Elective† .....	2( - )
Engg. Assembly, Gen. Engg. 105..	R

Total ..... 17

### SENIOR

#### FIRST SEMESTER

Unit Operations II, Chem. Engg.	
225 .....	4(3-3)
Chem. Engg. Thermodynamics,	
Chem. Engg. 230.....	3(3-0)
Inorg. Chem. Tech. Rec., Chem.	
Engg. 210 .....	3(3-0)
Elec. Engg. C, Elec. Engg. 102, 106,	3(2-2, 1)
Elective† .....	4( - )
Engg. Assembly, Gen. Engg. 105..	R
Inspection Trip, Chem. Engg. 150..	R

Total ..... 17

#### SECOND SEMESTER

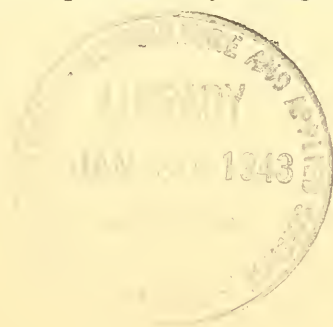
Chem. Engg. Plant Design, Chem.	
Engg. 245 .....	4(3-3)
Org. Chem. Technology, Chem.	
Engg. 235 .....	3(3-0)
Heat Power Engg. B, Mech. Engg.	
211 .....	5(4-3)
Unit-Process Lab., Chem. Engg.	
240 .....	2(0-6)
Elective† .....	3( - )
Engg. Assembly, Gen. Engg. 105..	R

Total ..... 17

Number of hours required for graduation, 139.

\* Students who offer but one unit of algebra for admission take a five-hour course in college algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean. Students who expect to continue in graduate study are urged to elect German I and II.





## 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, 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	
Applied 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	
Stress Analysis I, Civ. Engg. 202,	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 Structures, 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,	
Stress Analysis I Lab., Civ. Engg.		106 .....	3(2-2, 1)
205 .....	2(0-6)	Law for Engineers, Hist. 167.....	2(2-0)
Soil Mechanics, Ap. Mech. 290...	2(0-6)	Technical Reports, Engl. 215.....	1(1-0)
High. Mat. Lab., Ap. Mech. 250..	1(0-3)	Elective† .....	5( - )
Engg. Assembly, Gen. Engg. 105..	R	Engg. Assembly, Gen. Engg. 105..	R
Inspection Trip, Civ. 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.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

## Curriculum in Electrical Engineering

### FRESHMAN

FIRST SEMESTER		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)
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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
		Phys. Educ. M, Phys. Ed. 103....	R(0-2)
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Total .....	18	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. and 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.	
		208 .....	2(0-4, 2)
		Engg. Assembly, Gen. Engg. 105..	R
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Total .....	17	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( - )		
Engg. Assembly, Gen. Engg. 105..	R		
Inspection Trip, Elec. Engg. 190...	R		
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Total .....	17	Total .....	18

Number of hours required for graduation, 139.

\* Students who offer but one unit of algebra for admission take a five-hour course in college algebra, Math. 107, the first semester, postponing two hours of other work.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

Curriculum in Industrial Arts

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Chemistry E-I, Chem. 107.....	4(3-3)	Chemistry E-II, Chem. 108.....	4(3-3)
College Algebra,* Math. 104.....	3(3-0)	Plane Trigonometry, Math. 101...	3(3-0)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Engg. Drawing, Mach. Des. 101...	2(0-6)	Desc. Geometry, Mach. Des. 106..	2(0-6)
Sheet Metal Work, Shop 173.....	2(0-6)	Surveying I, Civ. Engg. 102.....	2(0-6)
Wood Turning, Shop 135.....	2(0-6)	Foundry Production, Shop 161....	1(0-3)
Artillery I, Mil. Sc. 113.....	1(1-2)	Farm Blacksmithing I, Shop 157..	1(0-3)
Engg. Lectures, Gen. Engg. 101....	R	Artillery II, Mil. Sc. 114.....	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Engg. Lectures, Gen. Engg. 101...	R
		Phys. Education M, Phys. Ed. 103,	R(0-2)
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Total .....	17	Total .....	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
General Physics I, Phys. 102.....	4(3-3)	General Physics II, Phys. 103....	4(3-3)
Gen. Psychology, Educ. 184.....	3(3-0)	Educ. Psychology, Educ. 109.....	3(3-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	Mach. Drawing II, Mach. Des. 118,	2(0-6)
Mechanism, Mach. Des. 121.....	3(3-0)	Metals and Alloys, Shop 165.....	2(2-0)
Woodwork I, Shop 121.....	2(0-6)	Farm Carpentry, Shop 147.....	3(1-6)
Arc Welding, Shop 172.....	1(0-2, 1)	Wood and Metal Fin., Shop 122..	2(0-6)
Elec. Mach. and Const., Elec. Engg.		Artillery IV, Mil. Sc. 116.....	1(1-2)
112 .....	2(0-6)	Engg. Assembly, Gen. Engg. 105..	R
Artillery III, Mil. Sc. 115.....	1(1-2)	Phys. Education M, Phys. Ed. 103,	R(0-2)
Engg. Assembly, Gen. Engg. 105..	R		
Phys. Education M, Phys. Ed. 103,	R(0-2)		
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Total .....	18	Total .....	17

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Economics I, Econ. 101.....	3(3-0)	Labor Economics, Econ. 234.....	3(3-0)
Principles of Accounting, Econ. 136,	3(3-0)	Bus. Engl. and Sales., Engl. 125...	3(3-0)
Educ. Sociology, Educ. 239.....	3(3-0)	Ap. Mechanics A, Ap. Mech. 102..	3(3-0)
Public Speaking, Pub. Spk. 107...	2(2-0)	Gas Engines and Tractors, Agr.	
Woodwork II, Shop 126.....	2(0-6)	Engg. 130 .....	3(2-3)
Farm Blacksmithing II, Shop 158..	1(0-3)	Machine Tool Work I, Shop 170..	2(0-6)
Metallography I, Shop 262.....	1(0-3)	Elective† .....	3( - )
Elective† .....	3( - )	Engg. Assembly, Gen. Engg. 105..	R
Engg. Assembly, Gen. Engg. 105..	R		
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Total .....	18	Total .....	17

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Business Law I, Hist. 163.....	3(3-0)	Business Law II, Hist. 164.....	3(3-0)
Extemp. Speech II, Pub. Spk. 108,	2(2-0)	Amer. Ind. History, Hist. 105....	3(3-0)
Technical Reports, Engl. 215.....	1(1-0)	Credits and Collections, Econ. 223,	2(2-0)
Str. of Mat. A, Ap. Mech. 116, 121,	4(3-3)	Elec. Engg. C, Elec. Engg. 102,	
El. of Heat Power, Mech. Engg.		106 .....	3(2-2, 1)
131 .....	2(2-0)	Heat Power Lab. IA, Mech. Engg.	
Machine Tool Work II, Shop 192..	2(0-6)	125 .....	1(0-3)
Oxyacetylene Welding, Shop 171..	1(0-2, 1)	Elective† .....	5( - )
Elective† .....	3( - )	Engg. Assembly, Gen. Engg. 105..	R
Engg. Assembly, Gen. Engg. 105..	R		
Inspection Trip, Shop 194.....	R		
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Total .....	18	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)

\* 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)	Surveying I, Civ. Engg. 102.....	2(0-6)
Oxyacetylene Welding, Shop 171..1	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)
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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)	Metals and Alloys, Shop 165.....	2(2-0)
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)
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Total .....	17	Total .....	18

### JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat. Lab., Ap. Mech. 220,	1(0-3)
Eng. Thermodynamics, Mech. Engg.		Hydraulics Lab., Ap. Mech. 235...	1(0-3)
208 .....	4(4-0)	Public Speaking, Pub. Spk. 107...	2(2-0)
Economics I, Econ. 101.....	3(3-0)	Option (see next page).....	14( - )
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		
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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(4-2, 1)	243 .....	4(3-2, 1)
Heat Power Lab. II, Mech. Engg.		Mach. Design I Rec., Mach. Des.	
213 .....	1(0-3)	204 .....	3(3-0)
Option (see next page).....	11( - )	Technical Reports, Engl. 215.....	1(1-0)
Engg. Assembly, Gen. Engg. 105..	R	Option (see next page).....	9( - )
Inspection Trip, Mech. Engg. 180..	R	Engg. Assembly, Gen. Engg. 105..	R
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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

## Technical Option

## JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Differential Equations for Engineers, Math. 121 .....	2(2-0)	Str. of Mat. Rec., Ap. Mech. 211,	5(5-0)
Graphic Statics, Ap. Mech. 225...	1(0-3)	Hydraulics, Ap. Mech. 230.....	3(3-0)or
		Fluid Mech., Ap. Mech. 231.....	3(3-0)
		Heat Transfer and Fluid Flow, Mech. Engg. 251.....	4(3-3)
		Elective† .....	2( - )
Total .....	3	Total .....	14

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Heat Power Engg., Mech. Engg. 214 .....	4(3-3)	Power Plant Design, Mech. Engg. 218 .....	2(0-6)
Air Conditioning, Mech. Engg. 228,	3(2-3)	Mech. Engg. Lab., Mech. Engg. 243 .....	2(0-6)
Elective† .....	4( - )	Machine Design I Lab., Mach. Des. 205 .....	2(0-6)
		Elective† .....	3( - )
Total .....	11	Total .....	9

## Industrial Option

## JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Graphic Statics, Ap. Mech. 225...	1(0-3)	Str. of Mat. Rec., Ap. Mech. 211,	5(5-0)
Elective† .....	2( - )	Hydraulics, Ap. Mech. 230.....	3(3-0)or
		Fluid Mech., Ap. Mech. 231.....	3(3-0)
		Heat Power Engg. A, Mech. Engg. 204 .....	3(3-0)
		Machine Tool Work II, Shop 192..	2(0-6)
		Elective† .....	1( - )
Total .....	3	Total .....	14

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Industrial Management, Shop 246..	3(3-0)	Mech. Engg. Lab., Mech. Engg. 243 .....	2(0-6)
Air Conditioning, Mech. Engg. 228,	3(2-3)	Machine Design I Lab., Mach. Des. 205 .....	2(0-6)
Time and Motion Study, Shop 250,	2(1-3)	Factory Design, Shop 255.....	2(0-6)
Elective† .....	3( - )	Elective† .....	3( - )
Total .....	11	Total .....	9

## Aeronautical Option

## JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Differential Equations for Engineers, Math. 121 .....	2(2-0)	Str. of Mat. E Rec., Ap. Mech. 216 .....	3(3-0)
Elective† .....	1( - )	Fluid Mech., Ap. Mech. 231.....	3(3-0)
		Heat Transfer and Fluid Flow, Mech. Engg. 251.....	4(3-3)
		Internal Combustion Engines, Mech. Engg. 240.....	2(2-0)
		Elective† .....	2( - )
Total .....	3	Total .....	14

† Electives are to be chosen with the advice and approval of the head of the department and the dean.

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Heat Power Engg., Mech. Engg. 214 .....	4(3-3)	Airplane Des. and Const., Mach. Des. 260 .....	3(1-6)
Aerodynamics, Mach. Des. 250, 251, Airplane Stress Analysis, Ap. Mech. 285 .....	4(3-3) 3(2-3)	Aeronautical Engg. Lab., Mech. Engg. 246 .....	2(0-6)
		Air Conditioning, Mech. Engg. 228	3(2-3)
		Elective† .....	1( - )
Total .....	11	Total .....	9

Petroleum Production Option

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
General Geology, Geol. 103.....	3(3-0)	Str. of Mat. Rec., Ap. Mech. 211,	5(5-0)
		Hydraulics, Ap. Mech. 230.....	3(3-0)or
		Fluid Mech., Ap. Mech. 231.....	3(3-0)
		Historical Geology, Geol. 203.....	4(3-3)
		Elective† .....	2( - )
Total .....	3	Total .....	14

SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Petroleum Geol., Geol. 223.....	4(3-3)	Petroleum Production II, Mech. Engg. 271 .....	3(2-3)
Petroleum Production I, Mech. Engg. 270 .....	3(3-0)	Mech. Engg. Lab., Mech. Engg. 243 .....	2(0-6)
Heat Power Engg. A, Mech. Engg. 204 .....	3(3-0)	Machine Design I Lab., Mach. Des. 205 .....	2(0-6)
Graphic Statics, Ap. Mech. 225...	1(0-3)	Elective† .....	2( - )
Total .....	11	Total .....	9

Agricultural Engineering

Professor FENTON  
Associate Professor BARGER  
Assistant Professor SCHOENLEBER

Assistant Professor MARTIN  
Instructor OTIS  
Instructor CARLETON

FOR UNDERGRADUATE CREDIT

101. FARM BUILDINGS. 3(2-3)\*; II and SS on alternate years. Fenton.  
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, II and SS. Schoenleber, Carleton.  
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. Martin.  
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. Carleton, assistants.

\* 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.

† Electives are to be chosen with the advice and approval of the head of the department and the dean.



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. Martin, assistants.

Principles of the internal combustion engine; carburetion, valve timing, ignition, cooling, lubrication, and fuels; the servicing and repair of farm engines and the selection of power for agriculture. (For agricultural students.) Charge, \$2.

140. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Fenton, assistants.

A trip of three to five days for the purpose of studying farm machinery production and other projects of special interest to agricultural engineers. 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. Fenton, Martin.

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.

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, Martin.

Problems in the design, construction, or application of machinery or power in agriculture, structures, modern conveniences, rural electrification.

210. MODERN FARM AND HOME EQUIPMENT. 3(2-3); II. Prerequisite: Ap. Mech. 230 and 235. Fenton, Carleton.

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. Martin.

Research studies relating to tractor construction and operation.

225. FARM MOTORS. 4(2-6); II. Prerequisite: Phys. 106, Math. 114, and Mech. Engg. 201A. Martin, 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. Schoenleber.

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. Schoenleber.

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, Martin.

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  
 Assistant Professor KOENITZER  
 Assistant Professor TAYLOR  
 Assistant Professor THOMSON

Assistant Professor JONES  
 Assistant Professor McCORMICK  
 Instructor EPPLER  
 Instructor GUSTAFSON  
 Research Assistant MUNGER

### FOR UNDERGRADUATE CREDIT

102. APPLIED MECHANICS A. 3(3-0); II. Prerequisite: Math. 101 and Phys. 102. Jones.

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. Jones.

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. Jones.

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. Prerequisite or concurrent: 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. Prerequisite or concurrent: Ap. Mech. 102 or 202. Robert, McCormick.

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 measurements; 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.

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; prerequisite or concurrent: Ap. Mech. 230 or 231. Staff.

Tests to determine the coefficients of weirs and orifices, loss of 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, Gustafson.

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.

A more comprehensive presentation of the methods of analysis of stresses in the members of machines and structures.

268. ELASTIC ENERGY THEORY. 3(3-0); I. Prerequisite: Ap. Mech. 211 or 216. Scholer, McCormick.

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. McCormick.

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.

285. AIRPLANE STRESS ANALYSIS. 3(2-3); I. Prerequisite: Math. 121 and Ap. Mech. 216. McCormick.

290. SOIL MECHANICS. 2(0-6); I and II. Prerequisite: Ap. Mech. 220. Koenitzer.

The physical properties of soil which govern its behavior as a material for highway surfaces or foundations; the behavior of soil when used as a material of construction in fills and dams. Charge, \$1.50.



## FOR GRADUATE CREDIT

301. RESEARCH IN MATERIALS OF CONSTRUCTION. Credit to be arranged; I, II, and SS. 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.

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## Architecture

Professor WEIGEL  
 Professor HELM  
 Associate Professor WICHERS  
 Assistant Professor JONES

Assistant Professor MACKAY  
 Assistant Professor WASSERMAN  
 Instructor ROTH

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. Roth.

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. Roth.

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. Helm, Roth.

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. Wasserman.

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.

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. Helm, Roth.

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. Roth.

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. Wasserman.

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. Wasserman.

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. Wasserman.

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. Jones.

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. Jones.  
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. Jones.

Mathematical and graphical solutions of stresses in framed structures under static loading; practical problems in the design of wood, steel, and masonry construction; occasional inspection trips to buildings under construction.

194A. THEORY OF STRUCTURES II. 5(3-6); I. Prerequisite: Arch. 192. Jones.  
A continuation of Theory of Structures I.

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. Jones.

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, Jones.

Under direct supervision of some member of the departmental staff, study of specific architectural problems.

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  
Associate Professor GREENE  
Instructor HEDRICK

Instructor HAWKINS  
Instructor JONNARD  
Instructor ZABEL

The instruction in this department deals primarily with those unit physical operations and unit chemical processes which, when coördinated 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. Jonnard, Zabel.

Manufacture, use, and properties of metallic and nonmetallic materials of construction.

205. INDUSTRIAL STOICHIOMETRY. 2(2-0); I. Prerequisite: Chem. 241. Greene, Zabel.

Problems involving heat, material, and economic balances.

210. INORGANIC CHEMICAL TECHNOLOGY RECITATION. 3(3-0); I. Prerequisite: Chem. 206 and Chem. Engg. 205. Zabel.

Applications of physical chemistry, unit operations, and economics to the inorganic chemical industry.

220. UNIT OPERATIONS I. 4(3-3); II. Prerequisite: Chem. 206 and Math. 115. Greene, Jonnard.

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. UNIT OPERATIONS II. 4(3-3); I. Prerequisite: Chem. Engg. 220. Greene, Jonnard.

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.

232. ADVANCED CHEMICAL ENGINEERING THERMODYNAMICS. 3(3-0); II. Prerequisite: Chem. Engg. 230. Faith.

235. ORGANIC CHEMICAL TECHNOLOGY. 3(3-0); II. Prerequisite: Chem. 206 and 267. Zabel.

Organic process industries, including oil refining, synthetic organic chemicals, cellulose, fats and oils.

240. UNIT-PROCESS LABORATORY. 2(0-6); II. Prerequisite or concurrent: Chem. Engg. 235. 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.

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.

265. DISTILLATION. 3(3-0); I or II. Prerequisite: Chem. Engg. 225. Greene. 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. Greene.

I: Properties of hydrocarbon mixtures, cracking, polymerization, hydrogenation, separation by distillation.

II: Design and operation of plants, refinery economics, natural gasoline plants.

290. PROCESS DEVELOPMENT. 2(2-0); I or II. Prerequisite: Chem. Engg. 220. Faith.

Principles involved in the development of a chemical process from laboratory to completed plant.

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.

305. UNIT-PROCESS DESIGN. 3(3-0); I.

Prerequisite: Chem. Engg. 245 or equivalent. Faith.

Design of reaction equipment.

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## Civil Engineering

Professor CONRAD  
 Professor FRAZIER  
 Professor FURR  
 Associate Professor WHITE  
 Assistant Professor CRAWFORD

Assistant Professor MORSE  
 Instructor MOELLER  
 Instructor GERKE  
 Instructor SULLIVAN

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); I, II, and SS. Prerequisite or concurrent: Ap. Mech. 202. Frazier.

Design and construction of foundations.

125. CIVIL ENGINEERING DRAWING. 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.

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.

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

202. STRESS ANALYSIS I. 4(4-0); I, II and SS. Prerequisite: Ap. Mech. 211. Conrad, Morse.

The fundamental principles of stresses in determinate structures with an introduction to deflections and secondary stresses, rigid frames and space framework.

205. STRESS ANALYSIS I LABORATORY. 2(0-6); I and SS. Prerequisite or concurrent: Civ. Engg. 202. Conrad, Morse.

Graphic statics and design of simple roof trusses in timber and steel.

208. STRESS ANALYSIS II. 3(3-0); I and SS. Prerequisite: Civ. Engg. 202. Conrad.

Theory of statically indeterminate structures, secondary stresses, and stressed-skin structures; stresses in continuous, movable, cantilever, suspension and steel-arch bridges, rigid and space frames.

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, collections, 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.

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\* 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.



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 costs 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. 202. 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. 202 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.

272, 273. HIGHWAY ENGINEERING II. 4(2-6); II and SS. Prerequisite: Civ. Engg. 156, 157, and 231. Furr.

Highway legislation, administration; highway and airport planning, drainage, layouts and economics.

*Laboratory.*—Reconnaissance and location surveys for highways, streets and airports; completing engineering plans, profiles, designs and estimates therefrom. 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

Associate Professor SELVIDGE  
 Assistant Professor SITZ  
 Instructor TREGIDGA  
 Instructor WARD  
 Instructor MARTIN

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, and Phys. 105. Kloeffler.

The fundamental principles of electronics.

190. INSPECTION TRIP. R; I. Prerequisite: Senior classification. Kloeffler.

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: Phys. 106; prerequisite or concurrent: Math. 115. 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: Elec. Engg. 207; prerequisite or concurrent: Math. 121. 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 characteristics of alternating-current circuits and transformers. Charge, \$3.

212, 213. ALTERNATING-CURRENT MACHINERY II. 5(3-4, 2); I, II, and SS. Prerequisite: Elec. 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: Elec. Engg. 120 and 201; prerequisite or concurrent: Elec. Engg. 209. Ward.

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 or concurrent: Elec. Engg. 227. Ward.

Characteristics of electron tubes; measurement of potential, resistance, inductance, capacity, etc. Charge, \$3.

237, 238. ELECTRICAL ENGINEERING M-I. 5(4-2, 1); I, II, and SS. 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, Martin.

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, Martin.

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, Martin.

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. Martin.



The fundamental principles of electronics and their application to the type of tubes and circuits used in industry.

257, 258. ULTRA-HIGH-FREQUENCY TECHNIQUES. 4(3-1); II. Prerequisite: Elec. Engg. 120, 209, 251, 253, and concurrent with 248 and 249. Martin.

Principles of radio communication with emphasis on microwaves and the application of electron tubes in trigger, sweep, and pulse-forming circuits.

*Laboratory.*—Experiments on the generation and application of microwaves outlined in Elec. Engg. 257.

260, 261. ILLUMINATING ENGINEERING. 3(2-2, 1); II. 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. 210 and Math. 121. 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 and Elec. Engg. 209. Kloeffler.

The problems 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; charts and 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

Acting Dean CONRAD  
Assistant Dean DURLAND

101. ENGINEERING LECTURES. R(1-0); entire freshman year. Acting Dean Conrad, 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.

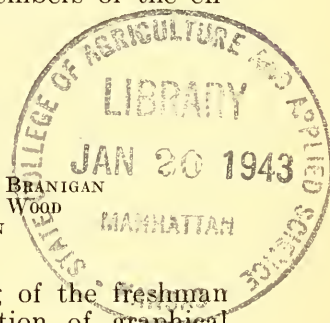
105. ENGINEERING ASSEMBLY. R(1-0); sophomore, junior, and senior years. Members of the engineering faculty.

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  
Assistant Professor WOOD  
Instructor SULLIVAN  
Instructor FRY



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.

Information on the Civil Pilot Training Programs administered by the head of the Department of Machine Design is given elsewhere in this catalogue. (See Index.)

### 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.

103. GENERAL DRAWING. 3(1-6); I, II, and SS. Staff.

Technical sketching and mechanical drafting; graphic and pictorial drawing of building plans and mechanical equipment; blueprint reading; charts and graphs; and reproduction of drawings. Inexpensive set of instruments required.

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.

122. AVIATION GROUND INSTRUCTION I. 3(3-0); I, II, and SS. Prerequisite: Selection for first course of Civilian Pilot Training Program, or approval of the coördinator. Staff.

The ground instruction required by the Civil Aeronautics Authority for the first course in the Civilian Pilot Training Program. Fee, \$10. (This fee does not include the medical examination charge for students on the flying quota, but does include their required insurance.)

124. AVIATION GROUND INSTRUCTION II. 4(4-0); I, II, and SS. Prerequisite: Selection for second course of Civilian Pilot Training Program, or approval of the coördinator. Staff.

The ground instruction required by the Civil Aeronautics Authority for the second course in the Civilian Pilot Training Program. Fee, \$10. (This fee does not include the medical examination charge for students on the flying quota, but does include their required insurance.)

126. THESIS. Credit to be arranged; I and II. Pearce, Durland.

Excellent material for thesis study is furnished by projects in machine design or aërodynamics; 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 and Mach. Des. 111. Staff.

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 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. Staff.

A general introduction into aërodynamics, particularly as regards action of air foils, parasite drag, prediction of performance, stability and control.

*Laboratory.*—Determination of performance curves and the stability of an airplane; 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.

260. AIRPLANE DESIGN AND CONSTRUCTION. 3(1-6); II. Prerequisite: Mach. Des. 250 and Ap. Mech. 216. Pearce.

The structure and rigging of aircraft, the design directive of a small plane, the general layout and weight analysis.

#### 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  
 Instructor ZINK  
 Instructor 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 or concurrent: Mech. Engg. 120, 131, 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: Math. 115. Staff.

Similar to Mech. Engg. 208, but designed for nonmechanical engineering students.

204. HEAT POWER ENGINEERING A. 3(3-0); I and II. Prerequisite: Mech. Engg. 201A or 208. Staff.

Power-plant equipment, fuels and combustion.

205. HEAT POWER LABORATORY IIA. 1(0-3); I and II. Prerequisite: Mech. Engg. 125; prerequisite or concurrent: 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 nonflow processes; power generating cycles; air compressions and refrigeration.

209. HEAT POWER LABORATORY I. 1(0-3); I and II. Prerequisite or concurrent: 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: Chem. Engg. 230. 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; prerequisite or concurrent: Mech. Engg. 214. 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.

218. POWER-PLANT DESIGN. 2(0-6); II. Prerequisite: Mech. Engg. 214. 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.

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, Flinner.

Psychrometry; heat transmission; air-conditioning equipment and systems; design problems.

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, Flinner.

243. MECHANICAL ENGINEERING LABORATORY. 2(0-6); I and II. Prerequisite: Mech. Engg. 213 and Mech. Engg. 204 or 214. Staff.

Power generating equipment, fans, air-conditioning equipment, internal combustion engines, steam engines, turbines, and auxiliaries. Students are required to organize and conduct tests and to submit complete reports. Charge, \$4.

246. AERONAUTICAL ENGINEERING LABORATORY. 2(0-6); II. Prerequisite: Mech. Engg. 213 and 214. Staff.

Aircraft engines, propellers, engine accessories, and instruments. Charge, \$4.



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. 218. 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 of 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 AIMAN  
 Assistant Professor MOORE  
 Assistant Professor MILLER

Instructor MARSH  
 Instructor GRANT  
 Instructor MCCOLLUM  
 Instructor SHAW  
 Instructor LADD  
 Instructor SMALTZ  
 Instructor DARBY

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, \$3.

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 forage shop; (c) operation of gas, oil, and electric furnaces, and the heat treatment of steel. Charge, \$3.
- 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, exercises in the annealing, hardening, and tempering of tools, and on the arc and oxyacetylene welders. Charge, \$3.
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, Marsh.  
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, Darby.  
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, \$3.
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, \$3.

173. SHEET METAL WORK. 2(0-6); I, II, and SS. Prerequisite: Mach. Des. 101 or equivalent. Moore.

Covers developments, the use of templates, 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, Darby.

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 senior standing. 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.

250. TIME AND MOTION STUDY. 2(1-3); II. Prerequisite: Junior standing in engineering. Smaltz.

The principles and practice of time and micro-motion analysis of work in the shop for the purpose of setting standards of performance and of improving methods of production. Charge, \$2.50.

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. Sellers, Marsh.

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, Marsh.

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, Marsh.

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

LOWELL EDWIN CONRAD, *Acting Director*

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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: *Pisé de terre* construction; durability of concrete; school shops for vocational agriculture and industrial arts instruction; deterioration of concrete 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; Kansas coal; starch production from sorghum grains, potatoes, and other farm crops; mixing as a chemical engineering unit operation; new sources of concrete aggregate; and scattering of ultra-short radio waves.

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. Forty-one 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.

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† Chapter 281, Laws of 1931.

# The Division of General Science

RODNEY WHITTEMORE BABCOCK, *Dean*

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In the land-grant colleges, of which this institution is one, the classical studies 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.

Students who plan to go into agricultural journalism and want more training in agriculture than is available through the electives and options in the Curriculum in Industrial Journalism should enter the Curriculum in Agricultural Administration and take work leading to a degree in agriculture, at the same time taking the professional work of 30 hours required in the Curriculum in Industrial Journalism. Students who complete their work under this plan will be given a certificate to the effect that they have met the requirements of the American Association of Schools and Departments of Journalism, for professional work in journalism. (See Curriculum in Agricultural Administration.)

## 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 who desire 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 in Music Education is also offered, with specialization in voice, instrument, or public-school band or orchestra. Students who complete 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 who complete 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.

A four-year curriculum is offered in applied music, which prepares the student with a major in voice, piano, violin, organ, or other instrument, and with a minor in another of these subjects. Students who complete 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.

**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 and 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
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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
<hr/>		<hr/>	
Total .....	15 or 16	Total .....	15 or 16

### JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Gen. Microbiology, Bact. 101.....	3(1-6)	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)	Hist. of Engl. Lit., Engl. 181....	3(3-0)
Public Speaking, Pub. Spk. 107....	2(2-0)	Elective‡ .....	6( - )
English Proficiency, Engl. 169....	R		
Elective‡ .....	6( - )		
<hr/>		<hr/>	
Total .....	15	Total .....	15

### SENIOR

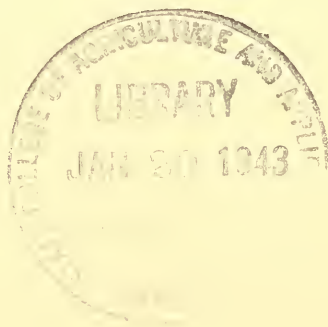
FIRST SEMESTER		SECOND SEMESTER	
Elective‡ .....	15( - )	Elective‡ .....	15( - )

*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.

\* 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.



## 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 first 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)
Extern. 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)	Biochemistry, 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

\*\* Electives should be chosen in economics, mathematics, modern languages, or physics.



## Curriculum in Industrial Chemistry

### FRESHMAN

#### FIRST SEMESTER

College Rhetoric I, Engl. 101.....	3(3-0)
Chemistry I, Chem. 101.....	5(3-6)
College Algebra, Math. 104.....	3(3-0)
Plane Trigonometry, Math. 101.....	3(3-0)
Engg. Drawing, Mach. Des. 101...	2(0-6)
Artillery I, Mil. Sc. 113 (men)....	1(1-2)
Ind. Chem. Seminar, Chem. 133...	R
Phys. Ed., M or W.....	R

#### SECOND SEMESTER

College Rhetoric II, Engl. 104.....	3(3-0)
Chemistry II Rec., Chem. 103.....	3(3-0)
Chemistry II Lab., Chem. 104.....	2(0-6)
Plane Anal. Geom., Math. 110.....	4(4-0)
Library Methods, Lib. Ec. 101.....	1(1-0)
German I, Mod. Lang. 101.....	3(3-0)
Artillery II, Mil. Sc. 114 (men)....	1(1-2)
Ind. Chem. Seminar, Chem. 133...	R
Phys. Ed., M or W.....	R

Total ..... 16 or 17

Total ..... 16 or 17

### SOPHOMORE

#### FIRST SEMESTER

Quant. Anal. A, Chem. 250.....	3(1-6)
German II, Mod. Lang. 102.....	3(3-0)
Calculus I, Math. 114.....	4(4-0)
Engg. Physics I, Phys. 105.....	5(4-3)
Artillery III, Mil. Sc. 115 (men)...	1(1-2)
Ind. Chem. Seminar, Chem. 133...	R
Phys. Ed., M or W.....	R

#### SECOND SEMESTER

Quant. Anal. B, Chem. 251.....	3(1-6)
Scientific German, Mod. Lang. 137,	4(4-0)
Calculus II, Math. 115.....	4(4-0)
Engg. Physics II, Phys. 106.....	5(4-3)
Artillery IV, Mil. Sc. 116 (men)...	1(1-2)
Ind. Chem. Seminar, Chem. 133...	R
Phys. Ed., M or W.....	R

Total ..... 15 or 16

Total ..... 16 or 17

### JUNIOR

#### FIRST SEMESTER

Economics I, Econ. 101.....	3(3-0)
Organic Chemistry I, Chem. 266...	5(3-6)
Physical Chemistry I, Chem. 206...	5(3-6)
Elective† .....	4( - )
Ind. Chem. Seminar, Chem. 133...	R
English Proficiency, Engl. 169.....	R

#### SECOND SEMESTER

Organic Chemistry II, Chem. 267..	4(2-6)
Inorg. Preparations, Chem. 202...	2(0-6)
Adv. Inorg. Chem., Chem. 207...	3(3-0)
Phys. Chem. II Rec., Chem. 272..	3(3-0)
Phys. Chem. II Lab., Chem. 273..	2(0-6)
Elective† .....	3( - )
Ind. Chem. Seminar, Chem. 133...	R

Total ..... 17

Total ..... 17

### SENIOR

#### FIRST SEMESTER

Amer. Govt., Hist. 151.....	3(3-0)
Ind. Chem. Analysis, Chem. 261...	3(1-6)
Elective† .....	10( - )
Inspection Trip, Chem. 132.....	R
Ind. Chem. Seminar, Chem. 133...	R

#### SECOND SEMESTER

Org. Chem. Tech., Chem. Engg.	
235 .....	3(3-0)
Prob. in Chemistry, Chem. 270....	3( - )
Hist. of Chemistry, Chem. 208....	1(1-0)
Elective† .....	9( - )
Ind. Chem. Seminar, Chem. 133...	R

Total ..... 16

Total ..... 16

*Summary.*—Men: Physical education, two years required; military science, 4 hours; chemistry, 47 hours; engineering, 5 hours; other prescribed subjects, 51 hours; electives, 26 hours; total, 133 hours. Women: The same, except no military science; total, 129 hours.

† Electives are to be chosen, with the advice and approval of the dean, in groups of not fewer than eight hours, or in courses which extend fields already entered in the required work.

## Curriculum in Industrial Journalism

## FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104.....	3(3-0)
General Chemistry, Chem. 110.....	5(3-6)	General Geology, Geol. 103.....	3(3-0)
Modern Language .....	3(3-0)	Modern Language .....	3(3-0)
Library Methods, Lib. Ec. 101....	1(1-0)	Option* .....	6( - )
General Psychology, Educ. 184....	3(3-0)	Infantry II, Mil. Sc. 102 (men)...	1(1-2)
Infantry I, Mil. Sc. 101 (men)....	1(1-2)	Industrial Journalism Lecture.....	R
Industrial Journalism Lecture.....	R	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	
Elem. Journalism, Ind. Jour. 150..	2(2-0)	Ind. Writing, Ind. Jour. 157.....	3(1-6)
Graphic Arts Survey, Ind. Jour. 103 .....	2(2-0)	Economics I, Econ. 101.....	3(3-0)
Typography Lab., Ind. Jour. 104..	1(0-3)	English Literature, Engl. 172.....	3(3-0)
Biological Science .....	5( - )	Extm. Speech I, Pub. Spk. 106...	2(2-0)
Modern Language .....	3(3-0)	Current History, Hist. 126.....	1(1-0)
Option* .....	2( - )	Option* .....	3( - )
Infantry III, Mil. Sc. 103 (men)...	1(1-2)	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Industrial Journalism Lecture.....	R	Industrial Journalism Lecture.....	R
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	
News. and Mag. Writing, Ind. Jour. 167 .....	2(2-0)	Pub. Inf. Methods, Ind. Jour. 183 .....	2(2-0)or
History and Ethics of Journalism, Ind. Jour. 273.....	3(3-0)	Rural Press, Ind. Jour. 181.....	2(2-0)or
Prin. of Adv., Ind. Jour. 178.....	4(4-0)	Radio Writing, Ind. Jour. 162.....	2(2-0)
American Literature, Engl. 175....	3(3-0)	Editing, Ind. Jour. 166.....	2(0-6)
Option* .....	3( - )	English Elective .....	3(3-0)
Industrial Journalism Lecture.....	R	Elective and Option* .....	8( - )
English Proficiency, Engl. 169.....	R	Industrial Journalism Lecture.....	R
Total .....	15	Total .....	15

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Cent. Affairs I, Ind. Jour. 253.....	3(3-0)	Cont. Affairs II, Ind. Jour. 255....	3(3-0)
Adv. Reporting, Ind. Jour. 228....	3(2-3)or	American Government, Hist. 151...	3(3-0)
Jour. for Women, Ind. Jour. 170...	3(3-0)	Elective and Option* .....	9( - )
Elective and Option* .....	9( - )	Industrial Journalism Lecture.....	R
Industrial Journalism Lecture.....	R		
Total .....	15	Total .....	15

*Summary.*—Men: Physical education, two years required; military science, 4 hours; industrial journalism, 30 hours; options, 25 hours; modern language, 9 hours; other prescribed subjects, 41 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

College Rhetoric I, Engl. 101.....	3(3-0)
Harmony I, Mus. 101.....	2(2-0)
Ear Tr. and St. Sing. I, Mus. 105,	2(1-3)
Piano, Mus. 161.....	2(1-6)
Voice, Mus. 156.....	2(1-6)
Orch. Instruments I, Mus. 151A...	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
General Psychology, Educ. 184....	3(3-0)
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)
Harmony II, Mus. 102.....	2(2-0)
Ear Tr. and St. Sing. II, Mus. 106,	2(1-3)
Piano, Mus. 161.....	2(1-6)
Voice, Mus. 156.....	2(1-6)
Orch. Instruments II, Mus. 151B..	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
Phys. or Biol. Science.....	3( - )
Infantry II, Mil. Sc. 102 (men)....	1(1-2)
Phys. Ed., M or W.....	R

Total ..... 15 or 16

### SOPHOMORE

#### FIRST SEMESTER

Harmony III, Mus. 103.....	2(2-0)
Ear. Tr. and St. Sing. III, Mus. 107,	2(1-3)
Piano, Mus. 161.....	1(½-3)
Voice, Mus. 156.....	1(½-3)
Orch. Instr. III, Mus. 151C.....	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
Hist. and Ap. of Mus. I, Mus. 130,	2(2-0)
Choral Conducting, Mus. 133.....	1(1-0)
Phys. or Biol. Science.....	5( - )
Infantry III, Mil. Sc. 103 (men)...	1(1-2)
Phys. Ed., M or W.....	R

Total ..... 15 or 16

#### SECOND SEMESTER

Harmony IV, Mus. 104.....	2(2-0)
Ear Tr. and St. Sing. IV, Mus. 108,	2(1-3)
Piano, Mus. 161.....	1(½-3)
Voice, Mus. 156.....	1(½-3)
Orch. Instr. IV, Mus. 151D.....	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
Hist. and Ap. of Mus. II, Mus. 131,	2(2-0)
English Literature, Engl. 172.....	3(3-0)
Nonmusic elective.....	3( - )
Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Phys. Ed., M or W.....	R

Total ..... 15 or 16

### JUNIOR

#### FIRST SEMESTER

Counterpoint, Mus. 109.....	2(2-0)
Voice or Instrument.....	2(1-6)
School Music I, Mus. 138.....	2(2-0)
Rad. Mus. Ap. Programs, Mus. 115,	1(1-0)
Instrumental Conducting, Mus. 134,	1(1-0)
Orch. Instr. V, Mus. 151E.....	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
Educ. Psychology, Educ. 109.....	3(3-0)
Education elective.....	3(3-0)
English Proficiency, Engl. 169.....	R

Total ..... 15

#### SECOND SEMESTER

Musical Form and Analysis, Mus.	
111.....	1(1-0)
Voice or Instrument.....	2(1-6)
School Music II, Mus. 139.....	2(2-0)
Pub. Spk. for Teachers, Pub. Spk.	
138.....	1(1-0)
Orch. Instr. VI, Mus. 151F.....	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
Educ. Admin., Educ. 210.....	3(3-0)
American Literature, Engl. 175....	3(3-0)
Nonmusic elective.....	2( - )

Total ..... 15

### SENIOR

#### FIRST SEMESTER

Voice or Instrument.....	2(1-6)
Orch. Instr. VII, Mus. 151G.....	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
Teach. Part. in Music, Educ. 129...	3(3-0)
Instr. and Orches., Mus. 136.....	3(3-0)
English elective.....	3(3-0)
Nonmusic elective.....	3( - )

Total ..... 15

#### SECOND SEMESTER

Voice or Instrument.....	2(1-6)
Orch. Instr. VIII, Mus. 151H.....	½(1-0)
Choral Ensemble, Mus. 194.....	½(0-2)
School Music III, Mus. 143.....	2(2-0)
Education elective.....	3(3-0)
Nonmusic elective.....	7( - )

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.....	½(1-0)	Orch. Instr. II, Mus. 151B.....	½(1-0)
Ensemble, Mus. 183.....	½(0-2)	Ensemble, Mus. 183.....	½(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.....	½(1-0)	Orch. Instr. IV, Mus. 151D.....	½(1-0)
Ensemble, Mus. 183.....	½(0-2)	Ensemble, Mus. 183.....	½(0-2)
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)
Recital I, Mus. 181A.....	R	Infantry IV, Mil. Sc. 104 (men)...	1(1-2)
Phys. Ed., M or W.....	R	Recital II, Mus. 181B.....	R
Total .....	15 or 16	Phys. Ed., M or W.....	R
		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. 109.....	2(2-0)	Musical Form and Analysis, Mus.	
Orch. Instr. V, Mus. 151E.....	½(1-0)	111 .....	1(1-0)
Ensemble, Mus. 183.....	½(0-2)	Orch. Instr. VI, Mus. 151F.....	½(1-0)
Choral Conducting, Mus. 133.....	1(1-0)	Ensemble, Mus. 183.....	½(0-2)
Phys. for Musicians I, Phys. 121..	5(4-3)	General Psychology, Educ. 184....	3(3-0)
Recital III, Mus. 181C.....	R	Nonmusic elective .....	4( - )
English Proficiency, Engl. 169.....	R	Recital IV, Mus. 181D.....	R
Total .....	15	Total .....	15

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Music Major .....	4(1-12)	Music Major .....	4(1-12)
Ensemble, Mus. 183.....	½(0-2)	Orch. Instr. VIII, Mus. 151H.....	½(1-0)
Orch. Instr. VII, Mus. 151G.....	½(1-0)	Ensemble, Mus. 183.....	½(0-2)
Methods and Materials for the		Instr. and Orches., Mus. 136.....	3(3-0)
Studio, Mus. 149.....	1(2-0)	American Literature, Engl. 175....	3(3-0)
English Literature, Engl. 172.....	3(3-0)	Nonmusic elective .....	4( - )
Nonmusic elective .....	6( - )	Recital VI, Mus. 181F.....	R
Recital V, Mus. 181E.....	R	Prac. Teach. of Music, Mus. 187..	R
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; non-music 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. 130.....	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)
Extens. 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		
<hr/>		<hr/>	
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 Fen. 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. 141....	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
<hr/>		<hr/>	
Total .....	16	Total .....	16

### JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Community Hygiene, Phys. Ed. 147,	2(2-0)	First Aid and Mas., Phys. Ed. 113,	3(3-0)
Org. and Admin. of Phys. Ed. M.,		Track and Field Sports, Phys. Ed.	
Phys. Ed. 146.....	3(3-0)	140 .....	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( - )
English Proficiency, Engl. 169.....	R		
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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. 124.....	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( - )
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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)	Extens. 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)	Gen. Technic II, Phys. Ed. 157B..	2(1-3)
Gen. Technic I, Phys. Ed. 157A....	2(1-3)	Phys. Ed., W.....	R
Phys. Ed., W.....	R		
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)
Prin. and Phil. of Phys. Ed., Phys. Ed. 162 .....	3(3-0)	Sociology, Econ. 151.....	3(3-0)
Playground Management and Games W, Phys. Ed. 182A.....	2(1-3)	American Literature, Engl. 175....	3(3-0)
Gen. Technic III, Phys. Ed. 157C,	2(1-3)	Gen. Technic IV, Phys. Ed. 157D,	2(1-3)
Phys. Ed., W.....	R	Elective† .....	1( - )
		Phys. Ed., W.....	R
Total .....	15	Total .....	15

## JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Health Tchg. in H. S., Phys. Ed. 179 .....	3(3-0)	Psych. of Child. and Adol., Educ. 250 .....	3(3-0)
Embryology, Zoöl. 219.....	4(3-8)	Educ. Sociology, Educ. 239.....	3(3-0)
Gen. Technic V, Phys. Ed. 157E...	2(1-3)	Gen. Technic VI, Phys. Ed. 157F,	2(0-6)
Health Exam. W, Phys. Ed. 171...	2(0-6)	Therap. and Mas., Phys. Ed. 172..	2(0-6)
Elective† .....	4( - )	Elective† .....	5( - )
Phys. Ed., W.....	R	Phys. Ed., W.....	R
English Proficiency, Engl. 169....	R		
Total .....	15	Total .....	15

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Amer. Hist. III, Hist. 203.....	3(3-0)	Rec. Leadership, Phys. Ed. 191...	2(2-0)
Educ. Psychology, Educ. 109.....	3(3-0)	Organization and Administration of Phys. Ed. W, Phys. Ed. 176...	2(2-0)
Ap. Nutr., Foods and Nutr. 121...	2(2-0)	Teach. Partic. in H. S. Educ. 163,	3(3-0)
Teach. and Adapt. of Phys. Educ., Phys. Ed. 188.....	3(3-0)	Gen. Technic VIII, Phys. Ed. 157H .....	2(1-3)
Gen. Technic VII, Phys. Ed. 157G,	2(1-3)	Educ. Admin., Educ. 210.....	3(3-0)
Elective† .....	2( - )	Elective† .....	3( - )
Phys. Ed., W.....	R	Phys. Ed., W.....	R
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)
El. Statistics, Math. 126.....	3(3-0)	Economics II, Econ. 104.....	3(3-0)
Valuation Accounting, Econ. 280...	3(3-0)	Sociology, Econ. 151.....	3(3-0)
History elective .....	3( - )	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)
Money and Banking, Econ. 116...	3(3-0)	Bus. Org. and Fin., Econ. 215....	3(3-0)
Marketing, Econ. 246.....	3(3-0)	Option* .....	3( - )
Option* .....	3( - )	Elective† .....	6( - )
Elective† .....	4( - )		
English Proficiency, Engl. 169....	R		
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.

‡ 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; 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 and Business; Industrial Journalism 178, Principles of Advertising; and Mathematics 150, Mathematics of Finance.

## Curriculum in Business Administration and 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)
Option* .....	3(-)	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	
El. of Statistics, Math. 126.....	3(3-0)	Specialized Acctg., Econ. 294.....	3(3-0)
Money and Banking, Econ. 116....	3(3-0)	Adv. Cost Accounting, Econ. 288..	2(2-0)
Bus. Org. and Fin., Econ. 215.....	3(3-0)	Am. Govt., Hist. 151.....	3(3-0)
Adv. Accounting, Econ. 281.....	3(3-0)	Public Speaking, Pub. Spk. 107...	2(2-0)
Option* .....	3(-)	Elective† .....	5(-)
English Proficiency, Engl. 169.....	R		
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. Adm. Seminar, Econ. 249....	1(1-0)
Business Law I, Hist. 163.....	3(3-0)	Tax Accounting, Econ. 286.....	3(3-0)
Elective† .....	7(-)	Elective† .....	8(-)
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, zoology, 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.

## 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 which aggregate nine hours, or six hours in a second modern language. 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 wish English should elect Engl. 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. Prob. in Coml. Correspondence, Engl. 223.....	3(3-0)
Coml. Correspondence, Engl. 122..	3(3-0)	Short Story I, Engl. 228.....	3(3-0)
Writ. and Oral Salesmanship, Engl. 123 .....	3(3-0)	Short Story II, Engl. 230.....	3(3-0)
Agricultural English, Engl. 137....	3(3-0)	Oral English, Engl. 232.....	3(3-0)
Adv. Composition I, Engl. 219....	3(3-0)	Advanced Grammar, Engl. 243....	3(3-0)
Adv. Composition II, Engl. 220...	3(3-0)		

### 2. English Literature

English Literature, Engl. 172.....	3(3-0)	Wordsworth, Shelley, and Keats, Engl. 278 .....	3(3-0)
American Literature, Engl. 175....	3(3-0)	World Classics I, Engl. 280.....	3(3-0)
Hist. of Eng. Lit., Engl. 181.....	3(3-0)	World Classics II, Engl. 281.....	3(3-0)
Probs. in English, Engl. 247.....	Cr. Ar.	Contemporary Fiction, Engl. 283..	3(3-0)
Chaucer, Engl. 260.....	3(3-0)	Contemporary Drama, Engl. 284..	3(3-0)
Milton and the Puritan Revolt, Engl. 262 .....	3(3-0)	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)
English Essayists, Engl. 276.....	3(3-0)	Mod. Thgt. in Rec. Lit., Engl. 295,	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)		

### 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 wish 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)
Theo. Electrochemistry, Chem. 216,	3(3-0)	Adv. Phys. Chem. I, Chem. 288...	3(3-0)
Electrochem. Lab., Chem. 217.....	2(0-6)	Adv. Phys. Chem. II, Chem. 289..	3(3-0)
		Adv. Phys. Chem. III, Chem. 294,	3(3-0)

## 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)
Biochem., Chem. 231.....	5(3-6)	Vitamin Analysis, Chem. 258.....	2(0-6)
Pathological Chem., Chem. 235....	2(2-0)	Organic Chemistry I, Chem. 266...	5(3-6)
Biochemical Analysis, Chem. 237..	2(0-6)	Organic Chemistry II, Chem. 267..	4(2-6)
		Quant. Org. Anal., Chem. 295.....	2(0-6)

## 9. Physics

Students who wish 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. 108.....	5(4-3)	Heat, Phys. 238.....	3(3-0)
Descriptive Physics, Phys. 136....	3(3-0)	Heat Laboratory, Phys. 239.....	1(0-3)
Descriptive Astronomy, Phys. 141..	3(3-0)	Sound, Phys. 240.....	3(3-0)
Meteorology, Phys. 146.....	3(3-0)	Light, Phys. 243.....	3(3-0)
Photography, Phys. 151.....	2(1-3)	Light Laboratory, Phys. 244.....	1(0-3)
Lab. Tech. and App., Phys. 201....	2(0-6)	Elec. and Magnetism, Phys. 251...	3(3-0)
Applied X rays, Phys. 205.....	3(2-3)	Elec. and Magnetism Lab., Phys.	
Astronomy, Phys. 210.....	3(3-0)	254 .....	1(0-3)
Geophysics I, Phys. 217.....	3(3-0)	Elec. Oscill. and Waves, Phys. 265,	3(3-0)
Geophysics II, Phys. 218.....	3(1-6)	Elec. Oscill. and Waves Lab., Phys.	
Applied Spectroscopy, Phys. 220...	3(2-3)	266 .....	2(0-6)
Mechanics, Phys. 227.....	3(3-0)	Atomic Physics, Phys. 270.....	3(3-0)
Mechanics Laboratory, Phys. 228..	1(0-3)	Problems in Physics, Phys. 297....	Cr. Ar.

## 10. Bacteriology

Bact. 101 may be followed in order by 202, 204, 206, 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)
Bact. of Hum. Dis., Bact. 206....	5(3-6)	Microbial Fermentations, Bact. 242,	2(2-0)
Dairy Bacteriology, Bact. 211.....	3(1-6)	Sanitary and Food Bact., Bact. 244,	3(1-6)

### 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

Students who wish 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)	Zoöl. 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

Students who wish geology should take the basic courses, Geol. 103, 203, and 209, as early as possible.

General Geology, Geol. 103.....	3(3-0)	Stratig. Geol., Geol. 224.....	4(3-3)
Physiographic Geol., Geol. 110....	3(3-0)	Field Meth. in Geol., Geol. 230....	3(1-6)
Prin. of Geography, Geol. 140....	3(3-0)	Optical Mineralogy, Geol. 235....	4(2-6)
Historical Geology, Geol. 203.....	4(3-3)	Sedimentary Petrology, Geol. 236..	5(3-6)
Economic Geology, Geol. 207.....	4(3-3)	Geologic Literature, Geol. 241.....	3(3-0)
Cryst. and Min., Geol. 209.....	4(2-6)	Vert. Paleontology, Geol. 255.....	3(3-0)
Structural Geology, Geol. 215....	4(3-3)	Micropaleontology, Geol. 256.....	3(1-6)
Invert. Paleontology, Geol. 220....	4(3-3)	Problems in Geology, Geol. 275....	Cr. Ar.
Petro. Geol., Geol. 223.....	4(3-3)		

### 14. Entomology

Students who wish 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

Students who wish to teach history 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)	Amer. Dip. Hist., 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. 205.....	2(2-0)		

## 16. Economics and Sociology

Economics I, Econ. 101.....	3(3-0)	Property Insurance, Econ. 242.....	2(2-0)
Economics II, Econ. 104.....	3(3-0)	Life Insurance, Econ. 244.....	2(2-0)
Money and Banking, Econ. 116....	3(3-0)	Marketing, Econ. 246.....	3(3-0)
Business Management, Econ. 126..	2(2-0)	Market Adm., Econ. 247.....	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.
Labor Economics, Econ. 234.....	3(3-0)		

## 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)	Spec. Actg., Econ. 294.....	3(3-0)
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,	
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

News Pictures, Ind. Jour. 144.....	2(0-6)	Adv. Reptg., Ind. Jour. 228.....	3(2-3)
Elem. Journalism, Ind. Jour. 150..	2(2-0)	Form. of Pub. Op., Ind. Jour. 230,	3(3-0)
Ind. Writing, Ind. Jour. 157.....	3(1-6)	Cont. Affairs I, Ind. Jour. 253....	3(3-0)
Radio Writing, Ind. Jour. 162.....	2(2-0)	Cont. Affairs II, Ind. Jour. 255....	3(3-0)
Editing, Ind. Jour. 166.....	2(0-6)	Mat. of Jour., Ind. Jour. 265.....	2(2-0)
News. and Mag. Writ., Ind. Jour.		Hist. and Eth. of Jour., Ind.	
167 .....	2(2-0)	Jour. 273 .....	3(3-0)
Jour. for Women, Ind. Jour. 170...	3(3-0)	Col. Cond., Ind. Jour. 282.....	2(2-0)
Prin. of Adv., Ind. Jour. 178.....	4(4-0)	Cur. Period., Ind. Jour. 287.....	3(3-0)
Radio Adv., Ind. Jour. 179.....	3(3-0)	News. Mgt., Ind. Jour. 289.....	2(2-0)
Rural Press, Ind. Jour. 181.....	2(2-0)	Probs. in Ind. Jour., Ind. Jour.	
Pub. Inf. Meth., Ind. Jour. 183....	2(2-0)	295 .....	Cr. Ar.



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 Orch., Mus. 136.....	3(3-0)
Harmony IV, Mus. 104.....	2(2-0)	School Music I, Mus. 138.....	2(2-0)
Counterpoint, Mus. 109.....	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(2-3)	Infantry VII, Mil. Sc. 111.....	3(2-3)
Infantry VI, Mil. Sc. 110.....	3(2-3)	Infantry VIII, Mil. Sc. 112.....	3(2-3)

26. Physical Education and Athletics

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. 113 .....	3(3-0)	Kinesiology M, Phys. Ed. 141....	3(3-0)
Personal Hygiene, Phys. Ed. 119..	2(2-0)	Pub. Sch. Prog. in Phys. Ed., Phys. Ed. 142 .....	2(2-0)
Swimming M, Phys. Ed. 120.....	1(0-3)	Hist. of Phys. Ed., Phys. Ed. 143,	2(2-0)
Physiol. of Ex., Phys. Ed. 123....	2(2-0)	Track and Field Spts., Phys. Ed. 144 .....	2(1-3)
Phys. Diag. and Pres., Phys. Ed. 124 .....	3(3-0)	Nat. and Fcn. 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

Fund. Rhythm, Phys. Ed. 155....	1(0-3)	Prin. and Phil. of Phys. Educ., Phys. Ed. 162.....	3(3-0)
Gen. Tech. I, Phys. Ed. 157A.....	2(1-3)	Health Tehg. in H. S., Phys. Ed. 179 .....	3(3-0)
Gen. Tech. II, Phys. Ed. 157B....	2(1-3)	Playgr. Mgmt. and Games, Phys. Ed. 182 .....	2(1-3)
Gen. Tech. III, Phys. Ed. 157C....	2(1-3)	Teach. and Adapt. of Phys. Ed., Phys. Ed. 188.....	3(3-0)
Gen. Tech. IV, Phys. Ed. 157D....	2(1-3)	Rec. Ldrship., Phys. Ed. 191.....	2(2-0)
Gen. Tech. V, Phys. Ed. 157E....	2(1-3)		
Gen. Tech. VI, Phys. Ed. 157F....	2(0-6)		
Gen. Tech. VII, Phys. Ed. 157G....	2(1-3)		
Gen. Tech. VIII, Phys. Ed. 157H..	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)
Extem. 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)
Extem. 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)
Bact. of Hum. Dis., Bact. 206.....	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, Foods and Nutr. 112 .....	3(3-0)	General Zoology, Zoöl. 105.....	5(3-6)
Ap. Nutr., Foods 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, Foods 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. Probs. of the Family, House- hold 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, Foods 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)	Interior Decoration I, Art 113....	2(0-6)
Water Color I, Arch. 118.....	2(0-6)	Interior Decoration II, Art 115....	2(0-6)
Water Color II, Arch. 119.....	2(0-6)	Interior Decoration III, Art 117...	2(0-6)
Life Drawing I, Arch. 121.....	2(0-6)	Drawing, Art 120.....	2(0-6)
Life Drawing II, Arch. 123.....	2(0-6)	Lettering, Art 127.....	2(0-6)
Domestic Architecture, Arch. 124..	2(2-0)	Costume Design I, Art 130.....	2(0-6)
Apprec. of Arch., Arch. 125.....	3(3-0)	Costume Design II, Art 134.....	2(0-6)
Clay Modeling, Arch. 133.....	2(0-6)	Costume Design III, Art 138.....	2(0-6)
Pen and Ink Drawing, Arch. 134..	2(0-6)	Principles of Art I, Art 201.....	3(3-0)
Block Prints, Arch. 137.....	2(0-6)	Principles of Art II, Art 202.....	3(3-0)
Commercial Illus. I, Arch. 165....	2(0-6)	Costume Illustration, Art 212....	2(0-6)
Commercial Illus. II, Arch. 170....	2(0-6)	Problems in Design, Art 217.....	Cr. Ar.
Hist. Paint. and Sculp., Arch. 179,	3(3-0)	Problems in Interior Decoration, Art 232 .....	Cr. Ar.
Adv. Freehand Drawing, Arch. 201,	Cr. Ar.	Historic Textiles Design, Art 233..	2(2-0)
Etching, Arch. 217.....	2(0-6)	Problems in Costume Design, Art 235 .....	Cr. Ar.
Oil Painting, Arch. 230.....	Cr. Ar.	Art of the S. W. Indians, Art 242,	2(2-0)
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 Building, Agric. Engg. 101..	3(2-3)	Farm Carpentry, Shop 147.....	3(1-6)
Farm Mach., Agr. 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)	Machine Tool Work I, Shop 170..	2(0-6)
Ele. Crafts for Teachers, Shop 118,	2(0-6)	Oxyacetylene Welding, Shop 171...	1(0-3)
Reed Furn. Const., Shop 119.....	2(0-6)	Arc Welding, Shop 172.....	1(0-3)
Woodwork I, Shop 121.....	2(0-6)	Sheet Metal Work, Shop 173.....	2(0-6)
Wood and Metal Fin., Shop 122..	2(0-6)	Farm Shop Methods, Shop 175....	3(1-6)
Woodwork II, Shop 126.....	2(0-6)	Machine Tool Work II, Shop 192,	2(0-6)
Woodwork III, Shop 131.....	2(0-6)	Machine Tool Work III, Shop 193,	1(0-3)
Woodturning, Shop 135.....	2(0-6)	Adv. Shop Practice, Shop 261.....	Cr. Ar.
Woodwork IV, Shop 139.....	2(0-6)	Metallography I, Shop 262.....	1(0-3)

### 38. Printing

For industrial option in the Curriculum in Industrial Journalism.

Ad Typog. I, Ind. Jour. 108.....	2(0-6)	Job Comp. II, Ind. Jour. 118.....	2(0-6)
Ad Typog. II, Ind. Jour. 111.....	2(0-6)	Job Comp. III, Ind. Jour. 120....	2(0-6)
Ad Typog. 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 Program Production, Pub. Spk. 231 .....	2(1-3)
Hist. and Apprec. of Music II, Mus. 131 .....	2(2-0)	Radio Continuity I, Pub. Spk. 240,	2(2-0)
Survey of Broadcasting, Pub. Spk. 162 .....	1(1-0)	Radio Continuity II, Pub. Spk. 241,	2(2-0)

### 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)	Qual. of Wheat and Flour, Mill. Ind. 212 .....	3(3-0)
Grain Marketing, Econ. 203.....	3(3-0)	Mill. Ind. Probs., 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, Foods 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)	Heredity and Eugenics, Zoöl. 216..	2(2-0)
Social Pathology, Econ. 258.....	3(3-0)		

## Bacteriology

Professor BUSHNELL  
 Professor GAINNEY  
 Associate Professor FOLTZ  
 Assistant Professor NELSON  
 Instructor TWIEHAUS

Instructor PEPLER  
 Instructor VARDIMAN  
 Instructor LORD  
 Graduate Assistant HAAS  
 Graduate Assistant HARRIS

## FOR UNDERGRADUATE CREDIT

101. GENERAL MICROBIOLOGY. 3(1-6)\*; I, II, and SS. Prerequisite: Chem. 103 or 110. Staff.

Morphological and biological characters, classification and distribution of bacteria, development of bacteria, culture media, staining values, and principles of applied bacteriology. Deposit, \$8.

102. BACTERIOLOGY I. 5(3-6); I, II, and SS. Prerequisite: Chem. 103 or 110. Staff.

General characters of microorganisms, methods of cultivation of bacteria and closely related organisms. 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, Twiehaus, Vardiman.

Fundamentals of bacteriology as applied to veterinary medicine. Deposit, \$8.

116. PATHOGENIC BACTERIOLOGY II. 4(2-6); I. Prerequisite: Bact. 111. Bushnell, Twiehaus, Vardiman.

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.

\* 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.

206. BACTERIOLOGY OF HUMAN DISEASES. 5(3-6); I. Prerequisite: Bact. 101. Bushnell, Foltz.

Pathogenic bacteria and their effect upon human health and diseases. Deposit, \$8.

211. DAIRY BACTERIOLOGY. 3(1-6); II. Prerequisite: Bact. 101 or 111. Nelson.

Bacterial flora and their effects in milk, butter, 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, Vardiman.

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 105 or 111. Twiehaus, Vardiman.

Methods of control of poultry diseases. Deposit, \$3.

222. PHYSIOLOGY OF MICROÖRGANISMS. 3(3-0); I. Prerequisite: Bact. 101 or 111 and Chem. 122. Nelson.

Chemistry and physics of microbial processes.

225. BACTERIOLOGICAL TECHNIC. 3(0-9); I. Prerequisite: Bact. 101 or 111. Gainey.

Technic of laboratory manipulation; fundamental experiments and special experiments selected according to the interest of the student. Deposit, \$5.

229. IMMUNOLOGY. 5(3-6); II. Prerequisite: Bact. 206. 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. 101. 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, Vardiman.

*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  
 Associate Professor NEWCOMB

Assistant Professor FRAZIER  
 Assistant Professor KINGSLEY  
 Assistant Professor BATES  
 Instructor McCRACKEN  
 Instructor HANSING  
 Graduate Assistant COCHRAN  
 Graduate Research Assistant LUNSFORD

### 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 alternate years. 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, Hansing.  
 Important diseases of crops and the organisms which cause them. Charge, \$3.
206. MORPHOLOGY OF THE FUNGI. 3(1-6); I. Prerequisite: Bot. 105. Offered in alternate years. Hansing.  
 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. 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 alternate years. 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, physiology, taxonomy, and diseases of plants. Charge, \$2.
217. BOTANICAL MICROTECHNIC. 3(1-6); II. Prerequisite: Bot. 101 and 105. Offered in alternate years. 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 consent of instructor. Staff. Charge, \$5.

Work is offered in:

*Anatomy.* Newcomb.

*Cytogenetics.* McCracken.

*Cytology.* Newcomb, McCracken.

*Ecology.* Gates.

*Microtechnic.* Bates.

*Morphology.* Kingsley.

*Mycology.* Hansing.

*Pathology.* Melchers, Haymaker, Elmer, Hansing.

*Physiology.* Miller, Davis, Frazier.

*Taxonomy.* Gates.

241. FIELD CROP DISEASES. 3(1-6); II. Prerequisite: Bot. 205. Offered in alternate years. 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 alternate years. 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 alternate years. 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 alternate years. 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 alternate years. McCracken.

Chromosome structure, mechanics, and behavior; their significance for problems of genetics, evolution, and the origin of species. Charge, \$3.

#### FOR GRADUATE CREDIT

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.

*Cytogenetics.* McCracken.

*Cytology.* Newcomb, McCracken.

*Ecology.* Gates.

*Microtechnic.* Bates.  
*Morphology.* Kingsley.  
*Mycology.* Hansing.  
*Pathology.* Melchers, Haymaker, Elmer, Hansing.  
*Physiology.* Miller, Davis, Frazier.  
*Taxonomy.* Gates.

## Chemistry

Professor KING	Instructor CALDWELL
Professor HUGHES	Instructor HOSTETTER
Professor BRUBAKER	Instructor DORF
Professor COLVER	Instructor BEERS
Professor PERKINS	Instructor OLSEN
Associate Professor VAN WINKLE	Instructor NEAL
Associate Professor BARHAM	Instructor SCHRENK
Associate Professor LASH	Instructor SILKER
Assistant Professor HALL	Instructor ALLEN
Assistant Professor HARRISS	Instructor MEIBOHM
Assistant Professor WHITNAH	Instructor KUNDIGER
Assistant Professor MARLOW	Graduate Assistant OLSON
Assistant Professor SMITS	Graduate Assistant EDGAR
Assistant Professor SHENK	Graduate Assistant FRIEDE
Assistant Professor CONRAD	Graduate Assistant TAYLOR
Assistant Professor ANDREWS	Graduate Assistant WOODS
Assistant Professor PETERSON	Graduate Assistant BRANDT
Instructor McDOWELL	Graduate Assistant BRYKE

### 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. CHEMISTRY E-I. 4(3-3); I, II, and SS. Not open to students who have credit in Chem. 101. Staff.

Similar content to Chem. 101, with special emphasis on applications to engineering. Deposit, \$7.50.

108. CHEMISTRY E-II. 4(3-3); I, II, and SS. Prerequisite: Chem. 101 or 107. Not open to students who have credit in Chem. 103 and 104. Staff.

Continuation of Chem. 107. Deposit, \$7.50.

110. GENERAL CHEMISTRY. 5(3-6); I and II. Not open to students who have credit in any college courses in inorganic chemistry. Staff.

Principal 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.

## 132. INSPECTION TRIP. R; I. Staff.

Such manufacturing centers as Kansas City, St. Louis, and Chicago are visited. Cost varies from \$30 to \$50.

## 133. INDUSTRIAL CHEMISTRY SEMINAR. R; I and II. Staff.

Special topics for undergraduates in the Curriculum in Industrial Chemistry.

## 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.

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. 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. Lash.

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, Andrews.

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. King.

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.

218. CHEMICAL THERMODYNAMICS I. 3(3-0); II. Prerequisite: Chem. 206 and Math. 115. Andrews.

Thermodynamics particularly applicable to chemistry, the first and second laws of thermodynamics and their application.

219. CHEMICAL THERMODYNAMICS II. 3(3-0); II. Prerequisite: Chem. 218. Andrews.

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 to 5 hours; 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. BIOCHEMISTRY. 5(3-6); I, II, and SS. Prerequisite: Chem. 122. Hughes, Marlow. 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 to 5 hours; 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.

238. 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.

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.

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 of volumetric analysis. Deposit, \$10.

252. CHEMISTRY OF SOILS AND FERTILIZERS. 2(0-6); I. Prerequisite: Chem. 250. Perkins. Deposit, \$10.

253. CHEMISTRY OF CROPS. 2(0-6); II. Prerequisite: Chem. 122 and 250. Perkins. 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.

258. VITAMIN ANALYSIS. 2(0-6); I, II, and SS. Prerequisite: Chem. 231 and 251. Peterson.

Chemical and biological determination of vitamins. Deposit, \$10.

259. INSTRUMENTAL METHODS IN CHEMICAL ANALYSIS. 3(2-3). Prerequisite: Chem. 206. Shenk.

Application of the spectograph, spectrophotometer, colorimeter, nephelometer, refractometer, X-ray equipment, and other instruments in the chemical analysis of gases, liquids, and solids. Deposit, \$7.50.

260. ADVANCED QUANTITATIVE ANALYSIS. 1 to 5 hours. Prerequisite: Chem. 241 or 250 and 251. Brubaker. Deposit, \$10.

261. INDUSTRIAL CHEMICAL ANALYSIS. 3(1-6); I. Prerequisite: Chem. 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.

264. FOOD TECHNOLOGY. 3(3-0); I. Prerequisite: Chem. 122 or 125 or 220 or 266. Smits.

Chemical composition, production, consumption, statistics, and treatment of food material.

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.

268. DAIRY CHEMISTRY. 2(2-0); I. Prerequisite: Chem. 122 and 250. Whitnah.

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, Conrad.

*Biochemistry.* Hughes, Whitnah, Marlow, Conrad, Peterson.

*Chemical Utilization of Farm Products.* King, Barham.

*Food Chemistry.* Smits.

*General and Physical Chemistry.* King, Lash, Hall, Shenk, Andrews.

*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 RECITATION. 3(3-0); II. Prerequisite: Chem. 206. King, Shenk.

Homogeneous and heterogeneous equilibria, chemical kinetics, electrical conductance, electromotive force, chemical thermodynamics, photochemistry, and atomic and molecular structure.

273. PHYSICAL CHEMISTRY II LABORATORY. 2(0-6); II. Prerequisite: Chem. 272 or concurrent registration. Shenk. Deposit, \$10.

275. CHEMISTRY SEMINAR. R; I and II. Staff.

276. CHEMICAL LITERATURE. 2(2-0); I and II. Prerequisite: Chem. 267. McDowell.

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 or consent of instructor. 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. 272 or consent of instructor. 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.

294. ADVANCED PHYSICAL CHEMISTRY III. 3(3-0); I or II. Prerequisite: Chem. 272 or consent of instructor. Andrews.

Continuation of Chem. 288.

295. QUANTITATIVE ORGANIC ANALYSIS. 2(0-6); I, II, and SS. Prerequisite: Chem. 241 and 267. Silker.

Combustion analysis of organic compounds for carbon, hydrogen, and nitrogen; halogen and sulfur determination by the Carius method. Deposit, \$10.

299. CHEMICAL TOXOLOGY. 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, Conrad.

*Biochemistry.* Hughes, Whitnah, Marlow, Conrad, Peterson.

*Chemical Utilization of Farm Products.* King, Barham.

*Food Chemistry.* Smits.

*General and Physical Chemistry.* King, Lash, Hall, Shenk, Andrews.

*Industrial Chemistry.* Van Winkle.

*Organic Chemistry.* Colver, Barham, Whitnah.

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  
 Professor STEWART  
 Professor HOLTZ  
 Professor HODGES  
 Professor MONTGOMERY  
 Associate Professor THOMPSON  
 Associate Professor WARD  
 Assistant Professor PARSONS  
 Assistant Professor PINE

Assistant Professor DOLL  
 Assistant Professor WILSON  
 Assistant Professor BAGLEY  
 Instructor LETBETTER  
 Instructor LONG  
 Instructor GELLEIN  
 Instructor OTTO  
 Instructor MCCOY  
 Instructor HOECKER  
 Instructor FOX

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. A candidate, in order to be admitted to the examination, must have completed 60 semester hours of college work, or in lieu thereof submit evidence of the completion of five years of public accounting experience approved by the Board of Examiners, in addition to the completion of a four-year high-school course or its equivalent.

The examination is given in auditing, accounting, and business law, and is held in May and November of each year. The questions are supplied by the American Institute of Accountants.

A candidate who passes the examination must furnish evidence of having had three years of public accounting experience satisfactory to the Board of Examiners before the certificate is granted.

### **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. Bagley.  
 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. Bagley.

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. 116 and 134. Thompson.

Organization and classification of business enterprises, their financial structure, and internal management.

222. INVESTMENTS. 3(3-0); I and SS. Prerequisite: Econ. 134 or 136 and 215. Bagley.

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. Bagley.

230. PRINCIPLES OF TRANSPORTATION. 3(3-0); II. Prerequisite: Econ. 101. Bagley.

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, 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.

247. MARKET ADMINISTRATION. 3(3-0); II. Prerequisite: Econ. 246. Ward.  
Problem approach to management aspects of market control.

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, Bagley.

*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, Bagley.

*Insurance, investments, and accounting.* Stewart.

*Marketing.* Ward.

*Public finance.* Howe.

305. ADVANCED ECONOMICS. 3(3-0); I. Prerequisite: Econ. 101. Ward.  
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, Long.

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. Long.

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

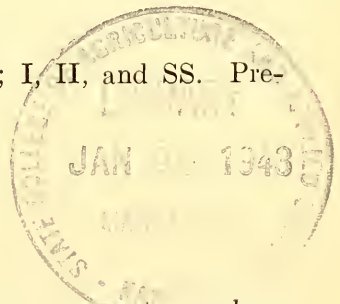
(For Econ. 112, see agricultural section.)

133. ACCOUNTING I. 3(2-3); I, II, and SS. Staff.

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. Staff.

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. Staff.  
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. Letbetter.

Advanced course in accounting theory; content and analysis of accounting statements.

281. ADVANCED ACCOUNTING. 3(3-0); I and SS. Prerequisite: Econ. 280 or concurrent registration. Letbetter, Gellein.

Application of accounting principles to partnerships, corporations with subsidiaries and branches, companies in financial difficulties.

286. TAX ACCOUNTING. 3(3-0); II. Prerequisite: Econ. 280 or concurrent registration. Stewart.

Accounting problems in income, sales, social security, and other taxes.

287. COST ACCOUNTING. 3(3-0); I and SS. Prerequisite: Econ. 134. Gellein.  
Allocation of production costs to determine financial results and guide the management of business enterprises.

288. ADVANCED COST ACCOUNTING. 2(2-0); II. Prerequisite: Econ. 287. Gellein.

Standard, distribution, and estimated costs and miscellaneous items.

289. GOVERNMENTAL ACCOUNTING. 2(2-0); I. Prerequisite: Econ. 280. Stewart.

Federal, state, and municipal accounts, and accounts for public institutions.

291. AUDITING. 3(3-0); I. Prerequisite: Econ. 280 and consent of instructor. Stewart.

Audits of accounts of commercial enterprises; attention to balance sheet and detail audits.

292. C. P. A. PROBLEMS. 3(3-0); II. Prerequisite: Consent of instructor. Stewart.

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.

294. SPECIALIZED ACCOUNTING. 3(3-0); II. Prerequisite: Econ. 280 or concurrent registration. Letbetter, Gellein.

Specialized statements, foreign exchange, estates and trusts, bank accounting, and stock brokerage.

## Education

Professor HOLTON  
 Professor PETERSON  
 Professor WILLIAMS  
 Professor STRICKLAND  
 Professor RUST  
 Professor DAVIDSON  
 Professor ALM  
 Professor LANGFORD

Associate Professor HALL  
 Associate Professor BAXTER  
 Associate Professor MOGGIE  
 Assistant Professor BROWN  
 Assistant Professor JOHNSON  
 Instructor TINCHER  
 Graduate Assistant PISHNEY

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 Home 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.
7. A certificate of proficiency in guidance will be issued by the Department of Education to those with satisfactory scholarship requirements who have completed the following: Educational Measurements, Statistical Methods Applied to Education, Principles of Guidance, Mental Tests, Technic of Mental Tests, Psychology of Exceptional Children, and Guidance Practicum.

## COURSES IN EDUCATION

### FOR UNDERGRADUATE CREDIT

109. EDUCATIONAL PSYCHOLOGY. 3(3-0); I, II, and SS. Prerequisite: Educ. 184 and junior standing. Moggie.  
Psychology of the learner and the learning process.
111. METHODS OF TEACHING. 3(3-0); SS. Prerequisite: Educ. 184; open to freshmen and sophomores only. Moggie.  
Problems of general method in classroom procedure in elementary grades.
129. TEACHING PARTICIPATION IN MUSIC. 1 to 4 hours. I, II, and SS. Prerequisite: Educ. 111 and 184. 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 Foods 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.
133. METHODS OF TEACHING FOR DIETETIC STUDENTS. 3(3-0); I and II. Prerequisite: Educ. 184, Foods and Nutr. 112, and Inst. Mgt. 101 or Foods and Nutr. 202. Rust.  
Principles of teaching applied to selection, organization, and development of subject matter for individuals and courses taught by dietitians.
134. METHODS OF TEACHING INDUSTRIAL ARTS. 3(1-6); I, II, and SS. Prerequisite: Senior standing and consent 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 Foods and Nutr. 102 and 107, or concurrent registration. Staff.

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. 184. Moggie.

Organization, sponsorship, and educational values of school publications, athletics, assembly programs, student council, home room, clubs, classes, dramatics, and musical organizations in the junior and senior high school, with special emphasis on the small and rural high school situations.

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, junior 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.

Sampling, organization and representation of data, selection and computation of appropriate statistics, interpretation of results, and research methods. Students may work with data from field of major interest.

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. Rust, Johnson.

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 consent of instructor. Staff.

Work is offered in:

*Educational Administration.* Strickland.

*Educational Measurements.* 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.

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\* From the staff of the Department of Home Study.

314. PROBLEMS IN ORGANIZATION AND PRESENTATION OF HOME ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing. Justin, Rust.

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.

318. SEMINAR IN HOME ECONOMICS EDUCATION. 2 or 3 hours; 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 Measurements.* 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. MENTAL HYGIENE. 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, II, and SS. 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.

279. **GUIDANCE PRACTICUM.** Credit to be arranged; I, II, and SS. Prerequisite: Educ. 212, 230, 260, and senior standing. Peterson, Williams, Strickland.

Field practice in areas of testing, measurement, organization, and counseling.

#### 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 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, Brown.

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. Prerequisite: Graduate standing and one year's experience teaching vocational agriculture. Davidson, Brown.

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, Hall.

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  
 Associate Professor PETERSON  
 Assistant Professor GARVEY  
 Assistant Professor PARKER  
 Assistant Professor ABERLE  
 Assistant Professor SCOTT  
 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.

169. ENGLISH PROFICIENCY. R; I and II.

An examination to demonstrate proficiency in written English.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

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, consent 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.* Rice, Breeden.

*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.
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. Breedon.
287. NOVEL II. 3(3-0); II. Prerequisite: Engl. 172. Breedon.
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.
295. MODERN THOUGHT IN RECENT LITERATURE. 3(3-0); I and II. Prerequisite: Engl. 175. Elcock.

Trends in thought, of especial interest to women, in British and American literature since 1914.

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.* Rice, Breeden.

*Old and Middle English.* Matthews.

*Romantic Revival.* Rockey.

*Sketch and Column Writing.* Davis.

*Technical Reports.* Peterson.



## Entomology

Professor DEAN  
Professor SMITH  
Professor PARKER  
Professor PAINTER  
Associate Professor WILBUR

Assistant Professor BRYSON  
Assistant LAMERSON  
Assistant FRITZ  
Graduate Assistant WENGER

## 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. Charge, \$1. 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.

117. MILLING ENTOMOLOGY. 2(2-0) II. 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. 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, \$2.50.

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, \$2.50.

216. PRINCIPLES OF TAXONOMY. 1(1-0); II. Prerequisite: Ent. 203 and 211. Painter.

217. TAXONOMY OF INSECTS I. 2(0-6); II. Prerequisite: Ent. 203, 211, and 216 or concurrent registration. Painter.

Determination of major orders of insects; taxonomic literature; use of catalogues. Charge, \$2.50.

218. TAXONOMY OF INSECTS II. 3(0-9); II. Prerequisite: Ent. 217. Painter. Intensive study of a selected group of insects. Charge, \$2.50.

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, \$2.50.

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 1942-'43 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.* Staff.

*Taxonomy and Morphology.* Smith, Painter, Wilbur.

240. INSECT PHYSIOLOGY. 3(3-0); II. Prerequisite: Ent. 211 and Zoöl. 222. 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.* Staff.

*Medical Entomology.* Smith.

*Taxonomy and Morphology.* Smith, Painter, Wilbur.

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## Geology

Professor SPERRY  
Associate Professor BYRNE

Instructor CHELIKOWSKY  
Graduate Assistant McNEAL

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; 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.
223. PETROLEUM GEOLOGY. 4(3-3); II. Prerequisite: Geol. 203. Chelikowsky. Origin, migration, and accumulation of petroleum, stratigraphy and structure of important fields. Charge, \$1.50.
224. STRATIGRAPHIC GEOLOGY. 4(3-3); I. Prerequisite: Geol. 203. Byrne. Description, classification, and correlation of stratigraphic units, with emphasis on those of Kansas. 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.
245. APPLIED GEOLOGY. 3(3-0). Prerequisite: Geol. 230. Staff. Geology applied to the science of engineering, particularly highway engineering. 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 CORRELL  
 Professor PARRISH

Professor WILLIAMS  
 Professor SAGESER  
 Associate Professor ALSOP  
 Associate Professor SWEEDLUN

### 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. Correll.  
 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: Sophomore standing; 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: Sophomore standing; 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: Sophomore standing; when taken for graduate credit, six hours of college history. Price.  
 Recent and contemporary problems in American history and government from the Civil War to the present; the new industrial nation. Charge, \$1.

205. AMERICAN AGRICULTURAL HISTORY. 2(2-0); I and SS. 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. Sweedlun.

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. Correll.

British maritime expansion movement; founding of colonies overseas; growth of self-governing dominions and the British Commonwealth.

228. AMERICAN DIPLOMATIC HISTORY. 2(2-0); I and SS. Prerequisite: When taken for graduate credit, six hours of college history. Price, Sageser.

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 and consent of instructor. 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.* Correll.

*European History.* Parrish.

*Government and Law.* Iles, Williams.

*Latin America.* Sweedlun.

*Twentieth 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. Sageser.

—Survey of historical works; methods in writing history, historical articles, or theses. Required of graduate majors in history.

#### 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.* Correll.

*European History.* Parrish.

*Latin America.* Sweedlun.

*Twentieth 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 alternate years. 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. Sageser, Sweedlun.



Nature and scope of international law; factors which contribute 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 alternate years. 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 THACKREY  
 Professor KEITH  
 Associate Professor AMOS  
 Associate Professor LASHBROOK  
 Associate Professor KRIEGHBAUM

Instructor DITTEMORE  
 Instructor ROCKWELL  
 Instructor PLATT  
 Instructor MEDLIN

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 and meet other requirements established by the department faculty.

### COURSES IN PRINTING

#### FOR UNDERGRADUATE CREDIT

103. GRAPHIC ARTS SURVEY. 2(2-0); I and II. Prerequisite: Sophomore standing and concurrent registration in Ind. Jour. 104. Amos.

History and art of printing; typography of advertisements and head display; principles of effective makeup. Journalism fee charged.

104. TYPOGRAPHY LABORATORY. 1(0-3); I and II. Prerequisite: Sophomore standing and concurrent registration in Ind. Jour. 103. Amos.

Typesetting, proofreading, correction of forms, as a background for journalism. Journalism fee charged.

108. AD TYPOGRAPHY I. 2(0-6); I and II. Prerequisite: Ind. Jour. 104. Amos.

Principles of display and design as applied to advertisements. Journalism fee charged.

111. AD TYPOGRAPHY II. 2(0-6); I and II. Prerequisite: Ind. Jour. 108. Amos.

Continuation of Ind. Jour. 108. Journalism fee charged.

112. AD TYPOGRAPHY 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. 104. 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. PRESSWORK 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. PRESSWORK 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

144. NEWS PICTURES. 2(0-6); I, II, and SS. Prerequisite: Phys. 151 and consent of instructor. Lashbrook.

Special work in production of news pictures, and writing of picture captions. Journalism fee charged.

150. ELEMENTARY JOURNALISM. 2(2-0); I, II, and SS. Prerequisite: Sophomore standing. Krieghbaum, Rockwell.

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: Consent of instructor. Lashbrook, Krieghbaum.

Gathering and writing of news, or advertising practice, on *The Kansas State Collegian* under the supervision of the instructor.

157. INDUSTRIAL WRITING. 3(1-6); I and II. Prerequisite: Ind. Jour. 150. Krieghbaum, Rockwell.

Principles of journalism in the treatment of industrial subjects. Journalism fee charged.

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. 150. Lashbrook.

Preparation and broadcasting of radio news. Journalism fee charged.

166. EDITING. 2(0-6); I, II, and SS. Prerequisite: Ind. Jour. 157. Lashbrook, Krieghbaum. Journalism fee charged.

167. NEWSPAPER AND MAGAZINE WRITING. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 157 or consent of instructor. Krieghbaum.

Feature articles; underlying principles applied to writing on agricultural and other industrial subjects. Journalism fee charged.

170. JOURNALISM FOR WOMEN. 3(3-0); II and SS. Prerequisite: Ind. Jour. 150. Rockwell.

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: Junior standing. Keith.

Study of goods to be advertised, analysis of the market, psychology of advertising, preparation of advertising copy. Journalism fee charged.

179. RADIO ADVERTISING. 3(3-0); II and SS. Prerequisite: For students in Curriculum in Industrial Journalism, Ind. Jour. 178; for other students, Pub. Spk. 162. Heberer.

Broadcasting station management, principles and practice in radio advertising. Journalism fee charged.

180. BROADCASTING STATION PRACTICE. 1(0-3); I, II, and SS. Prerequisite: Ind. Jour. 162. Thackrey, Lashbrook. Journalism fee charged.

News gathering, writing, and broadcasting over radio station KSAC.

181. RURAL PRESS. 2(2-0); II. Prerequisite: Ind. Jour. 150. Lashbrook.

Community newspapers; emphasis on presentation of agriculture and rural life. Journalism fee charged.

183. PUBLIC INFORMATION METHODS. 2(2-0); I. Prerequisite: Ind. Jour. 150. 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

228. ADVANCED REPORTING. 3(2-3); II and SS. Prerequisite: Ind. Jour. 157. Lashbrook, Krieghbaum.

Work of the reporter of news of local, state, and national governments; industrial and scientific news. Journalism fee charged.

229. SUPERVISION OF SCHOOL PUBLICATIONS. 2(2-0); II and SS. Prerequisite: For graduate credit, four hours of journalism. Journalism fee charged.

230. FORMATION OF PUBLIC OPINION. 3(3-0); II and SS. Prerequisite: Junior standing and consent of instructor; for graduate credit, eight hours of social science. Thackrey.

Role of the press and communication agencies in formation of public opinion, work of propagandists and pressure groups. Journalism fee charged.

252. LANGUAGE OF JOURNALISM. 2(2-0); II. Prerequisite: Ind. Jour. 157 or consent of instructor. Nock.

Nature and development of the English language, uses of language, words and meaning, jargon. Journalism fee charged.

253. CONTEMPORARY AFFAIRS I. 3(3-0); I. Prerequisite: Senior standing or consent of instructor. Concurrent registration with Hist. 126 not permitted. Thackrey, Lashbrook, Krieghbaum.

Contemporary news events and their background. Journalism fee charged.

255. CONTEMPORARY AFFAIRS II. 3(3-0); II. Prerequisite: For students in Curriculum in Industrial Journalism, senior standing; for others, consent of instructor. Concurrent registration with Hist. 126 not permitted. Thackrey, Lashbrook, Krieghbaum.

Correlation and unification of various subjects previously pursued in college; contemporary development and contemporary figures in science, the arts, and philosophy. Journalism fee charged.

265. MATERIALS OF JOURNALISM. 2(2-0); I. Prerequisite: Ind. Jour. 166. Rockwell.

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. Journalism fee charged.

270. ADVANCED MAGAZINE WRITING AND EDITING. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 167. Thackrey, Krieghbaum, Rockwell.



Content 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: Junior standing. Thackrey. Journalism fee charged.

278. JOURNALISM SURVEYS. 2(0-6); II. Prerequisite: Ind. Jour. 166. Staff. 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. Journalism fee charged.

282. COLUMN CONDUCTING. 2(2-0); II. Prerequisite: Engl. 104. Davis.

287. CURRENT PERIODICALS. 3(3-0); II. Prerequisite: Engl. 104. Staff. Journalism fee charged.

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. Journalism fee charged.

289. NEWSPAPER MANAGEMENT. 2(2-0); I. Prerequisite: Ind. Jour. 178. Medlin.

Relation of departments of a newspaper to one another, costs, statistics, advertising news, and business methods in publishing. Journalism fee charged.

295. PROBLEMS IN INDUSTRIAL JOURNALISM. Credit to be arranged; I, II, and SS. Prerequisite: Consent of instructor. Staff. Journalism fee charged.

Work is offered in:

*Advertising.* Keith.

*Agriculture.* Lashbrook, Dittmore.

*Contemporary affairs.* Krieghbaum.

*Current newspapers and periodicals.* Krieghbaum, Rockwell.

*High-school journalism.* Thackrey, Medlin.

*History and ethics.* Thackrey.

*Home economics.* Rockwell.

*News photography.* Lashbrook.

*Public opinion.* Thackrey.

*Radio.* Lashbrook, Rockwell.

*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. Journalism fee charged.

Work is offered in:

*Advertising.* Keith.

*Agriculture.* Lashbrook, Dittmore.

*Contemporary affairs.* Krieghbaum.

*Current newspapers and periodicals.* Krieghbaum, Rockwell.

*High-school journalism.* Thackrey, Medlin.

*History and ethics.* Thackrey.

*Home economics.* Rockwell.

*News photography.* Lashbrook.

*Public opinion.* Thackrey.

*Radio.* Lashbrook, Rockwell.

*Science.* Krieghbaum.

## Library Economics

Associate Librarian DERBY  
Reference Librarian DAVIS  
Assistant Reference Librarian CULLIPHER

### FOR UNDERGRADUATE CREDIT

101. LIBRARY METHODS. 1(1-0); I and II. Derby, Davis, Cullipher.
110. SCHOOL LIBRARY MANAGEMENT AND BOOK SELECTION. 3(3-0); SS. Pre-requisite: Senior standing.  
Organization and administration; methods and aids in book selection and ordering; and reading guidance.
111. REFERENCE. 3(3-0); SS. Prerequisite: Senior standing.  
Basic reference works, pamphlets and clipping collections, periodicals, and teaching the student to use the library.
112. CLASSIFICATION AND CATALOGUING. 2(2-0); SS. Prerequisite: Senior standing.  
Principles and methods of classification; cataloguing and listing of materials.

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## Mathematics

Professor STRATTON  
Professor REMICK  
Professor WHITE  
Associate Professor HYDE  
Associate Professor LEWIS  
Associate Professor MUNRO  
Associate Professor SIGLEY

Assistant Professor JAMES  
Assistant Professor MOSSMAN  
Assistant Professor HOLROYD  
Assistant Professor DAUGHERTY  
Assistant Professor FRYER  
Instructor BUIKSTRA  
Instructor FAULKNER

### 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.
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. 108. Fryer.

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, Fryer.

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. Staff.

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, Munro, Sigley.

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. HIGHER MATHEMATICS FOR ENGINEERS 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. HIGHER MATHEMATICS FOR ENGINEERS II. 3(3-0); II. Prerequisite: Math. 115. Babcock.

Continuation of Math. 231, including ordinary and partial differential equations; vector analysis; probability; curve fitting.

235. STATISTICAL METHODS I. 3(3-0); I. Prerequisite: Junior standing. Fryer.

Development of proficiency in statistical technics; the Chi-square test, t-test, analysis of variance, and linear regression; application to sampling problems in agriculture and biology.



236. STATISTICAL METHODS II. 3(3-0); II. Prerequisite: Math. 235 or consent of instructor. Fryer.

Further study of analysis of variance; technic and applications of covariance, multiple and curvilinear regression, and introduction to designing of experiments.

237. STATISTICAL METHODS LABORATORY. 1(0-3); I and II. Prerequisite: Math. 235 or concurrent registration. Fryer.

Use of computing machines in dealing with experimental statistics. Charge, \$2.

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, Fryer.

#### FOR GRADUATE CREDIT

301. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE I. 3(3-0); I. Prerequisite: Math. 201. Stratton, Munro.

302. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE II. 3(3-0); II. Prerequisite: Math. 301. Stratton, Munro, Sigley.

306. THEORETICAL MECHANICS. 3(3-0); I. Prerequisite: Math. 115. Stratton.

310. INTEGRAL EQUATIONS AND GREEN'S FUNCTIONS. 3(3-0); II. Prerequisite: Math. 201. Sigley.

Solutions of boundary problems, particularly in elasticity and aerodynamics, by means of integral equations, Green's functions, and partial differential equations.

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.

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, Fryer.

## Military Science and Tactics

Professor CAMPBELL, Lieut. Colonel, Inf., U. S. A.  
 Associate Professor MACKIRDY, Lieut. Colonel, C.A.C., U. S. A.  
 Associate Professor HOLMES, Lieut. Colonel, Inf., U. S. A.  
 Assistant Professor STOVER, Major, C.A.C., Res., U. S. A.  
 Assistant Professor TAYLOR, Captain, C.A.C., Res., U. S. A.  
 Assistant Professor FLINNER, Captain, C.A.C., Res., U. S. A.  
 Assistant Professor ANDRICK, Captain, Inf., Res., U. S. A.  
 Assistant Professor PETERS, 1st Lieut., Inf., Res., U. S. A.  
 Assistant Professor JESSUP, 1st Lieut., Inf., Res., U. S. A.  
 Assistant Professor FAIRBANKS, 2nd Lieut., C.A.C., Res., U. S. A.  
 Assistant WILLIAMS, Technical Sergeant, D.E.M.L., U. S. A.  
 Assistant LARSON, 1st Sergeant, D.E.M.L., U. S. A.  
 Assistant WILSON, Staff Sergeant, D.E.M.L., U. S. A.  
 Assistant GRISHAM, Sergeant, D.E.M.L., U. S. A.  
 Military Property Custodian SECREST, Mr. Sgt., Ret., U. S. A.

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 curriculum. 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 other College work.

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 and solid color 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.

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 train-

ing. 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.

c. Because of limitations in electives, the maximum number of hours in advanced R. O. T. C. available toward an undergraduate degree in the several divisions is: Agriculture, 6; Engineering and Architecture, 8; General Science, 12; Veterinary Medicine, none.

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. Andrick.

Leadership; orientation in military fundamentals; military discipline, courtesies and customs of the service; national defense act and R. O. T. C.; military history and policy; rifle marksmanship; general military organization; weapons.

102. INFANTRY II. 1(1-2); II. Prerequisite: Mil. Sc. 101. Andrick.

Leadership; military organization; map reading; military sanitation and first aid.

103. INFANTRY III. 1(1-2); I. Prerequisite: Mil. Sc. 102. Jessup.

Leadership; tactical training of infantry soldiers; characteristics of infantry weapons, automatic rifle.

104. INFANTRY IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 103. Jessup.

Leadership; scouting and patrolling; combat principles; technique of rifle fire.

#### 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. Peters.

Leadership; aerial photograph reading; combat training; defense against chemical warfare.

110. INFANTRY VI. 3(2-3); II. Prerequisite: Mil. Sc. 109. Peters.

Leadership; weapons; marksmanship; administration; care and operation of motor vehicles.

111. INFANTRY VII. 3(2-3); I. Prerequisite: Mil. Sc. 110. Holmes.

Leadership; military history and policy; military law; property, emergency procurements and funds; methods of instruction; infantry signal communications; combat training; anti-aircraft defense.

112. INFANTRY VIII. 3(2-3); II. Prerequisite: Mil. Sc. 111. Holmes.

Leadership; combat orders; tanks; anti-tanks defense; attack, defense and security; combat intelligence; Officers' Reserve Corps Regulations.

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. Taylor, Flinner, Fairbanks.

Leadership; military fundamentals; military sanitation and first aid; coast artillery weapons and materiel; military discipline, courtesies, and customs of the service.

114. ARTILLERY II. 1(1-2); II. Prerequisite: Mil. Sc. 113. Taylor, Flinner, Fairbanks.

Leadership; organization of the army; organization of the coast artillery; military discipline, courtesies, and customs of the service; coast artillery ammunition, weapons and materiel; rifle marksmanship.

115. ARTILLERY III. 1(1-2); I. Prerequisite: Mil. Sc. 114. Taylor, Flinner, Fairbanks.

Leadership; basic gunnery; fire-control and position-finding for seacoast artillery; basic gunnery for anti-aircraft artillery; rigging; map reading.

116. ARTILLERY IV. 1(1-2); II. Prerequisite: Mil. Sc. 115. Taylor, Flinner, Fairbanks.

Leadership; identification of aircraft; operation and maintenance of coast artillery motor transportation; characteristics of naval targets; interior guard duty.

#### 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. Stover.

Leadership; administration; aerial photograph reading; defense against chemical warfare; fire-control and position-finding for seacoast artillery; coast artillery signal communications; anti-aircraft artillery; basic gunnery.

118. ARTILLERY VI. 3(2-3); II. Prerequisite: Mil. Sc. 117. Stover.

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; mess management; military law; orientation; field fortifications for coast artillery; gunnery; fire control and position-finding for AA automatic weapons.

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 seacoast and anti-aircraft artillery; mechanization; Officers' Reserve Corps; position-finding and control; anti-aircraft searchlights.

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  
Associate Professor MUNRO

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, Munro.

102. GERMAN II. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 101 or equivalent. Moore, Limper, Munro.

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.

137. SCIENTIFIC GERMAN. 4(4-0); I and II. Prerequisite: Mod. Lang. 102 or equivalent. Munro.

138. ADVANCED SCIENTIFIC GERMAN. 2(2-0); II. Prerequisite: Mod. Lang. 137. Munro.

140. SCIENTIFIC RUSSIAN I. 3(3-0); I and SS. Prerequisite: Six hours of foreign language or equivalent. Munro.

141. SCIENTIFIC RUSSIAN II. 3(3-0); II and SS. Prerequisite: Mod. Lang. 140. Munro.

151. FRENCH I. 3(3-0); I, II, and SS. Limper, Pettis.

152. FRENCH II. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 151 or equivalent. Limper, Pettis.

161. FRENCH III. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 152 or equivalent. Limper, Pettis.

162. FRENCH IV. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 161 or equivalent. Pettis.

163. FRENCH COMPOSITION AND CONVERSATION. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 162. Pettis.

176. SPANISH I. 3(3-0); I, II, and SS. Moore, Crittenden, Munro.

177. SPANISH II. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 176 or equivalent. Moore, Crittenden, Munro.

180. SPANISH III. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 177 or equivalent. Moore, Crittenden, Munro.

181. SPANISH IV. 3(3-0); I and II. Prerequisite: Mod. Lang. 180 or equivalent. Crittenden, Munro.

194. SPANISH COMPOSITION AND CONVERSATION. 3(3-0); II. Prerequisite: Mod. Lang. 181. Crittenden, Munro.

FOR GRADUATE AND UNDERGRADUATE CREDIT

209. SCHILLER. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 112 or equivalent. Moore.

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, Munro.

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, Munro.

280. SPANISH DRAMA. 3(3-0); II. Prerequisite: Mod. Lang. 181. Crittenden, Munro.

282. SPANISH-AMERICAN LITERATURE. 3(3-0); I or II. Prerequisite: Fifteen hours of college Spanish or equivalent. Munro.

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, Munro.

*Spanish.* Crittenden, Munro.

## Music

Professor LINDQUIST  
Associate Professor SAYRE  
Associate Professor DOWNEY  
Associate Professor STRATTON  
Assistant Professor HARTMAN  
Assistant Professor PAINTER

Assistant Professor JEFFERSON  
Assistant Professor MARTIN  
Assistant Professor PELTON  
Assistant Professor JESSON  
Assistant Professor GROSSMANN  
Instructor FITCH

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.

109. 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. 109. 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.

121. APPRECIATION OF MUSIC I. 1(2-0); I. Not open to students in music curriculums. Pelton.

Styles of music explained and illustrated from recordings.

122. APPRECIATION OF MUSIC II. 1(2-0); II. Not open to students in music curriculums. Pelton.

Continuation of Mus. 121.

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. 109. 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 nonmusic students, but recommended as parallel noncredit 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. 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 who major 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. Consent 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 .....	\$35.00	\$30.00*	\$25.00†
Piano .....	35.00	30.00*	25.00†
Organ .....	35.00	30.00*	25.00†
Violin .....	35.00	30.00*	25.00†
Violoncello .....	35.00	30.00*	25.00†
Other orchestral instruments.....	35.00	30.00*	25.00†
One lesson each week for a semester:			
Voice .....	17.50	15.00*	12.50†
Piano .....	17.50	15.00*	12.50†
Organ .....	17.50	15.00*	12.50†
Violin .....	17.50	15.00*	12.50†
Violoncello .....	17.50	15.00*	12.50†
Other orchestral instruments.....	17.50	15.00*	12.50†
Piano rent, one hour daily—\$3 a semester.			
Piano rent, two hours daily—\$5 a semester.			
Organ rent, one hour daily—\$10 a semester.			

\*† Fees for grade-school or high-school students; thirty-minute and twenty-minute lessons, respectively.



## Physical Education and Athletics

Professor AHEARN  
 Professor SAUM  
 Professor WASHBURN  
 Professor ADAMS  
 Associate Professor HAYLETT  
 Assistant Professor GEYER  
 Assistant Professor MAYTUM  
 Assistant Professor MOLL

Assistant Professor GARDNER  
 Assistant Professor COCHRANE  
 Instructor PATTERSON  
 Instructor THOMPSON  
 Instructor SCHUTTE  
 Instructor WILLIAMS  
 Assistant MYERS

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.

Activities offered: Boxing, corrective gymnastics, floorwork, golf, handball, swimming, tennis, and wrestling. Deposit.

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.

113. 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.

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.

124. PHYSICAL DIAGNOSIS AND PRESCRIPTION. 3(3-0); I. Prerequisite: Phys. Ed. 107, 137, 138, and 141. Washburn.

Normal and physical diagnosis; individual corrective exercise.

126. FOOTBALL. 2(1-3); II and SS. Adams.

Study of rules, theory and practice; methods of coaching. Deposit.

130. 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 or 2 hours; 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.
141. 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.
144. TRACK AND FIELD SPORTS. 2(1-3); II. Haylett.  
Study of rules, theory and practice; methods of coaching. Deposit.
145. NATURE AND FUNCTION OF PLAY. 2(2-0); II. Prerequisite: Educ. 184. Washburn.  
Theoretical explanation of play, age and sex characteristics which influence 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.

## 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, bowling, fieldball, folk and tap dancing, golf, hockey, individual and Danish gymnastics, modern dancing, recreational sports, rifle, soccer, social dancing, swimming, and tennis.
155. FUNDAMENTAL RHYTHM. 1(0-3); I. Williams.  
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); 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. Williams.

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. Williams.

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. Upon satisfactory completion of this course, a certificate is awarded by the American Red Cross and the holder is in line for consideration as an instructor in first aid.

162. PRINCIPLES AND PHILOSOPHY OF PHYSICAL EDUCATION. 3(3-0); I. Prerequisite: Sophomore standing. Maytum.

Aims and objectives of physical education, historical development, relation to general education, analysis of programs and methods.

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.

169. PHYSICAL EDUCATION IN SMALL SCHOOLS. 2(1-3); SS. Not open to students in physical education curriculums.

Practical work for women not professionally trained in physical education. 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, 182 and 188. Saum.



Administrative policies of departments of physical education; 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.

179. **HEALTH TEACHING IN HIGH SCHOOL W.** 3(3-0); I. Prerequisite: Child Welf. 101. Saum.

Subject matter and methods of presentation of health education, integration with general courses.

180. **PRINCIPLES OF HEALTH EDUCATION W.** 2(2-0); SS. Saum.

182. **PLAYGROUND MANAGEMENT AND GAMES W.** 2(1-3); I. Williams.

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.

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.

187. **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 182. Maytum.

Organization of physical education material for a progressive program in elementary, junior and senior high schools; teaching methods to achieve desired aims of education.

191. **RECREATIONAL LEADERSHIP W.** 2(2-0); II. Prerequisite: Phys. Ed. 182. Maytum.

Principles and methods of organizing communities for leisure activities.

### COURSES IN PHYSICAL EDUCATION FOR MEN AND WOMEN

198. **GROUP RECREATION.** 2(1-3); SS.

Selection and organization of recreation for men and women, for class, noon-hour, or extracurricular activities. Deposit.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

298. **PROBLEMS IN PHYSICAL EDUCATION.** Credit to be arranged. Prerequisite: Variable, depending upon problem chosen. Washburn, Saum.

## Physics

Professor CARDWELL  
 Professor RABURN  
 Professor FLOYD  
 Professor McMILLEN  
 Associate Professor BRACKETT  
 Associate Professor LYON  
 Associate Professor CHAPIN

Associate Professor ALLEN  
 Associate Professor HUDIBURG  
 Assistant Professor HARTEL  
 Assistant Professor MAXWELL  
 Assistant Professor AVERY  
 Graduate Assistant PATTON  
 Graduate Assistant BLEVINS

#### FOR UNDERGRADUATE CREDIT

102. **GENERAL PHYSICS I.** 4(3-3); I, II, and SS. Prerequisite: Math. 101. Staff.

Mechanics, heat, and sound. Charge, \$4.

103. **GENERAL PHYSICS II.** 4(3-3); I, II, and SS. Prerequisite: Phys. 102 or 136. Staff.

Magnetism, electricity, and light. Charge, \$4.

105. ENGINEERING PHYSICS I. 5(4-3); I, II, and SS. Prerequisite: Math. 101. Staff.

Mechanics, heat, and sound for technical students. Charge, \$4.

106. ENGINEERING PHYSICS II. 5(4-3); I, II, and SS. Prerequisite: Phys. 105. Staff.

Magnetism, electricity, and light for technical students. Charge, \$4.

108. HOUSEHOLD PHYSICS. 5(4-3); I, II, and SS. Avery, Hudiburg.

Lectures and demonstrations in which the laws and principles involved in household appliances are explained and illustrated. Charge, \$4.

112. INTRODUCTION TO GENERAL SCIENCE. 3(3-0); SS. Staff.

121. PHYSICS FOR MUSICIANS I. 5(4-3); I. 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. 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.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. LABORATORY TECHNIC AND APPARATUS DESIGN. 1 or 2 hours; 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 and II. Prerequisite: Math. 115 and Phys. 103 or 106, and 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, radioactive, and temperature surveys.

218. GEOPHYSICS II. 3(1-6); II. Prerequisite: Phys. 217. Cardwell, Lyon.

Continuation of Phys. 217 with laboratory work on the use of the torsion balance, the dip needle, and the methods of equipotential. Charge, \$3.

220. APPLIED SPECTROSCOPY. 3(2-3); I. Prerequisite: 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 coordinates.

228. MECHANICS LABORATORY. 1 or 2 hours; 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 or 2 hours; 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.

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, Allen.

*Light.* Cardwell.

*Photography.* Hudiburg.

*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.

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. 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, Allen.

*Light.* Cardwell.

*Photography.* Hudiburg.

*Sound.* Floyd, Chapin.

*Spectroscopy.* McMillen.

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## Public Speaking

Professor HILL  
Professor HEBERER  
Associate Professor TROUTMAN

Assistant Professor WEBSTER  
Assistant Professor ROACH  
Graduate Assistant LANDIS

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, Webster.  
Attainment of some proficiency in the art of reading aloud. Charge, \$1.

102. DRAMATIC READING. 2(2-0); II. Prerequisite: Pub. Spk. 101. Troutman, Webster.

Advanced study and application of the principles of oral interpretation to platform reading.

106. EXTEMPORE SPEECH I. 2(2-0); I, II, and SS. Not open to students who have credit in Pub. Spk. 107. 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. Not open to students who have credit in Pub. Spk. 106. 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. Roach. Charge, \$1.

121. ARGUMENTATION AND DEBATE. 2(2-0); II. Prerequisite: Pub. Spk. 106 or 107. Webster.

123. INTERCOLLEGIATE DEBATE I. 2(2-0); I and II. Prerequisite: Pub. Spk. 121. Webster.

Open only to members of the intercollegiate debate squads.

124. INTERCOLLEGIATE DEBATE II. 2(2-0); I and II. Prerequisite: Pub. Spk. 123. Webster.

Open only to members of the intercollegiate debate squads.

126. PARLIAMENTARY PROCEDURE. 1(1-0); II. Hill.

138. PUBLIC SPEAKING FOR TEACHERS. 1(1-0); II and SS. Hill, Troutman.
142. ORATORICAL CONTEST. 2 hours; I and II. Hill.
144. DRAMATIC PARTICIPATION. 1 or 2 hours; I, II, and SS. Prerequisite: Junior standing. Roach.
150. DEVELOPMENT OF THE THEATER I. 2(2-0); I. Troutman, Roach.  
The theater to the end of the nineteenth century.
152. DEVELOPMENT OF THE THEATER II. 2(2-0); II. Troutman, Roach.  
The modern and the contemporary theater.
162. SURVEY OF BROADCASTING. 1(1-0); I and II. Prerequisite: Pub. Spk. 106 or 107. Heberer.  
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. Heberer.  
Radio fee charged.
165. RADIO SPEECH. 2(1-3); I and II. Prerequisite: Consent of instructor. Heberer.  
Training in voice and diction for broadcasting. Radio fee charged.
168. RADIO PROGRAM PARTICIPATION. 1(0-3); I and II. Prerequisite: Pub. Spk. 165 and consent of instructor. May not be taken for more than four semesters for credit. Heberer, Webster. Radio fee charged.

## FOR GRADUATE AND UNDERGRADUATE CREDIT

201. ADVANCED PHONETICS. 4(3-3); II. Prerequisite: Pub. Spk. 101, 106, 107, and 110. Roach.
207. DRAMATIC PRODUCTION I. 2(1-3); I, II, and SS. Prerequisite: Pub. Spk. 102. Roach.  
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. Roach.  
Projects in direction and stagecraft. Charge, \$1.
222. ADVANCED DEBATE. 2(2-0); I. Prerequisite: Pub. Spk. 121. Webster.  
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 nonradio public programs.
231. RADIO PROGRAM PRODUCTION I. 2(1-3); I and II. Prerequisite: Mus. 119 and Pub. Spk. 162 and 163. Heberer.  
Production and direction of radio programs. Radio fee charged.
233. RADIO PROGRAM PRODUCTION II. 2(0-6); II. Prerequisite: Pub. Spk. 231 and consent of instructor. Heberer.  
Continuation of Pub. Spk. 231. Radio fee charged.
240. RADIO CONTINUITY I. 2(2-0); I. Prerequisite: Pub. Spk. 163. Heberer.  
Planning and construction of radio programs. Radio fee charged.
242. RADIO CONTINUITY II. 2(0-6); II. Prerequisite: Pub. Spk. 240. Heberer.  
Continuation of Pub. Spk. 240. Radio fee charged.
290. PROBLEMS IN SPEECH. Credit to be arranged; I, II, and SS. Prerequisite: Pub. Spk. 108 or 163. Staff.

Work is offered in:

*Debate.* Webster.  
*Oratory.* Hill.  
*Phonetics.* Roach.  
*Radio.* Heberer.  
*Theater.* Heberer, Roach.

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.* Webster.  
*Oratory.* Hill.  
*Phonetics.* Roach.  
*Radio.* Heberer.  
*Theater.* Heberer, Roach.

305. CLINICAL PROBLEMS IN DEFECTIVE SPEAKING. 4(2-6); II. Prerequisite: Pub. Spk. 101, 106 or 107, 108, and 201. Hill, Roach.

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## 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.

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## Zoölogy

Professor NABOURS  
 Professor ACKERT  
 Professor HARMAN  
 Professor HERRICK  
 Professor WIMMER  
 Assistant Professor HARBAUGH  
 Assistant Professor GOODRICH  
 Instructor AMEEL  
 Instructor LOCKHART

Instructor JENNINGS  
 Instructor PETRI  
 Assistant STEBBINS  
 Graduate Assistant WASSMER  
 Graduate Assistant OAKBERG  
 Graduate Research Assistant FRICK  
 Graduate Research Assistant WISSEMAN  
 Graduate Research Assistant WELLS

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.  
*Histology.* Lockhart.  
*Ornithology.* Goodrich.  
*Parasitology.* Ackert.



*Physiology.* Wimmer.  
*Protozoölogy.* Ameel.  
*Zoölogical Technic.* Petri.

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 or 2 hours; I, II, and SS. Prerequisite: Zoöl. 105. Petri.

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.

Essentials of structure, function, classification and phylogeny of the invertebrates.

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.

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, Lockhart.

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.

A study of the nature and mechanism of living matter. 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. Staff.

227. GENETICS SEMINAR. 1(1-0); I and II. Prerequisite: Zoöl. 105. Nabours, Warren, Ibsen.

228. HUMAN PARASITOLOGY RECITATION. 3(3-0); II. Prerequisite: Zoöl. 105. Ackert.

229. HUMAN PARASITOLOGY LABORATORY. 1(0-3); II. Prerequisite: Zoöl. 105. Ackert, Frick. Charge, \$3.

240. TAXONOMY OF PARASITES. 2(1-3); II and SS. Prerequisite: Zoöl. 208 or 218. Ackert. Charge, \$2.

244. BIRD STUDY. 3(2-3); II, or 2(1-3); SS. Prerequisite: Zoöl. 105. Goodrich. Charge, \$2.

Lecture, laboratory and field studies in identification and adaptations of birds.

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. 105 and consent of instructor. Herrick.

248. APPLIED ZOÖLOGY. 3(3-0); I and SS. Prerequisite: Zoöl. 105. Herrick, Harbaugh.

Wildlife propagation, management and control.

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.

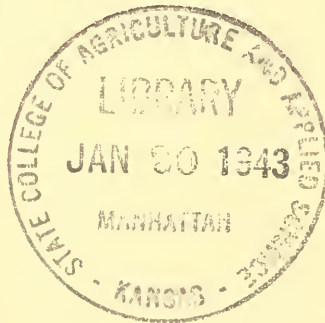
*Histology.* Lockhart.

*Ornithology.* Goodrich.

*Parasitology.* Ackert.

*Physiology.* Wimmer.

*Protozoölogy.* Ameel.



# The Division of Home Economics

MARGARET M. JUSTIN, *Dean*

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The objectives of the program in home economics are not merely to increase the student's stock of information, but to stimulate interest in continued study or research, to develop 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 education in home economics includes the study of the scientific principles underlying the sanitary requirements of the home; food and nutrition; textiles and home furnishings; the wise expenditure of time, money, and energy. It also includes study of the principles underlying the practice of physical and mental health; the preparation of appetizing, nutritious food; the application of artistic standards to the selection and construction of clothing and to the home; the guidance of children, and an understanding of family relationships. 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 knowledge is fundamental in the administration of the home, courses in the sciences are given as a foundation for education 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 electives to be chosen in groups approved by the faculty or by the student's dean. This choice of electives will be made during the first semester of the sophomore year.

This curriculum is recommended to those who desire a general education 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.

## CERTIFICATE FOR TEACHING HOME ECONOMICS

The student who desires to secure the degree of Bachelor of Science, and to qualify 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)
Educ. Admin., Educ. 210.....	3(3-0) <i>or</i>	Home Mgmt., Hshld. Econ. 116...	3(1-6)
Prin. of Secondary Educ., Educ. 236,	3(3-0)	Adv. Clothing, Clo. and Text. 123,	4(1-9)
Vocational Educ., Educ. 241.....	3(3-0)	School Food Service, Inst. Mgmt.	
Methods of Teach. Home Econom-		220 .....	3(1-6)
ics, Educ. 132.....	3(3-0)		
Teach. Particip. in Home Econom-			
ics, Educ. 160.....	3( - )		

The stipulated course for the certificate for teaching home economics requires 28 out of the 38 hours of possible electives allowed in the Curriculum of Home Economics. The remaining 10 hours of electives are to be selected from among nontechnical courses outside the Division of Home Economics, with the advice and approval of the dean. In the choice of courses for these hours, consideration is given to the desirability of directing the student's interest and efforts toward the exploration and mastery of some one field, such as Social Science, Modern Language, Mathematics, Music, Physical Education, Journalism, Physical or Biological Science and Art.

Completion of this Curriculum in Home Economics with these electives entitles the individual to the three-year certificate, renewable for life, issued by the State Board of Education and to the Vocational Homemaking certificate issued by the State Board of Vocational Education.

### CURRICULUM IN HOME ECONOMICS AND ART

The courses in this curriculum give background for professional work in art and for teaching art.

### CURRICULUM IN DIETETICS AND INSTITUTIONAL MANAGEMENT

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 experience for the management of the food unit of various types of institutions. 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. 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 instruction and practical experience in nursing are given. Upon completion of the work at the hospitals, the student presents her application for graduation to the registrar of Kansas State College.

### 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		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, Foods 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, Foods and Nutr. 102.....	5(3-6)
H. E. Fresh. Lectures, Gen. H. E.		H. E. Fresh. Lectures, Gen. H. E.	
131 .....	R(1-0)	131 .....	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)	Embryology, Zoöl. 219.....	4(3-3)or
Elementary Design II, Art 101B..	2(0-6)or	Human Physiology, Zoöl. 221.....	4(3-3)
Elective in Art.....	2( - )	Clothing for the Individual,	
Foods II, Foods and Nutr. 107....	3(1-6)or	Clo. and Text 103.....	4(1-9)or
Clothing for the Individual,		Foods II, Foods and Nutr. 107....	3(1-6)
Clo. and Text. 103.....	4(1-9)	Current History, Hist. 126.....	1(1-0)
Economics I, Econ. 101.....	3(3-0)	Household Physics,† Phys. 108....	5(4-3)
H. E. Lectures, Gen. H. E. 133....	R	H. E. Lectures, Gen. H. E. 133....	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 or 17	Total .....	17 or 16

## JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Nutr., Foods and Nutr. 112,	3(3-0)	Textiles, Clo. and Text. 116.....	3(2-3)
The House, Household Econ. 107..	3(2-3)	General Microb., Bact. 101.....	3(1-6)
Interior Decoration I, Art 113....	2(0-6)	Elective .....	10( - )
Family Finance, Hshld. Econ. 263,	2(2-0)	H. E. Lectures, Gen. H. E. 133....	R
Elective‡ .....	6( - )		
H. E. Lectures, Gen. H. E. 133....	R		
Home Projects, Gen. H. E. 140....	R		
Total .....	16	Total .....	16

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Dietetics, Foods and Nutr. 202....	4(3-3)	Family Health, Child Welf. 211... 3(3-0)	
The Family, Child Welf. 216.....	2(2-0)	Elective .....	12( - )
Elective .....	10( - )	H. E. Senior Lectures, Gen. H. E.	
H. E. Lectures, Gen. H. E. 133....	R	134 .....	R(1-0)
Total .....	16	Total .....	15

Number of hours required for graduation, 126.

\* 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.

‡ Electives are chosen with the approval of the dean during the sophomore year. They give opportunity for special preparation 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 and 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, Foods and Nutr. 102....	5(3-6)or	Gen. Psychology, Educ. 184.....	3(3-0)and
Gen. Psychology, Edu. 184.....	3(3-0)and	Personal Health, Child Welf. 101..	2(2-0)or
Personal Health, Child Welf. 101..	2(2-0)	Foods I, Foods and Nutr. 102....	5(3-6)
H. E. Fresh. Lectures, Gen. H. E.		H. E. Fresh. Lectures, Gen. H. E.	
131 .....	R(1-0)	131 .....	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)	Drawing, Art 120.....	2(0-6)
Elementary Design II, Art 101B..	2(0-6)	Foods II, Foods and Nutr. 107....	3(1-6)
Clothing for the Individual,		Human Physiology, Zoöl. 221.....	4(3-3)
Clo. and Text. 103.....	4(1-9)	Interior Decoration I, Art 113....	2(0-6)
Lettering, Art 127.....	2(0-6)	Design in the Crafts, Art 102....	2(0-6)
H. E. Lectures, Gen. H. E. 133...	R	H. E. Lectures, Gen. H. E. 133...	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

JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Nutr., Foods and Nutr. 112,	3(3-0)or	Costume Design III, Art 138.....	2(0-6)or
Applied Nutr., Foods and Nutr. 121,	2(2-0)	Elective .....	2( - )
Intermediate Design, Art 103.....	2(0-6)	Textiles, Clo. and Text. 116.....	3(2-3)
Costume Design II, Art 134.....	2(0-6)	Art of the S. W. Indians, Art 242,	2(2-0)
Ancient Civilizations, Hist. 101...	3(3-0)	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. 133...	R
H. E. Lectures, Gen. H. E. 133...	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)	Interior Decoration III, Art 117... 2(0-6)or	
Principles of Art I, Art 201.....	3(3-0)	Elective .....	2( - )
Interior Decoration II, Art 115....	2(0-6)	Principles of Art II, Art 202....	3(3-0)
Elective .....	8( - )	Elective .....	10( - )
H. E. Lectures, Gen. H. E. 133...	R	H. E. Senior Lectures, Gen. H. E.	
		134 .....	R(1-0)
Total .....	16	Total .....	15

Number of hours required for graduation, 124.

\* Students preparing to teach home economics will need to take a few additional hours in order to qualify for the three-year Kansas state teacher's certificate and the Vocational Home-making certificate.

† 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 Dietetics and Institutional Management

## 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, Foods and Nutr. 102.....	5(3-6)or	Gen. Psychology, Educ. 184.....	3(3-0)and
Gen. Psychology, Edu. 184.....	3(3-0)and	Personal Health, Child Welf. 101..	2(2-0)or
Personal Health, Child Welf. 101..	2(2-0)	Foods I, Foods and Nutr. 102....	5(3-6)
H. E. Fresh. Lectures, Gen. H. E.		H. E. Fresh. Lectures, Gen. H. E.	
131 .....	R(1-0)	131 .....	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, Foods and Nutr. 107....	3(1-6)
Clothing for the Individual,		Household Physics,* Phys. 108....	5(4-3)or
Clo. and Text. 103.....	4(1-9)or	Clothing for the Individual,	
Household Physics,* Phys. 108....	5(4-3)	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. 133....	R	H. E. Lectures, Gen. H. E. 133....	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 or 17	Total .....	17 or 16

## JUNIOR

FIRST OR SECOND SEMESTER		FIRST OR SECOND SEMESTER	
Human Nutr., Foods and Nutr. 112,	3(3-0)	Biochemistry, Chem. 231.....	5(3-6)
Sociology, Econ. 151.....	3(3-0)	Ins. Cookery, Inst. Mgmt. 101....	4(1-9)
General Micro., Bact. 101.....	3(1-6)	Inst. Food Buying, Inst. Mgmt.	
Meats, H. E. An. Husb. 176.....	1(0-3)	103 .....	2(2-0)
Elective† .....	6( - )	Inst. Furnishings and Equipment,	
H. E. Lectures, Gen. H. E. 133....	R	Inst. Mgmt. 105.....	2(2-0)
Home Projects, Gen. H. E. 140....	R	Elective .....	3( - )
		H. E. Lectures, Gen. H. E. 133....	R
Total .....	16	Total .....	16

## SENIOR

FIRST SEMESTER		SECOND SEMESTER	
Dietetics, Foods and Nutr. 202....	4(3-3)	Child Guidance I, Child Welf. 201,	3(2-3)
Meth. of Teaching for Dietetic Stu-		Dietetics for Abn. Conditions,	
dents, Educ. 133.....	3(3-0)	Foods and Nutr. 205.....	2(1-3)
Exper. Cookery, Food and Nutr.		Tea Room Mgmt., Inst. Mgmt.	
255 .....	2(0-6)	225 .....	3(0-9)or
Organ. and Admin. of Inst., Inst.		Field Work in Nutr., Foods and	
Mgmt. 206 .....	3(3-0)	Nutr. 215 .....	3(2-3)
Elective .....	2( - )	Food Econ. and Nutr. Seminar,	
H. E. Lectures, Gen. H. E. 133....	R	Food and Nutr. 251.....	2(2-0)
		Inst. Accounting, Econ. 293.....	2(1-3)
		Elective .....	4( - )
		H. E. Senior Lectures, Gen. H. E.	
		134 .....	R(1-0)
Total .....	14	Total .....	16

Number of hours required for graduation, 125.

\* 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(3-6)
Foods I, Foods 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. Fresh. Lectures, Gen. H. E.		Extemp. Speech I, Pub. Spk. 106,	2(2-0)
131 .....	R(1-0)	H. E. Fresh. Lectures, Gen. H. E.	
Phys. Educ. W, Phys. Ed. 151....	R(0-3)	131 .....	R
		Phys. Educ. W, Phys. Ed. 151....	R(0-3)
Total .....	16	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, Foods 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. 133...	R
H. E. Lecturcs, Gen. H. E. 133....	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 .....	15	Total .....	16

### JUNIOR

FIRST SEMESTER		SECOND SEMESTER	
Human Anatomy, Zoöl. 123A.....	5(3-6)	Child Guidance I, Child Welf. 201,	3(2-3)
Biochemistry, Chem. 231.....	5(3-6)	The Family, Child Welf. 216.....	2(2-0)
Dietetics, Foods and Nutr. 202....	4(3-3)	Abn. Psychology, Educ. 204.....	3(3-0)
H. E. Lectures, Gen. H. E. 133....	R	Elective .....	7( - )
Elective .....	2( - )	H. E. Senior Lectures, Gen. H. E.	
		134 .....	R(1-0)
Total .....	16	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 preparing 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)	Parent Guidance, Child Welf. 231,	3(3-0)
Social Pathology, Econ. 258.....	3(3-0)	Psyc. of Childhood and Adoles-	
Family Relationships, Child Welf.		cence, Educ. 250.....	3(3-0)
240 .....	2(2-0)	Child Guidance II, Child Welf. 206,	3(3-0)
Field Work in Nutr., Foods and		Problems in Child Welfare and	
Nutr. 215 .....	3(2-3)	Euthenics, Child Welf. 221....	1 to 5
Heredity and Eugenics, Zoöl. 216..	2(2-0)	Nutr. of Dev., Foods and Nutr. 210,	2(2-0)
Child Guidance I, Child Welf. 201,	3(2-3)	Psyc. of Excep. Children, Educ. 266,	3(3-0)
Seminar in Child Welfare and		Consumer Buying, Hshld. Econ. 272,	3(3-0)
Euthenics, Child Welf. 226....	1 or 2	Econ. Prob. of the Family, Hshld.	
Mental Tests, Educ. 260.....	3(3-0)	Econ. 265 .....	2(2-0)
History of the Home, Hist. 225....	3(3-0)	Social Psychology, Educ. 270.....	3(3-0)

### Costume Design

Hist. of Costume, Clo. and Text.		Elem. Journalism, Ind. Jour. 150..	2(2-0)
225 .....	2(2-0)	Journalism for Women, Ind. Jour.	
Adv. Clothing, Clo. and Text. 123,	4(1-9)	170 .....	3(3-0)
Historic Textile Design, Art 233...	2(2-0)	Magazine Features, Ind. Jour. 270,	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)
Medieval Europe, Hist. 102.....	3(3-0)	Extem. Speech I, Pub. Spk. 106...	2(2-0)
Weaving, Art 106.....	2(0-6)	Pottery Design, Art 109.....	2(0-6)

### Interior Decoration

Domestic Architecture, Arch. 124..	2(2-0)	Elem. Journalism, Ind. Jour. 150..	2(2-0)
The Family, Child Welf. 216.....	2(2-0)	Journalism for Women, Ind. Jour.	
Historic Textile Design, Art 233..	2(2-0)	170 .....	3(3-0)
Landscape Gardening, Hort. 125...	3(3-0)	Magazine Features, Ind. Jour. 270,	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)
Medieval Europe, Hist. 102.....	3(3-0)	Sociology, Econ. 151.....	3(3-0)

### Home Service and Food Demonstration Work

Public Speaking, Pub. Spk. 107...	2(2-0)	Exp. Cookery, Foods and Nutr. 255,	2(0-6)
Extem. Speech II, Pub. Spk. 108..	2(2-0)	Problems in Foods, Foods and	
Oral English, Engl. 232.....	3(3-0)	Nutr. 245 .....	1( - )
Elem. Journalism, Ind. Jour. 150..	2(2-0)	Inst. Cookery, Inst. Mgmt. 101...	4(1-9)
Journalism for Women, Ind. Jour.		Meats, H. E., An. Husb. 176....	1(0-3)
170 .....	3(3-0)	Home Mgmt., Hshld. Econ. 240...	3(1-6)
Editing, Ind. Jour. 166.....	2(2-0)	Hshld. Equipment I, Hshld. Econ.	
Prin. of Advertising, Ind. Jour. 178,	4(4-0)	203 .....	2(0-6)
Broadcasting Station Practice, Ind.		Hshld. Equipment II, Hshld. Econ.	
Jour. 180 .....	1(0-3)	205 .....	2(0-6)
Photography, Phys. 151.....	2(1-3)	Problems in Hshld. Econ., Hshld.	
Sociology, Econ. 151.....	3(3-0)	Econ. 243 .....	1 to 3
Methods of Teaching H. E., Educ.		Consumer Buying, Hshld. Econ.	
132 .....	3(3-0)	272 .....	3(3-0)
Field Work in Nutr., Foods and		Econ. Prob. of the Family, Hshld.	
Nutr. 215 .....	3(2-3)	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)
Biochemistry, 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)
Sanitary and Food Bacteriology, Bact. 242 .....	3(1-6)		

**Biological Technician**

Hygienic Bact., Bact. 206.....	5(3-6)	Quant. Anal. A, Chem. 250.....	3(1-6)
Advanced Serology, Bact. 229.....	5(3-6)	Quant. Anal. B, Chem. 251.....	3(1-6)
Physiol. of Microorganisms, Bact. 222 .....	3(3-0)	Human Physiol., Zoöl. 221.....	4(3-3)or
Bact. Tech., Bact. 225.....	3(0-9)	Embryol., Zoöl. 219.....	4(3-0)
Biochemistry, Chem. 231.....	5(3-6)	Human Parasitol., Zoöl. 218.....	3(3-0)
Biochem. Prep., Chem. 234.....	2 to 5	Comparative Anatomy of Vert., Zoöl. 246 .....	4(2-6)
Pathological Chem., Chem. 235....	2(2-0)	Special Histology, Path. 252.....	3(1-6)
Biochem. Analysis, Chem. 237....	2(0-6)		

**Homemaking**

Child Guidance I, Child Welf. 201, Sociology, Econ. 151.....	3(2-3) 3(3-0)	Principles of Art I, Art 124.....	3(3-0)
Com. Organization, Econ. 267.....	3(3-0)	Adv. Clothing, Clo. and Text. 123,	4(1-9)
Problems in Foods, Foods and Nutr. 310 .....	1 to 3	Meats, H. E., An. Husb. 176.....	1(0-3)
Home Mgmt., Household Econ. 240,	3(1-6)	Hist. of Engl. Literature, Engl. 181,	3(3-0)
World Classics I, Engl. 280.....	3(3-0)	Psyc. of Childhood and Adolescence, Educ. 250 .....	3(3-0)
Nutr. of Dev., Foods and Nutr. 210	2(2-0)	Econ. Prob. of the Family, Hshld. Econ. 265 .....	2(2-0)
Consumer Buying, Hshld. Econ. 272,	3(3-0)	Sanitary and Food Bacteriology, Bact. 242 .....	3(1-6)
Child Guidance II, Child Welf. 206,	3(3-0)		

**Social and Welfare Work**

Child Guidance I, Child Welf. 201, Sociology, Econ. 151.....	3(2-3) 3(3-0)	Psychol. of Childhood and Adoles- cence, Educ. 250 .....	3(3-0)
Com. Organization, Econ. 267.....	3(3-0)	Child Guidance II, Child Welf. 206,	3(3-0)
Field Work in Nutrition, Foods and Nutr. 215 .....	3(2-3)	Labor Problems, Econ. 233.....	2(2-0)
Econ. Prob. of the Family, Hshld. Econ. 265 .....	2(2-0)	Rural Sociology, Econ. 156.....	3(3-0)
Consumer Buying, Hshld. Econ. 272,	3(3-0)	Social Pathology, Econ. 258.....	3(3-0)
Parent Guidance, Child Welf. 231,	3(3-0)	Immi. and Int. Rel., Hist. 228....	2(2-0)
American History III, Hist. 203....	3(3-0)	Probs. in Child Welfare and Euthenics, Child Welf. 221....	1 to 5
Prevent. Med. and Pub. Health, Stud. Health 101.....	2(2-0)	Soc. Psychology, Educ. 270.....	3(3-0)
		Mental Tests, Educ. 260.....	3(3-0)
		Family Relationships, Child Welf. 240 .....	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 Text. 215 .....	1 to 3
Plane Trigonometry, Math. 101....	3(3-0)	Human Physiology, Zoöl. 221.....	4(3-3)
Clothing Econ., Clo. and Text. 201,	3(3-0)	Statis. Meth. Ap. to Educ., Educ. 223 .....	3(3-0)
Plane Analytical Geom., Math. 110,	4(4-0)	Bact. Problems, Bact. 270.....	1 to 4
Calculus I, Math. 114.....	4(4-0)	Adv. Textiles, Clo. and Text. 205,	3(1-6)
Calculus II, Math. 115.....	4(4-0)	Exp. Textiles, Clo. and Text. 312,	2 to 5
Consumer Buying, Hshld. Econ. 272,	3(3-0)		
Econ. Prob. of the Family, Hshld. Econ. 265 .....	2(2-0)		

**Teaching Home Economics**

See "Certificate for Teaching Home Economics."

## Art

Professor BARFOOT  
 Associate Professor EVERHARDY  
 Associate Professor HARRIS  
 Associate Professor MORRIS  
 Assistant Professor DARST

Assistant Professor KEDZIE  
 Instructor STALDER  
 Instructor HOLLAND  
 Instructor WAGNER

The Curriculum in Art is designed to provide a background for homemaking or other professional work. Depending upon their interests, the undergraduate students may specialize in design, interior decoration, costume design, or teaching of art. Major work leading to the degree Master of Science is offered in costume design, and interior decoration, and related phases of the department's work.

### 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 and II. 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, or SS. Prerequisite: Art 101B or permission of instructor. Staff.

An application of design principles to various technical processes, as book-binding, block printing, carving, decorative stitchery, leatherwork, and metalwork. 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. 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); II or SS. Prerequisite: Art 103. Barfoot, Everhardy, Morris.

A continuation of Art 103, with emphasis on art structure. Charge, \$1; deposit, 25 cents.

106. WEAVING. 2(0-6); I, II, or SS. Prerequisite: Art 101B. Kedzie.

A study of the principles of design, color, and texture applied to textile construction. Charge, \$2; deposit, 25 cents.

109. POTTERY DESIGN. 2(0-6); I, II, or SS. Prerequisite: Art 101B. Staff. Art principles applied to specific processes in the production of pottery. Charge, \$2; 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, \$1.50; 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.

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, \$1.50; 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.

127. LETTERING. 2(0-6); I, II, or SS. Prerequisite or concurrent: Art 101B. Staff.

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. 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, \$1.50; deposit, 25 cents.

138. COSTUME DESIGN III. 2(0-6); II. Prerequisite: Art 134. Staff.

A continuation of Art 134, dealing with the relation between the historic background and fabric and costume design. Charge, \$1.50; deposit, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. PRINCIPLES OF ART I. 3(3-0); I or SS. 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 or SS. 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); II or SS. 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, II, or SS. 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 the vocational home economics program. 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, II, or SS. 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, II, or SS. 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.

242. ART OF THE SOUTHWEST INDIANS. 2(2-0); I, II, or 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.

244. THE ARTS OF MEXICO. 2(2-0); I, II, or SS. Prerequisite: Art 101A. Harris.

A survey of the arts of pre-Spanish, colonial, and modern Mexico, their origins and developments. Deposit, 25 cents.

246. ART OF PRIMITIVE PEOPLE. 2(2-0); II. Prerequisite: Art 101A. Everhardy.

A study of the local art styles of various groups of primitive people, stressing their skills in designing for everyday living. 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.

306. PROBLEMS IN ADVANCED DESIGN. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which deal with the various phases of design may be chosen by the student with the aid of the instructor. Charge to be arranged with instructor.

## Child Welfare and Euthenics

Professor ROY  
Associate Professor KELL  
Associate Professor WILLIAMS  
Assistant Professor RAFFINGTON  
Assistant Professor ALDOUS

Instructor BURTON  
Instructor KENT  
Graduate Assistant FLAGG-BARNES  
Graduate Assistant TINGLE

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, \$1.

#### 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, \$2. Additional charge for lunches, \$2.

206. CHILD GUIDANCE II. 3(3-0); II. Prerequisite: Child Welf. 201. Aldous. Guidance principles applied to the needs of adolescents. Charge, \$1.

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, \$1.

216. THE FAMILY. 2(2-0); I, II, or SS. Prerequisite: Educ. 184 and junior standing. Roy, Kell.

An approach to an understanding of the American family of today, made through study of the dynamic relationship of family members. Charge, \$1.

221. PROBLEMS IN CHILD WELFARE AND EUTHENICS. Credit to be arranged; I, II, and SS. Prerequisite: Child Welf. 201; consult instructor. Staff.

226. SEMINAR IN CHILD WELFARE AND EUTHENICS. 1 to 2 hours; II. Prerequisite: Child Welf. 201. Roy, Kell.

Consideration of current research in the field.

231. PARENT GUIDANCE. 3(3-0); I. 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.

240. FAMILY RELATIONSHIPS. 2(2-0); II. Prerequisite: Child Welf. 216. Roy, Kell.

Advanced study of current research relating to interaction of family members. Charge, \$1.

#### FOR GRADUATE CREDIT

301. RESEARCH IN CHILD WELFARE AND EUTHENICS. Credit to be arranged; I, II, and SS. Consult instructor. 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  
Associate Professor CORMANY  
Assistant Professor FLETCHER

Instructor HOWE  
Instructor GILMORE  
Instructor LIENKAEMPER  
Graduate Assistant SURRETT  
Graduate Assistant BELL  
Graduate Assistant SCOTT

The Department of Clothing and Textiles offers courses designed to furnish essential knowledge concerning clothing and textile problems. 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: Two semesters 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 a street dress. Charge, \$3; deposit, 25 cents.

110. CLOTHING SELECTION. 2(2-0); I and II. Cowles, Gilmore.

Selection of clothing with self-analysis as a basis; budgeting and buying procedures. Designed for students not majoring in home economics, or those not planning to take Clo. and Text. 103.

116. TEXTILES. 3(2-3); I, II, and SS. Prerequisite: Chem. 122; Phys. 108 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, \$2.50; 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; developed in fabrics of silk, wool, or synthetic fiber. Charge, \$3.50; 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 instructor. 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. Lienkaemper.

#### FOR GRADUATE CREDIT

301. RESEARCH IN CLOTHING AND TEXTILES. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing; consult instructor. Latzke, Hess, Fletcher, Cormany.

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  
 Associate Professor ASCHAM  
 Assistant Professor BROWNING  
 Assistant Professor WESTERMAN

Instructor MULLEN  
 Instructor MEILLER  
 Instructor WILMORE  
 Instructor STEWART  
 Instructor MILLER  
 Instructor WEBER  
 Technician GEDDES

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.

Instruction is provided for teachers of foods, dietitians, and for commercial, extension, and research workers.

### FOR UNDERGRADUATE CREDIT

102. FOODS I. 5(3-6); I, II, and SS. Staff.

Elementary nutrition, principles of food preparation, and food economics. Practice in food preparation and meal service. Charge, \$6; deposit, \$1.

107. FOODS II. 3(1-6); I and II. Prerequisite: Chem. 122 and Foods and Nutr. 102 or equivalent. Staff.

Chemical and physical properties of food related to preparation and preservation. Charge, \$5; deposit, \$1.

112. HUMAN NUTRITION. 3(3-0); I, II, SS. Prerequisite: Foods and Nutr. 107 and Zoöl. 219 or 221.† Staff.

Chemistry of foods and nutrition, emphasizing food nutrients, digestion, and metabolism.

121. APPLIED NUTRITION. 2(2-0); I and II. Staff.

Practical nutrition, including food requirements, food selection, and food habits. For men and women students not majoring in home economics.

176. MEATS H. E. 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: Foods 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.*—Calories, protein, mineral, and vitamin values; diets for infants, children, and adults. Charge, \$5; deposit, \$1.

205. DIETETICS FOR ABNORMAL CONDITIONS. 2(1-3); I and II. Prerequisite: Foods and Nutr. 202. Meiller.

Dietetic requirements in pathological and abnormal conditions. (For students who expect to qualify as professional dietitians.)

*Laboratory.*—Demonstration of diets for special conditions, preparation of trays, computation of dietaries, consideration of costs. Charge, \$1; deposit, \$1.

210. NUTRITION OF DEVELOPMENT. 2(2-0); II. Prerequisite: Foods and Nutr. 202. Pittman.

Nutrition in pregnancy and lactation. Food requirements of fetus, infant, pre-school child, and school child through adolescence.

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† Students from other divisions desiring to elect Food and Nutr. 112 may substitute an equivalent number of hours in other sciences for these requirements.

215. FIELD WORK IN NUTRITION. 3(2-3); I and II. Prerequisite: Foods 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 instructor. 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: Foods 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: Foods and Nutr. 202. Vail, McMillan.

Food preparation from experimental standpoint. Charge to be arranged with instructor; deposit, \$1.

256. FUNDAMENTALS OF DEMONSTRATIONS. 2(0-6); II. Prerequisite: Foods and Nutr. 255, Hshld. Econ. 203, and Educ. 132. Staff.

Purposes and techniques of demonstrations in foods and household equipment, with special reference to their application in the field of business. In coöperation with the Department of Household Economics. Charge to be arranged with the instructor.

#### FOR GRADUATE CREDIT

305. RESEARCH IN FOOD ECONOMICS AND NUTRITION. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Individual research problems which may form the basis for the master's thesis. Charge to be arranged with instructor.

## General Home Economics

Dean JUSTIN  
Assistant Dean McMILLAN  
Assistant Professor RAFFINGTON  
Assistant Professor JOHNSON

#### FOR UNDERGRADUATE CREDIT

131. HOME ECONOMICS FRESHMAN LECTURES. R (meetings by appointment). Staff, student counselors, and invited speakers.

Freshmen meet weekly during the fall semester and monthly during the spring semester for orientation and guidance. Charge, 75 cents.

133. HOME ECONOMICS LECTURES. R (meetings by appointment). Staff.

Upperclass students attend Interest Groups and special meetings during the year. Programs are presented by members of the faculty and speakers from outside. These groups are sponsored by the Home Economics Club. Charge, 75 cents.

134. HOME ECONOMICS SENIOR LECTURES. R (meetings by appointment). Justin and staff.

Seniors meet weekly during the spring semester. Juniors in the nursing curriculum take Senior Lectures. The opportunities and responsibilities of

the home economist are presented, and means for professional growth and personal advancement of women are stressed. Charge, 75 cents.

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 the Curriculum in Home Economics and Nursing and those transferring from other colleges and divisions with junior or senior standing need to complete only one. Johnson.

### COURSES IN HOME ECONOMICS EDUCATION\*

Professor RUST  
Associate Professor BAXTER  
Assistant Professor JOHNSON

Instructor TINCHER  
Graduate Assistant PISHNEY

#### FOR UNDERGRADUATE CREDIT

132. METHODS OF TEACHING HOME ECONOMICS. 3(3-0); I, II, and SS. Rust, Baxter, Johnson.

See Department of Education, Division of General Science.

133. METHODS OF TEACHING FOR DIETETIC STUDENTS. 3(3-0); I and II. Prerequisites: Educ. 184, Foods and Nutr. 112, Inst. Mgmt. 101 or Foods and Nutr. 202. Rust.

See Department of Education, Division of General Science.

160. TEACHING PARTICIPATION IN HOME ECONOMICS. 3(-); I, II, and SS. By appointment. Baxter, Johnson, Pishney.

See Department of Education, Division of General Science.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

232. TEACHING SUBJECTS RELATED TO HOME ECONOMICS. 1 to 3 hours; I, II, and SS. Prerequisite: Educ. 184 and 132. Rust, Johnson.

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. Johnson.

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.

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\* The nine 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.



318. SEMINAR IN HOME ECONOMICS EDUCATION. 2 or 3 hours; II and SS. Prerequisite: Educ. 160 and experience in teaching home economics. Rust, Johnson, and visiting instructors.

Recent trends in home economics education.

See Department of Education, Division of General Science.

## Household Economics

Professor LINDQUIST  
Associate Professor GUNSELMAN  
Assistant Professor AGAN

Assistant Professor MCKINNEY  
Instructor BARNES  
Instructor \_\_\_\_\_

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 family. Graduate students preparing to become advisers in home management houses, specialists and consultants 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: Foods and Nutr. 102; Phys. 108 recommended. Agan, Barnes.

A consideration of dwellings, their environment, plan, furnishings, and equipment, which will promote good utilization of family resources.

*Laboratory.*—A survey of certain furnishings and equipment for the home and their use. Charge, \$1.

### FOR GRADUATE AND UNDERGRADUATE CREDIT

203. HOUSEHOLD EQUIPMENT I. 2(0-6); I, II, and SS. Prerequisite: Phys. 108; Hshld. Econ. 107. Agan.

Selection, care, construction, operation, and use of certain equipment used in the home. Charge, \$2.50.

205. HOUSEHOLD EQUIPMENT II. 2(0-6); II. Prerequisite: Hshld. Econ. 203. Agan.

A continuation of Household Equipment I. Charge, \$2.50.

240. HOME MANAGEMENT. 3(1-6); I, II, and SS. Prerequisite: Senior standing. Lindquist, McKinney, Barnes.

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.

243. PROBLEMS IN HOUSEHOLD ECONOMICS. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Special problems for individual investigation in standards of living and family expenditures; housing and household equipment; use of family resources.

256. FUNDAMENTALS OF DEMONSTRATIONS. 2(0-6); II. Prerequisite: Foods and Nutr. 255, Hshld. Econ. 203, and Educ. 132. Staff.

See Department of Food Economics and Nutrition.

263. FAMILY FINANCE. 2(2-0); I, II, and SS. Gunselman, McKinney, Barnes.

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 and Hshld. Econ. 263. 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."

272. CONSUMER BUYING. 3(3-0); 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 SMULL  
Instructor HILTON

Assistant PETERSON  
Assistant KAHLER  
Graduate Assistant HOSS

Courses in this department provide preparation 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: Foods and Nutr. 107. Smull.

Food problems of institutions, including preparation and serving of foods 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. Miller.

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.

220. SCHOOL FOOD SERVICE. 3(1-6); I, II, and SS. Prerequisite: Foods and Nutr. 107. Staff.

Organization, administration, equipment, food buying, food costs, and menu planning for special meals and school lunchroom service. Charge, \$2.

225. TEAROOM MANAGEMENT. 3(0-9); I and II. Prerequisite or concurrent: Inst. Mgmt. 206. Miller.

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.

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## Bureau of Research in Home Economics

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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.

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\* The investigations starred are being supported in part by funds from the Agricultural Experiment Station.



- 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 comparison of the service qualities of certain synthetic fabrics and mixed synthetic fabrics.
  - \*A study of the rayon fiber as affected by light, light and moisture, and light and perspiration.
- Coefficient of absorption of textile materials.  
Parents' attitudes and practices in relation to their children.  
Case studies of children and adults.  
Principles of guidance based on situational analysis.  
Studies of factors affecting the expenditures for family living.
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\* The investigations starred are being supported in part by funds from the Agricultural Experiment Station.



# The Division of Veterinary Medicine

RALPH R. DYKSTRA, *Dean*

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## 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.

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		SECOND SEMESTER	
Anatomy I, Anat. 104.....	*4(3-3)	Anatomy II, Anat. 110.....	8(4-12)
El. Histology, Path. 103.....	1(0-3)	Histology I, Path. 104.....	3(1-6)
El. of An. Husb., An. Husb. 125..	3(2-3)	Path. Bact. I, Bact. 111.....	4(2-6)
Gen. Org. Chemistry, Chem. 122..	5(3-6)	Infantry IV, Mil. Sc. 104.....	1(1-2)
Medical Botany, Bot. 126.....	2(1-3)	Phys. Educ. M, Phys. Ed. 103....	R(0-2)
Infantry III, Mil. Sc. 103.....	1(1-2)		
Phys. Educ. M, Phys. Ed. 103....	R(0-2)		
<hr/>		<hr/>	
Total .....	16	Total .....	16

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Anatomy III, Anat. 112.....	4(1-9)	Pathology I, Path. 203.....	5(3-6)
Comp. Physiology I, Anat. 222....	4(3-3)	Comp. Physiology II, Anat. 224... 2	5(3-6)
Histology II, Path. 106.....	3(1-6)	Farm Poul. Prod., Poul. Husb. 101,	2(1-2, 1)
Path. Bact. II, Bact. 116.....	4(2-6)	Feeds and Feeding, An. Husb. 189,	3(3-0)
Dairy Cattle Judg., Dairy Husb. 104 .....	1(0-3)	Dairy Inspec. for Veterinary Students, Dairy Husb. 119.....	2(1-3)
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Total .....	16	Total .....	17

THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
Surgery I, Surg. 102.....	5(5-0)	Surgery II, Surg. 107.....	5(5-0)
Materia Medica, Surg. 158.....	4(3-3)	Dis. of Large Animals I, Surg. 175,	5(5-0)
Pathology II, Path. 208.....	4(3-3)	Pathology III, Path. 211.....	3(2-3)
Parasitology, Zoöl. 208.....	3(2-3)	Therapeutics, Surg. 163.....	3(3-0)
Clinics I, Surg. 138.....	2(0-6)	Clinics II, Surg. 141.....	2(0-6)
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Total .....	18	Total .....	18

FOURTH YEAR†

FIRST SEMESTER		SECOND SEMESTER	
Dis. of Large Animals II, Surg. 177,	5(5-0)	Inf. Dis. of Large Animals, Surg. 181 .....	5(5-0)
Dis. of Small Animals, Surg. 186..	2(2-0)	Obst. and Breed. Dis., Surg. 130..	5(5-0)
Surgical Exercises, Surg. 112.....	1(0-3)	Poultry Diseases, Bact. 217.....	2(2-0)
Meat Hygiene, Path. 217.....	3(3-0)	Med. Econ. and Law, Surg. 191..	2(2-0)
Pathology IV, Path. 214.....	3(2-3)	Clinics IV, Surg. 147.....	4(0-12)
Clinics III, Surg. 144.....	4(0-12)	Clinical Path. II, Path. 226.....	R(0-12)
Clinical Path. I, Path. 225.....	R(0-12)		
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Total .....	18	Total .....	18

Number of hours required for graduation, 137.

Extracurricular Electives

FIRST SEMESTER	SECOND SEMESTER
Vaccine Manu. I, Path. 228.....	2-5( - )
	Vaccine Manu. II, Path. 231.....
	2-5( - )

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  
 Assistant Professor LINK  
 Instructor COVER

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, Cover.

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, Cover.

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, Cover.

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.

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\* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week. I, II, and SS indicate that the course is given the first semester, second semester, and summer school, respectively.

## COURSES IN ANATOMY AND PHYSIOLOGY

## FOR UNDERGRADUATE CREDIT

131. ANATOMY AND PHYSIOLOGY. 3(2-3); I. Adapted to students majoring in Animal Husbandry. Link.

Physiology of the domestic animals, with special emphasis on digestion, absorption, metabolism, and excretion; sufficient anatomy to give a thorough understanding of the correlation between the two subjects and of the physiologic relations existing among the various organs of the body. Charge, \$1.

## COURSES IN PHYSIOLOGY

## FOR GRADUATE AND UNDERGRADUATE CREDIT

215. PROBLEMS IN PHYSIOLOGY. Credit to be arranged; I and II. Prerequisite: Anat. 131 or 222 or 224 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 and SS. 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 and SS. 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 and 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.

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## Pathology

Professor RODERICK  
 Professor KITSELMAN\*  
 Associate Professor FARLEY  
 Assistant Professor THOMPSON

Assistant Professor WHITLOCK  
 Assistant Professor WAGERS  
 Instructor McMAHAN†  
 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, Elementary Histology. Whitlock.

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\* On military leave, Jan. 1, 1941—.

† Temporary.

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, Histology I. 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: Path. 106, Histology II. 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. Thompson, McMahan.

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 postmortem 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.

228, 231. VACCINE MANUFACTURE I and II. 2 to 5 hours each; I, II, and SS each. Prerequisite: Bact. 116. Farley.



I: Theory and practice of immunization as applied to blackleg and hog cholera.

*Laboratory.*—Isolation and identification of the blackleg organism and of related anaërobes, and practical production of blackleg immunizing agents and antihog-cholera serum and virus. Deposit, \$3 to \$7.50 for each course.

II: Preparation and standardization of various veterinary biological products, such as tuberculin, bacterial vaccines, and bacterins.

*Laboratory.*—Production of some of the products mentioned and special work on blackleg immunizing agents and antihog-cholera serum and virus. Deposit, \$3.

250. APPLIED VETERINARY PARASITOLOGY. 2(1-3); II. Limited to veterinary students. Prerequisite: Zoöl. 208. Whitlock.

Identification and diagnosis of parasites and parasitoses in living and dead animals; important parasitic diseases of 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.

## 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 treatment 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 medicinal 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; metrology, 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

H. J. C. UMBERGER, *Dean and Director*

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## Extension Publicity and Information

Extension Editor LONGSDORF, Program Director, in Charge  
Extension Editor SCHEEL  
Assistant Extension Editor CHAPMAN  
Assistant Extension Editor BOTZ

The Division of College Extension offers the benefits of the College to Kansas farm people. It is active in every county. 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 all.

In the beginning, this work was informal. Members of the College staff answered inquires 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 Argiculture 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. 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

Professor WILLIAMS in Charge

Professor LUMB, Veterinary Medicine	Asst. Prof. HARDEN, Agricultural Economics
Professor KELLY, Entomology	Asst. Prof. MATHER, Agricultural Economics
Assoc. Prof. AMSTEIN, Horticulture	Asst. Prof. COOLIDGE, Agricultural Economics
Assoc. Prof. ELLING, Animal Husbandry	Asst. Prof. JACCARD, Agricultural Economics
Assoc. Prof. LINN, Dairy Husbandry	Asst. Prof. SCHRUBEN, Agricultural Economics
Assoc. Prof. GILMORE, Dairy Husbandry	Asst. Prof. COPENHAFFER,* Landscape Gardening
Assoc. Prof. WILLOUGHBY, Farm Crops	Instructor BURTON, Landscape Gardening
Assoc. Prof. COMPTON, Farm Crops	Instructor BURSON, Agricultural Economics
Asst. Prof. MOXLEY, Animal Husbandry	Instructor SHOEMAKER, Agricultural Economics
Asst. Prof. SEATON, Poultry Husbandry	Instructor BROWN, Agricultural Economics
Asst. Prof. HALBROOK, Poultry Husbandry	Instructor JOHNSON, Forestry
Asst. Prof. CLEAVINGER, Farm Crops	Instructor MILLER, Plant Pathology
Asst. Prof. BELL,* Farm Crops	Instructor GRIFFITH, Agricultural Economics
Asst. Prof. DOMINY, Agricultural Economics	

This department includes those members of the Extension staff who conduct and supervise programs in agricultural education throughout the state. The programs are developed in coöperation with the residents of the counties through their designated leaders. The department also has charge of the program and arrangements for Farm and Home Week, annual state-wide farmers' meetings, and the scheduling of judges for county and local fairs.

#### FARM AND HOME INSTITUTES

A farm and home institute is an association of farmers and farm homemakers with regular officers, constitution, and 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 College must be present, it also holds at least three local meetings. It is the plan of the College to send two specialists, one in agriculture and one in home economics, to the annual meetings to present certain well-defined lessons and to give the results of demonstration work for the county or locality. The specialists and their subjects are chosen because of known need or interest of a particular community or because of a plan to start or encourage certain definite lines of work.

#### EXTENSION SCHOOLS

Extension schools are meetings of one- or two-day 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 the schools.

\* On leave.

**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 home the results of the research work of the Agricultural Experiment Station and the United States Department of Agriculture in a practical, effective, and usable form. He brings back reports of the progress of demonstration work in the field. He seldom makes a trip without coming in contact with agricultural problems requiring the attention of research workers.

**COUNTY AND LOCAL FAIRS**

The agricultural specialists devote some time each year to judging livestock and agricultural products at state, 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.

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**County Agent Work\***

Associate Prof. TURNER, Field Agent  
 Asst. Prof. BLECHA, District Agent  
 Asst. Prof. BAIRD, District Agent  
 Asst. Prof. TEAGARDEN, District Agent  
 Asst. Prof. ROBINSON, District Supervisor  
 Asst. Prof. GLOVER, District Supervisor  
 Asst. Prof. NEFF, 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

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\* To find an alphabetical list of county agricultural agents, see pages 53 to 60.



extensive coöperation among farmers. On the one hand, it includes organization and management, and production problems, such as soil management, erosion control, cropping systems, crop pests, adapted crop varieties, and live-stock management. On the other hand, it includes coöperative financing, co-operative marketing of farm products, and agricultural adjustment procedure.

The first county agricultural 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, 1941, there were 103 county agricultural agents and 50 assistant county agricultural agents. Twenty of the assistant county agricultural agents were coöperating with soil conservation associations, nineteen served as testers for dairy herd improvement associations, ten were being trained in various counties under the leadership of county agricultural agents, and one was employed as horticultural assistant in Wyandotte county.

## Home Economics\*

Professor SMURTHWAITE, State Home Demonstration Leader, in Charge

### DISTRICT AGENTS

Asst. Prof. BATCHELOR†  
Asst. Prof. MEYER

Asst. Prof. WINTER‡  
Asst. Prof. ANDERSON

### SPECIALISTS IN HOME ECONOMICS

Asst. Prof. WIGGINS, Clothing and Textiles  
Asst. Prof. ALLEN, Foods and Nutrition  
Asst. Prof. FLETCHER, Foods and Nutrition  
Asst. Prof. MYERS, Home Management  
Asst. Prof. FARRIS, Home Furnishings  
Instructor HILYARD,† Clothing and Textiles

Instructor MARTIN, Home Health and Sanitation  
Instructor ELLITHORPE, Home Management  
Instructor COMPTON, Recreation  
Instructor PHILLIPS,‡ Clothing and Textiles

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 a county 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, 1941, fifty counties had home demonstration agents.

\* To find an alphabetical list of home demonstration agents, see pages 61 to 64.

† On leave.

‡ Temporary.

## Boys' and Girls' 4-H Club Work\*

Professor COE, State Club Leader  
 Asst. Prof. BORDER, Junior Extension  
 Instructor JOHNSON,† Junior Extension  
 Instructor REGNIER, Junior Extension  
 Instructor BUSSET,‡ Junior Extension

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 Extension agents with the help of local voluntary 4-H Club leaders. Local organizations also give valuable 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 on 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 roundups, camps, and conferences are arranged.

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## Engineering Extension

Professor WARD, Architecture, in Charge  
 Instructor WARNER, Architecture  
 Instructor EIER, Agricultural Engineering  
 Instructor STOVER,† Agricultural Engineering  
 Instructor FERGUSON, Agricultural Engineering  
 Instructor ———, Agricultural Engineering

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,

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\* To find an alphabetical list of county club agents, see page 61.

† On leave.      ‡ Temporary.



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.

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## Home Study

Professor GEMMELL, in Charge  
Professor FLEENOR, Education  
Professor PATTISON, Mechanical Engineering  
Assoc. Prof. BILLINGS, History and Civics  
Assoc. Prof. SCHALL, English  
Asst. Prof. 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 that 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. Aggressive students who do not wish to have their progress retarded by vacations 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.

### EXAMINATIONS

At the close of each course, before a grade is issued, a final examination is necessary. The final examination may be taken in the office of the Department of Home Study at the College, or other arrangements may be made by the student to take it locally under the city or county superintendent of schools or the principal of the local high school. In the latter case, the examination questions and instructions for conducting the examination are mailed from the department to the examiner, and the student's paper is sent in by him.

### FEEES

For residents of Kansas, there is an initial enrollment fee of \$10 for a course of three, or less, semester hours of credit with \$3 additional for each added hour of work; for nonresidents of the state, there is an initial enrollment fee of \$15 for a course of three, or less, semester hours of credit 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, there is 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.

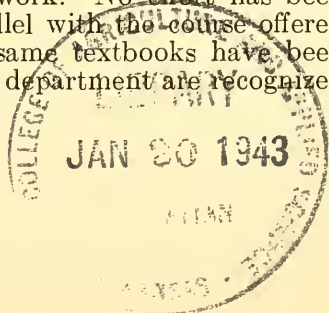
## HIGH-SCHOOL COURSES

(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 that 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 that 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. 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>Assignments</i>	<i>Semester hours of credit</i>
CA 3.	Farm Crops .....	16	2
ANIMAL HUSBANDRY			
CL 2.	History of Breeds.....	16	2
HORTICULTURE			
CH 1.	Elements of Horticulture.....	16	2
CH 2.	Vegetable Gardening .....	16	2
CH 3.	Floriculture .....	16	2
CH 5.	Landscape Gardening .....	8	1
CH 6.	Small Fruits .....	16	2
POULTRY HUSBANDRY			
CPP 1.	Farm Poultry Production.....	8	1

DIVISION OF ENGINEERING

MACHINE DESIGN			
CE 2.	Engineering Drawing .....	16	2
CE 6.	Machine Drawing I.....	16	2
CE 4.	Mechanism .....	24	3
CE 11.	Descriptive Geometry .....	16	2
CIVIL ENGINEERING			
CE 1.	Highway Engineering I.....	16	2
SHOP PRACTICE			
CE 7.	Metals and Alloys.....	16	2
AGRICULTURAL ENGINEERING			
CE 3.	Gas Engines and Tractors.....	16	2
MECHANICAL ENGINEERING			
CE 9.	Steam Turbines .....	16	2

DIVISION OF GENERAL SCIENCE

ECONOMICS AND SOCIOLOGY			
CEc 1.	Economics .....	24	3
CS 2.	Rural Sociology .....	24	3
CS 3.	Sociology .....	24	3
CS 4.	Community Leadership .....	16	2
EDUCATION (PROFESSIONAL)			
CP 2.	Educational Psychology .....	24	3
CP 3.	Educational Sociology .....	24	3
CP 4.	History of Education .....	24	3
CP 5.	School Management .....	24	3
CP 6G.	Methods of Teaching in Elementary Graded Schools and Rural Schools .....	24	3
CP 6H.	Methods of Teaching in the High School.....	24	3
CP 7.	Educational Administration .....	24	3
CP 8.	Psychology .....	24	3
CP 14.	Vocational Education .....	24	3
CP 17.	Introduction to Philosophy .....	24	3
CP 19.	Essentials of Reading .....	24	3
ENGLISH			
CCE 1.	College Rhetoric I.....	24	3
CCE 2.	College Rhetoric II.....	24	3
CCE 3.	Commercial Correspondence .....	24	3
CCE 4.	The Short Story .....	24	3
CCE 6.	English Literature .....	24	3
CCE 7.	American Literature .....	24	3
CCE 8.	Children's Literature .....	24	3
JOURNALISM			
CCJ 1.	Agricultural Journalism .....	24	3

<i>Course No.</i>	PHYSICAL EDUCATION	<i>Assignments</i>	<i>Semester hours of credit</i>
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

# Degrees Conferred

In the Year 1941

## Seventy-eighth Annual Commencement

May 26, 1941

### DEGREES CONFERRED

#### Division of Graduate Study

##### MASTER OF SCIENCE

- \*Lawrence Raymond Berg, B. S., State College of Washington, 1939; Elmo, Wash.  
Charles John Birkeland, B. S., Michigan State College, 1939; Manhattan.
- \*Hsien Tsiu Chang, B. S., University of Nanking, 1937; Chengtu, Szechwan, China.  
Minerva Marie Cron, B. A., Mary Hardin-Baylor College, 1939; Alamo, Tex.  
Floyd Ewing Davidson, B. S., Kansas State College, 1933; Parsons.  
George Thomas Dean, B. S., Kansas State College, 1940; Manhattan.  
Walter Theodore Federer, B. S., Colorado State College, 1939; Manhattan.  
Lyman Philip Frick, A. B., University of Kansas City, 1937; Kansas City, Mo.  
Charles Martin Good, Jr., B. S., Kansas State College, 1939; Plevna.  
Elizabeth Allen Heinz, B. M., Kansas State College, 1928; Manhattan.
- \*Marjorie McCall Hemphill, B. S., Kansas State College, 1937; Manhattan.  
Raymona Mayme Hilton, B. S., University of Nebraska, 1937; Omaha, Neb.  
Edgar Abner Johnson, B. S., Colorado State College, 1939; Fort Collins, Colo.  
Glenn Charles Klingman, B. S., University of Nebraska, 1939; Chappell, Neb.
- \*James Michael Koepper, B. A., DePauw University, 1939; Ames, Iowa.
- \*Marvin Koger, B. S., New Mexico College, 1939; State College, N. Mex.  
Earl McKee Kroth, A. B., Tarkio College, 1934; Denison.  
Franz Leidler, M. D., University of Vienna, 1938; Manhattan.
- \*Orrin Jay Marcy, B. S., University of Nebraska, 1939; Hay Springs, Neb.  
Harold Hawley Munger, B. S., Kansas State College, 1939; Manhattan.  
Theo Beatrice Nix, B. S., Kansas State College, 1940; Kansas City, Mo.  
Ralph Edward Peterson, B. S., Kansas State College, 1940; Manhattan.  
Edwin Eugene Saunders, B. S., University of Missouri, 1939; Columbia, Mo.  
Paul A Schoonhoven, B. S., Kansas State College, 1939; Manhattan.  
Richard Blaine Schwitzgebel, B. S., Kansas State College, 1939; Manhattan.  
Rowena Hammons Sherrill, A. B., University of Kansas, 1930; Neodesha.  
George Lee Smith, B. S., Hampton Institute, 1929; Prairie View, Tex.
- \*Morton Smutz, B. S., Kansas State College, 1940; Manhattan.  
Arlene Lois Waterson, B. S., Kansas State College, 1939; Dighton.  
Bill Milton Williams, B. S., Washburn College, 1937; Topeka.

##### DOCTOR OF PHILOSOPHY

Charles Raymond Stumbo, B. S., 1936; M. S., 1937, Kansas State College; Manhattan.

#### Honorary Degree

##### DOCTOR OF SCIENCE

Roy Monroe Green, B. S., University of Missouri, 1914; M. S., Kansas State College, 1923;  
Fort Collins, Colo.

#### Division of Agriculture

##### BACHELOR OF SCIENCE IN AGRICULTURE

Merrill Glee Abrahams, Wayne	Wayne Robert Colle, Sterling
DeWitt Bennard Ahlerich, Winfield	Lee Wilson Collinsworth, Rosalia
Richard Elton Atkins, Manhattan	Stanley Elbert Combs, Wilson, N. C.
Merton Bierman Badenhop, Kensington	Don Eldon Crumbaker, Onaga
Edwin Leroy Betz, Enterprise	Emerson Lyle Cyphers, Fairview
James Frederick Booth, Fairview	Paul Stromquist Danielson, Lindsborg
Francis Richard Brown, Fall River	Clayton Cunningham David, N. Topeka
Lester Earl Brown, Circleville	Darold Ardale Dodge, Dighton
Paul Lawson Brown, Sylvan Grove	John Wallace Dummermuth, Barnes
Orville Brown Burtis, Hymer	John Page Earle, Washington
Glenn Morton Busset, Manhattan	Harry Eugene Fair, Alden
Severo Jose Cervera, Junction City	John Philip Featheringill, Independence
George Wilson Cochran, Topeka	Taylor Leland Fitzgerald, Silver Lake

\* In absentia.



BACHELOR OF SCIENCE IN AGRICULTURE—*Concluded*

John Lowell Foley, Manhattan	Arden Reiman, Byers
Harold Robert Fox, Rozel	Gerald Dale Ressel, Colony
<b>HoBart</b> William Frederick, Burrton	Ralph Warren Rhodes, McLouth
LeRoy Frank Fry, Little River	Walter Stuart Robinson, Nashville
Bertram Wallace Gardner, Jr., Carbondale	Joseph Jackson Rosacker, Emporia
Frank Jackson George, Lebo	Moutrie Wilbur Salter, Wakefield
Wilbert Greer, Council Grove	Paul Everett Sanford, Milford
Leland Leon Groff, Parsons	Arthur LeRoy Saylor, Langdon
Melvin Ferdinand Gruber, Hope	Kenneth Thomas Sherrill, Brownell
Frank Wilson Howard, Jr., Oakley	Ernest Harold Simpson, Conway Springs
Howard McCune Hughes, Formoso	Henry Lyman Singer, Parker
Rees Woodford Hughes, Fort Scott	Frank Allan Slead, Neosho Rapids
Dale Craig Hupe, Perry	Henry Joseph Smies, Courtland
Harold Rolland Jaeger, Vesper	Paul Elbert Smith, Lebanon
Kenneth Ralph Jameson, Ottawa	Rollin Max Starosta, Pomona
Herbert Donald Johnson, Macksville	Raymond Stewart, Manhattan
Lloyd Charles Jones, Frankfort	*Joseph Jacob Straub, Wathena
Walter Marvin Keith, Manhattan	Charles Lyman Streeter, Milford
Chris William Langvardt, Alta Vista	George Lester Clifford Sundgren, Coldwater
Doyle Wayne LaRosh, Natoma	*Leon Zaven Surmelian, Hollywood, Cal.
David Hale Long, Abilene	Perrin Kent Symms, Atchison
Roscoe Dean Long, Drexel, Mo.	Fred Scudder Talbot, Manhattan
Orville Walter Love, Neosho Rapids	Benjamin Wickham Tempero, Clay Center
Boyd Homer McCune, Stafford	*Orval Elmer Thrush, Wakefield
George Nolan McKenzie, Solomon	David Salem Totah, Ramallah, Jerusalem, Palestine
Arthur Charles Mangelsdorf, Atchison	Loren Loeffler VanPetten, Washington
Milton Lloyd Manuel, Havensville	Lindley Eugene Watson, Peck
*Robert Frank Mears, Kansas City	John Raymond Weddle, Fort Scott
Friedrich Edward Meenen, Clifton	Robert Blaine Wells, Manhattan
Russell Wayne Miller, Lebanon	Dean Duane Whitmore, Portis
Dale Lewis Moore, Ashland	Byron Kimble Wilson, Manhattan
Ray William Morrison, Larned	Garl Alton Wilson, Quenemo
Wendell Austin Moyer, Manhattan	Mark Francis Wilson, Ashland
Robert Mudge Niquette, Garden City	John Stanley Winter, Dresden
Kent Leonard Patton, Chase	Charles Edward Works, Humboldt
James Russell Peddicord, Manhattan	Mack Yenser, Saffordville
Lewis Eugene Poggemeyer, Topeka	Donald Allan Yost, La Crosse
John Germann Poole, Manhattan	Albert Warren Yoxall, Woodston
Herman Albert Praeger, Jr., Claflin	Edward Brewer Zahn, Miltonvale
Byron White Quinby, Manhattan	

## BACHELOR OF SCIENCE IN MILLING INDUSTRY

William Joseph Ball, Oswego	Willard Henry Meinecke, Herkimer
Ronald Leroy Biggs, Potwin	Willard Dean Nelson, Haddam
Russell William Blessing, Emporia	Ralph Roy Roberts, Phillipsburg
William Blount Briggs, Landrum, S. C.	Theodore Edward Stivers, Jr., Rome, Ga.
Wayne Xavier Deaver, Sabetha	Carlyle Philip Woelfer, Manhattan
Rush Hone Elmore, Topeka	Eugene Ellsworth Woolley, Osborne
John Norris Haymaker, Manhattan	

## Division of Engineering and Architecture

## BACHELOR OF SCIENCE IN AGRICULTURAL ENGINEERING

Forrest Overton Beardmore, Manhattan	Deno Everett Huit, Talmage
Gustave Edmund Fairbanks, Topeka	Ralph Iden Lipper, Sterling
Clarence Albert Frese, Hoyt	Gerald Thomas VanVleet, Danbury, Neb.
Paul Ernest Harbison, Johnson	

## BACHELOR OF SCIENCE IN ARCHITECTURE

Lawrence Ralph Bowdish, Wichita	John Alden Shaver, Salina
William Earl Doty, Manhattan	John Dennis Sulton, Manhattan
John Cotterill Foster, Manhattan	

## BACHELOR OF SCIENCE IN ARCHITECTURAL ENGINEERING

Edward Linn Abernathy, Sharon Springs	*Shelvy Harrison Lane, Bucklin
Lawrence Ralph Bowdish, Wichita	Thornton Jones Patton, Hamilton
Dwight Carl Brown, Osborne	Elmer William Schwartz, Hoisington
Wesley Lorenzo Burgan, Hoisington	Galen Max Sollenberger, Hutchinson
Charles Ellsworth Kaiser, Kansas City	Robert Sanders Thornburrow, Wetmore

\* In absentia.

## BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Edgar Crowley, Jr., Kansas City	Elmer John Rollins, Manhattan
Jean Chandler DeVault, Kansas City	Paul Jay Ruckel, Jr., Arkansas City
Irving Diamond, Bronx, N. Y.	Joseph Peter Sachen, Kansas City
John James Dooley, Parsons	Ralph Emanuel Samuelson, Manhattan
Warren Gerald Grubb, Phillipsburg	Emerson Hugh Shade, Rantoul
Thomas Benton Haines, Manhattan	George Sklar, Manhattan
Harold Raymond Harris, Geuda Springs	Carmin Barton Sprague, Douglass
Earl Clinton Johnson, Jr., Coffeyville	Mailand Rainey Strunk, Kansas City
*Gerald August Lake, Manhattan	Ralph Theodore Thomas, Independence
Emery John Levin, Lindsborg	Leslie Earl Thompson, Fort Scott
George Van Noy Packer, Manhattan	Charles Elmer Webb, Jr., Hill City
Willis Dey Payton, Arkansas City	Thomas Richard Woods, Burden

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

James Otis Adams, Eureka	Elvin Vance Giddings, Manhattan
Wilfred Ira Anderson, Clay Center	Carl Henry Helm, Chanute
Carl Theodore Besse, Clay Center	*Kenneth Dean Henry, Robinson
Emory Bond, Jr., Burlingame	Leroy L King, Hesston
Garland Baxter Childers, Augusta	Harley Eugene Lucas, Coffeyville
Norman Travis Cook, Monument	Wyatt Parkman Marbourg, Emporia
Richard Francis Dilley, Topeka	*Paul Jarboe Montgomery, Topeka
Aven Lamar Eshelman, Abilene	Walter M Naylor, Burr Oak
Clair Eugene Ewing, Blue Rapids	Leland Cyril Porter, Dellvale
William Arthur Gardner, Chanute	Melvin Eugene Scanlan, Agra
Billy Burris Geery, Burrton	Lloyd Campbell Teas, Manhattan
Guy Edgar Gibson, Jr., Kensington	

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

*Harold Eugene Alford, Arkansas City	LeRoy Vernon Kleppe, Everest
Richard Carl Allen, Carthage, Mo.	Oliver Ned Laurie, Mulvane
John Henry Babcock, Manhattan	Ernest Wayne Leive, Brookville
*William Goddard Bensing, Manhattan	Marlin Wray Martin, Hutchinson
Charles Wilson Blackburn, Topeka	*Archie LeRoy Morgan, Emporia
James Thomas Bradley, Sedan	Joe Kenneth Murphy, Chapman
*Herbert Merrill Dimond, Manhattan	Joseph Donald Musil, Manhattan
*Fay Albert Edwards, Arlington	John Elmer Newacheck, El Dorado
Shirley Frederick Eyestone, Wichita	Harry Alfred Peterson, Kansas City, Mo.
John Henry Frohn, Manhattan	Robert Allen Peterson, Jasper, Mo.
Alexander Rinaldo Geldhof, Pittsburg	Allen Ellwood Smoll, Wichita
Roger Keith Ghormley, Hutchinson	*Daniel Wichmann Wagoner, Lenora
Paul Clement Hauber, Kansas City	Robert Buchanan Washburn, Manhattan
William Douglas Helm, Simpson	John Franklin Weary, Junction City
Edwin Burns Holland, Liberal	Alfred Marvin White, Topeka
*Gerald Adelbert Hoyt, Thayer	Donald Keith Wilkin, Nortonville
Charles Franklin Johnson, Kansas City, Mo.	*Kenneth Morton Yoo, Atwood
Paul Laurence Kewley, Stockton	Howard Miller Zeidler, Sabetha
*George Wendell Kilian, Chapman	

## BACHELOR OF SCIENCE IN INDUSTRIAL ARTS

Robert Benson Coder, Manhattan	Dale Edwin Zabel, Westmoreland
Max Clarence Leuze, Sabetha	

## BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Charles Warren Adcock, Washington, D. C.	William Arthur Metcalf, Kansas City, Mo.
Edwin M. Aronson, Fort Scott	Karl Joseph Mosbacher, Jr., Wichita
Clyde Jennings Bateman, Herington	Albert Louis Niemoller, Wakefield
De Elroy Beeler, Kansas City	Glenn Emerson Pribbeno, Sharon Springs
*Carl Frederick Beyer, Glen Elder	*Robert Howard Pyle, Wellington
*Elmore Joseph Blackburn, Manhattan	John Parke Ransom, Homewood
Richard Harold Breckenridge, Woodston	Jack Harman Rupe, Kansas City
John Augustus Brewer, Concordia	Albert Erwin Schwerin, Kansas City, Mo.
Lewis Ernest Brown, Chanute	*Edward Frank Sefcik, Cuba
Raymond Martin Bukaty, Kansas City	Bert Eugene Sells, Wichita
Frank Adelbert Churchill, Junction City	Walter Turner Singleton, Tribune
Samuel Griffith Dukelow, Hutchinson	Clarence Paul Smith, Marysville
Vincent Henry Ellis, Urbana, Ill.	James Dow Thackrey, Portland, Ore.
George Allen Fadler, Carthage, Mo.	Harden Halleck Tubbs, Elkhart
Edward Horton Fletcher, Council Grove	Ralph John Wahrenbrock, Enterprise
Alva Rodell Gardner, Pomona	Roby Byron White, Jr., Neodesha
*C Lyndon Griffith, Elkhart	*Edgar Howard Wilkerson, Wichita
Lewis Ernest Heiney, Bloom	William Horn Wilson, Augusta
Edward Vaughn Hobbs, Manhattan	Keith Leon Witt, Independence
*Wilbert Lloyd Loewen, Goessel	

\* In absentia.



## Division of General Science

## BACHELOR OF SCIENCE

Raymond Voiles Adams, Jr., Manhattan  
 Eugene Elria Anderson, Greenleaf  
 Laura Florence Bartholow, Coffeyville  
 Kathryn Elizabeth Blevins, Manhattan  
 John Mathew Boalen, Concordia  
 Jack Wallace Branson, Belleville  
 Ruth Miller Brunner, Wamego  
 Wilma Hortense Cade, Manhattan  
 Robert George Chapman, Manhattan  
 Doris Leota Clark, Longton  
 Donald Raymond Conard, Coolidge  
 Robert Thomas Cotton, Manhattan  
 Elvin Wayne Cramer, Glasco  
 Robert Earhart Crow, Harper  
 Fay Anne Dale, Coldwater  
 Blanchetta Fair, Dearing  
 Elizabeth Anne Ferrier, Seneca  
 Lawrence Dale Freel, Goff  
 Neva Marguerite Garrett, Clay Center  
 Hazelbel Hutchins George, Sterling  
 Dale Edsel Gibson, Winchester  
 Richard Henry Hagadorn, Gaylord  
 James Robert Hoath, Anthony  
 Allison Lynn Hornbaker, Hutchinson  
 Helen Maurine Jackson, Salina  
 Charles Arnold Jacobi, Salem, Ore.  
 Neal Mike Jenkins, Manhattan  
 Eleanor Constance Kershner, Paola  
 Doris Chung Sook Kim,  
 Haina, Honokaa, Hawaii  
 Eleanor Jane Lambert, Hiawatha

Gwendolyn Lucille Lee, Lyons  
 Yvonne Joy Lemen, Manhattan  
 James Worth Linn, Manhattan  
 Robert James McCulloch, Manhattan  
 \*Hazel Marguerite Marlow, Manhattan  
 Dolores Ann Meyer, Frankfort  
 Frank Miller, Jr., Milford  
 Alden Borthwick Miner, Ness City  
 Anna Mae Nemecek, Abilene  
 Auriel Lee Olson, Erie  
 John Marchbank Parker, Manhattan  
 Jessie Adeline Pelham, Albany, Ga.  
 Earl Llwyn Redfield, Bucklin  
 Harlan Edward Rees, Manhattan  
 Opal Elnora Rhoads, Goodland  
 Frank Edgar Rickel, Manhattan  
 Gerald Moore Riley, Concordia  
 Robert Max Roelfs, Bushton  
 George Davis Schumacher, Lyons  
 Rule O Seymour, Ottawa  
 Claude Wesley Shenkel, Lyons  
 \*Richard Wilkeson Smith, Salina  
 Charles Willis Stafford, Republic  
 Evelyn Lucille Stener, Courtland  
 George James Stipe, Manhattan  
 Marvin Elmer Trembly, Chanute  
 Lois Belle Turner, Manhattan  
 R V Tye, Hanover  
 Robert Dean Williams, Manhattan  
 Marjorie B Windhorst, Glasco  
 Robert Warren Yeonian, Kingman

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Jack Junior Banks, Winfield  
 Annabelle Bays, Onaga  
 Maurice Wayne Beichley, Longford  
 Maurice Wittry Bergerhouse, Greeley  
 John Harrison Bowers, Jr., Kansas City  
 David Henry Breuninger, Manhattan  
 \*John Richard Brock, Glasco  
 Carleton Aura Caldwell, Manhattan  
 Carlton Cooper, St. John  
 Charles Joseph Correll, Manhattan  
 Betty Lou Davis, Severance  
 Robert Hollister Dodge, Kansas City  
 Alva Lease Duckwall, Jr., Abilene  
 Lela Elise Eshelman, Wichita  
 Franklin James Flynn, Wamego  
 Ralph Edward Guyton, Salina  
 Robert Monroe Hackney, Parsons  
 Don Franklin Hathaway, Coffeyville  
 Richard Neil Heaton, Norton  
 Donald Dwight Hesselbarth, Abilene  
 Bernice Maude Horton, Wayside  
 Ann Elizabeth Jackson, El Dorado  
 \*Verland Thomas Jahnke, Woodbine  
 Samuel Thomas Johnson, Hallowell  
 \*John Pershing Kane, Rock Creek

Robert Landis Kauffman, Salina  
 Ruth Ella Kindred, Bonner Springs  
 Theron Lambert King, Manhattan  
 Harold McKee Lemert, Arkansas City  
 Leonard Lille, Ellsworth  
 Frank Robert Lonberger, Manhattan  
 Dudley Randolph Londeen, Abilene  
 John Richard Moore, Atchison  
 Eloise Morris, Wichita  
 John Thomas Muir, Norton  
 David Edgar Newman, Junction City  
 Max Charles Opperman, Yates Center  
 James Wilbur Paustian, Manhattan  
 George Henry Peircey, Waterbury, Conn.  
 Isabelle Marjorie Phelan, Kansas City, Mo.  
 Vernon Leslie Plattner, Coffeyville  
 Paul Archie Puttroff, Newton  
 Harold Elwood Saum, Oberlin  
 Keith Merrill Schmedemann, Junction City  
 \*Ralph Murray Skinner, Topeka  
 Marjorie Nell Spillman, Coyville  
 Robert Vernon Swanson, Waterbury, Conn.  
 Thomas Edmund Trenkle, Topeka  
 Donald Keith Wilkin, Nortonville

## BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

Edwin Howard Beach, Marysville  
 Joseph Junior Bryske, Mankato  
 \*James Martin Cripps, Manhattan  
 James Madison Fallis, Luray  
 Louis Daniel Kottmann, Ellsworth

Carl Ernest Latschar, Manhattan  
 Charles Fredrick O'Brien, Iola  
 \*Carl Lea Pettyjohn, Talmo  
 Charles Paul Schafer, Vermillion  
 \*John Wesley Steffens, Kansas City

## BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Enid Alene Altwegg, Junction City  
 Robert Hale Blair, Ottawa  
 Clara Katharine Chubb, Topeka  
 Margaret Jane Goble, Riley  
 Mary Jean Grentner, Junction City  
 William Herbert Hickman, Kirwin  
 James Merlin Kendall, Dwight  
 Marianna Kistler, Manhattan  
 Katherine Jane Lovitt, Great Bend  
 Jennie Marie Madsen, Dwight

Donald Regis Makins, Abilene  
 Walter Woodrow Martin, Pratt  
 Ellen Peak, Manhattan  
 \*Lynne LeMoine Prout, Wichita  
 \*Grant Angus Salisbury, El Dorado  
 Mary Frances Sauder, Madison  
 Marcus Marion Schowalter, Jr., Halstead  
 Elizabeth Ann Steinheimer, Hutchinson  
 Victor Theodore Volsky, Pittsfield, Mass.

\* In absentia.



## BACHELOR OF SCIENCE IN MUSIC EDUCATION

Mary Jane Boyd, Hutchinson  
 Ralph Clayton Chartier, Concordia  
 Mary Harding Dillin, Hutchinson  
 Charles Kendal Horner, Abilene  
 Betty Lou LaPlante, Minneapolis

Marjorie Lucile Moree, Belleville  
 \*Donald Calvin Pricer, Hill City  
 ValGene K. Sherrard, Great Bend  
 Nancy Patricia Wilkins, Steelville, Mo.

## BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

Elmer Loyd Hackney, Oberlin  
 Lucille Belle Haley, Kansas City, Mo.  
 John James Jackson, Eureka  
 Mary Marvel Kantz, Wichita  
 Doris Marie Kittell, Topeka

Charles Melvin McCrann, Manhattan  
 William Phillip Nichols, Waterville  
 Marion Albert Ramage, Manhattan  
 Norma Irene Waits, Wichita

## Division of Home Economics

## BACHELOR OF SCIENCE IN HOME ECONOMICS

Julia Jane Alderman, Ottawa  
 Edith Hewitt Anderson, Leavenworth  
 Ellita Bernice Atwell, Utica  
 Dorothy Elizabeth Axcell, Chanute  
 Virginia Lee Barnard, Belleville  
 Winifred Jean Bayer, Manhattan  
 Rena Lauretta Bell, McDonald  
 Welcome Annelle Bender, Plains  
 Minnie Josephine Bergsma, Goodland  
 Maxine Beryl Bishop, Abilene  
 Pauline Isabel Blackwell, Rozel  
 Betty Boehm, Manhattan  
 Ruth Elizabeth Bonnell, Kansas City, Mo.  
 Pauline Marie Borth, Plains  
 Jacquelyn Lenore Brower, Attica  
 Edith Louise Buchholtz, Olathe  
 Bessie Marie Campbell, Concordia  
 Mary Alice Campbell, Concordia  
 Ruth Pearl Campbell, Lakin  
 Doris Virginia Carlson, Osage City  
 Jessie Margaret Collins, Dwight  
 Lucile Mae Cosander, Onaga  
 Marie Jane Cox, Iola  
 Sarah Ann Crotinger, Bison  
 Betty Jane Curtis, McPherson  
 Mildred Bozarth Davis, Liberal  
 Marieta Jane Delano, Hutchinson  
 Alma Lorraine Dickerhoof, Chanute  
 Helen Gordon Dodds, Lawrence  
 Lillian Ruth Dumler, Gorham  
 Jane Cuthbert Dunham, Topeka  
 Marion Claire Elmer, Manhattan  
 Helen Louise Ensign, Garrison  
 Lola Grace Evans, Hutchinson  
 Wilma Florine Evans, Hutchinson  
 Rachel Louise Featheringill, Independence  
 Autumn Felton Fields, McPherson  
 Helen Elaine Fleming, Ottawa  
 Evalyn Mae Frick, Larned  
 Erma Katherine Gamby, Everest  
 Grayce Edyth Goertz, Moundridge  
 Florence Clarice Gosney, Mulvane  
 Virginia Lee Goss, Dwight  
 Dorothy Mae Green, Fort Collins, Colo.  
 \*Julia Louise Green, Iola  
 Eugenia Louise Grob, Randolph  
 Alice Crosby Gunn, Kansas City, Mo.  
 Mildred Joyce Gurtler, Summerfield  
 Florence Verda Gwin, Junction City  
 Ethel Dorothy Haller, Alma  
 Eleanor June Harsh, Argonia  
 Doris Elizabeth Harvey, Wichita  
 Viola May Hill, Hope  
 Dorothy Elizabeth Howat, Wakeeney  
 Mary Ellen Hull, El Dorado  
 Allis Terrell Jones, Eudora  
 Mary Margaret Jordan, Wichita  
 Mary Elizabeth Kelley, Atwood  
 Mary Keturah Kennedy, Neodesha

Anna Mae Kern, Hiawatha  
 Ruth Virnita Keys, Winchester  
 Helen Eunice Kirk, Wellington  
 \*Hildegard Charlotte Knopp, Kansas City  
 Roberta Jean Lamb, Ottawa  
 Caralee Laming, Tonganoxie  
 Josephine Estelle Lann, Axtell  
 Helen Mae Lohmeyer, Newton  
 Marian Frances McBride, Hume, Mo.  
 Marjorie Jane McKee, Chanute  
 Martha Roseline McKenna, Kingman  
 Helen Rowena Marshall, Wheaton, Ill.  
 Ruth Eleanor Martin, Kansas City, Mo.  
 Grace Elizabeth Mather, Grinnell  
 Gertrude Lucille Mensch, Independence  
 Kathryn Louise Millard, Zenda  
 Joan Miller, Milford  
 Virginia Belle Monahan, Leavenworth  
 Mary Louise Mossman, Manhattan  
 Evelyn Mae Moyer, Dodge City  
 Vera Lois Murphy, Detroit  
 Joanna June Nethaway, Salina  
 Janet Yvonne Nutter, Shelton, Neb.  
 Mabel Ruth O'Brien, Muscotah  
 Dorothy Ruth O'Loughlin, Lakin  
 Aileen Ozment, Manhattan  
 Velva Aldene Peffly, Waldron  
 Helen Leona Pilcher, Gridley  
 Cheryl Gertrude Poppen, Burr Oak  
 Alberta Lounell Pullins, Council Grove  
 Cleda Doris Rambo, Paola  
 Ruth Pauline Ramsay, Beloit  
 Laura Virginia Randall, Ashland  
 Mary Josephine Rhine, Manhattan  
 Vivian Pauline Rice, Greensburg  
 Harriett Frances Richardson, Oswego  
 Mary Pauline Richarz, Coffeyville  
 Leila Alouise Roberts, Parsons  
 Margaret Kathleen Roberts, McPherson  
 Virginia Frances Robinson, Harper  
 Ruth Roberta Ruhlen, Woodbine  
 Ruth Elizabeth Salley, Silver Lake  
 Alice Mary Santner, Gaylord  
 Ruth Elouise Santner, Gaylord  
 Virginia Helene Schmidt, Raymond  
 Jean Jewett Scott, Manhattan  
 Helen Marie Sellens, Hoisington  
 Margaret Alma Sewing, Kansas City  
 Manette Sexson, Goodland  
 Ophelia Deborah Sharp, Great Bend  
 Helen Aileen Shepard, Erie  
 Lorraine Gladys Shepardson, Junction City  
 Kathleen Olive Sheppard, Manhattan  
 Agnes Marie Smith, Toronto  
 Hattie Alice Smith, Highland  
 Mary Pauline Spain, Beloit  
 Hazel Aldine Spessard, Junction City  
 Dorothy Jane Steinkirchner, Newton  
 Kathleen Beryl Stewart, Stockton

\* In absentia.

BACHELOR OF SCIENCE IN HOME ECONOMICS—*Concluded*

Mary Louetta Stewart, Saffordville  
 Theda Elizabeth Stine, Glasco  
 Earnestine Alice Sutter, Leon  
 Arlene Grace Taylor, Enterprise  
 Charlotte Thompson, Iola  
 Constance Patricia Thurston, Elmdale  
 Mina Fay Tillman, Topeka  
 Helen Tipton, Paola  
 Elizabeth Lurene Titus, Cottonwood Falls  
 Jane LaVerne Utterback, Yates Center  
 Roberta Viola Vawter, Oakley

Katherine Jean Wadley, Silver Spring, Md.  
 Janet Ross Wallace, Hays  
 Vanora Arlene Weber, Caldwell  
 Ila Hall Wells, Manhattan  
 Dorothee Marie Wiles, Parsons  
 Blanche Maida Winkler, Riley  
 Betty Catherine Wolf, McPherson  
 Martha Jane Wreath, Manhattan  
 Elizabeth Barclay Wright, Salina  
 Evelyn Ernestine Yost, Downs

## BACHELOR OF SCIENCE IN HOME ECONOMICS AND NURSING

Hallie Marguerite Bell, Norcatour  
 \*Dorothy Isabelle Beyer, Dallas, Tex.

Rose Eileen Harman, Indianapolis, Ind.  
 \*Helen McGhie Watson, Shawnee

## Division of Veterinary Medicine

## DOCTOR OF VETERINARY MEDICINE

Fernando Edmundo Armstrong,  
 Ponce, Puerto Rico  
 George Rankin Armstrong, Gastonia, N. C.  
 Leroy Nichols Atkinson, Hutchinson  
 Lawrence Roy Bain, Pittsburg  
 James Grant Betts, Randall  
 William Dale Bowerman,  
 Oklahoma City, Okla.  
 Arthur William Brower, Emporia  
 Kenneth Lee Bruce, Orchard, Neb.  
 Bernard Busby, Wakefield, Neb.  
 Gilbert Wilson Carl, Hutchinson  
 Edward Eldridge Chambers, Parsons  
 Robert Hugh Clark, Manhattan  
 Clark C Collins, West Point, Neb.  
 Shirley LeRoy Davis, Fort Scott  
 Warren James Dedrick, Kansas City  
 Glenn Ellsworth Duncan, St. Francis  
 George Washington Eberhart, Jewell  
 John Ernest Erickson, Clairton, Pa.  
 Willard Halsey Eyestone, Pittsburg  
 Frank Abram Flipse, Oakley  
 John Gifford Gish, El Dorado  
 Glenn Clough Halver, Crane, Mont.  
 Gordon Clark Howell, Kansas City  
 Herbert Winston Howell, Kansas City  
 Robert Donald Immenschuh,  
 San Diego, Cal.  
 Charles Fisher Jones, Lisbon, N. Y.  
 Martin Kadets, Natick, Mass.  
 Jacob Landers Karnes, Benton, Ky.  
 Edward Jacob Keller, St. Francis  
 Virgil Roscoe Kelley, Arkansas City

Charles Alvin Kennedy, Jr., Kansas City  
 Richard Benton Koger, Belvidere  
 Glover Wilson Laird, Kansas City, Mo.  
 Clifford Alonzo Lemen, Manhattan  
 Frank Everett Lichlyter, El Dorado  
 Virgil Keith McMahan, Manhattan  
 Raymond Charles McPeck, Ramsey, N. J.  
 David Oscar Manley, Wakarusa  
 Jacob Lewis Medaris, Parsons  
 Herbert Meriweather, Chetopa  
 Earl Lawrence Mundell, Kansas City  
 Charles Clarence Newhart,  
 Delaware Water Gap, Pa.  
 Cecil Lewis Paulsen, Onaga  
 Loyal Cobb Payne, Manhattan  
 LeRoy Albert Pierce, Manhattan  
 Rodney Iverson Port, Cheyenne, Wyo.  
 Elwin Raymond Prather, Eureka  
 Myron Dale Reed, Smith Center  
 Charles Dixon Renfrow, West Plains, Mo.  
 Samuel Arthur Schendel, Richmond  
 Charles Combie Smith, Kansas City, Mo.  
 Charles Lewis Smith, Harveyville  
 Raymond William Stanzel, La Harpe  
 Marvin Dean Stitt, Clearwater  
 Richard William Swart, Manhattan  
 Clarence Henry Thompson, Jr., Ozawkie  
 Earl Clair Toynton, Dodge City  
 W. Gerald Trostle, Hope  
 William Henry Vanderbilt, Eureka  
 Delbert Oscar Wendt, Bonner Springs  
 Don Oliver Whitney, Phillipsburg

\* In absentia.

## COMMISSIONS AWARDED

## SECOND LIEUTENANT, OFFICERS' RESERVE CORPS

‡Charles Warren Adcock (CAC)	Boyd Homer McCune (Inf)
Louis Fred Akers (Inf)	Nolan George McKenzie (Inf)
Wilfred Ira Anderson (CAC)	Wilbur Doyle McNeese (CAC)
John Henry Babcock (CAC)	Milton Lloyd Manuel (Inf)
Frank Alexander Bates (CAC)	*Joseph Ralph Marshall (Inf)
†Carl Theodore Besse (CAC)	Donald Herman Merten (Inf)
†Carl Frederick Beyer (CAC)	Kenneth Benton Middleton (Inf)
Robert Hale Blair (Inf)	Frank Miller (Inf)
*John Richard Brock (Inf)	Glen Edward Mueller (Inf)
Lester Earl Brown (Inf)	John Thomas Muir (Inf)
Paul Lawson Brown (Inf)	Dennis Everrett Murphy (CAC)
Charles Adelbert Buck (CAC)	Bernard Carlton Nash (CAC)
Raymond Martin Bukaty (CAC)	William Phillip Nichols (Inf)
Richard John Cech (CAC)	Dennis Gordon O'Neill (CAC)
Robert Christian Colburn (CAC)	Max Charles Opperman (CAC)
David Franklin Crews (CAC)	Robert Kerr Page (Inf)
Durward Clair Danielson (CAC)	George Henry Peircey (Inf)
Duane Richard Davis (CAC)	Keith Pohl Pendergraft (CAC)
Virgil Olin Dilsaver (CAC)	Herman Albert Praeger (Inf)
‡Augustus R. Douthitt (Inf)	Wallace Edward Rankin (CAC)
Leslie Albert Droge (Inf)	Lowell Robert Ray (Inf)
Wellington John Dunn (Inf)	Charles William Rindom (CAC)
‡Vincent Henry Ellis (CAC)	Robert Rex Rogers (Inf)
Melvin Eugene Estey (CAC)	Donald Lee Rousey (CAC)
†Clair Eugene Ewing (CAC)	Fred Lafayette Rumsey (Inf)
Shirley Frederick Eyestone (CAC)	Ivan Wilbur Salts (CAC)
Charles E. Fairman (Inf)	Charles Paul Schafer (CWS)
Merle Everett Foland (CAC)	Keith Merrill Schmedemann (Inf)
*William Borland Fullerton (CAC)	‡Bernard Lee Schmitt (CAC)
†Billy Burris Geery (CAC)	Jack Carter Sheets (CAC)
Mahlon H. Giffin (CAC)	Claude Wesley Shenkel (Inf)
John Wyeth Green (CAC)	†Walter Turner Singleton (CAC)
*Paul V. Hannah (CAC)	Joseph Ellis Skaggs (Inf)
Orval Albert Harold (Inf)	Laurence Oscar Slief (CAC)
Eugene Edmond Haun (CAC)	Richard Wilkeson Smith (CAC)
John Norris Haymaker (Inf)	Allen Ellwood Smoll (CAC)
Russell Lacy Hightower (CAC)	Charles Willis Stafford (Inf)
William Mixon Horton (CAC)	John Frederick Stoskopf (CAC)
†Harry Earl House (CAC)	†Robert Vernon Swanson (Inf)
Robert Vern Huffman (CAC)	Wallace Albert Swanson (Inf)
Neal Mike Jenkins (Inf)	Lewis Mack Turner (Inf)
Thomas Edward Joyce (CAC)	Rennie Virgil Tye (Inf)
Walter Marvin Keith (Inf)	Wilbur David Van Aken (Inf)
*William Thomas Keogh (CAC)	Guy Edward Warner (CAC)
Theron Lambert King (Inf)	Garold Benjamin Way (CAC)
†Shelvy Harrison Lane (CAC)	Oliver Rex Wells (CAC)
William James Langworthy (Inf)	Robert Blaine Wells (Inf)
James Worth Linn (Inf)	Cecil Monroe Wenkheimer (Inf)
Frank Robert Lonberger (Inf)	†Carlyle Philip Woelfer (CAC)
Dean McCandless (Inf)	Thomas Richard Woods (CWS)

\* Commissioned at end of Summer Camp, 1940.

† Requirements for commission completed January 25, 1941.

‡ Certificate in lieu of commission—not 21 years of age.

CAC—Coast Artillery Corps.

Inf—Infantry.

CWS—Chemical Warfare Service.



# Seventeenth Annual Summer School Commencement

July 25, 1941

## DEGREES CONFERRED

### Division of Graduate Study

#### MASTER OF SCIENCE

- Helen Ann Blair, B. S., Kansas State College, 1924; Mulvane.  
Robert Woodbury Bray, B. S., University of Wisconsin, 1940; Dodgeville, Wis.  
\*Travis Epps Brooks, B. S., Kansas State College, 1940; Manhattan.  
Burnill Howard Buikstra, B. S., Kansas State College, 1933; Manhattan.  
William Boone Bunger, B. S., Washburn College, 1940; Topeka.  
Albert Ross Challans, B. S., Kansas State College, 1930; Halstead.  
Christine Helen Coleman, B. S., Agricultural, Mechanical and Normal College, 1934; Pine Bluff, Ark.  
Eleanor Berdina Collins, B. S., Prairie View State Normal and Industrial College, 1940; San Antonio, Tex.  
Laura Pettice Davis, B. S., Central Missouri State Teachers College, 1931; Lexington, Mo.  
Genevieve Elizabeth Dziegiel, B. S., Cornell University, 1938; Clinton, N. Y.  
Mabel Lillian Good, B. S., Kansas State College, 1933; Manhattan.  
\*Frederick John Gradishar, B. S., University of Minnesota, 1940; Ely, Minn.  
Wilda Marguerite Hay, B. S., Kansas State College, 1924; Belleville.  
Elmer Frederick Herman, B. A., University of Wisconsin, 1930; Elmo.  
Floyd Arthur Holmes, B. S., Kansas State College, 1940; Prescott.  
Kenneth Bert Hoover, B. S., John Fletcher College, 1934; Detroit.  
Geneva Johnson, B. S., Kansas State College, 1935; Frankfort.  
Dale Vincent Jones, B. S., Kansas State College, 1931; Herington.  
Harold Leroy Kugler, B. S., Kansas State College, 1933; Manhattan.  
\*Frederick Lee McDonald, B. S., Kansas State College, 1938; Horton.  
Arthur James Mattis, B. S., Ottawa University, 1935; Valley Falls.  
Calvin Jourden Medlin, B. S., Kansas State College, 1920; Manhattan.  
Merna Beatrice Miller, B. S., Kansas State College, 1932; Kansas City.  
Ruth Lo Tak Mo, B. S., Lingnan University, 1935; Hong Kong, China.  
\*Raymond William Morrison, B. S., Iowa State College, 1940; Keosauqua, Iowa.  
Joseph William Newman, B. S., Kansas State College, 1939; Manhattan.  
Harry Bernhard Olson, A. B., Bethany College, 1918; Cuba.  
Lillie Mae Paley, B. S., Prairie View State Normal and Industrial College, 1934; Waco, Tex.  
Clarence Andrew Pippin, B. S., University of Illinois, 1936; Manhattan.  
Charles Morris Platt, B. S., Kansas State College, 1938; Manhattan.  
William Joseph Promersberger, B. S., University of Minnesota, 1935; Littlefork, Minn.  
Martha Gene Sheldon, A. B., University of Wichita, 1933; El Dorado.  
\*Sister Rose Genevieve Downs, B. S., Fontbonne College, 1939; St. Louis, Mo.  
Blaine Edmunds Sites, B. S., Fort Hays Kansas State College, 1914; Salina.  
Robert Fred Sloan, B. S., Kansas State College, 1938; Leavenworth.  
Edna Marie Smith, B. S., Fort Hays Kansas State College, 1929; Kingman.  
Hester Smith, B. S., University of Wisconsin, 1929; Manhattan.  
Frieda May Steckel, A. B., College of Emporia, 1932; Virgil.  
Warren Edward Stone, B. S., Kansas State College, 1923; Bazine.  
Evelyn Emma Stout, B. S., Kansas State College, 1938; Lone Elm.  
Hilmar Clinton Stuart, B. S., Kansas State College, 1935; Garrison.  
Francis Joseph Sullivan, S. B., Harvard University, 1936; Manhattan.  
John Willard Truax, B. S., Kansas State College, 1929; Lyons.  
John Allen Wagoner, B. S., Kansas State Teachers College, Pittsburg, 1939; Manhattan.  
Orla Virgil Washler, B. S., Purdue University, 1914; Penalosa.  
James Ralph Wells, B. S., Kansas State College, 1928; Manhattan.  
Glenn Arnold West, B. S., Kansas State College, 1940; Manhattan.  
Anita Frances White, B. S., Tuskegee Institute, 1938; Wichita.  
Ernest Sherman Wild, B. S., Kansas State College, 1932; Morehead.  
Cleo Elizabeth Willey, B. S., Iowa State College, 1938; Osage, Iowa.  
Nelson Jones Wright, B. A., Wheaton College, 1936; Wamego.  
Helen Iams Wroten, B. S., Kansas State College, 1939; Beattie.

#### DOCTOR OF PHILOSOPHY

- Willard Malcolm Reid, B. S., Monmouth College, 1932; M. S., Kansas State College, 1937; Monmouth, Ill.

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\* In absentia.

## Division of Agriculture

## BACHELOR OF SCIENCE IN AGRICULTURE

Charles Henry Adams, Wilsey	Emory Allen Groves, Burlingame
Dale Allen, Burlington	Russell Carl Nelson, Falun
Clarence August Bechtold, Gaylord	Preston Edward Olderog, Omaha, Neb.
Ralph Edwin Bonewitz, Meriden	Lloyd Rueben Orrell, Peck
Edward Francis Brenner, Bazine	Joseph Clyde Short, Topeka
Robert William Brush, Wichita	Merwin Milton Stearns, Haddam
Joseph Celester Crofton, Kansas City	Alvin Paul Timmons, Geneseo
Thello Clarence Dodd, Linn	Wilbur Waldo White, Garfield
Paul Raymond Edwards, Meade	*William Howard Winner, Topeka
Virgil George Fulmer, La Harpe	

## BACHELOR OF SCIENCE IN MILLING INDUSTRY

Robert Jonathan Jones, Wichita

## Division of Engineering and Architecture

## BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

John Gilbert Brewer, Arkansas City	John Richard Romig, Bethany, Mo.
Clarence Arthur Day, Jr., Ottawa	

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

*Alan Dean Kinney, Hainesburg, N. J.	*John Vito Sette, Corona, N. Y.
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## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Alonzo Leon Cloninger, Chanute	Jack Sheets, Cozad, Neb.
John Henry Larkins, Le Roy	Laurence Oscar Slief, Pratt
Raymond Lamar Meisenheimer, Hiawatha	John Murray Stevenson, Hutchinson
Jesse Eugene Nease, Concordia	Lloyd Bryan Tribble, Soldier
Louis Earl Raburn, Manhattan	

## BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

*James Alvin Farmer, Topeka	*Victor Graham Mellquist, Manhattan
Raymond Hook, Osborne	Henry Albert Thurstin, Chanute
Donald Alonzo Justice, Manhattan	

## Division of General Science

## BACHELOR OF SCIENCE

Eloise Artis Black, Coffeyville	Rex Allan Neubauer, Manhattan
Ellen Mae Cardarelli, Republic, Pa.	Carl Adolph Peterson, Overland Park
*Richard Warren Cope, Holton	*Carroll Wayne Preusch, Healy
Aubrey Thornton Edwards, Manhattan	Earl Boise Reynolds, Colony
Lowell Windell Fowler, El Dorado	Earl William Rose, White Cloud
Shirley Evelyn Karns, Coffeyville	Bette Elaine Roth, Moundridge
Reva Alma King, Council Grove	Joseph Uhrin, Metuchen, N. J.
Irene Buckles Laceky, Beaumont, Tex.	William Henry Wells, Colony
Dean McCandless, St. John	John Edward Wenger, Powhattan
Daniel Claire Marshall, Manhattan	Margaret Ann Wilkerson, Smith Center
Donald Herman Merten, Morganville	Minnie Mildred Wilkes, Belleville
Maxine Mae Milner, Republic	Joseph Brewer Zahn, Miltonvale

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Lawrence Theodore Buening, Valley Falls	Harry Otto, Manhattan
*Kenneth Herbert Graham, Framingham, Mass.	Lloyd Arnold Starkweather, Clay Center
Glen Edward Mueller, Anthony	Oliver Rex Wells, Marysville
	Ralph Edgar York, Dunlap

## BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

*George William Hartter, Sabetha	Lowell Robert Ray, Wilsey
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## BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Richard John Cech, Kansas City	Alice Claire Hummel, Kanopolis
David Edward Guerrant, Manhattan	Robert Rex Rogers, Manhattan
Herbert Dale Hollinger, Chapman	John Marks Williams, Parsons

\* In absentia.

## BACHELOR OF SCIENCE IN MUSIC EDUCATION

Lowell Warren Clark, Waterville

## BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

\*Leslie Albert Droge, Seneca

**Division of Home Economics**

## BACHELOR OF SCIENCE IN HOME ECONOMICS

Genevie Elizabeth Allen, Manhattan  
 Frances Lorraine Brooks, Norton  
 Berniece Beatrice Brown, Toronto  
 Sarah Jane Buster, Larned  
 Lillie Martin Carleton, Manhattan  
 Isabel Naomi Dodrill, Stockton  
 Ruth Elma Douglas, Coffeyville  
 Margaret Lucille Munger Furbeck,  
 Manhattan  
 Mary Alice Guy, Longford  
 Jane Louise Hastings, Lakin  
 Pattie Patrice Hay, Eskridge  
 Laura Elizabeth Herr, Abilene  
 Letha Pearl Irvine, Stafford

Wilma Jean Jackson, Wichita  
 Eleanor Lee Johnson, Salina  
 Jean Margaret Kallenberger, Edna  
 Dorothy Maye Knaus, Neodesha  
 Jessie Marguerite Mason, Redfield  
 Verna Evelyn Matson, Miltonvale  
 Ruthe Eileen Morrow, Larned  
 Margaret Frances Roseman, New Cambria  
 Margaret Winnifred Schnacke, La Crosse  
 Dorothy Irene Stutzman, Ransom  
 Gloria Joyce Swanson, Hutchinson  
 Earlene Eleanor Trekel, Manhattan  
 Dorothy Mae Van Tuyl, Basehor  
 Winnivere Button Wright, Manhattan

**Honors****PHI KAPPA PHI**

1940-1941

**Division of Graduate Study**

Ira Miller Hassler  
 Goldie Mildred Crawford  
 Thomas Radford Thomson  
 Franz Leidler

Hsien Tsiu Chang  
 Charles Peairs Wilson  
 Lyman Phillip Frick  
 Charles J. Birkeland

**Division of Agriculture**

George Wilson Cochran  
 Henry Joseph Smies  
 Emerson Lyle Cyphers  
 Lloyd Charles Jones  
 Frank Allan Slead  
 James Frederick Booth  
 Orville Walter Love  
 Boyd Homer McCune

Glenn Morton Busset  
 Paul Elbert Smith  
 Leland Leon Groff  
 Eugene Ellsworth Woolley  
 John Stanley Winter  
 Doyle Wayne LaRosh  
 Arden Reiman

**Division of Engineering and Architecture**

Howard Miller Zeidler  
 Albert Erwin Scherwin  
 Louis Earl Raburn  
 Joseph Donald Musil  
 Keith Leon Witt  
 Carl Theodore Besse  
 Vincent Henry Ellis  
 Melvin Eugene Estey  
 Robert Allen Peterson  
 Shirley Frederick Eyestone

John Richard Romig  
 Roby Byron White, Jr.  
 Elmer John Rollins  
 Ralph John Wahrenbrock  
 Harold Raymond Harris  
 Garland Baxter Childers  
 John Gilbert Brewer  
 Charles Elmer Webb, Jr.  
 Clarence Leaman Abell

**Division of General Science**

Raymond Voiles Adams, Jr.  
 Marianna Kistler  
 Carl Ernest Latschar  
 Richard McClanahan Keith  
 Ruth Ella Kindred  
 Harold McKee Lemert  
 Robert Earhart Crow

James Merlin Kendall  
 Robert Thomas Cotton  
 Clara Katharine Chubb  
 Nancy Patricia Wilkins  
 Henry S. C. Lau  
 Mary Marvel Kantz  
 Bernice Maude Horton



**Division of Home Economics**

Helen Rowena Marshall  
 Jessie Margaret Collins  
 Autumn Felton Fields  
 Dorothy Mae Green  
 Helen Leona Pilcher  
 Agnes Marie Smith  
 Velva Aldene Peffly  
 Maxine Beryl Bishop  
 Elizabeth Lurene Titus  
 Mildred Blanche Bozarth Davis

Joan Miller  
 Dorothy Isabell Beyer  
 Katherine Jean Wadley  
 Marjorie Jane McKee  
 Dorothy Elizabeth Axcell  
 Florence Verda Gwin  
 Leila Alouise Roberts  
 Jean Frances DeYoung  
 Frances Lucille Meyer  
 Betty Jean Jones

**Division of Veterinary Medicine**

Bernard Busby  
 Clark C. Collins  
 William Dale Bowerman

Robert Donald Immenschuh  
 Glover Wilson Laird  
 Richard William Swart

**SENIOR HONORS****1941**

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**

\*George Wilson Cochran  
 Milton Lloyd Manuel

Glenn Morton Busset

**HONORS**

James Frederick Booth  
 \*Emerson Lyle Cyphers  
 Frank Allan Slead  
 \*Paul Elbert Smith  
 Leland Leon Groff

Orville Walter Love  
 \*Boyd Homer McCune  
 Arden Reiman  
 Lindley Eugene Watson

**Division of Engineering and Architecture****HIGH HONORS**

Howard Miller Zeidler  
 \*Carl Theodore Besse  
 Albert Erwin Schwerin

Keith Leon Witt  
 \*Louis Earl Raburn

**HONORS**

\*Joseph Donald Musil  
 \*Shirley Frederick Eystone  
 Harold Raymond Harris  
 Ralph John Wahrenbrock  
 Richard Carl Allen  
 \*Elmer John Rollins  
 \*Charles Elmer Webb, Jr.

Roby Byron White, Jr.  
 \*Garland Baxter Childers  
 Carmin Barton Sprague  
 James Dow Thackrey  
 John Gilbert Brewer  
 \*John Richard Romig

**Division of General Science****HIGH HONORS**

\*Raymond Voiles Adams, Jr.  
 Marjorie Nell Spillman  
 \*Ruth Ella Kindred

\*Marianna Kistler  
 Robert Thomas Cotton

**HONORS**

\*Clara Katharine Chubb  
 Robert Dean Williams  
 Harold McKee Lemert  
 Robert Max Roelfs  
 Eleanor Constance Kershner  
 \*Carl Ernest Latschar  
 Paul Archie Puttroff

\*Kathryn Elizabeth Blevins  
 Evelyn Lucille Stener  
 Frank Miller, Jr.  
 Bernice Maude Horton  
 Aubrey Thornton Edwards  
 \*Reva Alma King

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\* Awarded sophomore honors at end of sophomore year.

**Division of Home Economics**

## HIGH HONORS

Helen Rowena Marshall  
Elizabeth Lurene Titus

\*Velva Aldene Peffly  
Autumn Felton Fields

## HONORS

\*Helen Leona Pilcher  
\*Jessie Margaret Collins  
\*Agnes Marie Smith  
\*Dorothy Mae Green  
Dorothy Isabelle Beyer

\*Mildred Bozarth Davis  
\*Maxine Beryl Bishop  
Katherine Jean Wadley  
Marjorie Jane McKee  
Virginia Belle Monahan

**Division of Veterinary Medicine**

## HIGH HONORS

\*Bernard Busby

\*Clark C. Collins

## HONORS

Robert Donald Immenschuh  
William Dale Bowerman

Richard William Swart  
Leroy Nichols Atkinson

**SOPHOMORE HONORS****1941**

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**

Warren Schlaegel  
Paul Leo Kelley  
George Walter Curtis  
Harold Schraer

James Melvin Nielson  
Glen Perry Schulthess  
Roger Gregg Murphy  
John Wesley Kraus

**Division of Engineering and Architecture**

Leon Dean Findley  
Kenneth Elwood Palmer  
Kenneth Elmer Rice  
Daryl Warren Hawkins  
Lawrence Keith Hudson  
David Jesse Blevins  
Flora Evelyn Lancaster

James Robert Hamm  
Norman Roy Ross  
Harmond Paul Bear  
Glen Francis Doel  
Robert Chambers Myers  
Page Paschal Wagner

**Division of General Science**

Virginia Louise Feller  
Lois Aileen Hostinsky  
Allen Nystrom Webb  
Mary Margaret Arnold  
Sidney Galinko  
Edgar Nicholas Glotzbach  
Mary Marjorie Willis

James Wayne Hamburg  
Dora Mae Hoffman  
David Cabell Gilkeson  
Dorothy May Summers  
Frederick Prescott Drew  
Mary Jean West  
Robert Nay Kirk

**Division of Home Economics**

Doris Jeanne Fieth  
Ina Ernestine Palmer  
Helen Irene Pierpoint  
Maryanna Lock  
Rachel Phebe Wagaman  
Joanne Marie Aubel

Phoebe Lahr Hillmon  
Jean Frances Alford  
Carol Margaret Stevenson  
Fern Irene Roelfs  
Marcile Mary Norby

**Division of Veterinary Medicine**

Albert Swift Coates, Jr.  
Robert Nathaniel Erickson

Charles Elmer Whiteman

\* Awarded sophomore honors at end of sophomore year.

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# LIST OF STUDENTS

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SEVENTY-NINTH SESSION

1941-1942

(313)





# LIST OF STUDENTS \*\*

## Students Pursuing Graduate Work in Regular Session

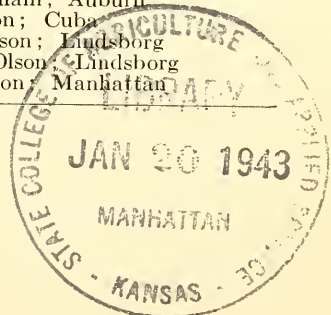
### GRADUATE STUDENTS

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 \*Morris Albin Arneson; Manhattan  
 \*Hermoine Allen Baker; Manhattan.  
 Montee Robert Baker; Lincoln, Neb.  
 Dorothy Barfoot; Manhattan  
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 \*Warren Rich Battle; Monroeville, N. J.  
 Stella Lucille Beil; Bavaria  
 Ballard Keller Bennett; Manhattan  
 Maurice Joseph Bertoline; Jenners, Pa.  
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 Bernard Benjamin Bohren; Manhattan  
 Hobart Paul Boles; Wilmore  
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 Joe Bryske; Mankato  
 Burnill Howard Buikstra; Manhattan  
 †Edward Erle Buller; Agenda  
 Frank Sherman Burson; Manhattan  
 Walter Monroe Carleton; Manhattan  
 †Charles Loyd Cassel; Culver  
 James Percy Chapman; Manhattan  
 Ralph Clayton Chartier; Concordia  
 Glenn Paul Clasen; New Orleans, La.  
 George Wilson Cochran; Topeka  
 Darwin Lawrence Cooper; St. Anne, Ill.  
 Morris Seefert Cover; Manhattan  
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 Sheldon Frank Crook; Lakeview, Mich.  
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 Cyrus K. Elkes; Buffalo, N. Y.  
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 Arthur Gerald Fallon; Seattle, Wash.  
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 Leo Feingold; Yonkers, N. Y.  
 John Moses Ferguson; Manhattan  
 Everett L. Fielder; Wamego  
 William David Fitch; Manhattan  
 John Joseph Forstchen; East Orange, N. J.  
 Harold Robert Fox; Manhattan  
 Neosho Louise Fredenburg; Council Grove  
 Lyman Phillip Frick; Kansas City, Mo.  
 Charles Robison Friede; Washington, D. C.  
 Harold Fry; Manhattan  
 Ernal P. Galbraith; Blanding, Utah  
 \*Frederick Louis Gerke; Sioux Falls, S. Dak.  
 Gladys Poole Gilmore; Manhattan  
 †Ernest Constant Goforth; Keats  
 Myrtle Genevieve Gohlke; Holton  
 George Vernon Goodding; Lincoln, Neb.  
 Albert Wendell Grundmann; Manhattan  
 Walter Raymond Gustafson; Salina  
 Herbert Frank Haas; Manhattan  
 Howard James Haas; Garden City  
 John Orville Harris; Manhattan  
 Howard Donald Haynes; Towanda, Ill.  
 Hazel Ruth Heikes; Wakefield  
 \*Mary Eck Holland; Manhattan  
 \*Mildred Eileen Hoss; Lyons  
 Abram Eldred Hostetter; Hope  
 Wallace Bruce Hudson; Detroit, Mich.  
 John Alexander Johnson, Jr.; Manhattan  
 \*Reba Pauline Johnson; Manhattan  
 \*Rodney William Johnston; Central City, Neb.  
 \*Juanita Isabel Kahler; Elkhart  
 Warren Ferdinand Keller; Manhattan  
 Russell Anthony Kern; Junction City  
 Doris Chung Sook Kim; Honokua, Hawaii  
 Helen Eunice Kirk; Wellington  
 Walter Kuras; Chicago Heights, Ill.  
 Raymond John Ladd; Manhattan  
 Harlyn Wayne Lacey; Roan Mountain, Tenn.  
 Eleanor Jane Lambert; Hiawatha  
 Colter Adiel Landis; St. George  
 \*Donald Edward Landis; Goshen, Ind.  
 Ira Kaull Landon; Manhattan  
 Carl Ernest Latschar; Manhattan  
 John Hall Lonquist; Manhattan  
 \*Bob Luginbill; Greensburg  
 Leon George Lungstrom; Lindsborg  
 William Alan Lunsford; Hamilton, Ohio  
 Robert James McColloch; Manhattan  
 John Henry McCoy; Manhattan  
 Virgil Keith McMahan; Manhattan  
 John D. McNeal; Boyle  
 Albert Rush Martin; Orosi, Cal.  
 \*†Roy Webster Maze; Alma  
 Irving Alan Mathews; Chattanooga, Tenn.  
 Henry John Meenen; Clifton  
 \*Elizabeth Douglass Manross; Manhattan  
 William Arthur Meier; Wyandotte, Mich.  
 Raymond Maurice Menard; Manhattan  
 Darrel Seymour Metcalfe; Arkansaw, Wis.  
 John O. Miller; Meriden  
 Joyce W. Miller; Manhattan  
 \*Lloyd E. Milleson; Junction City  
 Thomas Aldine Moore; Abilene, Tex.  
 Maria Morris; Manhattan  
 \*Keith Eugene Mower; Sidney, Neb.  
 Kenneth Glenn Nelson; Manhattan  
 Russell Carl Nelson; Falun  
 Charles Joseph New; Blairsville, Pa.  
 \*John Arthur Neuschwander; Big Stone  
 City, S. Dak.  
 John William North; Springfield, Mass.  
 Eugene Franklin Oakberg; New Windsor, Ill.  
 \*William Wallace O'Donnell; Columbus, Ohio  
 \*Marthel Lucile Oldham; Auburn  
 \*Donald Harry Olson; Cuba  
 \*Erwin Theodore Olson; Lindsborg  
 Raymond August Olson; Lindsborg  
 Buel Rorex Patterson; Manhattan

\* Matriculated 1941-'42.

\*\* May 28, 1941, to May 25, 1942.

† In absentia.



GRADUATE STUDENTS—*Concluded*

- †John Kenneth Patterson; Pawnee City, Neb. Mary L. Smull; Manhattan  
 \*Leo Wesley Patton; Sublette †\*Genevieve Margaret Smith; Chicago, Ill.  
 Jessie Adeline Pelham; Albany, Ga. Margaret Lewis Stewart; Winfield  
 Helen Isabel Peterson; Manhattan Edward Siemantel Stickley; Topeka  
 Jonnie Morris Peterson; Manhattan George Stricker; Cincinnati, Ohio  
 \*Margaret Jane Peterson; Blue Earth, Minn. Hilmar Clinton Stuart; Harrison  
 Mila Margaret Pishney; Cleburne Andrea Jean Surratt; Springfield, Ill.  
 Clare R. Porter; Kingman \*Emery Carlton Swanson; Manhattan  
 Stephen James Roberts; Manhattan †\*Harriet Cordelia Taylor; Parsons  
 Jane Rockwell; Manhattan Lowell William Taylor; Salina  
 Cornelius Redwin Rogers; Lake City Elmer John Tewksbury; Salton, Pa.  
 Elmer John Rollins; Glen Elder \*Alma Maxine Tingle; Montpelier, Ohio  
 Ralph Emanuel Samuelson; Manhattan Horace Carl Traulsen; Paxton, Neb.  
 William George Schrenk; Manhattan John Allen Wagoner; Manhattan  
 Marjorie Arleen Schwalm; Paxico Irene Margaret Wassmer; Garnett  
 Hazel Marie Scott; Manhattan Thomas Aloysius Weldon; Aurora, Ind.  
 Raymond Eugene Seltzer; Elmwood, Ill. William Henry Wells; Colony  
 Leslie Maurice Shaw; Manhattan Otto Ernest Wenger; Basehor  
 Luther James Sheaffer; Oberlin, Pa. \*William Charles Whetsell; Comanche, Okla.  
 Helen Beth Coats Sherrill; Topeka \*Doris Elaine Whitney; Phillipsburg  
 Earle Woodard Sherman, Jr.; Omaha, Neb. Dorothee Marie Wiles; Parsons  
 Karl Gardner Shoemaker; Manhattan Doris Smith Wilson; Manhattan  
 \*Sister Mary Donata Bisette; Concordia \*Charles Louis Wisseman, Jr.; Dallas, Tex.  
 Irene Eloise Sloan; Stratford, Tex. James Kelly Woods; Burden

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\* Matriculated 1941-'42.

†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; Ar, architecture; ArE, architectural engineering; BA, business administration; BA&A, business administration and accounting; CE, civil engineering; ChE, chemical engineering; DM, dairy manufacturing; EE, electrical engineering; GS, general science; HE, home economics; HE&A, home economics and art; 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

- Maynard Lynn Abrahams (Ag); Wayne Alvin Wayne Acker (ME); Severance Warren Harlan Acker (ChE); Junction City Walter Alfred Adams (ME); Leavenworth Petrena Ellouise Addington (HE); Altoona Donald Dwight Adee (PE); Manhattan Mary Kathleen Ahearn (MuE); Manhattan Francis George Ahrendes (VM); Miltonvale ‡James Franklin Aiken, Jr. (MI); Moran Leonard Herman Akes (GS); Dennis Martha Lou Alexander (HE); Manhattan Carl Ellsworth Alleman (ChE); Kansas City Lueva Alsop (GS); Wamego Loren Edward Amerine (EE); Great Bend Geralee Ames (IJ); Arkansas City Charles Cornelius Anderson (ME); Emporia Howard Rowles Anderson (AA); Partridge Mary Bernice Anderson (MuE); Manhattan ‡Robert Warren Annis (EE); Gypsum Wayne Leroy Appleton (VM); Manhattan Robert Arbutnot (Ag); Morrowville Clarence Lafayette Ash (ME); Wetmore John Mitchell Atherton (ME); Waterbury, Conn. Jack Shupe Austin (ME); Wilmore Benson Floyd Bachus (ME); Abbyville Floyd Arnold Bacon (Ag); Sylvan Grove Mary Ann Bair (HE); Wamego James Culbertson Baker (ME); El Dorado Benjamin Stockwell Baldwin (IC); Anthony Bernice Grace Bale (PE); Clay Center Maurice Ball (VM); Newport, R. I. Ralph Edward Barker (Ag); Douglass Arthur Calvin Barney (ME); South Haven Truman Morris Barrett (IA); Dodge City \*John Earls Barrick (AA); Miller, Mo. Willard Marshall Barry (AA); Manhattan Charles Thomas Baxter (DM); Circleville Fremont H. Baxter (SH); Larned Marie Hunt Baylies (PE); Fort Knox, Ky. Betty Lee Beatty (IJ); Ellsworth Alma Amelia Lydia Becker (HE); Hartford Dorothy Grace Beezley (HE); Girard Robert Verle Behrent (EE); Selden William Perry Bell (EE); Silver Lake ‡Philip Frank Bennett (CE); Eskridge Marjorie Jane Benson (HE); Sabetha Thomas Ragan Benton (Ag); Olathe Sylvia Louise Bergling (BA); Ludell Waldemar T. Berner (VM); Santa Rosa, Cal. Donald Earl Bertholf (AA); Spivey Leo Russel Best (ChE); Bushong Freeman Elmer Biery (AA); Stockton Nita Mae Biery (HE); Stockton Ema Lou Bireline (IJ); Lewis Frances Irene Bishop (HE); Emporia Jean Elizabeth Bishop (GS); Whitewater William Royce Bixler (ME); Emporia Floyd Harris Bjurstrom (Ag); Alma, Neb. Dwight Duane Blaes (AA); Abilene Joe Loren Blattner (CE); Rozel Ralph Willard Blazier (VM); Junction City Phil Franklin Blum (EE); Kansas City, Mo. Marian F. Boomer (BA); Kansas City Gladys Lucile Boone (HE); Toronto Harry Phillips Bouck (IJ); Manhattan James Marston Bowyer, Jr. (ME); El Dorado Esther May Boys (HE&A); Linwood Darrell Ray Bozarth (Ag); Liberal Harold Henderson Bozarth (ME); Eskridge Elliot Wilson Brady (ME); Manhattan Gilbert Branda (Ag); Wilson Grace Louise Brandner (IM&D); Leoti Alfred Merle Brecheisen (GS); Rolla Samuel Peter Breiner (AA); Savonburg \*Josephine Ann Breit (HE); St. Joseph, Mo. Lester Joseph Brenneis (MI); Hollenberg Bette Ann Brenz (IJ); Arkansas City Elizabeth Louise Brewer (MuE); Minneapolis James Eugene Bright (VM); Port Murry, N. J. Allen Lee Brite (VM); Manhattan Sydney George Bromell (BA); Leavenworth Marcene Irene Broe (PE); Clay Center Acton Richard Brown (Ag); Sylvan Grove Arlo Allen Brown (Ag); Almena Clarence Bernard Brown (EE); Manhattan Clarence Kendrick Brown (MI); Salina Dale Edward Brown (Ag); Manhattan Donald Wayne Brown (BA&A); Paradise Esther Brown (HE); Partridge Lloyd N. Brown (BA); Manhattan Robert Myron Brown (EE); Natoma Sara Davidson Brown (IM&D); Manhatan

\* Matriculated 1941-'42.

‡ Also pursuing graduate study.



## SENIORS—Continued

- Teloir Marie Brown (IM&D); Ashland  
Wayne Edward Brown (BA); Manhattan  
Ralph Arthur Bruce (VM); Prescott  
Joe Bruington, Jr. (EE & BA); Kansas City  
Oscar Benjamin Brumback (ChE);  
El Dorado  
Frances Argyle Brumfield (IJ); Jetmore  
Ben Raleigh Bryant (GS); Garnett  
Carrole LaRhue Buck (HE); Welda  
James Donald Bulger (AA); Cherryvale  
Orley Glade Burgess (PE); Arnold  
Charles Floyd Burket (ME); Elkhart  
Clodagh Maurine Burkhead (HE); Utica  
Cornelia Lee Burtis (IM&D); Hymer  
Margaret Marion Burton (GS); Manhattan  
Freda Lenore Butcher (HE); Coldwater  
Cecil Eugene Byers (ME); Ulysses  
Laura Vivia Cadwallader (PE); Corbin  
John Dale Cady (VM); Arlington, Neb.  
Roy Dell Call (EE); Manhattan  
Hugh Port Callaway (VM);  
Grand Pass, Mo.  
Barbara Jean Campbell (BA); Lakin.  
Ronald Wayne Campbell (Ag); Cherryvale.  
Lester Wendell Canny (BA); Mound Valley  
Mary Katherine Cantrell (IJ); Oil Hill  
‡Howard Leon Carnahan (Ag); Parsons  
Robert Alfred Carpenter (GS); Oswego  
Marilynn Grace Carr (GS);  
Kansas City, Mo.  
Lyle Murphy Carson (EE); Dennis  
Maude Elaine Carson (IM&D);  
Clay Center  
Arthur Adam Case (VM); Manhattan  
\*Lee Richard Cashman (GS); Centralia  
Dean Robert Cassity (SH); Clifton  
James Francis Cavanaugh (Ag);  
Dodge City  
Beverly Ross Chapin (ME); Wichita  
Doris Lillian Chapin (GS); Manhattan  
Cora Margaret Chapman (HE);  
Scotia, N. Y.  
Walter Eugene Chappell (AA); Chanute  
Donald Keith Christian (VM); Manhattan  
Thomas Riley Church (EE); Minneola  
Charles Eldon Clark (AA); Paxico  
Ruth Ellen Clarke (HE); Plainville  
Donald Ernest Cleland (AE); Eskridge  
Lorraine Florence Clements (HE);  
Havensville  
Howard Eugene Clements (IC); Salina  
Ruth Mary Cole (GS); Winfield  
Mary Patricia Collard (IJ); Leavenworth  
Kenneth Willard Colwell (ME); Emporia  
Max Raymond Colwell (ME); Centralia  
‡Clarence Charles Compton (CE); Atchison  
Lloyd Waugh Compton (AA); Effingham  
Harry Hunt Converse (AE); Eskridge  
William Frohman Cook (PE); Manhattan  
Keller Cordon (AE); Holton  
Marjorie Jean Courter (HE); Severy  
Florine Elizabeth Craig (IM&D);  
Kansas City  
Arthur Joseph Crawford (ArE); Clements  
David Franklin Crews (MI); Manhattan  
Leo Edward Cross (PE); El Dorado  
Riley Tieman Crow (AA);  
Independence, Mo.  
Richard Clarence Curtis (PE); Lenora  
Robert Donald Dahlin (EE); Kansas City  
Edna Marguerite Dailey (HE&A);  
Manhattan  
Jane Elizabeth Daily (HE); Ashland  
George Ted Dalziel (VM);  
San Mateo, Cal.  
Betty Jeanne Daniel (GS); Ellinwood  
Carl Bertil Danielson (Ag); Lindsborg  
Gloria Jane Danielson (HE); St. Francis  
Clara Marie Darby (MuE); Morrowville  
William Elsworth Daseler (VM);  
Oroville, Cal.  
Daisy Davis (HE); Beloit  
William Russell Davis (EE); Topeka  
Max Lawrence Dawdy (Ag); Washington  
William Paul Deam (GS); Manhattan  
‡Robert Edward Deatz (ChE); Hutchinson  
Leonard Austin Deets (AA); South Haven  
Virginia Rosamond Delano (BA);  
Hutchinson  
Martha Lorraine DeMand (HE);  
Lincolnville  
Ethel Dorothy Denio (IM&D); Woodston  
Catherine Detrich (GS); Chapman  
Thornton Cornell Dewey (CE); Pittsburg  
Hiram Benjamin Dickson (PE); Admire  
M. Dale Dietz (BA&A); Esbon  
George E. Dillenbeck (VM); Poultney, Vt.  
Charlotte Baenen Dixon (IJ); Junction City  
Calvin Arthur Doile (AA); Emporia  
Glennys Ethel Doll (IM&D); McPherson  
Bert William Doran (AE); Macksville  
Terryll Dougherty (IJ); Manhattan  
Gerald Newell Doughty (ME); Moran  
Jane Ann Douglass (BA); Wichita  
Keith Warnell Downey (VM); Appleton, Wis.  
Jack Edwin Downs (ME); Wichita  
Richard Eugene Dreyer (ME); Newton  
Joyce Lenore Dryden (HE); Stockton  
Donald Kenneth Dubois (MI); Burlingame  
Olivia Alfreda Dunham (HE); Jewell  
William Harrison Dunham (EE); Wichita  
Harold Dunlop (MI); Liberal  
Robert Mathew Dunlap (ME); Liberal  
Ray Charles Dunlay, Jr. (CE); Parsons  
‡James John Dunlop (GS); Detroit  
Donald Fent Duwe (ME); Lucas  
Everett James Eastman (ME); Independence  
John Springer Eaton (AE) Hutchinson  
Vernon Eberhart (AA); Turon  
Howard Clayton Eberline (EE); Manhattan  
Harry Leslie Eddy (BA); Topeka  
Lyle Harris Edelblutte (GS); Manhattan  
William Otho Edmonds (MI); Dallas, Tex.  
Leslie Ruel Edrington (VM); Manhattan  
Theodore Max Ehlert (Ag); Neodesha  
Edward Himes Eling (MI); Manhattan  
Lucille Elizabeth Elmore (BA);  
McCracken  
Perry C. Emmons (PE); Lenora  
Elton Arthur Endacott (Ag); Manhattan  
Barbara Ruth Enlow (PE);  
Silver Springs, Md.  
Anbeth Lee Enns (HE); Newton  
Winifred Jane Enns (HE); Inman  
Dorothy Rachel Erickson (HE);  
Manhattan  
Loren Dean Eshelman (ArE); Abilene  
Raymond Keith Eshelman (BA&A);  
Sedgwick  
Madalene Mildred Estey (HE); Clifton  
Melvin Eugene Estey (ME); Langdon  
Kendall Evans (IJ); Amarillo, Tex.  
Richard Lewis Evans, Jr. (Ag);  
Hutchinson  
Jean Elaine Falkenrich (HE); Manhattan  
Violet Hazel Farmer (GS); Fredonia  
Mary Pauline Feder (HE); El Dorado  
Oscar S. Fent (GS); Newton  
Clancy Carlyle Ferguson (ChE); El Dorado  
Helen Virginia Ferrier (HE); Altamont  
Louis Anthony Ferro (Ag); Leavenworth  
George J. Fetters (EE); Topeka  
Jack Byron Fields (Ag); Manhattan

\* Matriculated 1941-'42.

‡ Also pursuing graduate study.

## SENIORS—Continued

- John Edward Fieser (VM); Norwich  
Raymond Elmer Fincham (Ag); Waterville  
Gerald Keith Fish (AA); Neodesha  
William Halpin Fitzsimmons (ME);  
Macksville  
Don Edwin Fleming (MI); Ottawa  
Bettie Fogelstrom (PE); Junction City  
Floyd Greer Foley (ME); Norton  
Eugene Broadie Focannon (BA); Ashland  
William Roy Ford (EE); Frankfort  
James Robert Foster (AA); Effingham  
Eric Beaumont Fowler (GS);  
Milbank, S. Dak.  
Jack Elbert Fox (VM); Kansas City  
Marvin Eugene Fox (ME); Larned  
Arthur Lloyd Francis (Ag); St. John  
Helen Mae Frasier (HE); Sharon Springs  
‡Rosa Adaline Cantrell Frick (GS);  
Manhattan  
George Henry Fritz (Ag); Lake City  
Anna Mae Fry (IM&D); Morrill  
Alma Deane Fuller (IJ); Courtland  
Paul L. Furbeck (AE); Larned  
John Pershing Garrett (VM);  
Cartersville, Mo.  
Bettie Irene Garrison (HE); Waverly  
Avery M. Garton, Jr. (GS); Chanute  
William Samuelson Gaston (VM); Axtell  
Vernon Victor Geissler (AA); Durham  
Nancy Katharine Gentry (HE); Salina  
Gerald Bowen Gibson (BA&A);  
Kensington  
Paul Gilbert, Jr. (CE); Pawnee Rock  
Robert Albert Gilles (CE); Kansas City  
Emma Lou Gillett (IJ); Postoria  
Neil David Gillmore (CE); Hutchinson  
Gloria Ann Gish (HE); El Dorado  
Eldon Dale Gladow (MI); Alma  
Elizabeth Anne Glidden (GS); Osborne  
Charles Jerome Glotzbach (GS); Paxico  
Dave John Goertz (Ag); Hillsboro  
Meyer Ben Goldfarb (DM); Newark N. J.  
Janet Goodjohn (GS); Leavenworth  
Edythe Elaine Goodwin (HE); Gypsum  
Virginia A. Goodwin (HE); Hiawatha  
Richard John Gorman (VM);  
East Hartford, Conn.  
Kenneth Max Gould (VM);  
Broken Bow Neb.  
Carl R. Gray (Ag); Neodesha  
Mont John Green (ArE); Manhattan  
Blanche Marie Greene (HE); Manhattan  
Lloyd Burton Greer (ME); Pittsburg  
Norman Jay Griffith (AA); Clayton  
Mary Elizabeth Griswold (HE); Manhattan  
Alberta Groves (HE); Midian  
Geraldine Gundy (M&MuE); Manhattan  
Edward Luther Gustafson, Jr. (ChE);  
Lindsborg  
William Donald Guy (AA); Liberty  
Roy Emerson Gwin (Ag); Leoti  
Lawrence Vincent Hoff (IC); Coffeyville  
William August Hagen (ME); Manhattan  
Eugene Hicks Hall (EE); Amoret, Mo.  
Freeman Milton Hall (VM); Kansas City  
William Bandt Hall (IJ); Phillipsburg  
Harold John Hamilton (CE); Corning  
Kenneth Blaine Hamlin (EE); Manhattan  
John Harvey Hancock (BA); St. Francis  
Wilma Mae Hannah (HE); Beloit  
Ardyce Louise Hanson (GS); Garrison  
Bernard Lewis Harden (GS); Coffeyville  
Catherine Aretta Hardin (HE);  
Rosendale, Mo.  
Dorothy Mariann Harper (IJ); Topeka  
Roberta Jean Harrill (HE); Augusta  
Ernest Owen Harris (Ag); Manhattan  
Genevieve Jean Harris (HE); Manhattan  
Wilton Eugene Harry (AA); Home  
Corby Lee Hart (EE); Wichita  
William Eugene Hartman (SH); Hoxie  
Robert Emmett Hauke (VM); Newton  
Jane Haymaker (HE); Manhattan  
Harvey Harlan Hefner (BA); Gove  
Alice Marie Hejtmanek (HE); Delia  
Robert Henry Hellener (BA); Wichita  
Clara Elizabeth Hellmer (HE); Olpe  
John Gunion Helm (IJ); Simpson  
Sherman Nelson Helm (AA); Manhattan  
Martha Ellen Hemphill (BA); Chanute  
Elinor Mae Hendrix (GS); Aliceville  
‡Frank Albert Hetzke (ChE); Moundridge  
Mary Jean Hickle (BA&A); Wichita  
George Hickman (VM); Venice, Cal.  
Thaine Robert High (PE); Abilene  
Ferne Coriune Hill (GS); Salina  
Orville Slocum Hill (AA); Bloom  
Clesson Leigh Hines (Ag); Kanorado  
Doris Marie Hiser (GS); Manhattan  
Etta May Hodgson (HE); Harveyville  
Harold Clifford Hogue (BA); Hutchinson  
Wilber Glen Hole (EE); Topeka  
Don Franklin Holshouser (EE); Dwight  
Arthur Herman Holste (AE); Ludell  
Joseph Benedict Hoover (ChE-1; IC-2);  
Greenleaf  
Josephine Ann Hoover (HE); Greenleaf  
Julia Janes Hoover (HE); Kansas City  
Leonard Ralph Hoover (CE); Manhattan  
Jack Louis Horacek (BA); Topeka  
Marcella Arlidene Horner (HE); Haviland  
Myron Finley Hornbaker (Ag); Hutchinson  
Warren Thomas Hornsby (BA); Topeka  
Harold William Hossfeld (EE); Willis  
Vaughan Henry Howard (GS);  
Washington, D. C.  
Murlin Thomas Howerton (ChE); Newton  
Eula Merna Hudson (HE); Wiley  
Griff Richard Hughes (AA); Fort Scott  
LeRoy Lyman Hughes (ArE); Topeka  
June Delore Hull (GS); Dodge City  
Donald Munro Hunt (Ag); Manhattan  
Gorman Earl Hunt (ME); Leavenworth  
Louise Grace Hunt (HE); Blue Rapids  
Betty Elaine Hutchinson (HE); Goddard  
George Nelson Inskip (AA); Manhattan  
Oliver Conrad Jackson (Ag); Elsmore  
Thomas Page Jackson (ME); Kansas City  
George Preston James (AA);  
East Greenwich, R. I.  
Jeanne Frances James (HE&A); Manhattan  
Robin Joan Jefferies (IM&D); Lewis  
Dwight Hillis Jenkins (CE); Madison  
Ralph Vincent Jennings (ME); Arnold  
Quentin Ellsworth Jeppesen (VM);  
Garden City  
Alice Marie Johnson (HE); Olsburg  
Dorothy Ruth Johnson (HE); Manhattan  
John Kenneth Johnson (EE); McPherson  
Lorraine Lawrence Johnson (ME); Concordia  
Mary Lucille Johnson (IM&D); Osage City  
Melvin Louis Johnson (EE); Quinter  
Susan Merilla Johnson (BA); Potwin  
William Pitner Johnson (VM); Manhattan  
Marjorie Patricia Jones (HE); Omaha, Neb.  
Wilbur Fred Jones (GS); Wichita  
Gladys June Jorden (HE); Goff  
\*Anna Margaret Jueneman (GS); Frankfort  
Eunice Wheeler Justus (MuE); Manhattan  
William Wade Justus (GS); Hill City  
Dorris Mae Kastner (HE&A); Manhattan  
Phillip Gibbs Kaul (GS); Holton

\* Matriculated 1941-'42.

‡ Also pursuing graduate study.



## SENIORS—Continued

- Virginia Alta Keas (IM&D); Chanute  
 Ray Albert Keen (SH); Manhattan  
 ‡Richard McClanahan Keith (M); Manhattan  
 Frances Eugenia Keller (IM&D); Clyde  
 William Gibbens Kelly (MI); Hutchinson  
 Scott Winfield Kelsey (Ag); Topeka  
 Harold Eugene Keltner (ArE); Hoisington  
 ‡Raymond Orville Keltner (GS); Hoisington  
 Orla Cormack Kemper (HE); Manhattan  
 Irene Pearl Kenneck (IM&D); Wichita  
 Margaret Belle Kerr (HE&A);  
 Hackensack, N. J.  
 Richard John Kilian (ME); Chapman  
 Marjorie Vivien Kimsey (HE&A); Barnard  
 Helen Eunita King (HE); Hutchinson  
 William Gregg King (CE); Fort Dodge  
 Murray Luther Kinnan (Ag); Manhattan  
 Carlton Miller Kinzler (Ag); Sturgis, Mich.  
 Arthur Durward Kirk (VM); Scott City  
 Edward Earl Kirkham (ME); Topeka  
 Floyd Ernest Kirkland (BA&A);  
 Junction City  
 Orville Kenneth Kirkpatrick (Ag); Bucklin  
 Caroline Kiser (IM&D); Clayton, N. Mex.  
 Doris Charlotte Klaumann (IM&D);  
 Belleville  
 Edwin Albert Kline (Ag-1; GS-2);  
 Mentor  
 Jane Margaret Klingner (HE); Chanute  
 Russell Charles Klotz (AA); Saffordville  
 Virginia Carolyn Knauer (BA); Manhattan  
 James William Knox (VM); Overland Park  
 ‡Hugo Adolph Koester (ChE); Herington  
 John Marshall Koger (BA); Cheney  
 Harvey Rueben Kopper (AA); Ingalls  
 Donald Ely Kortman (BA&A); Manhattan  
 Tom Frederic Kropf (ME); Wamego  
 Laura Lee Kubin (HE); McPherson  
 Ralph Jennings Kueker (MI); Belleville  
 Elward Earl Kunze (MI); Garrison  
 William Edward Lacy (ChE); Kansas City  
 Oliver Diston Lambirth (ME);  
 Elida, N. Mex.  
 Freda Martha Landis (GS); St. George  
 Floreine Edith Langenegger (HE); Burns  
 Robert Byron Lank (VM); Kansas City  
 Robert Dean Laramey (Ar); Pueblo, Colo.  
 Maccie Field Lattimore (IJ); Topeka  
 ‡Henry S. C. Lau (IC); Arkansas City  
 Margery Lawrence (PE); Topeka  
 Kenneth Benjamin Lebsack (BA);  
 Hutchinson  
 Harold Francis Leckron (CE); Abilene  
 Marjorie Ruth Lee (HE); Manhattan  
 Leo Raymond Leggett (ME); Russell  
 Frances Eldora Lehman (IM&D);  
 Deer Creek, Okla.  
 Roger Dean Lehman (BA&A); Protection  
 Virginia Holbert Leidler (GS); Manhattan  
 Jack Conroy Leonard (ChE);  
 Junction City  
 Theodore William Levin (Ag); Agra  
 Carol Byron Lewis (Ar); Salina  
 Ernest Eber Lewis (ME); Mansfield, Pa.  
 John Kenneth Lewis (EE); Arlington, Va.  
 Mildred Josephine Lewis (HE);  
 Dodge City  
 Don Malcolm Liebengood (VM);  
 Kentland, Ind.  
 June Elaine Light (PE); Liberal  
 Elizabeth Lillibridge (HE); Hutchinson  
 Barney Lee Limes (ME); La Harpe  
 Marjorie Anne Lindgren (BA); Dwight  
 Leland Leroy Linn (VM); Clyde  
 Helen May Loofbourrow (HE); Scandia  
 Rector Philip Louthan (ChE); Simpson  
 Clarence Alvin Love (VM); Coffeyville  
 Hal Arthur Lund (ChE); Manhattan  
 Arlene Minnie Luthi (IM&D); Wakefield  
 Hazel Juanita McAninch (HE); Stockdale  
 Marjorie Marie McAninch (HE); Neodesha  
 Robert David McClure (Ag); Manhattan  
 John Donnelly McClurkin (ME);  
 Clay Center  
 Donald Dale McCollister (IC); Pittsburg  
 Mary Margaret McNeal McCollister (BA);  
 Edna  
 Warren Ross McDaniel (ME); Wichita  
 Edward James Peter McDonald (VM);  
 Peabody, Mass.  
 Kenneth McEntire (EE); Pittsburg  
 John Gerald McEntyre (CE); Topeka  
 Norris J. McGaw (MuE); Topeka  
 Arthur Douglas McGovern (ME);  
 Schenectady, N. Y.  
 Marjorie Lucille McGrew (PE); Coffeyville  
 Doris Marjorie McGugin (GS);  
 Kansas City, Mo.  
 Dorothy Margaret McGugin (GS);  
 Kansas City, Mo.  
 Robert Beitzel McIntire (GS); Manhattan  
 Percy Herbert McKinley (EE&BA);  
 Kansas City  
 Freda Lenore McNickle (HE); Zenith  
 Helen McVey (IM&D); Hill City  
 Lois Jeanette Mace (IM&D); Willis  
 Burt Randolph MacKirby (CE); Manhattan  
 Roderick Elvyn MacRae (VM);  
 Evanston, Ill.  
 Helen Jane Macredie (HE); Clearwater  
 Alice Magdalene Magers (HE); Parker  
 Harold Aley Magnus (ChE); Arkansas City  
 Edward Jay Mahler (VM); Salinas, Cal.  
 Julius Henry Mai (Ag); Tribune  
 Mildred Marie Major (IM&D); Wilson  
 Hurst Kreek Majors (IJ); Manhattan  
 Kenneth Edwin Makalous (AA); Cuba  
 Frank Lucius Marcy (AA); Milford  
 Minerva Shelton Marlow (GS); Manhattan  
 Jerome Edward Marschallinger (ME);  
 Pittsburg  
 John Alexander Marten (SH); Winfield  
 Audwin Joseph Martin (CE); Norwich  
 Arlene Venita Mayer (MuE); Alta Vista  
 Leonard Mealy (ME); Summerfield  
 Arthur Fred Meeks (CE); Kansas City  
 Orval Henry Meinecke (VM); Marysville  
 Ethel Marie Melia (HE); Ford  
 Harold Raymond Melia (AA); Bucklin  
 George Lester Mendenhall, Jr. (ME);  
 Belleville  
 Bettie Merrill (IJ); Ellis  
 Richard G. Merryfield (AA); Minneapolis  
 Kenneth Alonzo Messner (BA);  
 Arkansas City  
 Leonard Meyer (BA); Basehor  
 Walter Richard Meyer (AE);  
 Tombstone, Ariz.  
 Herbert Dalton Michael (EE); St. John  
 Robert Glenn Miller (BA); Manhattan  
 Marion Andlauer Miller (AE); Topeka  
 Walter McNab Miller (AE); Tonganoxie  
 Eugene Booth Mills (ME); Wichita  
 Donald Edmond Miltner (EE); Wichita  
 Evelyn Elnora Mitchell (HE); Topeka  
 Carroll Alvin Mogge (Ag); Goodland  
 Helene Mae Monfort (HE); Iola  
 Beatrice Marie Montgomery (HE); Hazelton  
 Dorothy Mae Montgomery (IM&D);  
 Sabetha  
 Willis E. Moore (EE); Goff  
 William Dennis Moran (EE); Weir  
 Lois Lorraine Morgan (GS); Manhattan

\* Matriculated 1941-'42.

‡ Also pursuing graduate study.



## SENIORS—Continued

- Tom Francis Morrey (ME); Coffeyville  
 Mary Belle Morris (IJ); Chapman  
 Edward Walter Morrison, Jr. (MI);  
 Denton, Texas  
 Bruce Henderson Mosbacher (ME); Wichita  
 Donald George Moss (EE); Miltonvale  
 Robert Clark Mossman (VM); Manhattan  
 Joseph William Mudge (Ag); Burlington  
 George Alfred Mullen, Jr. (AA); McCune  
 Freda Evelyn Mumaw (IM&D); Onaga  
 Raymond C. Muret (Ag); Winfield  
 Jean Murphy (GS); Abilene  
 Ray Verne Murphy (SH); Manhattan  
 Channing Wayne Murray (GS); Manhattan  
 Raymond Lee Mussatto (ME); Burlingame  
 †Homer Samuel Myers (MI); Salina  
 Imogene Gail Myers (HE&A);  
 Sharon Springs  
 Phillip Samuel Myers (ME); Formoso  
 Robert Kirkland Nabours (GS); Manhattan  
 Ineta Ruth Neel (IM&D); Hutchinson  
 Erma Mildred Neely (HE); Hopewell  
 Conrad Lundsgard Nelson (VM);  
 Oklahoma City, Okla.  
 Elva Ann Nelson (HE); Concordia  
 Raymond Lawrence Nelson (ME); Wichita  
 Warren B. Nelson (AA); Manhattan  
 Donald Orion Neubauer (ME); Manhattan  
 Shirley Frances Newacheck (IM&D);  
 El Dorado  
 Mary Evelyn Nielson (IM&D); Atchison  
 Wilburt Gates Nixon (Ag); Virgil  
 †Norman Lynn Noble (CE); Johnson  
 Oscar Woodrow Norby (AA); Pratt  
 Richard William Nordeen (GS); Manhattan  
 Harold Sylvester Novak (ME); Ottawa  
 Otto Frederick Oberhelman, Jr. (EE);  
 Manhattan  
 Jewel Martin Ogden (GS); Frederick  
 Richard Henry Ogle (ME); Scotia, N. Y.  
 Zoe Elizabeth Oliver (HE); Junction City  
 Anna Bernice Olson (HE); Manhattan  
 Benjamin Eric Olson (ChE); Manhattan  
 George Norman Olson (IC); Wichita  
 Mary Marie Olson (HE); Dwight  
 Dennis Gordon O'Neill (CE); Ransom  
 Robert Leo Osborne (Ag); Rexford  
 Leo Benedict Osterhaus (BA); Marvsville  
 Peggy Paddock (IM&D); Manhattan  
 James Thomas Painter (EE); Meade  
 Aubrey Glen Park (ME); Oakley  
 Fred Mac Parris (IJ); Norton  
 Duane Marshall Patterson (ME);  
 Kansas City  
 Martha Ann Pattison (HE); Manhattan  
 Doris Elaine Paustian (HE); Manhattan  
 Martha Marie Payne (HE); Manhattan  
 Mary Jean Peak (IM&D); Manhattan  
 Alice Gertrude Pearson (HE); Olsburg  
 Ivan Carlton Peck (AA); Soldier  
 Helen Catherine Perkins (IM&D);  
 Kansas City  
 Ralph Hamilton Perry (BA&A); Oskaloosa  
 Richard Lewis Peters (PE); Valley Falls  
 Irene Grace Peterschmidt (HE); El Dorado  
 Alge Peterson, Jr. (IA); Overland Park  
 Arnold Linn Peterson (BA); McPherson  
 Harold Elof Peterson (Ag); Bridgeport  
 Vernon Hendrick Peterson (EE); Weskan  
 Roger Neil Phillips (Ag); Manhattan  
 Maxine Lesta Pickering (IJ); Meade  
 John Russell Piper (ME); Emporia  
 †Shirley Alice Pohlentz (HE); Freeport  
 Irma Lucille Popp (HE); Marion  
 Walter H. Porter (AA); Council Grove  
 Ethan Potter (MI); Peabody  
 Patricia Potter (PE); Peabody  
 John William Prager (MI); Irvington, N. J.  
 Anthony Joseph Prasnikař (VM); Mulberry  
 Alma Pressgrove Proudfit (HE&A);  
 Manhattan  
 Norbert Laverne Raemer (MI); Herkimer  
 Ruth Jane Rahn (HE); Arkansas City  
 Harold Edward Rall (Ag); Menlo  
 †Vinson Leroy Rambo (CE); Wichita  
 James Lynne Ramsey (EE); Uniontown  
 Ruth Arline Ramsey (IM&D); Nortonville  
 Emma Belle Randall (HE); Ashland  
 Wallace Edward Rankin (ChE); Manhattan  
 †John Parke Ransom (CE); Homewood  
 Robert Rathbone (IJ); Manhattan  
 Frank DeVere Ratliff (VM); Portis  
 William Joseph Ratliff (MI); Manhattan  
 Robert Richard Read (BA&A); Parsons  
 †Lenore Reder (GS); Blue Rapids  
 Charlotte Jean Cockerill Reed (HE);  
 Frankfort  
 Edward Anthony Reed (Ag); Lyons  
 Wilbur Bernell Reed (ChE-1; IC-2);  
 Marysville  
 Lois Vivian Reeves (HE); Almena  
 Helen Florence Reiman (HE); Byers  
 Marie Katherine Reinhardt (HE); Russell  
 Jay Reynolds (VM); Parsons  
 Mildred Joyce Rice (HE); Alma  
 Jean Dimsdale Richardson (GS);  
 Kansas City  
 John Hartman Rickenbacker (BA);  
 Turlock, Cal.  
 Theodore Kenneth Riggs (ME); Hays  
 Oliver Virgil Riley (EE); Manhattan  
 David Earl Rintoul (GS); Garden City  
 Robert Hugh Roberts (ME); Wellington  
 Ellen King Robertson (GS); Wichita  
 Haroldine Roessler (HE); Medicine Lodge  
 Joseph Samuel Rogers (Ag); Horton  
 Marjorie Jane Rogers (IJ); Manhattan  
 Raymond Ruben Rokey (Ag); Sabetha  
 Virginia Elizabeth Roller (HE); Circleville  
 Sylvia Frances Roper (IJ); Manhattan  
 William David Ross (Ar); Coffeyville  
 Boyd LaMar Rostine (ME); Hutchinson  
 Eugene Elroy Ruff (GS); Russell  
 Orel Dale Rundle (HE); Axtell  
 John B. Rush (ChE); Haviland  
 Francis Joseph Ryan (EE);  
 Waterbury, Conn.  
 Margaret E. Salsler (HE); Wichita  
 LeRoy Francis Sanderson (ME); Hamilton  
 Harold Jay Santner (BA&A); Gaylor  
 Lorraine Sawyer (HE); Kensington  
 †Marguerette Annabeth Schlotzhauser (HE);  
 Bucyrus  
 August Mangelsdorf Schmelting (EE);  
 Atchison  
 Frances Maxine Schmidt (MuE); Lorraine  
 †Clarence Wilbur Schmitz (GS); Alma  
 Philip Davis Schnelle (ChE); Coffeyville  
 Robert Edward Schreiber (EE); Garden City  
 Clarence William Schulze, Jr. (Ag);  
 Blue Springs, Mo.  
 Lloyd Joseph Schurr (BA&A); Wamego  
 Glenn Orville Schwab (AE); Gridley  
 Robert DeForest Scott (ChE); Manhattan  
 Jane Seaman (IJ); Salina  
 †Ralph Eldon Sechler (ArE); Hutchinson  
 Evelyn Margaret Seeberger (GS); Hanover  
 †Ernest Louis Semersky (MI); Toledo, Ohio  
 Ben Shambaugh, Jr. (VM); Ottawa  
 Mary Ellen Shaver (HE&A); Salina  
 Richard Allan Shea (VM); Kansas City  
 Elizabeth Bell Sheets (HE&A); Osborne  
 Leander Raymond Sherlock (GS); Wamego  
 Charles Otto Shumaker (ChE); Wichita

† Also pursuing graduate study.

SENIORS—*Concluded*

- Virginia G. Siebert (HE); Pretty Prairie  
Ernest Allen Siegel (VM);  
San Francisco, Cal.  
Raymond Lee Sigg (AA); Soldier  
Marjorie Elizabeth Simmons (HE); Barnard  
Robert Ralph Singleton (Ag); Kansas City  
Henry Augustine Sirridge (ME); Topeka  
‡Irene Eloise Sloan (HE-1; Grad-2);  
Stratford, Tex.  
Margaret Smies (HE); Courtland  
‡Floyd William Smith (Ag); Shawnee  
James Joseph Smith (Ag); Axtell  
Dean Waldron Snow (IJ); Neodesha  
Frederick Robert Snyder (PE);  
Junction City  
Nancy Marie Snyder (IJ); Hutchinson  
‡Vervyle Edwin Snyder (PE); Mayetta  
Reed Clement Sparks (BA); Wichita  
Lawrence Eldon Spear (ME); Mission  
\*Shirley Spohn (HE); Conway  
Blanche LaVaughn Stacy (HE); Byers  
Clyde Earl Stanley (ME); Kansas City  
Floyd Owen Steele (VM); Manhattan  
Robert Charles Stephens (AA); Randolph  
Lenora Jeanne Stephenson (HE); Larned  
Margaret Rose Stevick (HE); Nowata, Okla.  
\*Arlabel Rosemary Stewart (MuE);  
Hutchinson  
Ross Merrit Stewart (ChE); Wilburton  
Norman Camp Stiles (GS); Topeka  
John Milton St. John (ME); Wichita  
Victor Dale Stockebrand (CE); Yates Center  
Monroe Carl Suderman (ChE); Hillsboro  
James Harold Eugene Summers (ME);  
Pittsburg  
‡William L. Sutherland (CE); Highland  
Elver Henry Swart (GS); Seneca  
‡Dorothy Jean Swingle (GS); Manhattan  
Rosalie Syres (HE); Hutchinson  
Lenora Jean Taddiken (HE); Morganville  
Harriet Jane Taubeneck (HE); Neodesha  
Delbert Gail Taylor (Ag); Meade  
Ocie Alice Taylor (HE); Tribune  
Robert Crowley Tedrow (CE);  
Kansas City, Mo.  
Circea Ruth Margaret Teel (IM&D);  
Oskaloosa  
Joye Jean Teeple (IM&D); Manhattan  
Joyce Jacqueline Terrass (HE); Alma  
Glen Junior Thomas (GS); Riley  
Keith Lewis Thompson (Ag); Wichita  
Wilma May Thompson (HE); Almena  
Max Eugene Timmons (AA); Fredonia  
Hobart Tipton (ME); Paola  
Melvin Kenneth Todd (EE); Kansas City  
Theodore J. Torkelson (EE); Everest  
Dorothy Jean Triplett (GS); Iola  
William Dick Turner (AA); Manhattan  
Howard Robert Turtle (ME); Quinter  
Cornelius John Vanderwilt (ME); Solomon  
Rosemarie Van Diest (HE); Prairie View  
Paul Irving Veach (BA); Fairview  
Clyde Maurice Venneberg (AA); Havensville  
Carl Joseph Voelker (VM); Manhattan  
Hans von Unwerth (CE); Kansas City, Mo.  
Anna Dean Wagaman (HE); Manhattan  
Rachael Phebe Wagaman (HE); Emporia  
Grant Wyckliffe Waggoner (CE);  
Baxter Springs  
Robert Earl Wagner (Ag); Garden City  
Paul John Waibler (ME); Great Bend  
Frederic Barber Walker, Jr. (VM);  
Santee, Cal.  
‡James Harvey Walker (ME); Emporia  
MarJeane Fincham Walker (IJ); Pratt  
Robert Hewitt Walker (CE); Kansas City  
Virgil Raymond Walker (EE); Manhattan  
Keith Wallingford (M); Manhattan  
‡Keith Lee Wallis (ME); Wichita  
Marjorie May Wanamaker (HE); Barnes  
Arlin Bruce Ward (MI); Manhattan  
Jack Winfred Warner (EE); Clay Center  
Bruce Cornell Watson (VM); Shawnee  
‡Edmund Lee Weber (ChE); Kansas City  
Helen Katherine Weber (HE); Liberty  
Leo Russell Webster (BA); Hutchinson  
Dean Keats Weckman (Ag); Holton  
\*Wilma Jeanne Wedell (HE&A); Topeka  
Bernard Morris Weiner (VM);  
Irvington, N. J.  
LaVerne Ida Welk (GS); Pratt  
Richard Gale Wellman (Ag); Sterling  
Francis R. Wempe (Ag); Frankfort  
William W. Wempe (VM) Frankfort  
Cecil Monroe Wenkheimer (SH); Hutchinson  
William Joseph Werts (Ag); Smith Center  
Gordon West (IJ); Manhattan  
\*Nila Stewart West (IJ); Hutchinson  
William Roger West (VM&IC); Manhattan  
Francis Edwin Westerman (ME);  
Kansas City  
Pierce Uhlman Wheatley (MI); Gypsum  
Francis Everett White (ME); Emporia  
Irene White (GS); Kindsdown  
Howard Elmer Whiteside (ChE); Neodesha  
Frank Wlchser (MI); Beardstown, Ill.  
Esther Irene Wiedower (M); Spearville  
Margaret Nancy Wiley (HE); El Dorado  
\*James Harley Wilkes (CE); Ulysses  
Ray Franklin Wilkie (ME); Topeka  
Paul Holbert Wilkins (MI); Walnut  
Charles Homer Williams (BA); Marysville  
Glenn Lawrence Williams (IJ); Manhattan  
Nellie Lou Willis (HE); Manhattan  
Louise Joyce Willmeth (HE); Troy  
Shirley Maycele Wing (IM&D); Columbus  
Wallace Wayne Wittenberger (ME);  
Marysville  
Lucille Nell Wolford (BA); Eskridge  
Helen Iona Woodard (HE); Topeka  
Kittie Marie Woodman (HE); Independence  
Milton Maurice Woodrick (GS); Scott City  
George Carl Wreath (Ag); Manhattan  
Jean Frances Wright (MuE); Manhattan  
Paul Lee Wright (Ar); Osawatomie  
George William Yost (GS); Vassar  
Dorothy Mae Zerbe (HE); Salina

## JUNIORS

- \*Paul Milton Abelson (ChE); Arkansas City  
Jean Frances Alford (HE);  
Kansas City, Mo.  
Jeanne Amos (HE); Manhattan  
Robert T. Anderson (CE); Salina  
Van Keith Anderson (CE); Osage City  
Walter Glen Andrea (ME); Holyrood  
\*Mary Jean Apt (HE); Buffalo  
\*Sue Frances Armstrong (HE); Topeka  
Mary Margaret Arnold (IJ); Manhattan  
R. Elwyn Athey (MI); Junction City  
George William Atkinson (VM); Hutchinson  
\*Marguerite Ault (GS); El Dorado  
Ruth Margaret Ausherman (HE);  
North Topeka  
\*Mildred Jean Babcock (IM&D); Wichita  
\*Cloyce Roy Bachus (PE); Abbyville  
\*Charles Virgil Bacon (Ag); Hutchinson

\* Matriculated 1941-'42.

‡ Also pursuing graduate study.



## JUNIORS—CONTINUED

- Amelia Huntington Baird (IM&D);  
Kansas City
- \*Ernestine Mary Lane Baker (BA); Topeka  
Robert Crary Baldrige (IC); Emporia  
Sybil Janice Bangs (IM&D); Merriam  
Jacob William Banks (BA); Atchison  
Earl Clair Barb (EE); Hamilton
- \*Benton Barlow (Ag); Doucette, Texas  
Patti Barnard (IJ); Kansas City  
L. Kenneth Barnes (ME); Osawatomie  
Robert Lee Barnett (BA&A); Glen Elder  
Frank Henry Barnhart, Jr. (GS); Fort Riley  
William John Bassler (Ag);  
Valley Stream, N. Y.
- Jay Clarence Bayha (AA); Kismet  
Margaret June Bayless (HE); Wakarusa  
Ralph Gordon Beach (SH); Marysville  
Charles Raynon Beardmore (ArE);  
Concordia
- Kermit Edwin Beary (AA); Edson  
Larry Beaumont (BA); El Dorado  
Rodney Claire Beaver (EE); Ottawa  
Kenneth Lewis Bechtold (ME); Formoso  
Neil Dwane Beckenhauer (VM); Herington  
Barbara Jean Beechlev (HE&A); Joliet, Ill.  
Edith Mae Beesley (HE); Gove  
Patricia Anne Beezley (HE); Girard  
Wendell Dean Bell (BA&A); Silver Lake
- \*Barbara Belwood (IJ); Kansas City, Mo.  
Ralph Junior Bemis (ME); Plainville  
Henry A. Bender (VM); Topeka  
John Daniel Bender (EE); Highland  
David Bendersky (ME); Nassau, N. Y.  
Max Bernard Benne (Ag); Morrowville  
Leroy Eugene Bennett (ME); Mankato  
Denzil Wallace Bergman (GS); Manhattan
- \*Jack Lowell Berkey (ME); Kansas City  
Herbert W. Beyer (CE); Sabetha  
Clifford Duane Beyler (VM); Harper
- \*Ray Richard Biege (ME); Hutchinson  
Clara Jane Billingsley (MuE); Belleville  
George J. Bird (Ag); Manhattan
- \*Wayne Bland (BA); Fort Scott  
Margaret Mae Blaylock (IM&D); Mankato  
David J. Blevins (ME); Manhattan  
Adzianna Mary Blochlinger (GS); Concordia  
Winifred Caroline Boomer (HE&A);  
Kansas City
- Betty Boone (HE); Manhattan
- \*Thomas Harold Boosinger (ME); Wichita  
James Otis Bordner (CE); Kansas City  
Don R. Borthwick (BA); Beeler  
Marjorie Agnes Botkin (HE&A); Harper  
Barbara Bouck (HE-1; GS-2); Manhattan  
Barbara Lee Bower (IJ); Junction City
- \*Hushal Elmore Boyd (ME); Burns
- \*Charles Thomas Brackney (Ag);  
Center, Colo.  
Johnette Bradley (GS); Wellington  
Gale Eugene Breed (AA); Manhattan
- \*Everett Lee Brosius (ChE); Wichita  
Sealy Mark Brown (BA&A); Manhattan  
Oral Francis Brunk (Ag); Manhattan
- \*Ruth Nadine Brunkhorst (HE); Sedalia, Mo.  
Wesley F. Buchele (AE); Cedarvale  
Morris Eugene Buckman (MI); Olathe  
Ben B. Buehler (ME); Bushton  
Alma Hope Buffington (HE); Marquette  
Rex Burden (BA); Chase
- \*Ben Alexandria Burdette (ME); Esbon  
Lester Harlan Burkert (VM); Valley Falls
- \*Jean Eloise Burnette (GS); Parsons  
Wilfred Eugene Burnham (BA); St. Francis
- \*Ozeta Kathryn Burns (HE); Wichita  
Blanche Irene Burris (HE); Spring Hill  
Henrion Paul Buser (ME); Wichita  
Edward George Buss (Ag); Holton
- Burson George Bussett (VM); Manhattan  
Martin Eugene Butler (ME); Clayton  
\*Charles Emerson Butts (ChE); Wichita  
Margaret Ruth Buzzard (HE); Fort Scott  
Eula Marie Hagan Campbell (HE);  
Manhattan  
George Frederic Campbell (CE); Wichita  
John Carl Campbell (AE); Manhattan  
Thomas Clark Campbell (VM); Laurel, Neb.  
Everett Elwin Cannon (EE); Manhattan  
Janette Claire Carlsen (IM&D); Manhattan  
Lyle Pattan Carmony (MI); Manhattan  
\*Virginia May Carmouche (IM&D); Newton  
Edith Marie Carr (GS); Hutchinson  
Ray Eugene Carr (BA); Kansas City  
\*Jack Wesley Carson (EE); Netawaka  
\*Madge Eileen Carswell (HE); Alton  
\*Ellen Margaret Carter (HE); El Dorado  
Frank A. Cash (MuE); Manhattan  
Dorothy Marie Chartier (IM&D); Sedgwick  
Mary Jane Chase (HE); Lyons  
Richard George Checksfeld (ChE); Topeka  
Ivan Lee Cheney (CE); Abilene  
Marian Alice Cherry (IM&D);  
Redwood Falls, Minn.
- \*Christ Alex Christ (IA); Kansas City  
\*Bernice Lorene Christesen (GS); Osage City  
Grace Eleanor Christiansen (IJ); Columbus  
Paul Quintin Chronister (Ag); Abilene  
Faye Clapp (IJ); Manhattan  
Nevelle Jeane Clark (IM&D); Salina  
Marvin Brown Clark (Ag); Belvue  
\*Theodore Davis Cleary (ChE); Ingalls  
\*Martha Mae Cleveland (HE); Wichita  
Gordon Dwain Cloepfil (ME); Hunter  
Albert Swift Coates, Jr. (VM); Kansas City  
\*Samuel Douglas Cole (Ag); Fort Scott  
Joyce Collier (BA&A); Hugoton  
\*Oscar Ellsworth Collings (AA); Winona  
\*Charlotte Harriet Collins (IJ);  
Fort Worth, Tex.  
Margaret Leslie Collins (MuE); Manhattan  
Martha Winifred Connet (GS); Manhattan  
Lorane Havelly Cooley (HE); Junction City  
Warren Boughton Cooper (ME); Gridley  
Warren Harding Corbet (AE); Severance  
\*Arthur John Cordes (BA&A); M'rade  
Homer Jack Cornwell (Ag); St. John  
Catherine LaVonne Cossey (GS);  
Leavenworth  
Lawrence E. Craig (EE); Wichita  
Glen Thomas Crawford (Ag); Manhattan  
Mary Cummings (GS); Concordia  
James Sylvester Cunningham (Ag);  
El Dorado  
Roy George Currie (Ag); Manhattan  
\*Mary Louise Curry (HE&A); Kansas City  
George Walter Curtis (Ag); Toronto  
Jack Curtis (IJ); Garden City  
Wilmer Dague (EE); Topeka
- \*Richard Clayton Danford (EE); Hutchinson  
\*Orval William Daniels (CE); Bronson  
Evelyn Mae Dannar (HE); Wichita  
Edwin Speight Darden (ArE); Manhattan  
John Cecil Dart (GS-1; MI-2); Newton  
Marjorie Gladys Davies (HE); Lebo  
Helen Dorothy Davis (HE); Wamego  
Mildred Elizabeth Davis (HE); Topeka  
\*Richard Malcolm Davis (BA&A); Grenola  
Edith Margaret Dawley (HE); Manhattan  
Robert Price Dawley (EE); Manhattan  
Dorothy Helen Deal (HE); Westfield, N. J.  
Don D. Depew (Ar); Neodesha  
Gladys Lova Devore (HE); Haddam  
Paul Franklin DeWeese (IJ); Cunningham  
Roberta Amory Dexter (GS);  
Sharon Springs

\* Matriculated 1941-'42.



## JUNIORS—CONTINUED

- Junior Charles Diehl (GS); Manhattan  
 Donald Leo Dimond (MuE); Manhattan  
 Glen Francis Doel (ME); Topeka  
 \*Thomas Walter Doepfner (EE); Manhattan  
 David Rumbough Donaldson (ChE);  
 Fort Riley  
 Nancy Donnelly (IJ); Stafford  
 Darcy Doryland (BA); Manhattan  
 \*Ralph Erwin Douglas (ChE); Coffeyville  
 Carl Downing (AA); Wichita  
 Lee Warren Doyen (AA); Rice  
 Helen Frances Drake (HE); Corbin  
 Joseph Francis Drgastin (IJ); Kansas City  
 Lois Evelyn Droege-meier (HE); Geneseo  
 \*Mary Ernestine Droz (HE); Humboldt  
 Carrie Jean Drummond (HE); Elmdale  
 Harry G. Duckers (Ag); Netawaka  
 Ann Elizabeth Dueser (GS); Chase  
 Esther Tabea Dumler (HE); Gorham  
 \*Dorothy Jean Dunbar (HE); Winfield  
 Merrill Edwin Dunn (BA&A); Topeka  
 \*Ruth Ina Dunwoody (HE); Coffeyville  
 \*John Delmont Durham (ME);  
 Kansas City, Mo.  
 Audrey Jean Durland (Ar); Manhattan  
 Daniel Durnick (Ag); Germantown, N. Y.  
 Lloyd Durow (CE); Topeka  
 Dale Hamlin Dyer (AE); Clearwater  
 James Francis Eagan (MI); Axtell  
 John Dean Easter (Ag); Abilene  
 Von Eloise Eastman (HE); Matfield Green  
 Karl Frederic Eberle (CE); Kansas City  
 Martha Rosa Eck (IM&D); Galva  
 Richard Ward Eddington (AE); Courtland  
 Kenneth Floyd Eicher (ME); Brewster  
 Jacqueline R. Eidson (BA); Manhattan  
 \*Jack Austin Elliott (ME); Plains  
 William Dean Elliott (VM); Elmo  
 Thomas Jay Ellis (GS); Topeka  
 Virginia Ann Elmer (HE); Chicago, Ill.  
 Hester Fay Elmore (HE); McCracken  
 \*Jack Jones Elton (ChE); Arkansas City  
 Lonnie Ernest Emerson (CE); Coldwater  
 Mary Louise Emery (HE); Manhattan  
 Beth Kathleen Emmert (IJ); Manhattan  
 Esther Eileen English (HE); Belpre  
 Oscar Erickson (PE); Neodesha  
 Robert Nathaniel Erickson (VM);  
 Orland, Cal.  
 \*Sarah Maria Ewald (HE); Kansas City, Mo.  
 Robert Stephenson Eyestone (ME);  
 Pittsburg  
 Marion Lee Farmer (ME); Fort Scott  
 Byron W. Farnsworth (EE); Manhattan  
 Betty Ann Faubion (IM&D); Manhattan  
 Jean Fee (HE&A); Cunningham  
 Bernard George Fickel (Ag); Chanute  
 \*William Glenn Field (EE); Wichita  
 Arthur Edward Fillmore (ArE); Augusta  
 Leon Dean Findley (EE); Kiowa  
 Zelma Marie Finn (GS); Great Bend  
 Madeline Fisher (IM&D); Caldwell  
 Naomi Marie Flentie (HE); Centralia  
 Thomas Jesse Fletcher (ME); Horton  
 Lynn Dewell Fleury (SH); Jamestown  
 Robert Carl Floersch (BA&A); Manhattan  
 John Matthew Folz (ChE); Marysville  
 \*Winifred Ruth Foote (IJ); Ottawa  
 Marjorie Lee Force (IM&D); Wheaton  
 \*Frances Elizabeth Ford (IJ); Manhattan  
 \*Virginia Ann Ford (IJ); Brookings, S. Dak.  
 William Albert Frusher (ME); Ness City  
 Mabyn Belle Fuller (HE); Manhattan  
 Robert Dale Gahagen (IJ); Manhattan  
 Sidney Galinko (GS); New York, N. Y.  
 \*William Jacob Galle (ChE); Arkansas City  
 Wilma R. Gantenbein (HE); Elmo  
 Floyd Edgar Garrelts (ME); McPherson  
 Virginia Jane Gates (HE); Goff  
 Anita Maxine Gatrost (HE); Eskridge  
 Wilford Eugene Gault (EE); Glen Elder  
 Lloyd Reed Gebhart (CE); Culver  
 \*Margaret Jean Gehlbach (IM&D);  
 Coffeyville  
 \*Max Gelwix (CE); Thayer  
 Mary Lou Genung (IJ); Fort Branch, Ind.  
 Philip Woodbury George (Ag); Lebo  
 Lyman Earl Gessell, Jr. (ChE); Manhattan  
 Geraldine Marie Giffin (HE); Spring Hill  
 Ellis Victor Gish (CE); Paleo  
 James Harvey Glenn (ChE); Amarillo, Tex.  
 Edgar Nicholas Glotzbach (BA); Paxico  
 Oscar Joseph Glotzbach (AA); Paxico  
 Wayne Lawrence Godsey (MI); Netawaka  
 \*Gordon David Goering (ChE);  
 Pretty Prairie  
 Martha Olive Goheen (IM&D); Manhattan  
 Peter Earl Gory (VM); Hoisington  
 Marjorie Gould (MuE); Manhattan  
 Virginia Frances Gould (IM&D); Beloit  
 Rex DeMonte Grauerholz (BA); Esbon  
 Margaret Louise Gray (IM&D); Peabody  
 Betty Lou Green (GS); Jewell  
 Duane Marvin Green (ME); Leoti  
 James Michael Green (ArE); Manhattan  
 Truman DeRoam Gregory (AA); Woodston  
 Raymond Leonard Gribben (EE); Salina  
 Rachel Elizabeth Griffin (HE); Merriam  
 Gordon L. Griffith (GS); Bogue  
 Clayton Bronaugh Griffiths, Jr. (VM);  
 Santa Barbara, Cal.  
 \*Duane Samuel Grove (BA); Newton  
 Janora Ann Grove (IM&D); Newton  
 James Gordon Groves (ChE); McPherson  
 Gerald Guss (VM); Burlingame  
 Merlin Dewayne Gustafson (GS); Randolph  
 William Ewers Guy (Ag-1; GS-2);  
 Kansas City  
 Dorothy Regena Haberthier (HE); Wichita  
 Betty Jean Hale (IM&D); Mankato  
 Gail L. Haley (IM&D); Abilene  
 Donna Ruth Hall (HE); Powhattan  
 Hubert Hall (CE); Turner  
 \*Donald Glenn Halliday (BA); Topeka  
 James Robert Hamm (ME); Humboldt  
 \*Laurence John Hammann (EE);  
 Independence  
 Elmer Rollin Hammett (EE); Manhattan  
 Clara A. Hampl (IM&D); Luray  
 \*Betty Lou Hancock (IJ); St. Francis  
 Robert Thomas Handel (VM); Napa, Cal.  
 \*Hugh Carey Hanks, Jr. (EE); Hutchinson  
 Edith Elsie Hanna (HE); Manhattan  
 Ruth Cornelia Hanson (HE); Olsburg  
 \*Edwin Harold Harclerode (IC); Iola  
 Margaret Barkley Hardenbrook (HE);  
 Alta Vista  
 William Henry Hardy (Ag); Arkansas City  
 LaVerne Collins Harold (Ag); Parker  
 Marjorie Harper (IM&D); Frankfort  
 Harry Clifford Harris, Jr. (ChE); Parsons  
 Wilbur Wynn Hart (AA); Mavetta  
 John Robert Hartman (SH); Hoxie  
 Dorothy Elaine Hartsook (HE); Ashland  
 \*Donald Eugene Hastings (BA); Jetmore  
 Earl Jerry Havel (Ag); Cuba  
 Daryl Warren Hawkins (EE); Cedarvale  
 Alfred Simpson Hawkinson (BA);  
 McPherson  
 James Winston Hearn (ME); Wichita  
 Wayne Charles Hedden (EE); Colby  
 Burns Edward Hegler (EE); Arkansas City  
 Otto Vern Heinsohn (ME); Wichita  
 Vernon Lee Heitman (Ag); Dellvale

\* Matriculated 1941-'42.

## JUNIORS—CONTINUED

- Donald C. Hejtmanek (BA&A); Topeka  
Edward John Hellmer (CE); Olpe  
Dennis Arlo Hemmer (CE); Bushton  
\*Royal Clark Hendershot (Ag); Hutchinson  
Alma K. Henry (IJ); Everest  
\*Kenneth Hillis Henry (CE); Wichita  
Robert Wayne Hentzler (VM); Topeka  
Roger Albern Herrick (Ar); Topeka  
Sevilla Hershey (HE); Eskridge  
Kenneth Dean Hewson (EE); Larned  
\*Charles Dewey Higby, Jr. (GS);  
Arkansas City  
Robert Lester Higginbottom (ME);  
Fredonia  
Marion Ralph Hildman (BA); Mayetta  
Margaret Elizabeth Hill (IJ); Belleville  
Margaret Louise Hill (HE); Topeka  
Milt Dean Hill (IJ); Kansas City  
\*Ruth Jean Hinchee (HE); Arkansas City  
Margaret Alene Hinshaw (IM&D); Topeka  
Gordon Elmer Hoath (Ag); Anthony  
Robert Milton Hodgson (AA); Little River  
\*Joan Frances Hogue (PE); Hutchinson  
James Maynard Holeccek (ME); Burns  
Virginia June Holmes (GS); Manhattan  
\*Donald William Honza (ME); Kansas City  
Virginia Davis Hoover (GS); Abilene  
Dorothy May Horstick (HE); Richmond  
Betty Alice Hosmer (HE); San Diego, Cal.  
Clarence Beyer Hostetler (VM); Harper  
Lois Aileen Hostinsky (GS); Manhattan  
Florence Louise Houghton (HE); Tipton  
\*Marjorie Goldstein Howard (GS);  
Manhattan  
Daniel Frederick Howe (AA); Stockdale  
Lawrence Keith Hudson (ChE); Wilsey  
Alice Bernice Hughes (HE&N); Olathe  
Neal Hugos (PE); Manhattan  
Janice Fern Hunt (HE); Blue Rapids  
Charles Calvin Hunter (AE); Manhattan  
Earl Sidney Hunter (ME); Iola  
David Henry Hurst (BA); Kirwin  
Henry George Hurtig (GS); Hanover  
Louis Anthony Hurtig (GS); Hanover  
Thomas Jean Hutchison (ChE); Burlingame  
Alfred Carl Huttig (MI); Kansas City  
Archie Richard Hyle (CE); Madison  
\*Neil Henry Illian (ME); Parsons  
\*Timothy Adolphus Ingram (AA);  
Independence  
Theda Fayne Inslee (HE); Isabel  
Kenneth Edgar Ireland (CE); Toronto  
\*Frances Marian Jackson (HE); Hutchinson  
Ledie Mae Jackson (HE); Carneiro  
Joseph Edward Jagger (Ag); Minneapolis  
Jack Edward James (IJ); Mayetta  
Everett Edward Janne (SH); Wilson  
Melvin LeRoy Jarvis (ME); Salina  
\*Jo Ann Jefferson (IM&D); Garnett  
Marion Ann Jensen (IM&D); Hays  
Sam Oliver Jewett (ME); Dighton  
Berneice B. Johansen (HE&A); Holyrood  
Jimmie Lincoln Johns (MI); Manhattan  
Cecil Loring Johnson (ChE); Wamego  
Dorothy Maxine Johnson (HE); Macksville  
\*Lily Georgene Johnson (HE); Hays  
Louis Bruce Johnson (E); Liberal  
Malvin Gilbert Johnson (Ag); Moran  
Marianna Johnson (GS); Potwin  
Romaine Edwin Johnson (IC); Manhattan  
\*Frank Warren Jones (CE); Manhattan  
Judith Jones (GS); Kansas City  
Keith Gordon Jones (Ag); Penaloza  
Phyllis Jones (IJ); Sedan  
Paul Harrison Jorgenson (BA); Manhattan  
Emil William Karl (IJ); Abilene  
Frank William Kaul (ME); Holton  
Neva Lucille Keene (IM&D); Norton  
Paul Leo Kelley (AA); Solomon  
Arthur Louis Kelly (IC); Derby  
Geneva Fern Kennedy (HE&N);  
Independence  
\*Lacey Lee Kent (CE); Opolis  
Kenneth Lavon Kerr (BA); La Harpe  
\*Nellie Louise Kerr (HE); Craft  
Edith Helen Kessler (HE); Newton  
Clara Belle Kientz (HE); Manhattan  
Charles Edward Kier (DM); Mankato  
\*Medora Alice Kilgore (IM&D);  
Berino, N. Mex.  
Donald Ross Kimball (GS); Lane  
Keck Kimbell (VM); Lyons  
\*Edward Jofert King, Jr. (EE); Jetmore  
Milton George Kingsley (EE); Formoso  
Robert Nay Kirk (BA); Topeka  
Joseph Eldon Kirkpatrick (BA); Bogue  
\*Daniel Allan Kitchen (AE); Lyndon  
Gerald Wilbert Klema (BA&A); Wilson  
Ralph William Knoche (VM); Adrian, Minn.  
Glenn Alfred Koby (AA); Sedgwick  
Robert Wolfe Kohn (ChE); Atchison  
Gerald Carl Kolsky (ME); Logan  
Leland Thomas Konz (ME); Independence  
\*Glen Miller Koontz (ME); Haven  
Phoebe Lahr Hillmon Kopper (IM&D);  
Manhattan  
Wilbur Stephen Kraisinger (AA); Timken  
John Wesley Kraus (Ag); Hays  
Norman LeRoy Kruse (Ag); Barnes  
Deborah Kubin (HE); McPherson  
William Kurman (GS); Woodbine, N. J.  
Charles Evans Lacey (ChE); Belleville  
Flora Evelyn Lancaster (ChE-1; GS-2);  
Yates Center  
\*Frederick Neil Lang (GS); Longmont, Colo.  
Herschel Rex Larkin (BA&A); Manhattan  
Marion Joseph Larkin (PE); Seneca  
June Marguerite Larrick (IM&D); Topeka  
Elsie Florence Larson (HE); Madison  
\*James Walter Leathers (AA); El Dorado  
Donald Eugene Leavitt (PE); Iola  
\*Lee Roy Lemington (CE); Wichita  
Evalyn Boyce Levin (HE); Kensington  
\*Charles Jacob Lewellen (GS); Newton  
Katharine Sophia Lienhardt (MuE);  
Manhattan  
Dean Thomas Lill (PE); Mount Hope  
Meilin Elmer Line (AA); Sabetha  
\*Harriet Litton (HE); Clyde  
Maryanna Lock (HE); Mayetta  
Berneice Evangeline Long (GS); Manhattan  
\*Robert Lloyd Lucas (EE); Kansas City  
Albert Nolan Ludwig (VM); Parsons  
Donald Wesley Lunt (VM);  
Yankee Hill, Cal.  
David Lupfer (ChE); Larned  
Harry Oliver Lytle, Jr. (BA&A);  
Junction City  
Velma Lou McCall (HE); Wakeeney  
Johnny McCammon (MI); Americus  
Cecilia E. McCandless (HE); St. John  
Margaret Ann McClymonds (IJ); Lincoln  
Jerome Ed McConnell (ChE); Salina  
Mary Ruth McCoy (HE); Manhattan  
\*Marjorie Marie McCrory (HE&A);  
Hutchinson  
Dale Frederick McCune (Ag); Stafford  
Margaret Ella McCutchan (HE);  
Lost Springs  
Joseph G. McDonald (EE); Topeka  
\*Anne Elizabeth McDuffie (GS); Fort Riley  
Arthur Wendell McFadden (BA); Mullinville  
\*John Ewing McFall (ME); Wichita



## JUNIORS—Continued

- \*Clarence Beverly McGee (ChE);  
Kansas City
- \*Kathryn Josephine McGrew (IM&D);  
Humboldt
- John Francis McKown (ChE-1; GS-2);  
Udall
- Ernest Lowe McLain (ME); Kansas City
- \*Marjorie Elma McLaren (IM&D); Chanute
- Elizabeth Ruby McLeod (HE); Manhattan
- Martin Eugene McMahan (ChE); Beattie
- Mary Rowene McMaster (HE); Eskridge
- William Ray McMillan (Ag); Quenemo
- \*Mary Anne McNamee (IJ); Cunningham
- Bonnie Jean McRill (BA&A); Peabody
- \*James Armand McRoberts (ME);  
Dallas, Tex.
- \*William Howard McVey (ME); Fredonia
- Merton Francis MacGregor (ME);  
Waterbury, Conn.
- Margaret Gardiner Mack (IJ); Manhattan
- Wayne Hendrix MacKirby (GS);  
Manhattan
- \*John William Mahaffy (ChE); Coffeyville
- \*Jeanette Agnes Malone (PE); Raymond
- \*Dorothy Evelyn Mangels (HE);  
Kansas City, Mo.
- Robert Drury Manly (GS); Manhattan
- Grant C. Marburger (ChE); Lyons
- Shirley Hugh Marlow (MuE); Manhattan
- Vivian Faye Marlow (HE); Meade
- \*Arthur Edgar Martens (ArE); Buhler
- John Everett Martin (IA); Lyons
- Tom Martin (ChE); Topeka
- Harold Zephania Mason (BA); Vermillion
- \*Dorothy Maurine Massey (IM&D);  
Dodge City
- Claude W. Matthews (GS); Great Bend
- Phyllis Luella Mattson (HE); Assaria
- Dorothy Marie Maurin (HE); Kansas City
- Dan Edward Maurin (BA); Kansas City
- Delos Gordon Mayhew (AA); Trousdale
- \*George Wilbur Meeker (BA); Garden City
- Samuel Joseph Meltzner (ME);  
New York, N. Y.
- Ethel Imogene Mendenhall (IM&D);  
Fort Dodge
- Ralph Leonard Messer (VM); Lawrence
- Wilbert Henry Meyers (ChE); Salina
- Charles William Miller (SH); Arkansas City
- Edsel Leo Miller (ChE-1; GS-2);  
Manhattan
- Franklin Xaverius Miller (Ag); La Crosse
- Leo Miller (Ag); Brooklyn, N. Y.
- Hall B. Milliard (MI); Manhattan
- \*Ben James Mills (ME); Hutchinson
- Carroll R. Mills (VM); Blaine
- \*Ray Orville Mills (CE); Coffeyville
- Marian Jeanette Moeller (HE&A); Hiawatha
- Willard Ames Monahan, Jr. (EE); Topeka
- Earl Lawrence Montgomery (VM); Parsons
- Edwin Louis Moody (BA&A); Onaga
- Avis Marie Moore (IM&D);  
Cottonwood Falls
- \*Mary Jane Moore (HE); Pratt
- \*Mary Mildred Moore (IM&D); Fort Scott
- Walter A. Moore (Ag); Dresden
- Olin Wayne Morris (VM); Manhattan
- Orpha Katherine Morris (HE); Riley
- Neil A. Morton (Ag); Green
- Roger Gregg Murphy (AA); Norton
- Jack Leon Mustard (ME); Abilene
- Bill John Myers (VM); Bethel
- Charlie Truce Myers (ME); Marquette
- Donald Kivett Myers (EE); Topeka
- Robert Chambers Myers (ME);  
Junction City
- Thora Dagny Mykland (HE&A); Chapman
- Allan Bakewell Neely, Jr. (Ag); Minneapolis
- Arthur William Neff (GS); Ulysses
- Betty Maurine Nelson (HE&N); Alma
- Robert Kenneth Nelson (VM); Chicago, Ill.
- James Alvie Newbery (CE); Lyons
- Lester Leroy Newkirk (CE); Kansas City
- Katherine Jane Newman (HE); Manhattan
- Mac Donald Newsom (CE); Scott City
- Virginia Ann Nichols (HE); Topeka
- \*Don Elton Nicholson (CE); Moline
- James Melvin Nielson (AA); Marysville
- Russell Bernard Nixon (BA); Manhattan
- Mildred Esther Noble (HE&N); Oberlin
- Drusilla Marie Norby (HE); Pratt
- Marcile Mary Norby (HE); Cullison
- \*Robert Latzke Norton (Ag); Minneola
- Max Frederick Oelschlaeger (CE);  
Manhattan
- Lynndel Dean Old (Ag); Chanute
- \*Marian Ruth Oldham (IM&D); Manhattan
- Earl Leroy Olson (EE); Axtell
- Julia Viola Olson (HE); Inman
- Effie May Orr (HE); Kanona
- Cordon Udelmer Osburn (EE); Chapman
- \*Leonard Ray Ottman (AA); Barnes
- Edward John Otto, Jr. (IC); Riley
- Carl Benjamin Overley (Ag); Belle Plaine
- Lucille Iva Owen (HE); Edson
- Geraldine Carol Paddock (IJ); Oberlin
- Eunice Eleanor Paden (HE); Topeka
- Hermagene Palenske (IM&D); Alma
- Albert Earl Palmberg (AE); Meriden
- Ina Ernestine Palmer (IM&D); Sabetha
- Kenneth Elwood Palmer (ChE-1; IC-2);  
Cheney
- Jeanne Eileen Parcels (HE&N); Hiawatha
- \*Pete Parhomele (ME); Kansas City
- \*Harriett Ruth Parkhurst (HE); Kinsley
- \*Mary Elizabeth Parkhurst (HE); Kinsley
- Loris Nelson Parrish (CE); Topeka
- James Robert Parsons (EE); Hiawatha
- James Ernest Paterson (IC); Overland Park
- \*Hilton Eugene Patterson (BA); Ford
- William Henry Patterson (SH); Holton
- \*John Hamilton Pedigo (BA&A);  
Kansas City, Mo.
- Marian Penley (GS); Manhattan
- Grace Breeden Pennington (MuE);  
Manhattan
- Lowell Hubert Penny (Ag); Lawrence
- Laura Louise Perry (BA); Greenleaf
- Ada Elmeda Persons (HE&N); El Dorado
- George William Peterkord (ME); Greeley
- Leo William Peterman (Ag); Beattie
- John Richard Petford (AA); Saffordville
- William James Peycke, Jr. (EE); Alta Vista
- Donald Phinney (ChE); Russell
- Betty Kay Pierce (GS); Wichita
- May Louise Pierce (IM&D); Fort Riley
- Helen Irene Pierpoint (HE&A); Benedict
- Mary Alice Pile (IC); Liberal
- Anna Adaline Poole (HE); Manhattan
- Jerald Gorman Porter (GS); Dellvale
- Richard John Powell (GS);  
Kansas City, Mo.
- Hubert Glen Priddy (ME); North Topeka
- James S. Pridaux (MI); Manhattan
- Rex Leroy Pruett (GS); Culver
- \*Arthur William Pryor (ChE); Fredonia
- Vinton Wylie Puckett (BA&A); Manhattan
- Byron White Quinby (VM); Manhattan
- Dale William Rake (Ag); Tecumseh
- Robert Fielding Randle (AA); Riley
- \*Lee Ronald Rarick (ME); Glen Elder
- Dorothy Ratliff (HE); Manhattan
- Jane Ellen Reed (HE&N); Coffeyville
- John Robert Reed (EE); Salina
- \*Marguerite Mary Reel (GS); Miltonvale
- Marvin Emor Reinecke (ME); Great Bend
- \*Richard Earl Remington (IJ); Hutchinson
- Kenneth E. Rice (EE); Greensburg
- Wallace F. Richardson (EE); Kingman
- Pauline Jean Rickabaugh (HE&N); Lyons



## JUNIORS—Continued

- Francis Raymond Rickard (BA&A);  
Manhattan
- Jane Louise Riddell (HE); McPherson
- Marie Veronica Rizek (HE); Belleville
- Arthur Donald Robb (VM); Manhattan
- \*Jack Boger Roberts (ME); Parsons
- Max Orville Roberts (AA); Chanute
- William Bruce Robertson (Ag); Barnard
- \*Loma Jane Robley (IM&D); Independence
- \*James William Rodgers (ChE);  
Baxter Springs
- Fern Irene Roelfs (IM&D); Bushton
- Lila Faye Rogers (HE); Glasco
- Richard Dean Rogers (BA); Manhattan
- \*Warren Raymond Rolf (EE); Pratt
- \*Alberta Marie Roller (HE); Altamont
- Saul Rosen (ME); Fitchburg, Mass.
- Lucille May Rosenberger (HE); Greensburg
- Robert R. Rosenfeld (Ar); New York, N. Y.
- Norman Ray Ross (ME); Manhattan
- \*Mary June Davis Rostine (IJ); Hutchinson
- Albert Rues (PE); Parker
- Jess Wayne Ruf (VM); Arkansas City
- Darrell Arden Russel (Ag); Canton
- Clarence Leroy Ryser (GS); Haddam
- Robert Frank Sager (GS); Manhattan
- \*Jack Philip Salyer (GS); Dodge City
- \*Catherine Babette Savage (IM&D-1; GS-2);  
Parsons
- Barbara Anne Schenk (HE);  
Kansas City, Mo.
- Warren Schlaegel (MI); Olathe
- Louise Rosella Schlicher (HE&N); Hoxie
- \*Ralph Robert Schlicht (AA); Claflin
- Mary Franciska Schroller (GS); Marysville
- Glen Perry Schultless (AA); Manhattan
- Mary Helen Schulz (IM&D); Sterling
- \*Robert Wayne Schwirtz (ChE); Kansas City
- Marguerite Eliza Seal (HE); Wakefield
- James Harris Sealey (ArE); Pratt
- Lorrain Oscar Sebree (VM); Kansas City
- Robert Lowe Servis (ChE); Winfield
- Edward George Seufert (Ag); Tonganoxie
- Frank Leslie Seymour (BA); Wichita
- Jean M. Shane (IJ); Junction City
- Mildred Adele Shannon (HE); Hiawatha
- \*Warren Clayton Sharp (ChE); Chanute
- Shirley Anne Shaver (HE&A); Salina
- Ann Ella Shaw (HE); Belleville
- Robert Ulrick Shaw (IA); Topeka
- Max Sherman Sheehy (VM); Belle Plaine
- Leslie Harold Sherman (Ag); Toronto
- Tasker Bryan Sherrill (GS); Republic
- \*Raymond Henry Shideler (ME); Salina
- Nadine Shields (GS); Topeka
- \*Arlene Marie Shoemaker (IJ);  
Kansas City, Mo.
- Jonny Dale Shoemaker (IJ); Centralia
- George Edward Short (VM); Concordia
- Glenn LeRoy Shriver (AA); Lake City
- Everett Otto Siegele (ME); Princeton
- William James Simic (VM); Superior, Neb.
- \*Mary Jane Sims (HE); Parsons
- Roberta Jane Slater (HE); Saffordville
- \*Roger White Slinkman (EE); Pittsburg
- Caleb William Smick (GS); Manhattan
- Dalbert Oliver Smith (Ag); Macksville
- \*Edna Blanton Smith (GS); Manhattan
- Glenn McKinnis Smith (EE); Uniontown
- \*Jane Beverly Smith (GS); Stilwell
- \*Larry William Smith (CE); Kansas City
- \*Leland Edgerton Smith (IJ); Manhattan
- Lucille Smith (IJ); Manhattan
- \*Opal McGinnis Smith (GS); El Dorado
- Robert J. Smith (BA); Manhattan
- \*Zeke Richard Smith (ME); Pittsburg
- Richard Martin Smoll (ME); Wichita
- Harold Alfred Snyder (AA); Winfield
- Wilbur Wayne Soeken (AA); Claflin
- Joseph Hall Somers (EE); Topeka
- \*Alan Reed Spalding (BA); Wichita
- Vivian Margaret Speas (HE); Sterling
- Marietta Gertrude Spencer (HE&A);  
Leavenworth
- Ralph Norman Spencer (VM); Leavenworth
- \*Gretchen Elizabeth Sperry (IM&D);  
Fort Riley
- Gloria Marie Spiegel (HE); Topeka
- Jean Marie Sramek (HE&N); McDonald
- Wilma Marie Staehli (HE); Abilene
- Helen Esther Stagg (HE); Manhattan
- M. Marguerite Stagg (HE); Manhattan
- Helen Stallard (IM&D); Topeka
- John Ralph Stallings (CE); Frankfort
- Maxine Lee Standley (HE); Garden City
- Wayne Robert Starr (BA); Hiawatha
- Alice Jane Sterns (GS); Hiawatha
- Carol Margaret Stevenson (IM&D); Oberlin
- Beth Stewart (MuE); Wamego
- Clarence Elden Stewart (BA&A); Hartford
- Robert Hilmar Stewart, Jr. (ChE);  
Wellington
- Lou Stine (HE&N); Glasco
- Barbara Elma Stinebaugh (HE&N);  
Princeton
- Thomas Edward Stockeband (AA);  
Yates Center
- Beth Rosalee Stockwell (HE); Manhattan
- Edward Donald Stoddard (VM); Manhattan
- Robert Eugene Stomp (ArE); Chanute
- Margaret Frances Stone (GS);  
Honolulu, Hawaii
- Helen Jean Stout (GS); Kansas City, Mo.
- Clyde Roe Stratton (CE); Greeneville, Tenn.
- \*Matilda Straubinger (IM&D); El Dorado
- \*Theresa Irene Strotkamp (IJ); Burns
- Wilma May Stroup (HE&N); Bushong
- Floyd Joy Stryker (ME); Blue Rapids
- \*Marjorie Louise Stucker (GS); Ottawa
- \*John Virgil Stude (EE); Copeland
- Donald Alvin Stuewe (ChE); Alma
- \*Mildred Arlene Stutzman (HE); Wakeeney
- Clanton Tillman Suiter (EE); Otis
- Maxine Sutton (HE); Burrton
- \*Doris Swalwell (HE); Kansas City, Mo.
- Ernest Earl Swanson, Jr. (EE); Kansas City
- James Robert Swenson (ChE);  
Crowley, Colo.
- Melvin John Swenson (VM); Concordia
- William Aleid Swim (EE); Wichita
- Robert Turner Syler (EE); Hutchinson
- Jay Carlyle Symms (VM); Hutchinson
- Rex Robert Taylor (ME); Hillsboro
- Wilbur Bevard Tendick (Ag); Kismet
- Emily Jane Theye (HE); Emporia
- Roy Corley Thomas (VM); Parsons
- Jack Russell Thomasson (IJ); Belleville
- \*Catharine Jane Thomas (GS); Oswego
- \*Avis Marie Thompson (HE); Hays
- Charles Duane Thompson (Ag); Westphalia
- Victor Carl Thompson (Ag); Ozawkie
- Maurice Earl Tjaden (CE); Clearwater
- Merrell Wayne Toburen (IC); Manhattan
- H. Elwin Todd (MI); Quinter
- \*Virginia Ruth Toews (IM&D); Inman
- Lewis Keith Tolson (Ag); Johnson
- Patricia Annabelle Townley (HE); Abilene
- Delbert L. Townsend (AA); Danbury, Neb.
- Monte Monroe Trimble (VM); Kansas City
- James Justin Trindle (CE); Hugoton
- Florence Ada Truan (HE); Hays
- Carl Leonard Tucker (ME); Minneola
- \*Robert Stevesson Tucker (PVM); Liberal
- Robert Emmett Turkleson (ChE); Troy

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## JUNIORS—Concluded

- Carl Norman Turner (IA); Manhattan  
 Max K. Tysor (CE); Garden City  
 Marcella Rae Ulrey (IM&D); West Mineral  
 James Alva Upham (Ag); Junction City  
 Roy Walter Upham (VM); Junction City  
 D. Dean Urquhart (IA); Wamego  
 Marilyn Lucile Utermohlen (IM&D);  
 Kansas City  
 Josephine Vancel (HE); Whitewater  
 Margaret Jean Van Horn (IM&D); Larned  
 Phyllis Doris Van Meter (IJ); Ada  
 \*Vincent Thomas Van Sickle (ME); Abilene  
 \*Mary Ruth Vanskike (HE); Arkansas City  
 Edna Mae Van Tuyl (HE); Burns  
 James Henry Vavroch (AE); Oberlin  
 John William Vawter (Ag); Oakley  
 \*Merna Dee Vincent (HE); Alden  
 Theodore Charles Vining (ME); Horton  
 Page Paschal Wagner, Jr. (CE);  
 Webster Groves, Mo.  
 \*Frances Easter Walter (PE); El Dorado  
 \*Philip Aloysius Wall (ME); Muncie  
 Robert LaVern Wallace (AA); Colby  
 John Austin Walters (CE); Manhattan  
 Mary Elizabeth Walters (PE); Manhattan  
 John William Waring (EE); Salina  
 Robert Glenn Waters (BA); Junction City  
 James Wesley Watkins (PE); Manhattan  
 Glenn Weatherby (ChE); Neodesha  
 Allen Nystrom Webb (IC); Manhattan  
 Lowell Madison Webb (VM); Beverly  
 \*Olive Lorene Webster (HE); Burrton  
 Maurice John Weckerling (ME); Manhattan  
 \*Esther Anne Weeks (HE&A); Fort Scott  
 Barbara Mary Weigand (HE); Manhattan  
 Ruth Louise Weigand (IJ); Topeka  
 John Robert Weir (Ag); Gueda Springs  
 \*Bernard Eugene Weller (Ag); Montezuma  
 \*Betty Lou Welsh (HE); Kansas City, Mo.  
 Ada Elizabeth Wendland (IM&D);  
 Randolph  
 Leo Theodore Wendling (AE); Halstead  
 Max Miller Wenrich (Ag); Oxford  
 Kent Loren West (AA); Cedarvale  
 Mary Jean West (GS); Hartford  
 William Earl West (GS); Hiawatha  
 Benjamin Brunner Weybrew (GS); Wamego  
 Norman Vincent Whitehair (AA); Abilene  
 \*Fred Howard Whiteley (ME); Kansas City  
 Charles Elmer Whiteman (VM);  
 Carrollton, Ill.  
 Mary Jane Wick (BA); Hutchinson  
 Betty Lou Wiley (HE); Tonganoxie  
 \*Rosemary Lois Wiley (GS);  
 Kansas City, Mo.  
 Lysle Max Wilkins (VM); Delphos  
 \*Clarence Stanley Williams, Jr. (EE);  
 Humboldt  
 James Junior Williams (ChE); Lyons  
 Nancy Williams (IJ); Topeka  
 \*Ray Edward Williams (ME); Parsons  
 Donald Wayne Willis (ArE); Manhattan  
 Mary Marjorie Willis (IJ); Newton  
 Francis Vesper Willmeth (AE); Jewell  
 Frank Ance Wilson (Ag); Maple Hill  
 Jack Harlan Wilson (AA); Burrton  
 Mark Francis Wilson (VM); Ashland  
 Oid Lee Wineland (AA); Alton  
 Martin Lewis Wing (EE); Iuka  
 \*Sara Louise Winkler (IJ); Manhattan  
 Buford Dale Winters (VM); Parsons  
 Esther Virginia Wolf (HE); Gardner  
 Donald Roy Wood (Ag); Trousdale  
 \*Clyde Woods, Jr. (CE); Kansas City  
 Gerald Dale Woolsey (AA); Manhattan  
 Robert Paul Worthman (VM);  
 Lincoln, Neb.  
 Emily Irene Wray (HE); Lawrence  
 Margaret Esther Wunsch (IJ); Topeka  
 \*Margaret Reed Wylie (IM&D); Wichita  
 Virginia Fern Yapp (IM&D); Manhattan  
 \*Clifford Raymond Yelley (ChE-1; IC-2);  
 El Dorado  
 Leo Gerald Yeo (PE); Manhattan  
 Kenneth W. M. Yoon (GS);  
 Honolulu, Hawaii  
 Ben York (Ag); Manhattan  
 Robert O. Yungmans (Ag); Piper  
 Maxine Odell Zimmerman (HE);  
 Belle Plaine  
 Jack Eugene Zumbrunn (EE); Enterprise

## SOPHOMORES

- Roman Adolphus Abt (Ag); Medicine Lodge  
 Ruth Evelyn Achelpohl (HE); Argonia  
 John Harold Adams (GS); Atchison  
 John Martin Aiken (Ag); Moran  
 Dorothy Ferne Akright (HE); Holton  
 Dorothy Moss Albertson (GS); Miltonvale  
 Lawrence Leonard Alden (BA&A);  
 Manhattan  
 \*Ralph Edwin Alter (PVM); Coffeyville  
 Lloyd George Alvey (Ag); Kansas City  
 \*Raymond Wendell Amos (ChE);  
 Arkansas City  
 Arnold Theodore Anderson (BA);  
 Manhattan  
 Audrey Louise Anderson (IM&D); Gypsum  
 Eugene Elria Anderson (VM); Greenleaf  
 Robert Arthur Anderson (BA); Partridge  
 Ruby Nadine Anderson (PE);  
 Kansas City, Mo.  
 Wallace Richard Anderson (AA); Greenleaf  
 James Vernon Andrews (GS); Manhattan  
 \*Beverly Bealmear Archer (Ag); Dodge City  
 Archie Edward Armstrong (GS); Seneca  
 \*Dorothy Maxine Atkin (HE);  
 Pittsfield, Mass.  
 Robert Claude Atkins (VM); Parsons  
 Fideliah Gale Ault (HE); Belvue  
 \*Kenneth Oley Austin (PVM); Minneapolis  
 \*Betty Jane Babb (HE); Manhattan  
 Jean Adele Babcock (HE&N); Manhattan  
 Orville Cantril Baker (AE); Almena  
 Jessie May Ball (GS); Oneida  
 Louis Alvan Ball (BA); Kansas City, Mo.  
 IvaLee Ballard (HE&A); Topeka  
 John Charles Banbury (AA); Plevna  
 Alice Mae Banks (HE); Bonner Springs  
 Robert Vernon Barber (BA&A); Manhattan  
 \*George Alexander Barley (IJ); Washington  
 Glenn Clark Barngrover (Ar); Kingman  
 John Walter Barrier (ME); Chase  
 H. James Bartels (ChE); Inman  
 Robert Denver Bauer (ChE); Junction City  
 Reva Jean Baxter (BA&A); Onaga  
 Burke Benjamin Bayer (Ag); Manhattan  
 Charles Dean Beard (ChE); Neodesha  
 Eunice Marcelle Beckman (BA); Topeka  
 Samuel Edward Beckwith (EE); Hiawatha  
 Roy William Beem (Ag); Meriden  
 \*Kenneth Lee Beeson (IC); Augusta  
 Verna Frances Beil (PE); Bavaria  
 Virginia Frances Bell (GS); Osborne  
 Carnot Edmund Bellinger (ChE);  
 Junction City  
 Lloyd Alan Bennett (BA&A);  
 Conway Springs  
 Charles Kermit Bentson (Ag); Wichita

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## SOPHOMORES—Continued

- Leo Grant Berg (VM); Harper  
Eleanor Maxine Berger (HE); Halstead  
Zeno Joe Berger (ME); San Diego, Cal.  
Winifred Louise Bergman (HE); Axtell  
\*Marjorie June Bernard (BA); Wellington  
Joseph Leo Bettinger (ME);  
Rochester, N. Y.  
Berend Gustav Bicker, Jr. (Ag); Dunlap  
Ronald Glenn Billings (MI); Topeka  
Julius Bender (Ag); Hays  
Lloyd Calvin Billings (Ag); McLouth  
Phillip Hudson Bircher (AE); Ellsworth  
\*Eleanor June Bisagno (HE); Augusta  
John William Bishop (Ag); Minneapolis  
Mary Margaret Bishop (GS); Haddam  
Leland Merle Bitner (GS); Kinsley  
Herschel E. Blackburn (ME); Alma  
\*Jeanne Blackburn (HE&A-1; IJ-2);  
Hutchinson  
Doris Dea Blackman (HE&N); Hill City  
Martin Lowell Blaser (AA); Waterville  
Elias Bloom (AE); Brooklyn, N. Y.  
David Edward Bogart (AA); Beverly  
Ellis Keating Boldra (ME); Manhattan  
Clarence Junior Bolz (AA); Hoyt  
\*Edward Underwood Bond (Ag); McLouth  
Case Artman Bonebrake (ME); Woodston  
Verna Lucille Book (HE); Chapman  
Howard Robert Bootman (EE);  
Kansas City, Mo.  
\*Paul Eugene Borg (ME); Marquette  
Warren Jay Boring (PE); Kansas City  
\*William Dean Borth (AA); Plains  
John Joseph Bortka (PE); Kansas City  
\*Lowell Douglas Boughton (ME); Parsons  
Wanda Fae Bowden (HE); Hope  
Don Raymond Bowers (VM); Downs  
Dale Emerson Bowyer (Ag); Manchester  
Gordon Frank Boy (Ag); Raymond  
\*Virginia Malee Boyd (IM&D); Stafford  
Arleta Ruth Boyer (IJ); Manhattan  
Eldon Eugene Boyington (BA&A); Goodland  
\*Dorothy Jean Boyle (GS); Council Grove  
Bettie Jeanne Brass (GS); Wilmore  
\*Robert Winter Brass (Ag); Wilmore  
Adell Warren Brecheisen (VM); Welda  
\*Preston Eugene Brecheisen (BA&A);  
Garden City  
\*Carl H. Breidenstein (CE); Arlington  
Ben Francis Brenner (AA); Bazine  
Donald J. Brenner (ChE); Clay Center  
Gail Keith Breising (ChE); Mullinville  
Dorothy Lucile Bressler (IJ); Wamego  
Irma Elene Brooks (HE&A); Norton  
Francis Hoyt Brown (VM); Manhattan  
\*Gertrude Earline Brown (BA); Plains  
John Pershing Brown (BA-1; IA-2);  
Wamego  
Ruth Irene Brown (HE&N); Manhattan  
Dorothy May Browning (HE); Garnett  
Charles Albert Brownrigg (IC); Welda  
Mary Jane Brunsworth (GS); Junction City  
Robert Bruce Brunson (ME); Leavenworth  
Bruce Keith Bryan (BA&A); Manhattan  
\*Ellsworth Victor Bryan, Jr. (AA); Cimarron  
William Boyd Bryson (EE); Kansas City  
Richard Irving Buchli (VM); Kansas City  
Frederick Herbert Budden, Jr. (ME);  
Manhattan  
\*Elenaor Marie Burnett (HE); La Cygne  
John Robert Burns (VM); Manhattan  
\*Kent Joseph Burns (BA); Dodge City  
June Frances Burton (HE&A); Topeka  
\*George Joseph Buser (BA); Seneca  
Norman Ward Butcher (IJ); Coldwater  
Elizabeth Cadwell (HE); Marquette  
Maurice David Cahill (AA); Lucas  
Dwain James Caldwell (ME); Manhattan
- Charles Ames Caler (GS); Geneseo  
Herbert David Campbell (BA&A); Beverly  
John William Campbell (ChE);  
Smith Center  
Hugh Louis Caraway (VM); Shreveport, La.  
Richard Wilson Carlgren (BA-1; AE-2);<sup>f</sup>  
Concordia  
\*Clara Cecelia Carlson (HE); Lindsborg  
Merle Delbert Carr (Ag); Goddard  
\*Robert Edwin Carson (GS); San Diego, Cal.  
Cedric H. Carter (CE); Garden City  
Marcella Rosina Carter (HE); Morrowville  
Dale Ringwalt Carver (CE); Oakley  
Robert Dudley Casey (ME); Delphos  
Harry Robert Cash (IC); Garnett  
Mary Margaret Cawood (HE); Wetmore  
\*John Matthew Ceranich (ChE);  
Kansas City  
Lawrence Marcus Chain (AA); Haven  
Douglas Scott Chapin (IC); Manhattan  
Mary Elizabeth Charlson (HE&N);  
Manhattan  
\*Aubrey Anselm Chessmore (ME); Ludell  
\*Royal Raymond Chessmore (EE); Ludell  
Loren Blaine Childers (ChE); Cawker City  
Joe Burbank Chilin (AA); Miltonvale  
Robert Warren Christmann (CE);  
Kirkwood, Mo.  
Floyd Hinton Clark (GS); Burdick  
Max Clark (CE); Logan  
\*Raymond Severs Clark (AA); Iola  
Ruth Maxine Clark (HE); Paxico  
Louise Clayton (HE); Kansas City, Mo.  
\*Charlotte Anne Clement (GS); Topeka  
Anthony Gerard Clementi (PE);  
Brooklyn, N. Y.  
Glen Edwin Cline (ArE); Fredonia  
Doris Lerene Clow (HE); Goodland  
William Henry Cochrane (PE); Salina  
Roger Bragg Coffman (VM); Overbrook  
Seymour Cohen (AE); Brooklyn, N. Y.  
Charles Buford Colburn (IC); Manhattan  
Mary Maxine Cole (PE); Wichita  
\*Roger Delbert Coleman (Ag); Atchison  
Franklin Eugene Colle (AA); Sterling  
Margaret Ann Collings (IM&D);  
Kansas City, Mo.  
Virginia Ione Collings (HE&N);  
Kansas City, Mo.  
\*Wana Lou Collings (HE); Winona  
Glenn Albert Collins (Ag); Sedgwick  
Wayne Oliver Coltrain (AA); Neodesha  
Ronald Edmond Conrad (PE); Clay Center  
\*Nada Helen Consadine (GS);  
Kansas City, Mo.  
Leo Roy Conwell (CE); Emporia  
Raymond Hollis Cook (VM); Courtland  
Matilda Jeanette Coons (GS); Canton  
Elnora Dean Cooper (HE); Stafford  
Wesley Eugene Copeland (EE); Kansas City  
Harry Gilbert Corby, Jr. (BA); Merriam  
Lorraine Ruby Corke (HE); Studley  
\*Loretta Lillian Cornelius (HE); Hoisington  
\*Eunice Coski (HE&A); Donnelly, Idaho  
Raleigh James Cossart (EE); Narka  
Robert Morton Cowger (AA); Topeka  
Harold Leon Cox (AA); Anthony  
John Adam Crabb (ME); Topeka  
\*Helen Ruth Craft (HE); Garden City  
Thomas Augustus Craig (ChE); Belvue  
Maryon Joan Cramer (IJ); Gardner  
\*Georgine Helen Creo (HE);  
Queens Village, N. Y.  
Norman LeRoy Crook (ME); Ogden  
\*James Wesley Crooks, Jr. (EE); Manhattan  
Chesney Guild Crouch (Ag-1; GS-2);  
Kansas City, Mo.  
Cleo M. Daily (HE); Alma

\* Matriculated 1941-'42.



## SOPHOMORES—Continued

- Maurice Daniels (EE); Kansas City  
 Lois Mathilda Danielson (HE); Burdick  
 Donald Dean Davis (ME); Abilene  
 Leota Isabelle Davis (HE&N); Clay Center  
 Rufus William Davis (AA); Wamego  
 \*Wilbur Merle Davis (AE); Belleville  
 Don Max Debler (BA); Kansas City  
 Margaret Mary DeDonder (IJ); St. Marys  
 Robert Courtland Dennison (EE); Salina  
 Marjorie Dexter (HE); Washington  
 \*Donald Fredrich Dickerson (ME); Augusta  
 Margaret Joyce Dickhut (IM&D);  
 Scott City  
 Helen Ruth Dieter (HE); Longford  
 Richard Eugene Dietrich (EE);  
 Junction City  
 Dean Milton Dildine (ME); Delphos  
 Brinton Marlo Dirks (MI); Moundridge  
 Vernon Merle Dononey (BA); Downs  
 Dennis Ralph Donahue (VM);  
 Bonner Springs  
 Richard Arthur Doryland (BA); Manhattan  
 Helen Elizabeth Dowling (HE); Ogden  
 Betty Jean Drayer (GS); Manhattan  
 Maxine Jane Dreyer (HE); Topeka  
 Bernita Corrine Duffey (GS-1; HE&N-2);  
 Manhattan  
 Jackson Gilbert Dunbar (Ag);  
 Cleveland, Ohio  
 Lawrence Arthur Duncan (AA); Lucas  
 \*Gerald Clinton Dunfield (AE); Emporia  
 \*William Morin Easley (ArE); Dodge City  
 Norman Curtis Eatinger (Ag); Raymond  
 John Fearing Eckhart (IJ); Almena  
 Mary Ellen Edde (HE); Page City  
 Lauren Fremont Edgar (ME); Manhattan  
 Charles Wesley Edgerton (MI); Wichita  
 Charles Staley Edwards (ME); Richmond  
 Erma LeVerne Ehrams (HE); Bern  
 Ralph Donald Einsel (Ag); Greensburg  
 \*Russell Emerson Eisenbise (Ag); McPherson  
 Robert Samuel Ekblad (ArE); Manhattan  
 Homer, Richard Elling (MI); Manhattan  
 \*Robert Clyde Elliott (ME); Wichita  
 Roscoe Ellis, Jr. (Ag); Havensville  
 Jeanne Phyllis Elmer (GS); Chicago, Ill.  
 \*Charles Lee Ely (ChE); Ashland  
 Esther Wagoner Emmons (HE); Manhattan  
 William Richard Engeland (BA); Sterling  
 Frances Imogene England (HE); Coldwater  
 Lyle Leroy Engle (AA); Abilene  
 Robert Ivan Engle (ME); Madison  
 Robert Gene Engler (AE); Chapman  
 Francis Dean Engwall (ME); Jamestown  
 \*Mary Louise Epp (GS); Salina  
 Maxine Virginia Estey (IM&D); Langdon  
 Warren Howard Etter (Ag); Independence  
 Hortense Rhea Everett (HE); Kansas City  
 Cleora Mary Ewalt (IM&D); Herington  
 \*Marceline Rose Ewing (MuE); Great Bend  
 L. Maxine Ewing (HE-1; IJ-2); Sabetha  
 Cecil LaVerne Eyestone (AA); Leavenworth  
 Clara Jo Fair (HE); Topeka  
 Gerald Nelson Farley (CE); Corning  
 Douglas J. Faulconer (BA); Clay Center  
 Jane Ellen Faulkner (HE); Belleville  
 Vincent Gerald Feeney (EE); Elmo  
 Newton Fehr (GS); Kansas City, Mo.  
 Mary Henrietta Ferguson (HE); Manhattan  
 Henry John Fichtner (EE); Topeka  
 \*Darrell Erwin Fiebach (ME); Coffeyville  
 Barbara Mae Field (HE); Kinsley  
 Dorothy Lee Fieth (HE&N); Enterprise  
 Solon D. Fisher (ChE); Kansas City  
 Jack Monroe Fiskin (ME); Mount Hope  
 \*Don Elmer Fitzsimmons (GS); Dodge City  
 John Warren Fitzsimmons (MI); Macksville  
 Harry James Flattre (Ag); Lancaster  
 Robert Both Fleske (ME); Albert  
 Robert Joseph Flipse (Ag); Oakley  
 \*Virginia Ruth Flook (HE); Canton  
 Leslie Orval Foelschow (VM); Manhattan  
 Theda Rowena Foland (GS); Almena  
 Virginia Maye Ford (IM&D); Manhattan  
 Myron Theodore Foveaux (ChE);  
 Junction City  
 Robert Orin French (ChE); Hanover  
 Leon Grantham Frey (GS); Smith Center  
 \*Elaine Friesen (IM&D); Inman  
 Floyd Leland Frisbie (Ag); McDonald  
 John Paul Froom (BA&A); Vermillion  
 Harriet Mildred Fulghem (HE); Manhattan  
 Alice Louise Fuller (IJ); Courtland  
 John Robinson Fuller (ChE); Salina  
 \*Mary Elizabeth Gallaher (GS);  
 Graham, Tex.  
 \*Robert Hamilton Galloway (Ag); Wakeeney  
 Fred Marvin Gardner (ME); Muncie  
 \*Jean Marie Garrison (GS); Emporia  
 \*James Sutherland Garvey (IJ); Wichita  
 Douglas Edmond Gary (IJ); Larned  
 \*Mary Alice Gasche (IM&D); Hartford  
 Paul William Gatzaulis (VM); Kansas City  
 \*Roy Dale Gear (AA); Galesburg  
 Virginia Nina Gemmell (HE&A); Manhattan  
 Ethel Irene Gerberick (HE); Topeka  
 Dayton Odell Gerlach (ME-1; GS-2);  
 Edgerton  
 Lester Lewis Gerlach (BA); Manhattan  
 William Bradley Gerlach (ME-1; GS-2);  
 Manhattan  
 Fred Clark Germann (Ag); Manhattan  
 Harold Loren Gibson (CE); Atlanta  
 Martha Jean Gilbert (IM&D); Topeka  
 Marguerite Marie Gilek (HE&N); Anthony  
 \*Barbara Giles (GS); Larned  
 Jack Harris Gilman (ME); Topeka  
 Betty Jo Glanville (GS); Kansas City  
 Joseph Edward Glavinich (ChE-1; GS-2);  
 Kansas City  
 \*Pearl Grace Glick (HE); Junction City  
 Norman Finley Goeken (MI); Edmond  
 Gerald Dean Goetsch (AA-1; PVM-2);  
 Sabetha  
 Margaret Jane Gordon (HE); Manhattan  
 \*Robert Eugene Gorman (ME); Hartford  
 Francis Henry Gould (EE); Dodge City  
 Corliss Dell Goyen, Jr. (Ag); Cunningham  
 Eyleen Graham (HE); Syracuse  
 Norman Lee Graham (EE); Colby  
 Herman Manuel Grant (AE); Bronx, N. Y.  
 Melbadine Greathouse (BA); Wellington  
 Richard Louis Green (EE); Westmoreland  
 Virginia Lee Green (PE); Kansas City  
 Leighton Henry Grier (EE); Mount Hope  
 Kenneth Edward Griffith (Ag); Larned  
 Don Porter Grutzmacher (CE); Onaga  
 David Henry Gruver (ME); Augusta  
 Carl Wesley Gugler (GS); Woodbine  
 Joseph Emmet Vincent Guilfoil (VM);  
 Kansas City  
 \*Carl C. Gunter (GS); Marysville  
 William Robert Guthrie (ChE);  
 Kansas City  
 Francis Burdette Gwin (AA); Leoti  
 Ruth Genevieve Gwin (IM&D); Leoti  
 Harold Leroy Hackerott (Ag); Alton  
 William Doyle Hadley (Ag); Alton  
 \*Ray Hailey (GS); Kansas City, Mo.  
 Harold Monroe Haines (PVM); Winfield  
 Daniel Adam Hamer (ME); Madison  
 \*Ruth Ann Hamilton (GS); Topeka  
 Frank Edward Hannigan, Jr. (ME);  
 Hoisington  
 William Frederick Hanser (MI);  
 Collinsville, Ill.

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## SOPHOMORES—Continued

- Elna Louise Hanson (HE); Cleburne  
Harvey Harris Harakawa (ME); Honolulu, Hawaii  
Harriet Alice Harbeck (GS); Abilene  
Oda Doris Harlow (HE); Vesper  
Adrienne Edna Harper (HE); Vermillion  
Warren G. Harriss (VM); Manhattan  
Robert Henry Harvey, Jr. (ChE); Atchison  
Faye Ella Hatcher (HE&N); Liberal  
Willia Joyce Havelly (HE); Topeka  
\*Donice Averde Hawes (HE); Benton  
\*Katherine Jean Hazeltine (HE&A); Wichita  
Clarence Gard Heath (PE); Leoti  
Richard Carl Hedrick (ME); Hutchinson  
Maryellen Henderson (HE); Kansas City, Mo.  
Ruth Irene Henderson (IM&D); Almena  
\*Robert Lee Henrichson (Ag); Hays  
Keith Donald Henriksen (VM); Manhattan  
Elaine Hershey (BA&A); Eskridge  
Harry Hershey, Jr. (CE); Westmoreland  
George Hetland, Jr. (EE); Manhattan  
Arthur Nathan Hibbs (MI); Easton  
\*Forrest Dale Hicks (GS); Oil Hill  
Jess William Hicks (BA&A); Herington  
Warren George Hicks (GS); Moline  
Robert Donald Hilgendorf (IJ); Lincoln  
Eugene Melvin Hill (IJ); Westmoreland  
James Anson Hiller (ME); Salina  
Kalo Albert Hineman (VM); Dighton  
Richard Elmer Hineman (VM); Dighton  
\*Margaret Ann Hobbs (HE); Manhattan  
Lois Verona Hodgson (IJ); Little River  
\*John James Hoefler (EE); Salina  
Raymond Franklin Hoffman (Ag); Brockport, N. Y.  
Vernon Cornelius Hoffman (MI); Winchester  
John Henry Hoins (VM); Leavenworth  
\*Cecil Ernest Holland (ArE); El Dorado  
Orvin Hugh Holler (VM); Conway  
Bruce Holman (PE); Powhattan  
Harry Richard Holmes (ME); St. George  
Vlasta Holsan (HE); Summerfield  
\*Mary J. Holscher (BA); Manhattan  
Carl Duane Holt (ME); Great Bend  
Harriet Elizabeth Holt (IM&D); Ellsworth  
Charles Sherman Holtz (BA); Manhattan  
Dorothy Louise Hoodlet (IM&D); Argonia  
Lillian Maxine Hoover (GS); Manhattan  
Vincent Joseph Hoover (ChE); Greenleaf  
Ava Carol Hoppes (HE&N); Caldwell  
Lura Elizabeth Horton (IJ); Topeka  
Thomas D. Hotchkiss (ChE); Burlingame  
Charles Frederick Houghton, Jr. (PVM); Leavenworth  
Virginia Louise Howenstine (HE&A); Manhattan  
John Franklin Hudelson (BA); Pomona  
James Calvin Hudson (ME); Manhattan  
Lois Marie Hudson (HE); Nashville  
Fred Morrison Huey (BA); Louisville  
Edward Barret Huff (PE); Marysville  
June Elouise Hughes (PE); Topeka  
Mark Hotchkiss Hulings (ME); Effingham  
Richard Perry Humes (EE); Salina  
Lena Lavonne Humphrey (IM&D); Hoisington  
Charles Moritz Hund (Ag); Paxico  
Harold Harding Hundley (Ag); Clay Center  
Florine Hunt (IM&D); Blue Rapids  
\*John Wayne Hutchison (GS); Summerfield  
Billy James Hutton (ME); Carbondale  
Lavonne Hyle (HE); Madison  
Charles Dewey Iddings (ME); Dorrance  
Donald Franklin Irwin (Ag); Fairview  
Jess Gail Irwin (PVM); Wilsey  
Lloyd Linell Isaacson (VM); Osage City  
Mary Frances Isely (HE); Wichita  
Jeanne Jaccard (IJ); Manhattan  
Arlie Virgil Jackson (AA); Hill City  
S. Lester Jackson (VM); Parker  
Charles Vincent Jakowatz (EE); Kansas City  
Stephen Kelly James (ChE); Blue Rapids  
William Collins Jamison, Jr. (VM); Kansas City  
Ramon Aquilon Jaranilla (GS); Junction City  
\*Laurence Edward Jilka (BA); Salina  
Glenn W. Johnson (CE); Hamilton  
Harold Dean Johnson (AA); Scandia  
Howard Johnson (Ag); Manhattan  
\*Lorraine Elizabeth Johnson (MuE); Manhattan  
Maryjean Johnson (HE&N); Ellsworth  
Maurice Lorraine Johnson (ME); Jamestown  
Robert Stanley Johnson (ChE); Emporia  
Jack Ferbert Johnston (ChE); Topeka  
Mary Louise Johnston (IJ); Manhattan  
Howard James Johnstone (Ag); Wamego  
\*Katherine Ann Jones (IM&D); Sterling  
Leonard Clarence Jones (ME); Jetmore  
\*Grace Maree Jordan (IM&D); Chicago, Ill.  
\*Leon Edward Jordan (PVM); Kansas City  
Harold LaVern Kalousek (BA); Kansas City  
Don Louis Kastner (ME); Manhattan  
Robert Edgar Keith (ArE); Manhattan  
\*Charles August Kelley (ChE); Salina  
\*William Arthur Kells (ChE-1; IC-2); Emporia  
Francis David Kennedy (EE-1; GS-2); Norton  
James George Kenney (ChE); Kansas City  
Nettie Arline Kepple (IM&D); Culver  
Abdul-Rahim Mousa Khalaf (Ag); Jerusalem, Palestine  
\*William Robert Kimel (ME); Clearwater  
Eugene Fred Kimple (AA); Lyons  
Wilbur Warren Kindschi (IJ); Garden City  
Arthur Keith Kingsley (EE); Formoso  
\*Martha Agnes Kingsley (IM&D); Jetmore  
A. Leonard Kirchner (EE); Marion  
Leta Marilyn Kirk (HE-1; GS-2); Cottonwood Falls  
Betty Lou Kirkman (GS); Plainville  
Elmer Levi Kistler, Jr. (GS); Manhattan  
James Samuel Kline (BA); Marion  
Robert William Kloppenberg (Ag); Hanover  
\*Omar Stanley Knedlik (AA); Alma  
Stanley Milos Knedlik (GS); Hanover  
Dale Alpheus Knight (AA); Manhattan  
John Harold Knoche (AA); Manhattan  
Alfred Joseph Koch (Ag); Sharon Springs  
\*Neysa Cecelia Koehler (HE); Emporia  
Fred Baylis Kohl (PE); Kansas City, Mo.  
\*Betty Kathleen Kramer (IM&D); Ozawkie  
\*Dorothy Irene Kraus (HE); Hays  
\*Virgil Lee Krause (Ag); Plains  
Ruth Elaine Kreuter (GS); Marion  
Ralph Earl Krey (ChE); Zenith  
Robert Joseph Lacerte (BA&A); Collyer  
Shirley June Lacy (GS); Everest  
Willomae Lagasse (HE); Rice  
Jack Duncan Lamont (VM); Manhattan  
Ivan Cayley Landis (IA); St. George  
Jack Evans Landreth (EE); Wellington  
Philip Roscoe Lane (PE); Manhattan  
\*Edwin Riley Lank (CE); Shreveport, La.  
Thomas Purcell Lanman (IJ); Larned  
Charles Richard Lamphere (ME); Osawatomie  
Gertrude Phyllis Larson (HE); Tescott  
Paul Oscar Larson (ME); Lindsborg  
Arnold Monroe Latschar (MI); Manhattan



## SOPHOMORES—Continued

- Walter Lawrence Laue (ChE); Lyndon  
John Henry Leach (IJ); Arkansas City  
\*Harold Verne Lear (CE); Salina  
George E. LeBreton (AA); Leavenworth  
James Edward Leker (BA-1; Ag-2);  
Manhattan  
Alice Lorene Leland (HE); Manhattan  
Robert Andrews Leonard (AA); Blue Mound  
Rex Ernest Leuze (ChE); Sabetha  
John Henry Lindon (ME); Lincolnville  
Alfred Ernest Lindholm (ME); Cheney  
Joanne Linn (IM&D); Marysville  
Hollis Burton Logan (ChE); Clay Center  
Rae Ruth Loriaux (GS); Herington  
Robert Joseph Lorson (ME); Chapman  
\*Mabel Irene Lovell (HE); Burden  
Alyce Ann Lowe (HE&A); Topeka  
Lucille Pauline Luckey (HE); Woodston  
\*Urbon Chester Luginbill (Ag); Topeka  
William Valjean Lumb (VM); Manhattan  
William Henry Luttgen (ME); Wichita  
Donley Valerious McCarty (Ag); Ashland  
\*Donna McChesney (GS); Zenda  
\*John William McClure (Ag); Eureka  
Arlan Wilbur McClurkin (VM); Clay Center  
\*Marjorie Ellen McCollom (IM&D); Kismet  
Robert Irwin McCutchan (CE);  
Lost Springs  
Letha Letty McDill (HE); Jewell  
Twila Mae McDill (HE); Jewell  
\*Marybelle McDonald (IM&D); Bremen  
Philip Le McDonald (ME); Ulysses  
Terrence Eugene McDonald (VM);  
Kansas City  
Phyllis Dean McFarland (Ar); Topeka  
Joan Therese McKenna (HE); Kingman  
William Albert McKinley (ME); Greensburg  
Mervin Ross McKinsey (AA); Soldier  
Laurel Daisy McLeod (HE); Manhattan  
John James McLinden (Ag); Cedar Point  
Willard Lyle McMahan (VM); Rossville  
Ethel Marie McMichael (HE&N); Penalosa  
\*Lela Mae McNair (IJ-1; HE&A-2);  
Arkansas City  
Jack Attkisson McNally (Ag); Iola  
Justin Wayne McNish (Ag); Morrowville  
Donald Dale McWilliams (Ag); Quinter  
Max Grant Mabie (ChE); Green  
John William Machin (EE); Wamego  
LaVina Lemyra Mackie (HE); Maplehill  
R. Kendall MacKirdy (GS); Manhattan  
\*Christine Maddox (IM&D); Abilene  
Alan Joseph Madsen (GS); Corbin  
Evelyn Ann Magill (GS); Fanwood, N. J.  
\*Margaret Elaine Mahoney (IM&D); Linn  
Victoria Jane Majors (HE); Manhattan  
Clifford Dale Makalous (BA); Cuba  
Raymond Farrell Maldoon (ChE);  
Marysville  
John Ellis Mangelsdorf (GS);  
Honolulu, Hawaii  
\*Spiro Gus Manos (ME); Lyons  
Wilbur Dean Mansfield (CE); Lucas  
Ann Marie Marshall (BA); Manhattan  
Margery Lee Marshall (HE); Topeka  
Herbert Hudson Martin (ME); Altamont  
\*Donald Edward Maskill (ChE); Kansas City  
Margaret Anne Massengill (GS); Caldwell  
John Robert Massey (Ag); Sun City  
\*Donald Edgar Masters (ME); Turner  
Clair LaVerne Mauch (CE); Ness City  
Thayne Orvle Mauch (EE); Ness City  
\*Marvin Alvin Maxwell (Ag); Syracuse  
Jack Carroll Maxwell (ChE); Macksville  
\*John Roscoe Mays, Jr. (GS); Lyons  
Ruth Mary Meacham (HE); Lorraine  
Martha Jean Meckel (HE&N); Topeka  
\*Paul Anthony Mellott (Ag); Edwardsville  
William Hugh Meredith (VM); Lincoln  
Norman Rockwell Meriweather (GS);  
Chetopa  
Louis Johnstone Mertz, Jr. (EE);  
Kansas City  
Gail Vern Meskimen (CE); Onaga  
William Burhl Miesse (VM); Marion  
Edith Frances Miller (GS); Milford  
James Wolford Miller (IJ); Manhattan  
Mary Alice Miller (IM&D); Wathena  
Max M. Miller (Ag); Newton  
Ralph Leone Miller (GS); Manhattan  
Vance Vernon Miller (CE); Salina  
Barbara Ann Millhaubt (GS); Wichita  
Eugene Russell Mingle (EE); Oakley  
Russell Galbraith Minnis (VM); Manhattan  
Kenneth Peter Mitchell (VM); Axtell  
Archie Lee Mizell (AA); Topeka  
Marian Jean Mitchell (HE); Minneapolis  
Leonard Wesley Mohney (VM); Sawycr  
Alex John Molnar (GS); Manhattan  
Carol C. Montgomery (Ag); Sabetha  
Mary Ann Montgomery (IJ); Salina  
\*Marie Helen Pritchard Montgomery  
(IM&D); Hiawatha  
Robert Beckwith Moody (VM); Greeley  
\*Bonnie Jean Moon (PE); Dodge City  
Morres Peter Morgensen (Ag-1; GS-2);  
Junction City  
Dale Newton Morlan (AE); Courtland  
William John Mosely (EE); Topeka  
Joseph Richard Moses (EE); McLouth  
Robert Leonard Muchow (ME); Topeka  
Melville Rhodes Mudge (GS); Eskridge  
Fred Hartman Mueller (BA); Topeka  
Norbert Otto Mueller (BA&A); Netawaka  
Kenneth King Muirhead (BA); Jennings  
Mary Patti Muller (HE&N); Manhattan  
Joe A. Murphree (EE); Manhattan  
Maxine Lorraine Myers (IM&D);  
Junction City  
Catherine Ann Nabours (GS); Manhattan  
John Richard Nash (GS); Lakin  
Albert Nathaniel Nelson (GS); Chicago, Ill.  
Corrine Blenda Nelson (HE); Marion  
Ernest Otis Nelson (CE); Scandia  
John H. Nelson, Jr. (AA); Minneapolis  
Walter Paul Nelson (IC); Concordia  
\*Paul Dwight Newcomer (CE); Alexander  
Ada Irene Newell (HE); Stafford  
Beth Kathleen Newell (HE); Stafford  
Grace Kathleen Newell (IM&D); Stafford  
William Clare Newlin (ME); Lewis  
John Porter Newman (VM); Manhattan  
Juanita May Nicholas (HE); Manhattan  
\*Philip Warren Nicholas (AE); La Harpe  
Raymond Thomas Nichols (AA); Lecompton  
\*Ruth Helen Nichols (HE); Topeka  
Jean Nickerson (IM&D-1; GS-2); Bushton  
Norman Frederick Niemeier (EE);  
Manhattan  
Lillian Marie Nottorf (HE); Abilene  
Fayne Higgins Oberst (VM); McPherson  
Lester Francis Oborny (ME); Marion  
Gladys Louise Oerke (HE); Caldwell  
Ray Dan Offutt (ME); Wichita  
Fred Ben Ogilvie (VM); Manhattan  
Richard Olney (VM); Manhattan  
Mary Margaret O'Loughlin (HE); Lakin  
Norris Dean Olson (MI); Collyer  
Theodore William Olson (ChE); Axtell  
Dean Hauer Orem (AA); Meade  
Athena Maebell Oshay (HE); Olmitz  
Helen Olive Osthoff (HE); Columbus  
Paula Marie Osthoff (IC); Clayton  
\*Roy Lee Oswald, Jr. (ME); Iola  
Carl Francis Pache (BA); Home  
William Henry Packer (IJ); Manhattan



## SOPHOMORES—Continued

- Frederick Neill Palmer (MI); Manhattan  
 Marjorie Jeanne Palmer (BA); Abilene  
 Mary Packard Palmer (BA); Kansas City  
 Thomas Mitsch Palmer (ME); Hope  
 Clair Kern Parcel (Ag); Coldwater  
 Charles Henry Parizo (BA&A); Manhattan  
 Richard Bordeaux Parker (ChE);  
 Fort Leavenworth  
 \*Edwin Atkins Parks (ChE); Fort Scott  
 William Homer Parmely (Ag); Le Roy  
 Virginia Blanche Parsons (HE); Manhattan  
 Rodney Lewis Partch (AA); Bird City  
 LeRoy Benjamin Patterson (ChE);  
 Marysville  
 Merle Wayne Patterson (ME);  
 Junction City  
 William Vanzile Payne (PE); Manhattan  
 Harry Ash Pearce (GS); Moline  
 Margaret Maude Pearce (GS); Manhattan  
 Perry Cushman Peine (CE); Manhattan  
 Clarence Monroe Penticuff (VM);  
 Kansas City  
 Earl Ellis Perkins (CE); Belleville  
 Chester Evan Peters (BA); Valley Falls  
 Florence Adelyn Peterson (HE&N);  
 Kansas City  
 Kenneth Peterson (Ag); Vesper  
 Loyd Edwin Peterson (EE); Kinsley  
 Nobel Kieth Peterson (GS); Garrison  
 Raymond Gustave Peterson (IC); Enterprise  
 Ruth Joseph Pfrehn (GS); Moline  
 Marian Frances Pfrimmer (HE&N); Oberlin  
 Charles Richard Philbrick (ChE); Lincoln  
 William Maurice Phillips (Ag); Walton  
 Robert Cooper Pickett (Ag); Manhattan  
 Russell Herbert Pierson (PVM);  
 East Haven, Conn.  
 \*William Lester Pilcher (CE); Burlington  
 Edwin Moats Pincomb (GS); Overland Park  
 Betty Lee Piper (HE&N); Salina  
 Jack Chester Pitney (AA); Neodesha  
 Donald William Pitts (MI);  
 Indianapolis, Ind.  
 Robert Lee Poppenhouse (VM); Manhattan  
 Dean Henry Porter (VM); Mount Hope  
 John Jefferson Porter (VM); Selma  
 \*Darrell Miller Postlethwaite (ChE); Salina  
 \*Marion Edgar Postlethwaite (AA); Wichita  
 Edward Charles Potter, Jr. (IJ); Oswego  
 George Christian Potter (IC); Manhattan  
 Mary Theresa Pratt (HE); Hoxie  
 Wayne Wilbur Prichard (BA); Kansas City  
 Peggy Jean Proffitt (HE); Chase  
 Robert Lee Pyles (VM); Kansas City  
 \*Tom Paul Quinn (PE); Manhattan  
 William Kay Quick (ME); Beloit  
 Cleta Margaret Railsback (HE); Manhattan  
 Helen Keller Ramsour (HE); Junction City  
 Mary Catherine Randell (HE&N);  
 Marysville  
 William Hays Ransopher (Ag); Clyde  
 Olive Grace Read (HE); Topeka  
 \*Harry Gaylord Reagor (PVM); Reno, Nev.  
 William Robert Rector (ArE); Leavenworth  
 Dale Allen Redmond (PE); Topeka  
 Betty Jane Reed (BA); Topeka  
 Elizabeth Nan Reed (BA); Lyons  
 Luella Elizabeth Reed (HE); Circleville  
 Stewart Dean Reed (BA); Clay Center  
 Robert John Reese (EE); Elmdale  
 Helen Kathleen Reeves (HE); Everest  
 Marshall Perry Reeve (VM); Garden City  
 Eldon Melvin Reichart (Ag); Arrington  
 Margaret Reissig (IJ); Topeka  
 Loretta Irene Reist (HE&N); Seneca  
 \*Barbara Camille Reppert (IM&D); Topeka  
 Marvin Robert Repstine (PE); Manhattan  
 \*Cecile Allison Rexroad (HE); Hutchinson  
 Donald Paul Richards (IJ); Manhattan  
 Paul Warren Richardson (EE);  
 Cawker City  
 \*Theodore Jack Richardson (PVM);  
 Creston, Cal.  
 \*Paul Benjamin Ridlon (ME); Coyville  
 \*Barbara Jean Riley (GS); Wichita  
 Harold Marvin Riley (AA); Holton  
 Patrick Warren Riney (ME); Junction City  
 Mary Lou Rinner (HE&N); Topeka  
 Richard Gale RoBards (VM);  
 Oklahoma City, Okla.  
 Claire Milton Robertson (ME); Holton  
 \*Dorothy Dean Robinson (HE&N);  
 Kansas City, Mo.  
 Leonard Gale Robinson (AA); Viola  
 Wilma Harriet Robinson (HE&N); Nashville  
 Nicholas Benjamin Robson (MI); Salina  
 Merrill Dean Rochold (VM); Herington  
 Betty Jane Roe (GS); Manhattan  
 John B. Rogers (ArE); Manhattan  
 Ronald Keith Rohlfing (MuE); Bemington  
 Elaine Alvira Rohrer (GS); Abilene  
 Ned Wilson Rokey (Ag); Sabetha  
 Michael Harris Roller (AA); Circleville  
 Victor Kenneth Roper (BA); Barnes  
 Bernard Henry Rottinghaus (EE); Corning  
 Joseph Raymond Rowlen (ME); Eskridge  
 Peter Sturges Ruckman (IJ); Topeka  
 Ruth Jenkins Russum (HE); Kansas City  
 Edwin Frances Rutschmann (EE); Maplehill  
 Robert Ray Rutter (GS); Udall  
 Virginia Ellen Saathoff (GS); Manhattan  
 LaDean Joyce Sage (GS); Kansas City  
 \*Donal Ray Sanderson (ME); Norton  
 Vernon Kenzo Sato (ME); Koloa, Hawaii  
 Patrick Henry Sauble (Ag); Cedar Point  
 Rebecca Josephine Sauble (HE&N);  
 Cedar Point  
 Duane Leon Sawhill (ChE); Glasco  
 Dorothy Jean Sawtell (IJ); Junction City  
 \*Robert James Scanland (ME); Hutchinson  
 \*Robert Charles Schindling (BA);  
 Leavenworth  
 Billy Eugene Schmidt (Ar); Sedgwick  
 Joan Fredericka Schmidt (IM&D); Lyons  
 Jo Ann Schmidt (GS); Junction City  
 Darren Bryce Schneider (EE); St. Francis  
 Esta Wilma Schneider (IM&D); Manhattan  
 Raymond Clinton Schneider (Ar);  
 Manhattan  
 Rose Anne Scholz (HE); Frankfort  
 Paul Henry Schroeder (Ag); Lorraine  
 Wayne Frederick Schultz (ME); Trousdale  
 Frank August Schwandt (GS); Manhattan  
 \*Jacob Schwartz (PVM); Brooklyn, N. Y.  
 Joseph Albert Schwartzman (Ar);  
 Bronx, N. Y.  
 Dorothy Louise Sedlick (IM&D); Ottawa  
 Jeanne Richardson Scott (ME); Manhattan  
 Rhea Holgate Scott (HE); Manhattan  
 Ridge Lavan Scott (ChE); Kansas City  
 Royal Charles Seal (Ag); Wakefield  
 Sarah Frances Seaton (HE);  
 Washington, D. C.  
 \*Walter Philip Sechler (BA); Hutchinson  
 \*Earl Vincent Seifert (ME); Parsons  
 James Sellon (Ar); Westfield, N. J.  
 Robert Guy Sesler (BA); Wamego  
 George Wilfred Seymour (ChE); El Dorado  
 Charles Kenneth Shane (VM); Manhattan  
 Harry Edward Shank (Ag); Bazine  
 Leo Shapiro (ME); Bronx, N. Y.  
 Carl Junior Shapley (ArE); Wichita  
 \*Betty Jeanne Sharp (HE-1; GS-2);  
 Kansas City

## SOPHOMORES—Continued

- James David Sharpe (IJ); Council Grove  
James Herman Shaver (Ag); Goodland  
Roy Lee Sherrell (GS); Lincoln  
\*Margery Elizabeth Shideler (HE); Topeka  
Lourie Ione Shoffner (IM&D); Kipp  
Doris Margaret Shull (GS); Kansas City  
Wesley Blaine Sidesinger (ME); Colby  
Cecil Robert Siebert (AE-1; Ag-2);  
    Pretty Prairie  
Elizabeth Jeanne Sirridge (GS); Topeka  
Kemble Urbon Sitterley (ChE); Kansas City  
Virginia Doris Sitterly (IC); Manhattan  
\*Richard Theodore Sizemore (ArE); Parsons  
Loran Alvin Slaughter (BA); Manhattan  
\*Billy Benton Sloan (Ag); Leavenworth  
Betty Ruth Smith (HE&N); Topeka  
\*Emily Irene Smith (GS); Salina  
\*Frances Lucille Smith (HE); Sterling  
Joe Morris Smith (ChE); Neodesha  
Lloyd Thomas Smith (ME); Great Bend  
Olive Maxine Smith (HE); Kansas City  
Phil Roger Smith (GS); Manhattan  
Walter Henry Smith (Ag); Shawnee  
Ruth Elaine Smoll (IM&D); Wichita  
Neil Harrison Smull (Ar); Bird City  
Edwin Snapp (IJ); Belleville  
Harvey James Snapp (AA); Belleville  
Neal Wanner Snow (ChE); Neodesha  
Warren Clarence Snyder (ME); Topeka  
Homer Edward Socolofsky (GS); Manhattan  
Donald Dean Sollenberger (CE); Manhattan  
\*Delores Altha Souder (HE); Scammon  
Carl Lester Sperry (Ag); Marysville  
Nan Louise Sperry (HE&N); Overland Park  
Earl John Splitter (VM); Frederick  
Marion David Spoelstra (ME); Prairie View  
Harold Ellsworth Staadt (ChE); Ottawa  
Julia Edna Stacey (GS); Longford  
Laura Alta Stacey (GS); Longford  
Robert Stafford (IJ); El Dorado  
Mary Zoe Stahl (IM&D); Wichita  
Cletus Francis Stallbaumer (EE); Frankfort  
Margaret Anna Stanley (IJ); Wichita  
Jay Wayne Staton (CE); Wichita  
Arthur Eugene Stearns (Ar); Kingman  
Raymond Edward Stein (AA); Miltonvale  
Jay Rex Stevens (GS); Lincoln  
Betty Mae Stewart (HE); Eskridge  
Melvin Junior Stiefel (AA); Gypsum  
Helen Margaret Stinebaugh (HE&N);  
    Princeton  
Delores Adelia Stohs (GS); Junction City  
Ray Elmer Stokely (GS-1; ME-2); Newton  
\*Eleanor Ruth Stoll (IC); Rose  
Albert Hendrix Stone (GS);  
    Honolulu, Hawaii  
Cleo Eugene Stone (GS); Emporia  
Lee Monroe Stratton (IJ); Topeka  
Mary Carola Stratton (HE&N);  
    Celina, Ohio  
\*Ivan Karl Strickler (Ag); Colony  
Merle Edwin Stubbs (BA); Sterling  
Mary Lea Sturgeon (HE); Sterling  
Virginia Lee Suddarth (GS); Great Bend  
Betty Jo Sullivan (PE); Manhattan  
\*James Eugene Swafford (EE); Fort Scott  
Marjorie Jane Swan (HE); Manhattan  
Irene Charlotte Swanson (HE); Manhattan  
\*Richard Hart Swartzel (BA);  
    Kansas City, Mo.  
Wayne Alvin Tallman (ME); Lewis  
Bernard Taub (AE); Brooklyn, N. Y.  
\*Frances Irene Taubeneck (HE); Neodesha  
\*James Donald Taylor (BA&A); Kinsley  
June Leona Taylor (GS); Manhattan  
Howard Earl Teagarden (MI); Manhattan  
Wallis Leroy Teeter (EE); McPherson  
Donald Ross Teply (BA); Hanover  
Verda Rose Tessoroff (HE); Onaga  
William Matthew Thies, Jr. (VM); Marion  
Roma Maxine Thom (HE&N); Oakley  
Emma Louise Thomas (HE); Hartford  
Glenn Stone Thomas (Ag); Medicine Lodge  
\*Herbert Corzine Thompson (ME); Ellinwood  
Sivert Theodore Thompson (AE); Delia  
Gerald Jack Thouvenelle (IC); Lucas  
Donald Lee Timma (IC); Manhattan  
Olin Leslie Tippet (MI); Kansas City  
Earl August Toburen (ChE); Abilene  
Nancy Todd (GS); Fort Riley  
Evelyn Louise Torrence (HE); Baileyville  
David Eugene Totten (ME); Clifton  
\*Russell Theodore Townsley (GS);  
    Great Bend  
Otto Henry Trechter, Jr. (ChE); Hoisington  
Terrence Bazzil Turner (ArE); Colby  
Viola Elsie Twiehaus (IM&D);  
    Independence, Mo.  
Dean Albert Umberger (ME); Rozel  
Robert Dewey Underwood (BA&A);  
    Manhattan  
Gerard Aubrey Unrein (EE); Hays  
Gordon William Vacura (VM); Kansas City  
Morris A. Van Daele (Ag); Olathe  
Herbert Donald Vanderlip (MI); Manhattan  
Ruth Marie Van Petten (HE); Washington  
Charles Raymond Vavroch (Ag); Oberlin  
Rufus Lloyd Vawter, Jr. (ME); Coffeyville  
John Robert Vetter (Ag); Beloit  
Harold Benton Vicory (GS); Greenleaf  
George Dewey Volkel (EE); Lenora  
Harold Roy Volkmann (EE); Lyons  
George Theodore Volsky (EE);  
    Pittsfield, Mass.  
\*James Daren Wagg (ME); Osage City  
Joyce Korine Wagoner (GS); Blue Rapids  
Gene Allison Walters (ChE); Kinslev  
Kenneth Lyle Walters (AE); Holton  
Theodore Parker Walton (IA); Manhattan  
Galen Warren Wampler (GS); Minneapolis  
Doris Louise Wanamaker (IM&D);  
    Blue Rapids  
Robert Rowan Wandt (EE); Norton  
\*Lora Belle Ward (HE); Arkansas City  
Wayne Howard Ward (AA); Elmdale  
Raymond Edward Warner (EE); Abilene  
Dale Martin Warren (GS); Fort Scott  
Beth Virginia Watt (HE); Harper  
Howard Orville Weber (VM); Kansas City  
\*Helen Louise Weeks (IM&D); Assaria  
Max Corwin Weeks (SH); Topeka  
Robert Muzzy Weible (ME); Coffeyville  
Glenn Arthur Weir (Ag); Hazelton  
Annette Bertha Weissbeck (HE); Meriden  
\*Lloyd Wayne Weller (CE); Kansas City  
Nesis Lacey Welling (IM&D); Paradise  
Dwight Baird Wells (SH); Jewell  
Rex Irving Wells (EE); Syracuse  
Winfred Jefferson Wells (Ag); Louisburg  
Charles Maurice Wempe (VM); Seneca  
Leo Ralph Wempe (VM); Frankfort  
Frank David Werner (EE); Junction City  
Edith Jean Werts (PE); Smith Center  
Donald Duane Westbrook (ArE);  
    Lincolnville  
Percival Thomas Westmacott (BA); Chase  
Evelyn Marie White (IM&D); Effingham  
Marjorie Loyne White (HE); Soldier  
Wilbur Wellington White (VM); Delphos  
John Gordon Whiteside (CE); Hutchinson  
John Carey Whitnah (GS); Manhattan  
Eugenia Lee Wick (HE&N); Hunter  
William Keith Wieland (Ag); Stockton  
Bernice Doris Wiggins (SH); Lawrence

\* Matriculated 1941-'42.



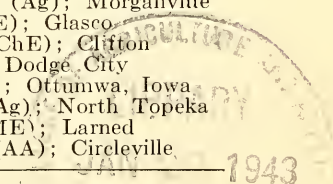
SOPHOMORES—*Concluded*

- Raymond Lee Wilcox (EE); Kincaid  
 Bernard Alfred Williams (EE); Geneseo  
 \*Frances Antoinette Williams (IM&D);  
 Marion  
 John J. Williams (BA); Pawnee Rock  
 Wendell Hudson Williams (BA&A);  
 Fredonia  
 Amos Wilson (VM); Manhattan  
 Betty May Wilson (GS); Valley Center  
 Chase C. Wilson, Jr. (Ag); Mulvane  
 \*Donald Roy Wilson (ME); Mound Valley  
 Dorothy Lillian Wilson (HE); Lawrence  
 Ethel Josephine Wilson (HE); Quenemo  
 James Allen Wilson (CE); Winfield  
 Robert Lee Wilson (IC); Wellington  
 Robert Raymond Wilson (EE);  
 Council Grove  
 Edward Nelson Winchester (PVM); Kinsley  
 Leland Stanley Winetroub (BA&A);  
 Leavenworth  
 Romola Ilene Winter (IM&D); Sublette  
 \*Bramlet Elton Wise, Jr. (ME-1; BA&A-2);  
 Humboldt  
 Ellis Rex Wise (AA); Conway Springs  
 Aletha Adeline Wood (IM&D); Mayetta  
 Chester Blain Wood (Ag); Trousdale  
 Robert Gordon Wood (Ag);  
 Kansas City, Mo.  
 Ernest Emerson Woods, Jr. (BA);  
 Kansas City, Mo.  
 Hattie Belle Woods (HE); Manhattan  
 \*Marilyn LaNelle Woods (HE); Clearwater  
 Waldron Carl Workman (GS); Belleville  
 Charles Arthur Worthington (Ag);  
 Lecompton  
 Emory Metz Wright (GS); Salina  
 \*Richard Curr Wright (GS); Manhattan  
 Robert James Wright (GS); Manhattan  
 Foster William Yeager (MI); Manhattan  
 Ellen Yeo (HE); Manhattan  
 Harold Dean Yokum (ME); Iola  
 Michael George Zeleznak (ME);  
 Kansas City  
 Kenneth Charles Zimmerman, Jr. (VM);  
 Coffeyville

## FRESHMEN

- \*Charles Earl Abbey (ME-1; BA-2);  
 Newton  
 \*Seth James Abbott, Jr. (ME); Jetmore  
 \*George Frederick Achten (Ag); Wetmore  
 \*Dorothy Phyllis Acker (HE); Manhattan  
 \*Jane Ackert (HE); Manhattan  
 \*Calvin Keith Adam (ChE); Wakefield  
 \*Eugene Adams (VM); Wichita  
 \*George Earl Adams, Jr. (AE-1; Ag-2);  
 Horton  
 \*Spencer Joseph Adams (ChE); La Crosse  
 \*William Henry Adams (GS); Manhattan  
 \*Lawrence Edwin Adee (ChE); Belleville  
 \*Raymond Addison Adee (EE); Wells  
 \*Parthena Ainsworth (PE); Lyons  
 \*Ralph Gerald Alden (BA); Manhattan  
 \*Willis Howard Alderman (GS); Lyons  
 \*Lynn Bruce Alford (ME); Kansas City, Mo.  
 \*Donald Lee Allen (BA); Overland Park  
 \*George Willard Allen (PVM); Wichita  
 \*Raymond Dale Allen (Ag); Westmoreland  
 \*Eleanor Marie Allison (HE); Keechi  
 \*Robert James Alsop (ME); Wamego  
 \*Darrel Dean Ancell (ME); Sylvan Grove  
 \*Duane Hubert Anderson (CE); Manhattan  
 \*Helen Victoria Anderson (HE&A);  
 Manhattan  
 \*John Henry Anderson (GS-1; ChE-2);  
 Ramona  
 Keith Anderson (VM); Beverly  
 Nels A. Anderson, Jr. (Ar); Topeka  
 \*Norman Frederick Anderson (GS);  
 Dodge City  
 \*Rita Kathryn Anderson (D&IM); Partridge  
 \*William Francis Anderson (IJ); Manhattan  
 \*Paul Junior Andree (ME-1; MuE-2);  
 Bazine  
 \*Lois Jean Angstead (GS); Manhattan  
 \*Wallace Lee Anthony (PVM); Clay Center  
 \*Richard Ray Appleoff (IC); Hiawatha  
 Arthur Allen Appleton (GS); Manhattan  
 \*Lawrence Norman Armagost (PVM);  
 Kansas City  
 John Wesley Arnold (IJ); Chillacothe, Ill.  
 \*Orvin Edward Artas (ME); Ellsworth  
 \*Albert Raymond Auld (ME); Wakefield  
 \*Janet Eloise Austin (HE-1; IJ-2); Topeka  
 \*Orlo Lorraine Austin (ME); Blue Rapids  
 \*Margaret Louise Avers (HE); Manhattan  
 \*Maurine Ruth Babb (HE&N); Manhattan  
 \*Robert Thurston Babson (Ag);  
 Worcester, Mass.  
 \*George Craig Bachman (ChE); Wichita  
 \*Lois Irene Baily (IM&D); Wichita  
 \*William Edward Bailey (PE); Atchison  
 Richard Kelly Baird (BA); Hunter  
 \*Pauline Merle Baldwin (HE&A);  
 Blue Rapids  
 Gertrude Virginia Ball (HE); McFarland  
 \*Alva Harlan Bandy (CE); Cottonwood Falls  
 \*Glenn Wayne Barb (ME); Florence  
 \*James Mulvane Barclay (ChE); Wakefield  
 C. Edward Bardshar (VM); Mount Hope  
 \*Richard Vincent Barker (CE); Holton  
 \*Stanley Irvin Barnett (CE); Morland  
 \*Robert Harry Barofsky (ME-1; GS-2);  
 Ellsworth  
 \*Glendon Eugene Barrett (Ag);  
 Cottonwood Falls  
 \*Warner James Barry (VM); Kansas City  
 \*Lois Jo Ruth Bartell (HE); Topeka  
 \*Dwight Irwin Bartlett (PE); Almena  
 \*Jack Hall Bates (Ag); Independence  
 \*Earl Leonard Battershell (ME); Lyons  
 James Owen Baxter (ME); Pomona  
 \*Wilfried William Baxter (ME); Larned  
 \*Charles Harry Bearman (GS); Wamego  
 \*Bernice Marie Beary (HE); Edson  
 \*Sherman Conrad Beasterfeld (Ag); Belvue  
 Floyd Edwin Beaver (VM); Olathe  
 \*Chester Eugene Bebermeyer (Ag); Robinson  
 \*Robert Elloy Beck (ChE); Manhattan  
 Bette Ann Beckwith (PE); Hiawatha  
 \*Betty Jean Beeny (HE); Sheldon, Mo.  
 \*Paul Arthur Behrent (ArE); Selden  
 \*Richard Kenneth Bell (BA); Salina  
 \*Theresa Ann Bell (BA); Manhattan  
 \*Albert Lucien Bellingier (ChE);  
 Junction City  
 \*Alexander Berger (ME); Bronx, N. Y.  
 \*Glen Berger (CE); Burlingame  
 \*Harold Wayne Berggren (Ag); Morganville  
 \*Alan Arthur Berndt (AE); Glasco  
 \*Robert Milton Berner (ChE); Clifton  
 \*Robert J. Berry (PE); Dodge City  
 \*Jay Robinson Best (Ar); Ottumwa, Iowa  
 Elmer Clarence Betts (Ag); North Topeka  
 \*Norman Bell Biegler (ME); Larned  
 \*Leland Wayne Biggart (AA); Circleville

\* Matriculated 1941-'42.





## FRESHMEN—Continued

- \*Trafford Loren Bigger (BA); Schenectady, N. Y.  
 \*Glenn Eldon Bigelow (Ag); Osawatomie  
 \*Homer Lynn Bird (Ag); Albert  
 \*Thaine Gerald Bird (GS-1; CE-2); Elk City  
 \*Robert David Bisagno (BA); Augusta  
 \*John Demroe Bittel (PE); Irving  
 \*Ferman Jean Bitter (ME); Hoisington  
 \*Donald Joyce Blackman (Ag); Hill City  
 \*Edythe Evelyn Blaes (HE); Abilene  
 \*Sally Jean Blake (HE&A-1; GS-2); Kansas City  
 \*Ted Blake (Ag); Oak Hill  
 \*William Oliver Blake (EE); Oak Hill  
 \*Jack Moore Blakely (ME); Topeka  
 \*Marjorie Clarra Blakeslee (HE); Muscotah  
 \*Eugene Thomas Blattner (ChE); Rozel  
 \*LeRoy Blattner (GS); Rozel  
 \*Marian Frances Bliesner (IM&D); Lawrence  
 \*Albert Wilton Blythe (Ag); White City  
 \*Robert Arthur Bohannon (ChE-1; GS-2); Holton  
 \*Dale Edgar Bohn (PVM); Alma  
 \*Gene Frederick Bohnenblust (AE); Longford  
 \*Frances Deloyce Boles (HE); Manhattan  
 \*John Charles Boller (AA); Kansas City, Mo.  
 \*Darrell Rudolph Bolliger (Ag); Dellvale  
 \*George Metzger Bolton (ME); Council Grove  
 \*Virgil Valdeane Bolton (AA); Smith Center  
 \*Robert Clair BooBar (PVM); Manhattan  
 \*Herbert Eugene Book (ChE); Chapman  
 \*Paul Albert Boone (Ag); Toronto  
 \*Howard William Borchardt (SH); Leavenworth  
 \*William Henry Borland, Jr. (BA&A); Clay Center  
 \*James Howard Borth (EE); Plains  
 \*Rollin Howard Boyd (AA); Irving  
 \*Joseph George Boyle, Jr. (GS); Manhattan  
 \*Rex Allen Boyle (Ag); Spivey  
 \*George Bradbury, Jr. (VM); Minneapolis  
 \*John Alan Bradbury (VM); Coffeyville  
 \*Kenneth Wilbur Brainard (GS-1; AE-2); Selden  
 \*Joseph Marshall Braly (ArE); Coldwater  
 \*Emma Marie Brandner (IJ); Leoti  
 \*Walter Albert Brandt (GS); Newton  
 \*Merle Henry Brehm (Ag); Hope  
 \*Clifford DeWayne Brelsford (GS); Summerfield  
 \*Sidney David Brettschneider (Ag); Bronx, N. Y.  
 \*Theron Laurence Brewer (ChE); Great Bend  
 \*Marian Audrey Brigham (HE&A); Wichita  
 \*Herman Ralph Brinkman, Jr. (Ag); Pittsburg  
 \*William Elihu Brock (VM); Manhattan  
 \*Martin Green Brookins (PVM); Kansas City, Mo.  
 \*Eugene Vincent Brosseau (BA); Junction City  
 \*Alan Duane Brown (GS); Stratton, Neb.  
 \*Clyde Ellis Brown (VM); Pittsburg  
 \*Earl Robert Brown (GS); Plains  
 \*Elizabeth Ann Brown (HE); Sylvan Grove  
 \*James Melvin Brown (CE); Greensburg  
 \*Leonard Ray Brown (ME); Sharon Springs  
 \*Robert Wayne Brown (BA); Atwood  
 \*Ruby Alice Brown (HE); Sylvan Grove  
 \*Jack Randolph Bruner (ME); Burns  
 \*Lauren Wilfred Brunner (AA); Ramona  
 \*Ellen Clara Brush (HE&A); Wichita  
 \*Elda Lorraine Bryan (HE); Cimarron  
 \*Virgil Marilyn Bryant (Ag); Ellinwood  
 \*Bruce L. Buchanan (ME); Little River  
 \*Guy Ray Buchanan (IJ); Little River  
 \*George John Buchholtz (ChE); Olathe  
 \*Hubert Richmond Buckles (BA&A); Hazelton  
 \*Neomia Louise Budde (HE); Albert  
 \*Verle Lee Buffington (GS-1; AA-2); Marquette  
 \*Kenneth Delmer Bull (MI); Freewater, Ore.  
 \*Vincent Clarence Bunkens (PVM); Dell Rapids, S. Dak.  
 \*William Hobart Burch (Ag); Fowler  
 \*Robert Burcher, Jr. (EE); Kinsley  
 \*Kenneth Burchman (DM); New York, N. Y.  
 \*John William Burdett (AA); Centralia  
 \*Melvin Sloan Burkhead (Ag); Beloit  
 \*Donald Lee Burnett (Ag); La Cygne  
 \*Forrest Donald Burnett (ME); Turon  
 \*Franklin Cline Burrow (ME); Manhattan  
 \*Charles Jay Burson (BA); Manhattan  
 \*David Harling Burtis (Ag); Hymer  
 \*Robert Adail Busch (Ag); Milan  
 \*Bill Cluff Busenbark (GS); Manhattan  
 \*William H. Bush (IJ); Frankfort  
 \*Charles Edwin Butin (GS); Fredonia  
 \*Forrest Harry Button (Ag); Rush Center  
 \*Jack LeRoy Byers (BA&A); Jewell  
 \*Betty Jean Caldwell (AM); Fort Riley  
 \*Homer Kay Caley (AA); Manhattan  
 \*Bonnie Bell Callahan (HE-1; GS-2); Abilene  
 \*Stan Archibald Calvert, Jr. (ChE); Kinsley  
 \*Emma Mae Campbell (HE&N); Marquette  
 \*Forest Darlyne Campbell (BA); Concordia  
 \*John Larson Campbell (Ag); Concordia  
 \*Robert Duncan Campbell (VM); Junction City  
 \*Gay Roger Canon (Ag); Leon  
 \*Robert Frederick Carlgen (AE); Concordia  
 \*Helen Josephine Carlson (BA); Randall  
 \*Kenneth Charles Carlson (PVM); Manhattan  
 \*Robert Beck Carlson (GS); Americus  
 \*Frank Robert Carpenter (GS); Stockton  
 \*Gerald Wesley Carr (IC); Wichita  
 \*Mina Jean Carris (HE); Topeka  
 \*William Donald Carter (BA); Arkansas City  
 \*Freda Mae Case (HE); St. Joseph, Mo.  
 \*Doris Katherine Cassity (GS); Clifton  
 \*Philip Dean Cazier (VM); Wakarusa  
 \*Margie Marie Cederberg (HE); Manhattan  
 \*Harvey Casper Chadbourne (EE); Leavenworth  
 \*Glen George Chaloupka (PE); Narka  
 \*Emerson Lee Chance (GS); Colby  
 \*James Beatty Chaplin (ME-1; BA-2); Kansas City  
 \*Arlene Frances Chapman (HE&N); Wakefield  
 \*George Melvin Chapman (PVM); Glasco  
 \*Kenneth Richard Chapman (MI); Abilene  
 \*William Sams Chapman (IJ); Topeka  
 \*Earl Stannley Chappell (BA); Wichita  
 \*Gregg Leo Chappell (ChE); Topeka  
 \*Duane Kenneth Cheney (Ag); Vesper  
 \*Ching Tuan Cheng (VM); Fukien, China  
 \*Bethyl Beryl Cherry (GS); Redwood Falls, Minn.  
 \*Harry Earl Chiles (VM); Topeka  
 \*Emma Jean Christiansen (HE); Columbus  
 \*Samuel Eugene Claar (Ag); Colby  
 \*Bernita Beth Clark (HE); Wakeeney  
 \*Buford Lorain Clark (GS); Norton  
 \*Delbert Dean Clark (Ag); Wheaton  
 \*George Sumner Clark (IC); Longton  
 \*Laurence Richard Clark (EE); Manhattan  
 \*Donald Joseph Clarkson (CE); Kansas City, Mo.

## FRESHMEN—Continued

- \*Clarence Samuel Clay (ChE); Emporia  
 \*Ruth Nadine Cleaver (HE); Garden City  
 \*Milton Alan Clemens (EE); Corning  
 \*Clinton Edward Clements (EE); Havensville  
 \*James Brian Clinger (ME); Augusta  
 Eugene Francis Close (AA); Solomon  
 \*Marion Louise Coe (HE); Manhattan  
 \*Betty Lou Colburn (HE); Spearville  
 \*Otie Genevieve Cole (HE); Washington  
 Robert Eugene Cole (EE); Topeka  
 \*Embert Harvey Coles (Ag); Colby  
 \*Harlan Dean Colglazier (GS-1; Ag-2);  
 Larned  
 Valdine Oral Combs (VM); Alma  
 \*Charles Kenneth Condray (ChE);  
 Manhattan  
 \*Carson Emmitt Condry (ME); Herington  
 Neel Leon Conley (VM); Wellington  
 \*Mary Martha Conrad (IM&D); Manhattan  
 \*Milo Marvin Conrad (Ag); Bloomington  
 Keith Wayne Constable (ME); Salina  
 \*Betty Anne Converse (HE); Eskridge  
 \*Robert LeVerne Converse (ME); Harveyville  
 \*Charles Willis Cook (EE); Salina  
 \*Helen Louise Cook (HE); Dillon  
 \*Dorothy Mae Cooley (BA); Wellington  
 \*Donna Beth Coon (GS); Manhattan  
 \*Jo Anne Bernice Cooney (IJ); Evanston, Ill.  
 \*Bobbie Dean Cooper (GS); Bluff City  
 \*Opal Frances Cooper (HE); Manhattan  
 \*Wallace William Cooper (Ag); Hoxie  
 \*William Walter Cope (Ag); Holton  
 \*Kenneth Ray Corke (Ag); Studley  
 \*Carol Esther Carr (HE); Clearwater  
 \*James Richard Cottrell (Ag); Plains  
 \*Anson Alec Coulson (Ar); Abilene  
 \*Eldon Eugene Coulson (ME); Wichita  
 \*Betty Loraine Courter (HE); Paola  
 \*Benn Cowan (CE); Ransom  
 \*John Dean Cowan (PVM); Manhattan  
 \*Doris Mae Craft (HE); Kinsley  
 \*Mary Elizabeth Crandall (IJ); Le Roy  
 \*Barbara Jean Craven (HE&A); Summerfield  
 \*Charles James Crawford (Ag); Spring Hill  
 Leslie Bryan Crawford (PVM); Manhattan  
 \*Walter M. Crawford (GS); Larned  
 \*Stanley Marion Crawshaw (PE); Osborn  
 \*Harry Earl Creal, Jr. (IC); Kansas City  
 Ellen Elizabeth Crippen (HE); Manhattan  
 \*Richard Monroe Cross (ME); Wilson  
 Russel John Cummings (AA); Satanta  
 \*Theodore Alvaree Cummings (GS-1; EE-2);  
 Bloom  
 \*Charles Curtis Curry (VM); Arkansas City  
 \*Robert Lyman Curry (ChE); Arkansas City  
 \*James Russell Curtis (ME); Toronto  
 Helen Rosalie Dahl (MuE); Manhattan  
 \*Anna Faith Dahm (HE); Fowler  
 \*Virginia Jeanne Danielson (IM&D); Clyde  
 \*Marian Lee Darby (PE); Kansas City  
 \*Jacob Clinton Davies (AA); Reading  
 \*Lloyd Adrian Davis (PE); Winfield  
 \*Robert Marshall Davis (BA); Liberal  
 \*Galen Dawson (CE); Wichita  
 \*Robert John Dean (PE); Harveyville  
 \*James Edwards Decker (AE); Burr Oak  
 \*Ivan Ernest Dettmer (Ag); Liberal  
 \*William Lyman Dibble (Ag); Topeka  
 \*William Melvin Dicke (PVM); Louisburg  
 \*Merlin LeRoy Dickinson (AE); Ashland  
 \*Beattie Blagg Dickson (ME); Topeka  
 \*Frank Louis Dill (ChE); Sterling  
 \*Ralph Leslie Dodd (Ag); Linn  
 \*Jack Royce Dodge (ME); Topeka  
 \*Emanuel Ernest Doll (Ag); Ellinwood  
 \*Vernon Earrol Doll (ME); Attica  
 \*Clara Lois Donovan (HE); Easton  
 \*Julia Whitaker Doryland (IM&D);  
 Manhattan  
 \*Harry Dean Douglass (BA); Burlington  
 \*Edward Downard (BA); Barnes  
 \*Wilbur Hugh Downing (BA&A); Wichita  
 \*Phyllis Louise Draper (HE); Florence  
 \*Dorothy Mae Dreese (HE&N);  
 Council Grove  
 \*William Franklin Driver (Ag); Quenemo  
 \*Merrill Dale Dronberger (ArE); Kansas City  
 \*Lucille Margaret Drown (HE&A); Topeka  
 \*Ruth Alice Dryden (HE); Ellsworth  
 \*Lyle Dubois (Ag); Burlingame  
 \*Constance Eris Dummermuth (HE); Barnes  
 \*James Alfred Dunbar (Ar); Wichita  
 Clifford E. Duncan (VM); St. Francis  
 \*Lloyd Wayne Dunlap (IJ); Manhattan  
 \*Marguerite Mae Durand (GS); Great Bend  
 \*Betty Joy Dutton (HE&N); Harlan  
 \*Charles Henry Dutton (Ag); Concordia  
 George Horace Dutton (MI); Concordia  
 Kenneth Leon Dwyer (ME); Topeka  
 \*Maurine Marian Eaton (GS); Hillsdale  
 \*Byron Taylor Eberle (CE); Kansas City  
 \*Walter Roscoe Eddy (MuE); Havensville  
 Ray Newton Edwards (GS); Manhattan  
 \*Russell Kenneth Ehrlich (Ag); Waldo  
 \*William Raymond Ekart (BA&A); Alma  
 \*John Charles Elam, Jr. (DM); Winfield  
 \*Thurza May Ellis (BA); Topeka  
 \*Harold S. Elmer (GS); Manhattan  
 Martha Elizabeth Emmons (HE&N);  
 Manhattan  
 \*Harold Duane Engle (GS); Madison  
 \*Paul Leland Engle (ChE-1; IC-2);  
 Manhattan  
 \*Leroy Glenn Eppinger (BA&A); Norton  
 \*John Richard Eppstein (ChE); Great Bend  
 \*Melvin Wayne Erichsen (AE); Manhattan  
 \*Carl Eric Erickson (CE); Assaria  
 \*Dallas Everett Erickson (EE); Goff  
 \*Phil Baumgartner Erickson (PVM);  
 Overland Park  
 \*William Erickson (GS); Leavenworth  
 \*Marcia Jean Erskine (IJ);  
 Washington, D. C.  
 Grace Eskeldson (HE&N); Ramona  
 \*Virginia Elizabeth Eskeldson (HE&N);  
 Ramona  
 Jean Elaine Estep (GS); Garden City  
 Mary Kaye Eubanks (HE); Holton  
 \*Lloyd Russel Evans (IJ); Hamilton, Mo.  
 \*Philip Howard Ewald (ME);  
 Kansas City, Mo.  
 \*Nina Evangeline Fair (HE); Alden  
 \*Hal Dean Falkenstien (CE); Onaga  
 Wayne Taylor Falkenstien (BA); Onaga  
 \*Carol Joyce Fansher (HE);  
 Kansas City, Mo.  
 Robert LaVern Fanshier (Ag); Great Bend  
 \*Raymond Robert Farewell (BA); Noreatur  
 \*Winfried Mensendrick Farmer (Ag);  
 Kansas City, Mo.  
 \*Margaret Olive Farrant (HE); Frankfort  
 \*Maud Doris Fent (Ar); Newton  
 \*Franklin Hays Fenton (ChE); Manhattan  
 \*Harold Lee Fenton (Ag); Alton  
 \*Elizabeth Jane Fickel (HE&A);  
 Kansas City, Mo.  
 \*Donald Eugene Findley (ChE); Kiowa  
 \*Fenton Pearson Fleming (GS); Kanopolis  
 \*Donald Lloyd Flentie (AA); Centralia  
 William Rex Fockele (VM); Ottawa  
 \*John Donald Foley (ChE); Kansas City  
 \*Bette Lee Forbes (GS); Eureka  
 \*Maxine Christine Foreman (BA); Vliets  
 \*Dorothy Jane Forster (HE); Wichita



## FRESHMEN—Continued

- Elizabeth Ann Forster (HE); Wichita  
 \*Darle Franklin Fortmeyer (ME); Ruleton  
 \*Roy Guy Foster (ChE); Humboldt  
 \*Charles Willard Fox (ME); Hays  
 \*Walter Mac Fox (PVM); Larned  
 \*Galen Earl Frantz (Ag); Rocky Ford  
 \*Phyllis Eileen Frazier (HE); Caldwell  
 \*Darlene Virginia Frederick (HE); Burrton  
 \*George William Fuhrken (Ag); Washington  
 Leslie Gene Fullen (MI); Salina  
 Joe Frederick Fulton (VM); Webber  
 \*Karl Milton Funk (PVM); Abilene  
 William Howard Funk (ME); Abilene  
 \*Bill Furlow (ChE); Manhattan  
 Catherine Furse (JM&D); Manhattan  
 \*Howard Furumoto (Ag); Ninole, Hawaii  
 \*Amil George Galat (SH); Barberton, Ohio  
 \*Helen Marguerite Galloway (HE); Wakeeney  
 \*Russel Winfield Gard (CE); Salina  
 \*Chester LeRoy Garman (EE); Courtland  
 \*Maxine Beulah Garrels (IM&D); Manhattan  
 \*Chester Dale Garton (IC); Norton  
 Leo John Garvert (VM); Plainville  
 \*James Warren Garvie (MI); Manchester  
 \*Margaret Elizabeth Gates (PE); Manhattan  
 \*William Arthur Gatewood (Ag); Circleville  
 \*Thoran Duane Gatterman (Ag); Lewis  
 Merrill Gene Geiser (SH); Topeka  
 Robert Francis Gentry (VM); Topeka  
 \*Robert Grant Gentry (ME); Wichita  
 \*Howard Douglas George (Ag); Lebo  
 \*Laurence Harm Gerdes (EE); Sylvan Grove  
 Orville Edward Gernand (VM); Goff  
 \*Shirley Anne Gessell (HE); Manhattan  
 \*Rosemary Giboney (HE&A); Wichita  
 \*William Edward Gies (PE); Tecumseh  
 Robert Edwin Gilchrist (Ag); Coldwater  
 \*Twylla Faye Gilchrist (HE&N); Coldwater  
 \*Norman Lee Giles (AE); Bellefont  
 \*Alice Roberta Gillespie (GS); Junction City  
 \*Rosemary Gilman (PE); Manhattan  
 Jim Todd Gilmore (PVM); Atesison  
 \*Esther Marie Glatt (HE&N); Enterprise  
 \*Berdene Lou Glaze (HE); Larned  
 \*Faye Jean Gleason (HE); Goff  
 \*Charles William Glenn (Ag); Holton  
 \*Fred Christ Glue (Ag); Le Roy  
 \*Ralph Bernard Glotzbach (GS); Paxico  
 Virginia Esther Glotzbach (IM&D);  
 Wamego  
 \*Ned N. Glover (GS); Holton  
 \*Madonna Irene Goebel (IM&D); Jetmore  
 \*Capdolia Maxine Goernandt (HE); Ames  
 Wayne Leslie Good (VM); McCune  
 \*Lavina Belle Goodman (HE); Wheaton  
 \*Raymond Eugene Goodwin (ArE); Hiawatha  
 \*Max Gordon (Ag-1; GS-2); Bronx, N. Y.  
 \*Margie Ellen Gory (HE); Hoisington  
 \*Horton Edwin Goss (ME); St. John  
 \*John Edwin Gotti (ME); Colver  
 Roy Max Grandfield (VM); Manhattan  
 \*Rex Marley Gray (CE); Emporia  
 \*Robert Edward Gray (Ar); Geneseo  
 \*Berton James Green (Ag); St. John  
 \*Dan Alexander Green (ChE); Manhattan  
 \*Robert Edwin Green (GS); Columbus  
 \*Jack Cailey Griffin (ME); Basehor  
 \*Mary Ellen Griffin (HE); Marysville  
 William James Griffing (VM); Manhattan  
 \*Lester Edward Griffith (IJ); Rush Center  
 \*Nelda LoRae Worcester Griffith (HE);  
 Hill City  
 \*Lois Marcella Grimm (HE); Milan  
 \*Amy Ruth Griswold (BA); Manhattan  
 \*Gerald Earl Grittman (AE); Glasco  
 \*Richard Clare Groff (PVM); Topeka  
 Dean Rollin Gross (VM); Russell  
 \*Loys William Guest (Ag); Manhattan  
 Robert Ellis Guilfoil (VM); Kansas City  
 \*Elizabeth Ellen Gullikson (HE&N);  
 Hiawatha  
 \*James Warren Guthrie (GS); Kansas City  
 \*Lucille Mae Hackerott (HE); Bloomington  
 \*Marian Enid Hagans (HE&N); Healy  
 \*Hugh Leroy Haire (PE); Herington  
 \*Rosemary Ann Hakanson (HE-1; BA-2);  
 Manhattan  
 \*Charles Carson Halbower (IC); Anthony  
 Luther Leon Halbrook (BA); Neodesha  
 \*Max Eugene Haley (ME); Bennington  
 \*Charles Franklin Hall (Ag);  
 Springfield, Mass.  
 \*Cleasa Mae Hall (GS); Turner  
 \*Richard Cleo Hall (ME); Goodwell, Okla.  
 \*William Carlton Hall (VM); Coffeyville  
 \*Walter James Halpin (ChE); Leavenworth  
 Marvin Eugene Hamilton (PE); Mankato  
 \*Roger Dale Hamilton (AA); South Haven  
 \*Howard Edwin Hamlin (MI); Manhattan  
 \*Lucian Baldust Hammer, Jr. (BA); Clafin  
 \*Harriet Leone Hancock (HE&A); St. Francis  
 \*Robert Proctor Hanna (BA);  
 Columbus, Ohio  
 \*Willard David Hansen (Ag); Rush Center  
 \*Richard Wayne Harbaugh (BA);  
 Great Bend  
 \*Robert Dick Hargrove (AA); Effingham  
 \*Walter George Harman (ChE); Hoisington  
 \*Lloyd Bates Harold (GS); Oberlin  
 \*John Alfred Harper (ME); Frankfort  
 \*Mary Faye Harper (HE&A); Topeka  
 \*Donald Lee Harr (ChE-1; IC-2); Dunlap  
 \*Bette Jo Harris (HE); Madison  
 \*Herbert Eugene Harrod (ME); Leavenworth  
 \*Mary Elizabeth Harry (GS); Wakefield  
 \*Mary Fola Harter (IJ); Marquette  
 \*Benjamin Edward Hartloff (BA); Wamego  
 \*A. M. Hartman (PVM); Pittsburg  
 \*Clifford Junior Hartman (Ag); Hoxie  
 Roy S. Harvey (BA&A); Junction City  
 \*Byron Francis Haskins (EE); Manhattan  
 \*George Brien Hatch (GS); Marysville  
 \*Betty Alyse Hathorn (GS); Leavenworth  
 \*Marjorie Louise Hawkins (HE);  
 Kansas City  
 \*Dean Lee Hawks (Ag); Hiawatha  
 Henry Merlin Hays (EE); Topeka  
 \*Don L. Hayward (IC); Longton  
 John B. Healy (VM); Junction City  
 \*Dwight H. Heasty (EE); Mayfield  
 \*Warren G. Heaton (ChE); Norton  
 \*Nancy Lou Herberer (IJ); Manhattan  
 \*Wilda Rae Hedge (HE); Hoxie  
 \*Harry Patterson Hecker (GS); Marysville  
 \*Harold John Heller (Ag); Hunter  
 Donald Allen Henshaw (VM); Herington  
 \*Edwin Joel Herman (CE); Penokee  
 \*Thomas Onen Herndon, Jr. (GS); Atchison  
 \*Joyce Lee Herres (IM&D); Hoisington  
 \*Charles Willard Herrick (Ag); Elmdale  
 \*Maynard Deane Hesselbarth (ME); Abilene  
 James Thomas Heter (ME); Sterling  
 \*Milly Elizabeth Heter (HE&A); Sterling  
 \*Rex E. Hewes (ME); Ingalls  
 \*Dorothy Elizabeth Hibbs (IM&D); Easton  
 \*Lodie William Hicks (ME); Augusta  
 \*Robert Lee Hildenbrand (EE); Kinsley  
 \*Bonny Jean Hill (HE); Oakley  
 \*Clifford Warren Hill (ME); Bloom  
 Lawrence Andre Hill (VM); Horton  
 James Glen Hillabrandt (CE); Washington  
 \*Beverly Darlene Hills (BA&A); Colby  
 Alberta Marie Hineman (HE&N); Dighton  
 \*John Edward Hirlleman (Ag); Wichita



## \*FRESHMEN—Continued

- \*Margaret Lorene Hirmon (HE); Belleville  
 \*Arthur Burgoyne Hiser (ChE); Manhattan  
 \*John Robert Hiss (Ag); Great Bend  
 \*Wayne DeVere Hochuli (CE); Holton  
 \*Donald Sears Hockensmith (EE); Cedar  
 \*Allan James Hocking (BA&A); Salina  
 \*Keith Owen Hodgson (ME); Little River  
 \*Patty Irene Hodgson (HE); Little River  
 \*John Clinton Hogue (Ag); Barnes  
 Helen Maxine Hollis (HE); Manhattan  
 \*Marjorie Mae Holm (HE); Dwight  
 \*Willis Ray Holm (Ag); Council Grove  
 \*Daniel Edward Holmes (AE); Lincoln  
 \*Richard Winn Holmes (Ag); Wichita  
 \*Geneva Helen Holt (HE); Kansas City, Mo.  
 \*David Adrian Holtz (Ar); Manhattan  
 \*Charles Dean Hoppas (Ag); Menlo  
 \*Cornelius David Horan (VM); Kansas City  
 \*Harold Carlos Hotchkiss (ME); Burlingame  
 \*Twila Merne Howat (HE); Wakeeney  
 \*William VanDervoort Howe (Ag); Merriam  
 \*Martin Elmer Howell (BA); Topeka  
 \*Lois Lucile Huckstead (IJ); Junction City  
 Henry Ray Hudgens (GS); Anthony  
 \*George Everett Hudiburg (ME);  
 Independence  
 \*Bonnie Marie Huffington (GS); Latham  
 \*Wallace Warren Huffinan (ME); Havensville  
 \*Maurice Walter Hull (PVM); Oak Hill  
 \*Eugene Hunt (ME); Concordia  
 \*James Hulet Hunt (GS); Liberal  
 \*Wesley Harold Hunt (ME); Manhattan  
 \*Neil Lark Hupe (Ag); Perry  
 Robert Austin Huser (AA); Deerfield  
 \*Calvin Hutchins (Ag); Scott City  
 \*Howard Wayne Ihloff (ME-1; GS-2);  
 Jetmore  
 \*Claudine Mary Immenschuh (HE);  
 Manhattan  
 Max Henry Immenschuh (IJ); Manhattan  
 \*Felicia Geraldine Irving (GS); Manhattan  
 Loyd Scott Irwin (PVM); Wilsey  
 \*Roy Von Isaman (ME); Vliets  
 \*Dorothy Dell Jackson (AM); Winona  
 \*Robert Willard Jackson (ChE); Salina  
 \*Janice Maurine Jacobs (HE&A); Oberlin  
 \*Bernard Robert Jacobson (Ag); Waterville  
 \*Edward Charles Jacoby (BA&A-1; ChE-2);  
 Rochester, N. Y.  
 \*Julia Amelia Jagger (HE&N); Minneapolis  
 \*Gene Marie James (HE); Mayetta  
 \*Dean Willis Jamison (Ag); Lenora  
 \*Marjorie Helen Janke (HE); Junction City  
 \*Raymond Henry Janke (ME); Clafin  
 \*Robert Joseph Janousek (IA); Ellsworth  
 \*Elroy Vernon Janssen (AA); Lorraine  
 \*Lloyd Lincoln Jaynes (ChE); Ellinwood  
 \*Marvin Acton Jensen (Ag); Vesper  
 \*Loyce Derald Jernigan (PVM); Osage City  
 \*Phyllis Maxine Johansen (IJ); Holyrood  
 \*Helen Elouise John (HE); Mulvane  
 \*Billie Jean Johnson (GS); Hutchinson  
 \*Darlene Eula Johnson (HE); Manhattan  
 \*Donald Henry Johnson (EE); Jamestown  
 \*Edgar Burton Johnson (CE); Kansas City  
 \*Glorine Johnson (HE); Cedarvale  
 \*Harold Marchant Johnson (GS); Manhattan  
 \*John Robert Johnson (ArE); Kansas City  
 \*Kenneth LeRoy Johnson (GS); Manhattan  
 \*Leonard Donald Johnson (ChE); Norton  
 \*Lois Elvera Johnson (MuE); Axtell  
 Milo Larson Johnson (VM); Topeka  
 Morris L. Johnson (MI); Manhattan  
 \*Robert William Johnson (Ag); Hutchinson  
 \*Shirley Maxine Johnson (IJ);  
 Kansas City, Mo.  
 \*Walter Andrew Johnson (AM); Copeland  
 Walter Francis Johnson (VM); Ottawa  
 \*Wayne Elliot Johnson (ME); Manhattan  
 \*Wendell Berdette Johnson (GS); Falun  
 \*Wendell Elmer Johnson (ME); Dwight  
 \*Wilfrid Melancthon Johnson, Jr. (GS-1;  
 Ag-2); Cleburne  
 \*Max Darr Johnston (SH-1; GS-2); Lyons  
 \*Phyllis Jean Johnston (HE); Manhattan  
 \*Dwight Vernon Jones (EE); Penalosa  
 \*George Robert Jones (ME); Simpson  
 Lee Thomas Jones (PE); Pretty Prairie  
 \*Ralph John Jones (ChE); Stafford  
 \*William Leon Jones (ME); Thrall  
 \*Virgil Levern Jordan (EE);  
 Kansas City, Mo.  
 \*William Keith Jordan (Ag); Clafin  
 \*Philip Daniel Karnowski (ME); Paxico  
 \*Francis Dean Kaspar (GS); Wilson  
 \*Keith Raymond Kehmeier (BA); St. Francis  
 \*Donald Ernest Keith (Ar); Manhattan  
 Richard Moore Keith (VM); Burlington  
 \*Alva Clark Kelman (PVM); Arlington  
 \*Orval Kenneth Kendall (PVM); White City  
 \*Warren Eugene Kerbs (MI-1; IJ-2); Clafin  
 \*Leonard Thomas Kerns (ChE); Ellsworth  
 \*Hugh Cleveland Kerschner, Jr. (CE);  
 Kansas City  
 John Patrick Kilkenny (GS); Manhattan  
 \*Robert Francis Killough (ChE); Ottawa  
 \*Shirley Imogene Kilmer (IJ); Kirwin  
 \*Warren Preston Kimbal (DM); Topeka  
 \*Elizabeth Susan Kindscher (GS); Beloit  
 \*Arthur Raymond King (Ag); Ellis  
 \*Lawrence John King (PE); Minneapolis  
 \*Ruth Catherine King (IJ); Enterprise  
 \*Roy Thomas Kinkaid (AA); Medicine Lodge  
 \*Calvin Eugene Kirk (Ag); Topeka  
 Frank Edward Kirk (BA); Kansas City  
 \*John Raymond Kirk (GS); Bucklin  
 \*Kenneth Howard Kirk (AA); Winfield  
 \*Thomas Marshall Kirk (Ag); Scott City  
 \*Carroll Francis Kirkendall (ME);  
 Smith Center  
 \*Hugh Richard Kirkpatrick (ChE); Bogue  
 \*Royden Dale Kirkpatrick (EE); Abilene  
 \*Harold Marcelus Kiser (ME-1; DM-2);  
 Delphos  
 \*Dorothy Louise Kitselman (IJ); Manhattan  
 Erich Walter Kitzman (PE); Menasha, Wis.  
 \*Harold Henry Kling (Ag); Howard  
 \*Richard Guenther Kloss (MI);  
 Mt. Olive, Ill.  
 \*Harry Clayton Knappenberger (EE);  
 Kansas City, Mo.  
 \*Delbert Deane Knauer (IJ); Manhattan  
 \*Eleanor Elayne Koch (HE&N); Greensburg  
 \*Mary Alice Kohake (GS-1; IM&D-2);  
 Seneca  
 \*Margaret Marie Koneyn (IM&D); Viola  
 Foster Clinton Kordisch (VM); Kansas City  
 Robert Theodor Kordisch (AA);  
 Kansas City  
 \*Vincent Harrigan Kraemer (ME); Home  
 \*Arlene Mary Kraybill (HE); Topeka  
 \*Eula Lee Krebs (HE&A-1; GS-2); Wichita  
 Max Allen Krey (GS); Zenith  
 \*Paul Joseph Kuckelman (IJ); Baileyville  
 \*Henry Aime Lacerte, Jr. (Ag); Collyer  
 Dean Eugene Lake (Ar); Manhattan  
 \*Norman Francis Laman (GS); Concordia  
 \*Theodore James Lamborn (MI);  
 Leavenworth  
 \*Darrell Wayne Landon (ME); Oberlin  
 John Ephraim Lane (EE); Manhattan  
 \*Lorene Anne Lang (HE); Cuba  
 \*Kathryn Eileen Larkin (HE); Salina  
 \*Gerald William LaRosh (Ag); Natoma

## FRESHMEN—Continued

- \*Betty Jo Larson (HE&A); Wichita  
 \*Virginia Elizabeth Larson (IM&D); Wamego  
 \*Glen Ora Lash (ChE); Minneapolis  
 \*Leland Albert Latham (PVM); Washington  
 \*Thomas Sheridan Lawlis (IJ); Lenora  
 \*Gladys Estalene Lawrence (HE); Alamota  
 \*John Milton Lawrence (Ag); Winfield  
 \*Dick Dillon Leaird (CE); Mankato  
 \*Don Frederick Lee, Jr. (GS); Paola  
 \*Lola Mae Lee (GS); Wamego  
 \*Vera Ilene Lee (IM&D); Leoti  
 \*Irene Anna Lehman (HE); Enterprise  
 \*Raphael Zephyr Letourneau (GS); Aurora  
 \*Madge Elizabeth Lewis (HE); Eureka  
 \*Margaret Jean Lewis (IJ); Manhattan  
 \*Lawrence Nicholas Liebl (BA); Claffin  
 \*Donald Eugene Lindgren (CE); Dwight  
 \*John C. Lindholm (ME); Cheney  
 \*Marcelene Rae Linscheid (PE); Hutchinson  
 \*Robert Paul Litt (PVM); Chicago, Ill.  
 \*Truman Francis Logsdon (PE); Manhattan  
 \*Cloral L. Lovell (GS); Manhattan  
 \*Daniel Bruce Lovett (ChE); Larned  
 \*Gleyn Aaron Lowe (CE); Wakeney  
 \*Ralph Lewis Lowrey (PVM); Larned  
 \*Joseph Frank Luckeroth (PVM); Seneca  
 \*Stanley David Luckman (Ag); Bronx, N. Y.  
 \*Alvin Edward Luehring (ME); Washington  
 \*Beverly Jean Luke (HE); Junction City  
 \*Betty Jean Lull (HE); Haddam  
 \*Linton Cole Lull (BA); Smith Center  
 \*Betty Jane Lunger (HE); Summerfield  
 \*Dale Duane Luthi (AA); Wakefield  
 \*Elmer Vincent Lutz (IJ); Manhattan  
 \*Charles William Lynam (Ag); Burdett  
 \*Glen Elliott Lytle (ArE); Junction City  
 \*Patrik Lawrence McAdam (PVM); Kingman  
 \*Vincent Alexander McBoyle (ME); Abilene  
 \*John Albert McCall (AA); Lebanon  
 \*Leonard Harry McCandless (SH); St. John  
 \*Harold Homer McCauley (ME); Stockton  
 \*Jeanne Kathleen McClanahan (HE&A);  
 Lewis  
 \*Norman Fay McClaren (ChE); Greensburg  
 \*William Robert McClean (Ag);  
 Kansas City, Mo.  
 \*Velma Louise McCollom (BA); Kismet  
 \*Ann Elizabeth McConnell (IM&D);  
 Junction City  
 \*Elton Glenn McCormick (Ag); Cedar  
 \*John Byron McCormick, Jr. (ME);  
 Arkansas City  
 \*Patricia Louise McCoy (HE&A); Manhattan  
 \*Carol Lee McCune (GS); Leavenworth  
 \*Wallace Gene McCune (Ag); Minneola  
 \*Donald Dean McDonald (GS); Ulysses  
 \*James Benjamin McDonald (ME); Topeka  
 \*William Murray McDonald, Jr. (PVM);  
 Bremen  
 \*Wade Edward McDowell (ArE-1; BA-2);  
 Paola  
 \*Wilma Jean McDowell (HE&A); Milford  
 \*Philip Carl McGuire (GS); Sharon  
 \*Oakley Wayne McIntosh (ME); Topeka  
 \*Ava Marie McKaine (HE&N); Glasco  
 \*Robert Rothrock McKee (ME); Culver  
 \*Walter Earl McKeen (CE); Manhattan  
 \*John Arthur McLain (ME); Kansas City  
 \*Donald James McMannis (ME); Pratt  
 \*John Howard McMillin (PVM); Basehor  
 \*Margaret Louise McNamee (IM&D);  
 Cunningham  
 \*William Norman McNeill (ChE); Syracuse  
 \*Cathleen Rebecca McRae (GS); Manhattan  
 \*Joseph Ralph Maas (CE); Alta Vista  
 \*Ruth Kyle MacDonnell (MuE); Larned  
 \*James Donald Mack (BA); Lenexa  
 \*Hugh Warring MacLean (BA); Topeka  
 \*Barbara Jean Magill (IJ); Topeka  
 \*Clarice Caroline Mahin (HE); Courtland  
 \*Leon Kenneth Mai (GS); Russell  
 \*Jean Lorraine Major (HE); Kansas City  
 \*Jack Powell Malin (ChE); Macksville  
 \*James Allison Mall (IJ); Manhattan  
 \*William Whitten Mall (IJ); Manhattan  
 \*Marjorie Lee Manahan (HE); Wellington  
 \*Kathryn Florence Mann (HE&N);  
 Burlington  
 \*Evelyn Mae Manson (HE); Lancaster  
 \*Robert Wade Mark (Ag); Coldwater  
 \*Frank Raymond Marshall, Jr. (EE);  
 Burlington  
 \*Marjorie Jean Marshall (GS); Manhattan  
 \*Richard Alvin Martin (PVM); Larned  
 \*Edward Willis Marx (CE); Ellis  
 \*Ulysses Gail Mathews (PVM); Manhattan  
 \*Reo Lou Matson (HE-1; GS-2);  
 Smith Center  
 \*Walter Lester Matthews (CE); Great Bend  
 \*Dale Wendell Mattson (MI); Assaria  
 \*Randall Clinton Maydew (CE); Lebanon  
 \*Keith Eldon Mead (ME); Quinter  
 \*Roger Calvin Medlin (EE); Manhattan  
 \*Mark Paul Medved (ME); Kansas City  
 \*Kenneth Wayne Mee (GS-1; ChE-2);  
 Maplehill  
 \*Donnetta Lucile Meier (HE&A); Abilene  
 \*Elnora Catherine Meier (HE); Hanover  
 \*Marie Martha Meinen (HE); Ruleton  
 \*Everett Burton Mendenhall (EE); Ashland  
 \*Joseph Lauren Mendenhall (BA); Gove  
 \*George Hamlin Merrill (VM); Manhattan  
 \*Harry Ernest Merriman (ME); Marysville  
 \*Audrey Jean Merryfield (IM&D);  
 Minneapolis  
 \*Louis G. Messerli, Jr. (ME); Turon  
 \*John Wesley Metheney (Ag); Marienthal  
 \*Dorothy Nelle Meyer (BA); Riley  
 \*George Rudolph Meyn (ChE); Hanover  
 \*Robert B. Michael (VM); Manhattan  
 \*Irvin Earl Middleton (ChE-1; GS-2);  
 Selma  
 \*Karl Meade Middleton (ME); Manhattan  
 \*Charles Earl Miller (Ag-1; MuE-2);  
 Marquette  
 \*Dale Elvis Miller (CE); Manhattan  
 \*Henry Julian Miller, Jr. (ME); Merriam  
 \*Jewel Elmina Miller (HE); Kismet  
 \*Joseph Sanford Miller (ME); Liberal  
 \*Margaret Grace Miller (GS); Syracuse  
 \*Merle Eugene Miller (IA); Great Bend  
 \*Rex Leon Miller (AA); Deerfield  
 \*Roy Grant Miller (PVM); Kansas City  
 \*Rufus Arnold Miller (VM); Hiawatha  
 \*Velma Lorene Miller (PE); Raymond  
 \*Warren Eugene Miller (Ag); Agra  
 \*Ray Millert (VM); Kansas City  
 \*Robert Lee Mingle (ME); Oakley  
 \*Coy Vernon Mitchell (CE); Topeka  
 \*Evelyn Teresa Mitchell (HE); Axtell  
 \*Sanford Kenneth Moats (ME); Mission  
 \*Clyde Ellis Moles (PVM); Merriam  
 \*Stanley Donald Mollhagen (ME); Bushton  
 \*Robert Emmett Monahan (GS); Marysville  
 \*Mary Louise Monroe (IM&D-1; BA-2);  
 Enterprise  
 \*Charles Wright Moore (BA); Manhattan  
 \*Darrel Herman Moore (ME); Bison  
 \*Ellen Lucile Moore (HE); Manhattan  
 \*Helen Louise Morgan (HE&A); Alta Vista  
 \*Don Eugene Morris (ME); Colby  
 \*Marcus Daniel Morris (VM); Manhattan  
 \*Margaret Clea Morris (GS); Minneapolis  
 \*Mary Jane Morris (HE&N); Council Grove



## FRESHMEN—Continued

- \*James Francis Morrow (PVM); Marysville  
 \*Robert Allen Morstorf (Ag); Delia  
 \*George Leroy Mortimer (ArE); Manhattan  
 \*Jacob Eugene Mosier (Ag); Hoxie  
 \*Wendell Claude Muck (ME); Clay Center  
 \*Harry Walter Mudge, Jr. (Ag); Gridley  
 \*Wayne Willis Mueller (EE); Sylvan Grove  
 \*Dorothy Mae Muetze (IJ); Manhattan  
 \*Daniel Albert Muller, Jr. (ChE); Manhattan  
 \*John Austin Murphy (EE); Detroit  
 \*Jack Manwarring Muse (MI); Manhattan  
 \*Clayton Dwight Myers (GS); Richland  
 \*Richard B. Myers (VM); Bethel  
 \*Roy Shuji Nagakura (Ag); Hilo, Hawaii  
 \*Clayton Acre Nattier (ChE); Concordia  
 \*Leo Gene Neal (GS); Belleville  
 \*James Boyd Nebergall (ME-1; PE-2);  
 Newton  
 \*Alven William Neff (IC); Manhattan  
 \*Vernon Martin Neff (Ag); Ulysses  
 \*Bruce Francis Neill (Ag); Miltonvale  
 \*Hobert Dwight Neill (Ag); Vassar  
 \*Glen Roy Nelson (GS); Norcatur  
 \*Maurice Vincent Nelson (ChE); Newton  
 \*Morna Mae Nelson (IM&D); Manhattan  
 \*Robert Roy Nelson (ME); Manhattan  
 \*Robert Watson Nelson (ME); Minneapolis  
 \*Michael Sidney Newborg (Ag);  
 New York, N. Y.  
 \*Lois Maxine Newell (HE&N); Stafford  
 \*Howard Lyle Newkirk (PVM); Lyons  
 \*James Robert Newlin (ME); Hillsboro  
 \*Rodney Lee Newman (ME); Arkansas City  
 \*Dean Irwin Newton (PVM-1; ChE-2);  
 Salina  
 \*Eunice Evelyn Niblo (HE); Muscotah  
 \*Fred Wayne Nickelson (CE); Topeka  
 \*Margaret Joyce Nickerson (HE); Bushton  
 \*Melvin Adolph Niemeier (ME); Bremen  
 \*Delora Pluma Nissen (IM&D); Wichita  
 \*Beth Rene Noble (HE); Wichita  
 \*Laurence Herman Noller (EE); Topeka  
 \*Max Elliott Nordyke (CE); Wichita  
 \*Elgin Lynn Norris (EE); Wamego  
 \*Dorothy Lou Parkin Novak (HE);  
 Kansas City  
 \*Grant Elwood Nunn (Ag); Vesper  
 \*Grover Pleasant Nutt, Jr. (PE); Waverly  
 \*Berniece Malinda Nuttleman (HE&N);  
 Great Bend  
 \*Marian Ober (HE); Minneapolis  
 \*Kenneth Delmarr Oberg (BA); Manhattan  
 \*Howard Grant O'Connor (IC); Kansas City  
 \*Marvin Charles Odgers (AE); Washington  
 \*Charles William Olson (ChE); Manhattan  
 \*David Hedge Olson (EE); Wichita  
 \*Harold Lee Olson (ArE-1; BA-2);  
 Marysville  
 \*Howard William Olson (ArE); Marysville  
 \*Jay Richard Olson (PVM); Glasco  
 \*Louis Warren Olson (BA); Marquette  
 \*Margery Frances Olson (IM&D); Lawrence  
 \*Phillip Humphrey Olsson (AM);  
 Junction City  
 \*Donald Joe O'Neal (ME); Colby  
 \*Roger W. Orr (IA); Kanona  
 \*James Virgil Osburn (ArE); Wichita  
 \*Warren Wesley Oshel (Ag); Edgerton  
 \*Harry Lester Oswalt (ME); Garden City  
 \*Bill Howard Otten (CE); Wichita  
 \*Doreen Faye Paddock (IJ); Oberlin  
 \*George Calvin Padgett (ME); Greenleaf  
 \*Dorothea Eileen Page (HE); Hazelton  
 \*Robert Edward Paige (ME); Salina  
 \*Kendrick Lowell Palmer (ChE); Murdock  
 \*Dale Corwin Pancake (MI); Haddam  
 \*Louise Jean Parcel (HE); Coldwater  
 \*Goldie Maxine Parker (HE); Trousdale  
 \*John Benjamin Parker (BA); Junction City  
 \*Kenneth Wayne Parker (Ag); Manhattan  
 \*Welton Russell Parker (Ag); Trousdale  
 \*Ethelinda Elizabeth Parrish (GS);  
 Manhattan  
 \*Philip Harold Parsons (Ag); Hugoton  
 \*Jewel Iona Pasley (BA); Topeka  
 \*Herman Dale Patterson (EE); Lorraine  
 \*Lucius Kennedy Patterson (GS);  
 Fort Bliss, Tex.  
 \*Betty Lee Payne (HE); Topeka  
 \*John Leslie Pearson (MI); Hazelton  
 \*Ruth Irene Peck (IM&D); Haviland  
 \*Ruth Eileen Peddicord (HE); Wamego  
 \*Delbert Raymond Peel (IC); Garnett  
 \*Maurine Anne Pence (GS); Manhattan  
 \*Jean Marilyn Pendergraft (HE); Emporia  
 \*Don Arthur Pepper (ME); Topeka  
 \*Jack Louis Perkins (ChE); Kansas City  
 \*H. J. Perreten (PVM); Kansas City  
 \*Christine Mae Perry (BA); Greenleaf  
 \*Henry Junior Peterson (Ag); Garrison  
 \*Richard Duane Peterson (PVM); Clearwater  
 \*Glenn Jean Petty (BA); Toronto  
 \*Margaret Ann Pfrang (HE); Goff  
 \*Byron Blake Phillips (IC); Manhattan  
 \*Earl Norton Phillips (Ag); Manhattan  
 \*James William Phillips (BA); Cedar Point  
 \*Lovella Wondola Phillips (IM&D);  
 Hiawatha  
 \*Bernard Thomas Pierce (AE); Manhattan  
 \*Harold Edward Pierce (BA); Wamego  
 \*John Theodore Pierce (EE); Fort Riley  
 \*Thelma Elaine Pierce (IM&D); Marion  
 \*Harold Wayne Pierpont (GS-1; EE-2);  
 Benedict  
 \*Robert Earl Pilkington (ME); Winfield  
 \*Elizabeth Winifred Ploger (HE&N); Kinsley  
 \*Barbara Jane Plumb (HE&A); Manhattan  
 \*Maurice Lee Plummer (GS); Hymers  
 \*Alfred Nelson Poindexter (VM);  
 Kansas City  
 \*Betty Jeanne Poland (GS); Manhattan  
 \*Marvin John Poland (AE); Chapman  
 \*Grant Calvin Poole (ME); Manhattan  
 \*James Armer Porter (VM); Fredonia  
 \*Melvin A. Porter (ME); Dellvale  
 \*Robert Edward Post (Ag); Fowler  
 \*Joe Potter (ArE); Garden City  
 \*Lloyd Wayne Pottroff (Ag); Waverly  
 \*Gwenneth Gertrude Praeger (HE-1; GS-2);  
 Clafin  
 \*Gertrude Annette Prather (IM&D); Oakley  
 \*Mina Arlene Pressgrove (HE&A); Tecumseh  
 \*Odessa Dee Preusch (BA); Healy  
 \*Edward Reid Price (PE); Osborne  
 \*Richard Lee Proffitt (BA); Chase  
 \*Earl Carleton Pugh (VM); Salina  
 \*Leonard Ward Purington (PVM); Collyer  
 \*Patricia Louise Putnam (IM&D); Admire  
 \*Jack Stanley Pyle (PVM); Haviland  
 \*Jack Holman Quinby (BA); Kansas City  
 \*Robert William Radcliffe (MI); Bogue  
 \*Harold Horner Ramsour (AE);  
 Junction City  
 \*Bentley Randall, Jr. (Ag); Ashland  
 \*Betty Allys Randall (HE); Climax  
 \*John Warren Randell (ChE); Colby  
 \*John David Rasure (BA); Topeka  
 \*Margie Pauline Rasure (HE&A); Goodland  
 \*Teddy B. Rathliff (PVM); Portis  
 \*Harrison Ravenscraft (ChE-1; GS-2);  
 Liberal  
 \*Richard Lyle Rea (ME); Topeka  
 \*Duane Cyril Redfield (GS); Bucklin  
 \*Helen Bell Reed (IJ); Larned



## FRESH MEN—Continued

- \*Robert Chamberlain Reed (VM); Stockton  
 \*Theodore Harold Reed (PVM); Norton  
 \*Robert Franklin Reese (GS); Copeland  
 \*Melvin Louis Repstine (PE); Manhattan  
 \*Glenn Howard Rice (ME); Manhattan  
 \*Thelma Irene Rice (IM&D); Jennings  
 \*Frank Porter Richards (ME); Manhattan  
 \*Robert Yale Richards (IC); Manhattan  
 \*Joe Junior Ridgway (PVM); Oberlin  
 \*Jack Lowell Rieb (ChE); St. Francis  
 Arley Warren Riffel (Ag); Stockton  
 \*Donald Eugene Riffel (AA); Stockton  
 Charles Watson Riley (VM); Manhattan  
 John Lewis Riling (VM); Lawrence  
 \*Nina Lois Ringwalt (GS); Oakley  
 \*John David Rising, Jr. (BA);  
 Westfield, N. J.  
 \*Anna Lorene Roberts (HE); Manhattan  
 \*George Henry Roberts (PVM); Cawker City  
 \*Milton Daniel Robertson (PVM);  
 Cumberland, N. C.  
 Andrew Scott Robson, Jr. (EE);  
 Westmoreland  
 \*Clyde Kitt Rodkey (ChE); Manhattan  
 \*Alice Marie Roelfs (IJ); Bushton  
 \*Theodore Leon Roembach, Jr. (BA); Cheney  
 Maurice Allan Rogers (ME); Osborn  
 \*Stanley Bengston Rogers (Ag); Rexford  
 \*Tommy Tilton Rogers (PVM); Butler, Mo.  
 \*Floyd Earl Rolf (Ag); Pratt  
 Hautesse Etoile Rondeau (VM); Great Bend  
 \*William Bronson Root (ME); Leavenworth  
 \*Harold William Root (ChE); Chapman  
 \*Lois Jean Rosenberger (HE); Greensburg  
 \*Calvin Earl Ross (Ag); Mayfield  
 \*Marjorie Helen Ross (HE); Clifton  
 \*Joan Louise Rothweiler (HE&N); Ellsworth  
 Wayne Leonard Ruppert (IJ); Atchison  
 \*Jean Marie Ruscoe (BA); Wakefield  
 \*Bryce Gifford Russel (Ag); Canton  
 \*Charles Wilber Russell (ME); Hoisington  
 \*Margery Jean Russell (HE); New Albany  
 \*Orlin Vance Russell (Ag); New Albany  
 \*Myron Wayne Rutherford (Ag); Kirwin  
 \*Walter Habbe Saathoff (AA); Marysville  
 \*Charles Thomas Sampson, Jr. (AA);  
 Kansas City  
 \*Raymond Joseph Sander (ME); Alma  
 \*Robert Roy Santner (CE); Gaylord  
 \*Willard Clarence Sargent (ChE); Wichita  
 \*Charles Keith Saterlee (GS); Junction City  
 \*Ruth Maxine Sawyer (MuE); Kensington  
 Jack Harold Sayre (IJ); Manhattan  
 \*Glen William Scanlan (PVM); Chapman  
 \*Mary Lou Searborough (IM&D);  
 Great Bend  
 Robert Martin Scheloski (PVM);  
 Kansas City  
 \*Louise Ann Scherger (VM); Manhattan  
 \*John Horatio Schesser (PVM); Horton  
 \*Jack Denman Scheu (BA); Manhattan  
 \*Joseph Francis Schindelar, Jr. (Ag);  
 Bound Brook, N. J.  
 \*Richard Thayer Schindling (ME);  
 Leavenworth  
 \*David Eugene Schirmer (Ag); Holton  
 \*Barbara Jean Schmidt (PE); Anthony  
 \*LeRoy Hurst Schmidt (ME-1; Ag-2);  
 Achilles  
 \*Robert Adams Schmidt (ChE); Lyons  
 \*Mary Louise Schneider (IM&D); Logan  
 \*Naomi Margaret Scholler (BA); Logan  
 Edwin Andrew Schoen (VM); Lenora  
 \*Robert Virgil Scholes (PVM); Topeka  
 Paul A. Schoonhoven (VM); Manhattan  
 \*Frank Edward Schryer (ME); Manhattan  
 \*Ruth Augusta Schubert (HE&A);  
 Bonner Springs  
 \*Leon Schulman (ChE); Brooklyn, N. Y.  
 \*Clara Virginia Schultz (IJ); Hoisington  
 Charles Blades Schwab (VM); Manhattan  
 \*Harold Eugene Schwalm (PVM);  
 Little Rock, Ark.  
 \*Tobias Theodore Schwartzberg (IC);  
 Bronx, N. Y.  
 Melvin Frank Scoby (VM); Fairview  
 \*Lawrence William Scott (GS);  
 Langhorne, Pa.  
 \*William Donald Seaman (GS); Manhattan  
 Chester Orvis Sebert (Ag);  
 Kansas City, Mo.  
 \*Keith Emerson Seelig (CE); Clifton  
 \*Margaret Anne Seely (MuE); St. John  
 \*Charles Dwinnell Seiler (ChE); Topeka  
 Viola Elizabeth Setter (HE&N); Manhattan  
 \*Ralph Durward Seymour (ME); Burden  
 Don Eugene Shaffer (ME); Wichita  
 \*Laurence Goodwin Shaffer (ChE); Kingsley  
 Clarence LeRoy Shandy (Ag); Wakefield  
 \*Robert Emery Shaw (ME); Wichita  
 \*Barbara Ellen Sheffer (HE); Manhattan  
 \*Frederick Earle Sherlock (PVM); St. Francis  
 \*Arlene Leota Shields (HE); Wamego  
 \*Kenneth Duane Shields (ME);  
 Council Grove  
 \*Edith Roberta Shimer (IC); Topeka  
 \*Donald David Shirik (GS-1; EE-2);  
 Sedgwick  
 \*Loretta Louise Shockey (PE); Winfield  
 Allen Baer Shopmaker (VM); Kansas City  
 Roy Raymond Shriver (Ag); Gardner  
 \*John Wallace Shupe (CE); Ford  
 Clifford Paul Sickles (BA); Winfield  
 LeRoy Oliver Sidfrid (Ag); Topeka  
 \*Harold Leslie Siegle (ChE); Princeton  
 \*Ruth Elda Seimer (BA); Oxford  
 \*Alexander Frank Silady (CE); Kansas City  
 \*Daryl Marvin Simmons (Ag); Barnard  
 \*Dorothy Maude Simmons (HE); Ashland  
 \*Herbert Walton Simmons, Jr. (GS); Salina  
 \*Gene Pauline Simon (IJ); Manhattan  
 \*Addison Marshall Skaggs (ME-1; GS-2);  
 Leavenworth  
 \*Ross Douglas Skinner (GS); Delphos  
 \*Charles James Slawson (ME); Kansas City  
 \*Betty Jean Shuss (IJ); El Dorado  
 \*Millie Evangeline Small (HEA);  
 Conway Springs  
 \*David Wilmer Smith (PVM); Enterprise  
 \*Hugh Darrell Smith (Ag); Hugoton  
 \*Elaine Bessie Smith (HE); Manhattan  
 \*Frances Mariou Smith (IC); Merriam  
 \*Frank Charles Smith (GS); Summerfield  
 \*Gordon Le'and Smith (VM); Kingsdown  
 \*Jack Hayden Smith (EE); Lyons  
 \*James Ellis Smith (ME); Manhattan  
 \*John William Smith (VM); Harveyville  
 Kenneth Gordon Smith (ME); Great Bend  
 \*Meryl Edith Smith (GS); Colby  
 \*Patricia Winslow Smith (IM&D); Quinter  
 \*Robert Newton Smith (ME); Sterling  
 \*Lyle Dean Snider (Ag); Talmage  
 \*William Edward Snodgrass (PVM); De Soto  
 \*Ralph Edward Snyder (Ag); Junction City  
 Winifred Arlee Soderberg (PE); Manhattan  
 \*Ruth Elaine Soelter (HE); Wamego  
 \*Ahda May Somers (IJ); Galva  
 \*Audrey Berniece Somers (BA); Galva  
 \*Arnold Dean Spencer (Ag); Whiting  
 \*Dale Eugene Spencer (BA); Oakley  
 \*Harvey George Spencer (ChE); Whiting  
 \*Howard Thomas Spencer (Ag); Concordia  
 \*Barbara Jean Sperry (IJ); Overland Park  
 \*Earl Davis Spidel (EE); Burlingame  
 Fred Calvin Sprague (AA); Lincoln  
 John Milton Spratt (GS); Wichita

## FRESHMEN—Continued

- \*Paul Gerald Spring (GS); Sabetha  
 \*Glenn Eugene Springer (ME); Salina  
 \*Leland Eugene Stalker (AE); St. John  
 Dale Francis Starr (AA); Soldier  
 \*Richard Louis Steele (EE); Smith Center  
 \*Donald Monroe Stegge (BA); Pittsburg  
 \*Dudley Frank Stegge (BA); Pittsburg  
 \*Paul William Stegman (CE); Hanston  
 \*George West Stelter (AA); Abilene  
 \*Dale Jess Stephens (ME); Anness  
 \*George Harold Stephens (AA); Cherokee  
 \*Allen Eugene Stephenson (Ag); Sedan  
 \*Everett Southward Stephenson (AE);  
 Wichita  
 Leland Lloyd Stephenson (VM);  
 Independence  
 \*Wilmer Reid Stephenson (Ag); Sedan  
 \*William James Sterling (Ag); Hardtner  
 \*Charles Richard Stevenson (Ag); Manhattan  
 \*Charlotte Ann Stevenson (IJ); Oberlin  
 \*Lawrence Grant Stevenson (ArE); Pomona  
 \*William Dale Steward (Ag); Clay Center  
 Jeral Dean Stewart (SH); Wellington  
 Lester Ellis Stewart (Ag); Waterville  
 \*Margaret Emily Stewart (IM&D);  
 Kansas City, Mo.  
 \*William Gene Stewart (EE); Colby  
 \*Don Sheldon Stiers (ChE-1; MuE-2); Alma  
 \*Frank Cranmer Stiles, Jr. (ME);  
 Overland Park  
 \*Evelyn Louise Stockwell (HE&A-1; IJ-2);  
 Hutchinson  
 \*Mary Virginia Stone (MuE);  
 Honolulu, Hawaii  
 E. Kirk Stonebraker (VM); Leavenworth  
 Elmer Henry Strathman (VM); Seneca  
 Betty Jane Stratton (HE); Hartford  
 \*Mary Alice Streater (IM&D); Denton  
 \*William Reel Streeter (PVM); Kansas City  
 \*Andora Lucille Strickland (MuE);  
 Fort Dodge  
 Helen Floy Strom (IM&D); Dwight  
 \*Samuel James Strong (PVM); Kansas City  
 \*Calvin Arthur Strowig (IC); Abilene  
 \*Leland Ray Studt (EE); Glasco  
 \*Norman Paul Stuewe (ME); Alma  
 Charles Delbert Stumpff (VM); De Soto  
 \*Beatrice Elizabeth Sundgren (HE&N); Falun  
 Charles Wayne Sundgren (GS-1); Hays  
 \*Norman Eric Sundgren (Ag); Falun  
 \*Betty Jane Swan (HE); Argonia  
 \*Richard Seger Swanson (ArE); Concordia  
 \*Richard Henry Sweers (ME); Kansas City  
 \*Sherley June Swengel (BA); Wichita  
 \*Margaret Adelaide Swift (HE); Holton  
 \*Doris Mae Swisher (HE); Greensburg  
 \*Richard Sypniewski (ME); Buffalo, N. Y.  
 Wiley Bevis Tanner (VM); St. John  
 \*Bernard Joseph Tarkowski (GS); Belleville  
 \*Lloyd Byron Tarrant (GS-1; ArE-2);  
 Stafford  
 \*Billie Jean Tarwater (HE); Manhattan  
 \*Dorothy Wilcox Taylor (HE); Goodland  
 \*Julia Louise Taylor (PE); Colby  
 \*Warren LeRoy Taylor (IJ); Manhattan  
 \*Virgil Lawton Teeter (ME); Hutchinson  
 \*Vance Newton Templeton (BA); Logan  
 \*Jantha Alice Terrill (PE); Hutchinson  
 \*Warren Edward Tharp (PE); Atchison  
 \*Harry Eugene Theobald (Ag); Yates Center  
 \*Adrian Alfred Thomas (EE); Ludell  
 \*Matthew Llewellyn Thomas (VM);  
 Kansas City  
 \*Donald Lee Thompson (BA); Stockton  
 \*Everett Dale Thompson (EE); Hunter  
 Foy Nelson Thompson (ME); Harper  
 \*Gerald Wayne Thompson (Ag); Easton  
 \*Kenneth Wayne Thompson (ArE);  
 Phillipsburg  
 Loren Walter Thompson (GS); Harper  
 \*Neil Baird Thompson (IJ); Manhattan  
 \*Ruth Phyllis Thompson (HE); Manhattan  
 \*John Eugene Thomson (MI); Irving  
 \*Kenneth Lee Thowe (CE); Alma  
 \*Isabel Helen Tipton (HE); Glen Elder  
 \*Gladys Bernice Tjaden (IM&D); Wichita  
 \*Donald Edward Toews (ME-1; PE-2);  
 Newton  
 \*Frank Rollins Tomlins (BA&A); Wellington  
 \*Mary Elizabeth Topping (HE&N); Lawrence  
 \*Roberta May Townley (HE); Abilene  
 \*Harold Maurice Townsend (EE); Manhattan  
 \*Cora Ida Trapp (HE); Waldo  
 \*Betty Lou Traylor (IJ); Larned  
 \*Robert Gene Tribble (EE); Soldier  
 \*Charles Stephen Tripp (CE); Burlington  
 Robert Talbot Trotter (ME); Topeka  
 \*George Stanley Tuttle (ChE); Lucas  
 \*Harry William Tyrrell, Jr. (ME); Columbus  
 \*Wayne Hubert Ukena (Ag); Robinson  
 \*James Lawrence Underwood (PVM);  
 Berryton  
 \*Curtis Jellison Vague (GS); Ellsworth  
 Idel Van Beber (HE); Manhattan  
 \*Oather Crawford Vance (ChE); Wichita  
 \*Warren Lewis Vance (ME); Mankato  
 \*Wilma Irene Vance (HE&A);  
 Kansas City, Mo.  
 \*Sibyl Fay VanLeewen (IC); Vesper  
 \*Audrey LaVerne VanMetre (HE); Sublette  
 \*Leta Ruth Van Metre (GS); Sublette  
 Philip Alexander Van Winkle (IJ);  
 Manhattan  
 \*Richard James VanWinkle (Ag-1; ME-2);  
 Manhattan  
 \*Mike Vargon (GS); Kansas City  
 \*Leslie Jean Vasconcells (IJ); Ellsworth  
 \*Virginia Lee Vinning (IM&D); Concordia  
 \*Armand Corrington Vigneron (ME);  
 Osage City  
 \*Joe Alvin Vining (ME); Horton  
 \*Harry Wayne Vinson (CE); Garfield  
 \*Earl Constantine Voelker (PVM);  
 Manhattan  
 \*Elmer Vogt (GS-1; AE-2); Meade  
 Carl Frank Votapka (IA); Jennings  
 \*Alvin Duane Vyff (EE); Lebanon  
 \*Wesley Vytlaeic (GS); Republic  
 Warren William Wakeman (Ag); Wathena  
 \*Robert Dean Waldron (Ar); Winfield  
 \*Earl Raymond Walker (PVM); Osborne  
 Howard Waldren Walker (EE);  
 Smith Center  
 Roy Harold Walker, Jr. (ME); Manhattan  
 \*Alice LaVaughn Wallace (HE); Plains  
 \*John Perry Wallace (ChE); Ottawa  
 \*Thurman Walling (ME); Wichita  
 \*Frances Elaine Walls (BA&A); El Dorado  
 \*Clarence Ray Walters (ME); Chase  
 \*Janice Arlowyn Warders (BA); Marysville  
 \*Earlene Elma Watner (IM&D); Glasco  
 \*Margery Kathleen Warren (HE); Jennings  
 Edwin Joseph Wassmer (IC); Garnett  
 \*Charles Eugene Watkins (AA); Kiowa  
 \*James Pearson Weary (ChE); Junction City  
 Kenneth Benjamin Weaver (Ag); Mullinville  
 \*Phyllis Norma Weckerling (BA); Manhattan  
 \*Ralph William Wedd (ChE); Oak Hill  
 \*Elwood Edward Wedman (PVM); Harper  
 \*Wilbur Francis Weedin (MI); Marysville  
 \*John Francis Welch (ME); Goff  
 \*Keith J. Weller (Ag); Kipp  
 \*Marjorie Estelle Wellman (HE); Liberal  
 Donald Emmerson Wells (AA); Manhattan



## FRESHMEN—Concluded

- \*Lucy Catherine Wells (HE-1; IJ-2);  
Stockton  
John Wayne Welty (GS); Hill City  
Rex Gordon Welty (GS); Hill City  
\*Clinton Everett Wendland (AA); Randolph  
\*Marvin LaVern Wendte (Ag); Paola  
Merrill Harmon Werts (PVM);  
Smith Center  
Wesley Hargitt Wertz (VM); Quinter  
\*Jay Alfred West (Ag); Nekoma  
\*John Beiser Westwood (ME); Lewis  
\*Elton Ray Weygandt (BA&A); Manhattan  
\*Frank Elbert Whipple, Jr. (IJ); Manhattan  
\*Lou Ida White (HE&N); Effingham  
\*Ollie Wilford White, Jr. (EE); Peru  
\*Robert Benton White (BA); Liberal  
\*William John White (GS-1; MI-2); Liberal  
\*Willis Dale Whiteman (ME); Hoisington  
\*Paul Wesley Whiteside (GS-1; CE-2);  
Fredonia  
\*Dorothy Helen Whitelow (GS); Randolph  
\*Betty Irene Whitney (GS); Manhattan  
Kenneth Clyde Whittier (IA); Muscotah  
\*Benjamin Franklin Whittridge (AA); Allen  
\*Henry William Wichers (IC); Manhattan  
\*Beatrice Louise Wicke (HE); Menlo  
\*Dale D. Wickham (EE); Norcatour  
\*Carmen Koster Wilcox (PE); Minneapolis  
\*Neff Elwin Wilds (Ag); Collyer  
\*Howard Wilkins (ME); Chapman  
\*Norma Lee Wilkinson (HE); Stafford  
\*Clyde Conwell Williams (PVM); Manhattan  
Earl Eugene Williams (PVM); Dodge City  
Edred Blaine Williams (ChE); Belleville  
\*Jack Otis Williams (ME); Neodesha  
\*Patricia Claire Williams (IJ); Wichita  
\*Ronald Royce Williams (SH); Macksville  
\*Wayne Thomas Williams (IJ); Abilene  
\*Edith Helen Willis (HE); Manhattan  
Warren Wesley Willis (EE); Manhattan  
\*Donna Dell Wilson (HE); Manhattan  
\*Edith Mary Wilson (HE); Carlton  
\*Esther Mae Wilson (HE&A); Anthony  
\*Henry Wilbur Wilson (EE); Hoisington  
\*Robert George Wilson (Ag); St. George  
\*Winston Harold Wingerd (SH-1; IC-2);  
Navarre  
\*Lois Marie Wingrave (HE); Severy  
\*Cleo Verl Winter (ME); Manhattan  
\*John Calvin Winters (ChE); Kansas City  
\*Leo Andrew Wirtz (EE); Great Bend  
\*Stanford Lyle Wise (ME); Clearwater  
\*Dorothy Ann Wolf (HE); Gardner  
Richard Archie Wolffing (Ag); Manhattan  
\*Dale Gust Wolfram (Ag); Whitewater, Wis.  
\*Anabel Wood (HE); Mayetta  
\*Glenn Allen Wood (ChE); Topeka  
\*James Paul Wood (Ag); Clifton  
\*Leonard Eugene Wood (ChE); Burr Oak  
\*Mary Elaine Wood (HE); Overland Park  
\*Leslie Scott Woodruff (ChE); Wamego  
Emily Maurine Woodward (HE&A);  
Manhattan  
\*Galen Irvin Woodward (ME); Richland  
\*Norman Lee Woolgar (ME); Manhattan  
\*Ava June Worcester (HE); Hill City  
Alma Grace Worwag (BA); Sabetha  
\*Carollee Wray (AM); Tipton, Mo.  
\*Austin Conrad Wright (Ag); Norwich  
\*Helen Margot Wright (HE&N); Manhattan  
\*Otis Glenn Wycoff (ME); Radium  
Robert Creston Yapp (BA); Manhattan  
\*Vernon Seever Yaussi (Ag); Hiawatha  
Hazel Belle York (HE&N); Dunlap  
\*Laurence Wiley York (Ag); Wilmore  
\*Paul Keith Yost (IC); Dighton  
\*Guy Young, Jr. (Ag); Westphalia  
\*John Steward Young (EE); Ottawa  
\*William Patrick Young (BA); Kansas City  
\*Joseph Charles Youngblood (BA); Atwood  
\*Charles Frederick Yunghans (GS); Piper  
\*Clarence Edmund Zarnowski (Ag); Newton  
\*Patricia Evelyn Zellner (IM&D);  
Kansas City  
\*Frances Jean Zibell (HE); Holton  
\*Joe Edward Zollinger (ChE); Junction City

## SPECIAL STUDENTS

- Wilbur Eldon Ashton (Ag-1; GS-2);  
Manhattan  
\*Dorothy May Baldwin (GS); Cimarron  
\*Marjorie Ann Barrett (HE-1; GS-2); Pratt  
\*Marjorie Jane Casey (GS); Manhattan  
\*Clement Allen Engle (GS); Madison  
\*Dorothy Stillwagon Fry (HE); Manhattan  
John Harold Gantz (GS); Plymouth, Ind.  
Raymond B. Hill (Ag); Manhattan  
Manhattan  
\*Mae Ellen Hygh (HE); Big Sandy, Tex.  
\*Helen Marie Johnson (GS); Nemaha, Neb.  
\*John Henry Kirch (GS); Larned  
\*Dorothy Mariam McInroy (GS); Topeka  
\*John Seguire McRae (GS); Manhattan  
\*Helen Mabel Milleson (GS); Junction City  
Joseph John Stefani (GS); Detroit, Mich.  
\*Hazel Leota Talbot (HE); Alliance, Neb.  
\*Enroque Vidal Martins (Ag);  
Montevideo, Uruguay, S. A.



# SUMMER SCHOOL STUDENTS

## Nine-week Summer School

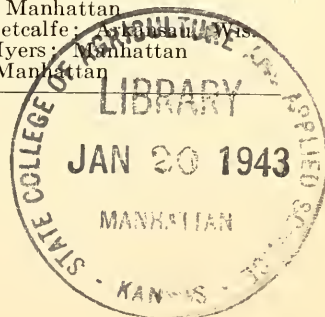
MAY 28 TO JULY 26, 1941

### GRADUATE STUDENTS

Fred D. Allison; Abilene  
Paul Edmund Allison; Lincoln  
Ethlyn H. Alsop; San Francisco, Cal.  
Georgia A. Appel; Bushton  
Jane Elizabeth Baker; Springfield, Mo.  
Montee Robert Baker; North Platte, Neb.  
Verne Adel Barnes; Kansas City  
Viola Frances Barron; Kensington  
Glenn Hanse Beck; Manhattan  
Stella Beil; Bavaria  
Marjorie M. Berger; Manhattan  
William Ellsworth Berger; Manhattan  
Gladys O. Bergmann; Axtell  
Vera L. Bible; Emporia  
Lee Ella Blake; Kansas City  
Neva Charlene Bloomenshine; Mulvane  
Bernard Benjamin Bohren; Manhattan  
Robert Joe Boles; Wilmore  
Roy Elmer Bonar; Alta Vista  
Travis Russell Borgmann; Longmont, Colo.  
Mary Dean Brainard; Carlyle  
Edward Lowell Brandner; Leoti  
Charles H. Bratt; Nebraska City, Neb.  
Robert Woodbury Bray; Dodgeville, Wis.  
Amelia Blanche Brooks; Manhattan  
Travis Epps Brooks; Manhattan  
Gerald James Brown; Circleville  
Burnell Howard Buikstra; Cawker City  
Edward Erle Buller; Inman  
William Boone Bunger; Topeka  
Frank Sherman Burson; Manhattan  
A. B. Cameron; Smith Center  
Charles Loyd Cassel; Culver  
Paul Raymond Chilen; Solomon  
Esther I. Chitwood; Meriden  
Doris Leota Clark; Longton  
Christine Helen Coleman; Pine Bluff, Ark.  
Zelia S. Coleman; Marshall, Tex.  
Eleanor Berdina Collins; San Antonio, Tex.  
Betty Ruth Conley; Cozad, Neb.  
Robert Warren Conover; Manhattan  
Muriel Marie Corrigan; Effingham  
Morris Seefert Cover; Manhattan  
Golda Mildred Crawford; Manhattan  
Veola Mae Crouch; Houston, Tex.  
Merritt Ira Darrow; Leslie, Mich.  
Laura Pettice Davis; Lexington, Mo.  
Marguerite Rose Davis; Independence  
Lillian Alpha Dees; San Antonio, Tex.  
Deda H. DeYoung; Prairie View  
James Arthur Dilts; Stillwater, Okla.  
Paul Lawrence Dittmore; Manhattan  
Opal Dougherty; Manhattan  
Helen Marjorie Duncan; Wichita  
Genevieve Elizabeth Dziegiel; Clinton, N. Y.  
Cecil Harold Eberle; Alta Vista  
Irene F. Eisenhower; Ramona  
Agnes Engstrand; Manhattan  
Frank David Faulkner; Severy  
Everett L. Fiedler; Wamego  
Lud Charles Fiser; Atchison  
Harold Robert Fox; Manhattan  
Alva Henry Freeman; Oakley  
Caroline French; Lyndon  
Ernal P. Galbraith; Blanding, Utah  
Alice Chapman Gaston; Downs  
Henry Isely Germann; Fairview  
Ernest Constance Goforth; Winfield  
Mabel Lillian Good; Kensington  
George Vernon Gooding; Lincoln, Neb.  
Chester Meyer Goodyear; St. John  
Viola Josephine Gordon; Eudora  
Geraldine Wilhelmina Gosch; Norwich  
\*Eldon W. Graber; Whitewater  
Frederick John Gradishar; Ely, Minn.  
Albert Wendell Grundman; Manhattan  
Alice Crosby Gunn; Kansas City, Mo.  
Lois Virginia Gwin; Washington  
Herbert Frank Haas; Kansas City  
Eleanor June Harsh; Argonia  
Wilda M. Hay; Belleville  
Barney Allen Hayes; Princeton, Mo.  
Myrtle G. Hayzlett; Marysville  
John James Heimerich; Concordia  
\*Elmer Frederiek Herman; Carlton  
Francis Floyd Herr; Medicine Lodge  
Lois Margaret Hershey; Wichita  
Floyd Arthur Holmes; Prescott  
Kenneth Bert Hoover; Detroit  
Mildred Eileen Hoss; Lyons  
William Luther Hoyle; Stilwell  
Irene Monica Hughes; Wichita  
Maggie Lorene Jeffrey; Elmdale  
Esther Elizabeth Jenkins; Jewell  
L. Virginia Jennings; Burlingame  
Geneva Johnson; Marysville  
Dale V. Jones; Herington  
John Owsley Jones; Elk City  
Juanita Isabel Kahler; Elkhart  
Donald Henry Kaufmann; La Crosse  
Doris Chung Sook Kim; Hilo, T. H.  
Marlys King; Attica  
Sophia Theodoia Kirkpatrick; Easton  
Kathryn Marie Knechtel; Larned  
Mildred J. Kratochvil; Manhattan  
Margaret B. Landon; Topeka  
Carl Ernest Latschar; Manhattan  
Margaret Mildred Lawrence; Bartlett  
Sara Louise Lawrence; Wichita  
Myrl Dey Long; Ottawa  
Maron Jessie Lorimer; Olathe  
Grace Darling Lucas; Louisiana, Mo.  
Lucile Alice Lund; Manhattan  
Marian Frances McBride; Hume, Mo.  
Gladys Imogene McCarroll; Hamilton, Mo.  
Robert James McColloch; Manhattan  
John Henry McCoy; Manhattan  
Paul Owen McCoy; Blue Mound  
E. A. McFarland; St. John  
Vergil Miller McIntosh; Manhattan  
Melvin Magilow; Kansas City, Mo.  
Helen Rowena Marshall; Wheaton, Ill.  
Lyle Walker Martin; McPherson  
Margaret Irene Martin; Altamont  
\*Arthur James Mattis; Valley Falls  
Roy Webster Maze; Alma  
Calvin J. Medlin; Manhattan  
Henry John Meenen; Clifton  
Ella Jane Meiller; Manhattan  
Darrel Seymour Metcalfe; Manhattan  
Bernadine Helen Myers; Manhattan  
Elsie Lee Miller; Manhattan

\* Matriculated 1941-'42.

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GRADUATE STUDENTS—*Concluded*

- Russell Wayne Miller; Lebanon  
 Lloyd E. Milleson; Salina  
 Ruth Lo Tak Mo; Stanley, China  
 Clifford Merrill Moeller; Manhattan  
 Mary Hope Morris; Hutchinson  
 Raymond William Morrison;  
   Keosauqua, Iowa  
 Gertrude Edith Myers; Formoso  
 Ben A. Neill; Miltonvale  
 Anna Mae Nemechek; Abilene  
 Dorothy Emma Nichols; McCune  
 Marthel Lucile Oldham; Auburn  
 Annette Olson; Manhattan  
 Harry B. Olson; Cuba  
 Raymond August Olson; Lindsborg  
 Janet Oxley; Wichita  
 Aileen Ozment; Manhattan  
 Betty Ozment; Manhattan  
 Harriet June Ozment; Manhattan  
 Lillie Mae Paley; Waco, Tex.  
 Cecil H. Pankratz; Whitewater  
 John Kenneth Patterson; Reynolds, Neb.  
 Marion Paxton; Winfield  
 Jessie Adeline Pelham; Albany, Ga.  
 Leonard Milton Pike; Miltonvale  
 Clarence Andrew Pippin; Manhattan  
 Mila Margaret Pishney; Cleburne  
 Charles Morris Platt; Manhattan  
 Helen Louise Poole; Manhattan  
 William Joseph Promersberger;  
   Littlefork, Minn.  
 Henrietta Gillett Rankin; Burr Oak  
 Inez Rash; Wichita  
 Kathryn Ratzloff; Buhler  
 Harlan Edward Rees; Manhattan  
 Harold G. Regier; Hillsboro  
 Harold Duane Richardson; Prairie View  
 Frank Edgar Rickel; Manhattan  
 Stephen James Roberts; Manhattan  
 Jayne Glenn Robinson; Houston, Tex.  
 Jane Rockwell; Manhattan  
 Curtis L. Ruthrauff; Eudora  
 Steve Ryan; Lillis  
 Olga Barbara Saffry; Alma  
 James Walter Schendel; Richmond  
 Leslie Maurice Shaw; Altamont  
 \*Martha Gene Shelden; El Dorado  
 Lee Edward Shirley; Lucas  
 Mildred Minnie Siek; Hope  
 Paul Maurice Simpson; Salina  
 Sister Donata Bisette; Concordia  
 \*Blaine Edmunds Sites; Salina  
 \*Edna Marie Smith; Kingman  
 Genevieve Margaret Smith; Chicago, Ill.  
 George Lee Smith; Prairie View, Tex.  
 Hattie Alice Smith; Highland  
 Hester Smith; Manhattan  
 Frieda May Steckel; Virgil  
 Elsie Mildred Stevens; Manhattan  
 Charlesanna Stewart; Hutchinson  
 Edward Siemantel Stickley; Topeka  
 Warren Edward Stone; Bazine  
 Evelyn Emma Stout; Lone Elm  
 J. D. Strickland; Lubbock, Tex.  
 Hilmar Clinton Stuart; Garrison  
 Harriet Cordelia Taylor; Parsons  
 Alberta Mae Temple; Topeka  
 Yolanda Thompson; Manhattan  
 Gwendolyn LaVerne Tinklin; Atchison  
 Horace Carl Traulsen; Paxton, Neb.  
 J. W. Traux; Lyons  
 Lois Belle Turner; Manhattan  
 Ada Ruth Unruh; Hillsboro  
 Wilbur Unruh; Hillsboro  
 Loren Loeffler Van Petten; Washington  
 Rheas Maxine Viele; El Dorado  
 John Allen Wagoner; Manhattan  
 Arthur Waltner; Goessel  
 Anne Washington; Manhattan  
 Irene Margaret Wassmer; Garnett  
 Henrietta Ella Webb; Kansas City  
 LaVerne R. Weekly; Girard  
 Thomas Aloysius Weldon; Aurora, Ind.  
 James Ralph Wells; Manhattan  
 Homer T. Wesche; Manhattan  
 Glenn Arnold West; Manhattan  
 Anita Frances White; Wichita  
 Mary Frances White; Manhattan  
 Ernest Sherman Wild; Morehead  
 Cleo Elizabeth Willey; Osage, Iowa  
 Robert Dean Williams; Manhattan  
 Helen Mildred Wilmore; Halstead  
 Harry Lester Wimmer; St. George  
 Mary M. Windhorst; Altoona  
 James Kelly Woods; Burden  
 Lloyd Lander Woods; Wichita  
 Nelson Jones Wright; Wamego  
 Helen Iams Wroten; Beattie  
 Norma Geraldine Wunder; Valley Falls  
 Rita Louise Youmans; Desloge, Mo.  
 Georgette Helen Zakoura; Osawatomie

## UNDERGRADUATE STUDENTS

- Warren Harlin Acker; Junction City  
 Charles Henry Adams; Wilsey  
 †Donald Dwight Adee; Miltonvale  
 Grace Carver Adee; Manhattan  
 Kathleen Ahearn; Manhattan  
 Martha Lou Alexander; Hutchinson  
 Dale Allen; Seneca  
 Raymond Dale Allen; Seneca  
 Lueva Alsop; Wamego  
 Ruth Edna Alwin; Morrowville  
 Jeanne Amos; Manhattan  
 W. Glen Andrea; Holyrood  
 Robert Warren Annis; Gypsum  
 Robert Arbuthnot; Morrowville  
 Vera Arents; Leonardville  
 John Wesley Arnold; Chillicothe, Ill.  
 Mary Margaret Arnold; Manhattan  
 Clara Creta Atkinson; Fall River  
 James Culbertson Baker; El Dorado  
 Gertrude Virginia Ball; McFarland  
 Walter Bruce Ball; Topeka  
 Jacob William Banks; Atchison  
 Lola Marie Barger; Alma  
 Truman Morris Barrett; Dodge City  
 Grace Genevieve Bartley; Burdick  
 Viola Olga Baxa; Cuba  
 Richard Obil Beach; Havensville  
 Betty Lee Beatty; Ellsworth  
 Clarence August Bechtold; Gaylord  
 Alma A. L. Becker; Hartford  
 Phyllis Anita Belin; Green  
 Elizabeth L. Bell; Osborne  
 Ralph Bemis, Jr; Plainville  
 Phyllis Lorraine Benne; Morrowville  
 Leroy Eugene Bennett; Mankato  
 Leora Evalyn Bentley; Shields  
 Freeman Elmer Biery; Stockton  
 Mary Margaret Bishop; Haddam  
 Dwight Duane Blaesi; Abilene  
 Mildred Leona Blankenship; Eskridge  
 Fern Lucille Blaser; Marysville  
 Adzianna Mary Blochlinger; Concordia  
 Delta Maye Bloom; Oneida  
 Valta Faye Bloom; Oneida  
 Charles Henry Bloomenshine; Mulvane  
 Tom Felix Bolack; Burden

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 ‡ Also pursuing graduate study.



## UNDERGRADUATE STUDENTS—Continued

- Ellis Keating Boldra; Hamburg, Iowa  
 Ralph Edwin Bonewitz; Meriden  
 Gladys Luvile Boone; Toronto  
 Eldon E. Boyington; Goodland  
 Joseph George Boyle, Jr; Manhattan  
 Johnette Bradley; Wellington  
 Grace Louise Brandner; Leoti  
 Samuel Peter Breiner; Savonburg  
 Lester J. Brenneis; Hollenberg  
 John Gilbert Brewer; Arkansas City  
 Frances Lorraine Brooks; Norton  
 Berneice Beatrice Brown; Toronto  
 Eleanor Kathryn Brown; Wheaton  
 John P. Brown; Wamego  
 Mary Margaret Brown; Wheaton  
 Roberta Hazel Brown; Wamego  
 Sealy Mark Brown; Manhattan  
 Teloir M. Brown; Ashland  
 Veronica Anne Brown; Wheaton  
 Wilma Alene Brown; Mildred  
 Frances Argyle Brumfield; Jetmore  
 Lawrence Theodore Buening; Valley Falls  
 Florence Lorraine Bullimore; Clay Center  
 Cornelia Lee Burtis; Hymer  
 Margaret Marian Burton; Manhattan  
 Sarah Jane Buster; Larned  
 Freda L. Butcher; Coldwater  
 Norman Ward Butcher; Coldwater  
 Bertha Irene Byers; Jewell  
 Winifred N. Byers; South Haven  
 Elizabeth Cadwell; Marquette  
 Robert Duncan Campbell; Junction City  
 Hugh Louis Caraway; Shreveport, La.  
 Ellen Mae Cardarelli; Republic, Pa.  
 Lillie Martin Carleton; Manhattan  
 Janette Claire Carlsen; Manhattan  
 Clara Cecelia Carlson; Lindsay  
 Barbara Jean Carmichael; Conway Springs  
 Roy Eugene Carr; Kansas City  
 Lyle Murphy Carson; Dennis  
 Maude Elaine Carson; Clay Center  
 J. Gerald Cash; Montrose  
 Lee R. Cashman; Centralia  
 Richard John Cech; Kansas City  
 Beverly Ross Chapin; Wichita  
 Douglas Scott Chapin; Manhattan  
 Marion Christiana Chegwidden; Wilson  
 William Graham Chester; Kansas City, Mo.  
 Helen Meredith Childers; Cawker City  
 Bernice Lorene Christesen; Osage City  
 Grace Eleanor Christiansen; Columbus  
 Thomas Riley Church; Minneola  
 Nevelle Jeaane Clark; Salina  
 Lowell Warren Clark; Waterville  
 Glenna Violetta Clements; Havensville  
 Gordon Dwain Cloepfil; Hunter  
 Alonzo Leon Cloninger; Chanute  
 Earl Robert Coder; Washington  
 Marion Louise Coe; Manhattan  
 Charles Buford Colburn; Manhattan  
 Lloyd Waugh Compton; Ellingham  
 Martha Winifred Connet; Manhattan  
 Mary Martha Conrad; Manhattan  
 Cathryn Louise Cooley; Abilene  
 Dorothy Pearl Cooley; Abilene  
 Jean M. Cooney; Oak Hill  
 Keller Cordon; Holton  
 Vera Christine Coup; Manchester  
 Helen Virginia Courtney; Lebo  
 Alan Neil Cowles; El Dorado  
 Frances Coyne; Sterling  
 Florine Elizabeth Craig; Kansas City  
 Thomas Alexander Craig; Belvue  
 Ruth Ellen Cress; Netawaka  
 Ellen Elizabeth Crippen; Manhattan  
 Joseph Celester Crofton; Kansas City  
 Edna Marguerite Dailey; Manhattan  
 Jessie M. Danielson; Clifton  
 \*Robert Darnes; Sublette  
 Gordon Max Daugharthy; Ottawa  
 Daisy Davis; Beloit  
 Clarence Arthur Day, Jr; Ottawa  
 Margie Helen DeBuhr; South Haven  
 Robert Courtland Dennison; Salina  
 Catherine Detrich; Chapman  
 Marvel Elizabeth Deyo; Miltonvale  
 Maxine Mae Dhority; Greenleaf  
 Lucy Rachel Dickson; Leonardville  
 Thello Clarence Dodd; Linn  
 Isabel Naomi Dodrill; Stockton  
 Dennis Ralph Donahue; Bonner Springs  
 Murlin Stuart Dorei; White Cloud  
 Ruth Elma Douglas; Coffeyville  
 Lois Evelyn Droegemeier; Geneseo  
 Anne Elizabeth Dukelow; Hutchinson  
 Katheryn Eloise Dull; Morrowville  
 Olivia Alfreda Dunham; Jewell  
 James J. Dunlop; Detroit  
 Eddie Mae Dunn; Meriden  
 Margaret Elizabeth Dunn; Alta Vista  
 Audrey Jean Durland; Manhattan  
 Pauline Eames; Whiting  
 Howard Clayton Eberline; Manhattan  
 Martha Rosa Eck; Galva  
 A. Thornton Edwards; Manhattan  
 Paul Raymond Edwards; Meade  
 Ruth Edwards; Junction City  
 Erna LaVern Ehrsam; Bern  
 Edward Himes Elling; Manhattan  
 Homer Richard Elling; Manhattan  
 Cecile Ann Elliott; Hoisington  
 Julia Vina Francina Ellis; Havensville  
 Thomas Jay Ellis; Topeka  
 Darrell Allen Engel; Wetmore  
 Marcene Alene Enke; Green  
 Melvin Eugene Estey; Langdon  
 Everett E. Fager; Miller  
 Jean Elaine Falkenrich; Manhattan  
 Byron W. Farnsworth; Manhattan  
 Betty Ann Faubion; Manhattan  
 Vincent Gerald Feeney; Elmo  
 Gerald James Fencil; Morrowville  
 M. Henrietta Ferguson; Manhattan  
 Helen Virginia Ferrier; Altamont  
 Lucile Margaret Finsham; Blue Rapids  
 Zelma Marie Finn; Great Bend  
 Lawrence Malcolm Finney; Topeka  
 Kathryn Nora Flaherty; Frankfort  
 Don Edwin Fleming; Ottawa  
 Naomi Marie Flentie; Centralia  
 William Roy Ford; Frankfort  
 Sarah Lovina Fowler; El Dorado  
 Anna Kathryn Freel; Corning  
 Iris Geneva Frost; Esbon  
 Anne Fry; Morrill  
 Harriet Mildred Fulghem; Manhattan  
 Genevieve Clara Fuller; Miltonvale  
 Virgil George Fulmer; La Harpe  
 Margaret Munger Furbeck; Manhattan  
 Hoosaker Furumoto; Ninole, T. H.  
 Robert Dale Gahagen; Manhattan  
 Bettie Irene Garrison; Waverly  
 Norma Adele Gellart; Abilene  
 N. Katharine Gentry; Salina  
 Lester Lewis Gerlach; Manhattan  
 Glenna Louise Germann; Manhattan  
 Alberta Marie Gieber; Clifton  
 Geraldine Marie Giffin; Spring Hill  
 Gloria Ann Gish; El Dorado  
 Gwendolyn Warrick Glenn; Oneida  
 Marjorie Glick; Junction City  
 Martha Olive Goheen; Manhattan  
 Anabel Golden; Whitewater  
 Meyer Ben Goldfarb; Newark, N. J.  
 Wayne Leslie Good; McCune  
 Margaret Jane Gordon; Manhattan

\* Matriculated 1941-'42.



## UNDERGRADUATE STUDENTS—Continued

- Wilda Jane Graham; Clyde  
 Roy Max Grandfield; Manhattan  
 Norma Adeline Granere; Clifton  
 Rex DeMonte Grauerholz; Esbon  
 Madalene M. Graves; Clifton  
 Bernice Inez Griffice; Blue Rapids  
 Leo R. Griffing; Morrowville  
 Gordon L. Griffith; Bogue  
 Imogene Kemp Griffith; Clay Center  
 Mary Elizabeth Griswold; Manhattan  
 Janora Ann Grove; Newton  
 Emory Allen Groves; Burlingame  
 David Henry Gruver; Augusta  
 David Edward Guerrant; Manhattan  
 Geraldine Gundy; Manhattan  
 Edward Luther Gustafson, Jr; Lindsborg  
 Norene Emma Hajny; Esbon  
 D. Duane Hall; Manhattan  
 William Bandt Hall; Phillipsburg  
 Kenneth Blaine Hamlin; Manhattan  
 Clara A. Hampl; Luray  
 Hugh Carey Hanks, Jr; Hutchinson  
 Dora Martha Hannawald; Pratt  
 Ardyce Louise Hanson; Olsburg  
 Helen Katherine Hanson; Olsburg  
 Ruth C. Hanson; Olsburg  
 Bernard Lewis Harden; Coffeyville  
 Catherine Aretta Hardin; Rosendale, Mo.  
 Mary Naomi Harding; Wakefield  
 Adrienne Edna Harper; Vermillion  
 Roberta Jean Harrill; Augusta  
 Raymond Daniel Harrington; Syracuse  
 Genevieve Jean Harris; Manhattan  
 Zelma Jane Harris; Havensville  
 Wilton Eugene Harry; Home City  
 Robert Harry Harvey, Jr; Atchison  
 Bernadette Margaret Hassur; Hanover  
 Jane Louise Hastings; Lakin  
 Alice Maxine Hauserman; Longford  
 Pattie Patrice Hay; Eskridge  
 Margaret Cecelia Hedlund; Clay Center  
 Eldon L. Heinschel; Smith Center  
 Maxine Muriel Heizer; South Haven  
 Martha Ellen Hemphill; Chanute  
 Ruth Irene Henderson; Alma  
 Frances Marie Henning; Simpson  
 Laura E. Herr; Abilene  
 Clara May Hesse; St. Marys  
 ‡Frank Albert Hetzke; Moundridge  
 Jean Heusted; McFarland  
 James Anson Hiller; Salina  
 Madalene Margaret Hiltgen; Barnes  
 Doris Marie Hiser; Manhattan  
 Anna Mae Hodges; Bigelow  
 Etta May Hodgson; Harveyville  
 Vlasta Holsan; Summerfield  
 David Adrian Holtz; Manhattan  
 Walter Howard Holverson; Manhattan  
 Raymond Hook; Osborne  
 Joseph Benedict Hoover; Greenleaf  
 Josephine Ann Hoover; Greenleaf  
 Virginia Davis Hoover; Abilene  
 Dorothy May Horstick; Richmond  
 Mildred Frances Houghton; Miltonvale  
 Agnes Wesley Hoy; Goff  
 Elizabeth Stuart Hoyle; Dwight  
 Lawrence Keith Hudson; Wilsey  
 Juanita E. Hughbanks; Oak Hill  
 Griff Richard Hughes; Fort Scott  
 Alice Claire Hummel; Kanopolis  
 Theda Fayne Inslee; Isabel  
 ‡Letha Pearl Irvine; Stafford  
 Margaret Ellen Isensee; Idana  
 William Earl Ives; Topeka  
 Jeanne Jaccard; Manhattan  
 Thomas Page Jackson; Kansas City  
 Thelma Jean Jackson; Wichita  
 J. Frances James; Manhattan  
 Madelyn Frances James; Parsons  
 Robin Joan Jefferies; Lewis  
 Jo Ann Jefferson; Garnett  
 Berneice B. Johansen; Holyrood  
 Florence E. Johnson; Great Bend  
 George Roll Johnson; Council Grove  
 Leola Maurine Johnson; Morrowville  
 Robert Stanley Johnson; Emporia  
 Walter Francis Johnson; Ottawa  
 Marguerite Nola Johnston; Green  
 Esther Eileen Jones; Detroit  
 Frances Jane Jones; Reading  
 Jake Roderick Jones; Brodhead, Wis.  
 Lee Thomas Jones; Pretty Prairie  
 Norma Rachael Jones; Wakefield  
 Phyllis Jones; Sedan  
 Opal Irene Jurey; Clifton  
 Donald A. Justice; Manhattan  
 William W. Justus; Hill City  
 Emil W. Karl; Abilene  
 Shirley Evelyn Karns; Coffeyville  
 Julia Ellen Karrigan; Bala  
 Leo Robert Kaufman; Haddam  
 Virginia Alta Keas; Chanute  
 Neva Lucille Keene; Norton  
 ‡Richard McClanahan Keith; Manhattan  
 Edward Michael Kelleher; Arkansas City  
 Orla Cormack Kemper; Manhattan  
 Geneva Fern Kennedy; Independence  
 Wendell Robert Kerr; Mahaska  
 Esther Kathryn Killen; Oak Hill  
 Marjorie Ruth Kimball; Manchester  
 Wandalea Ione Kinbrough; Palmer  
 Marjorie Vivien Kimsey; Barnard  
 Dorothy Evalene King; Beattie  
 Helen Eunita King; Hutchinson  
 Karleen Junette King; Hutchinson  
 Reva Alma King; Council Grove  
 Martha Agnes Kingsley; Jetmore  
 Gerald Arthur Kious; Parsons  
 Russell Charles Klatz; Saffordville  
 Gerald Leslie Knabe; Eudora  
 Dorothy Maye Knaus; Neodesha  
 Dorothy Mae Knipp; Vermillion  
 Wilma Marie Knipp; Vermillion  
 Irene Louise Koch; Clay Center  
 Margaret Frances Kohl; Furley  
 Joanna Jane Kopfer; Longford  
 Harvey Rueben Kopper; Ingalls  
 Dorothy Elizabeth Kratzer; Alma  
 Alma Lillian Krey; Manhattan  
 Tom Frederic Kropf; Wamego  
 Lucy Grace Kroth; Havensville  
 Deborah Kubin; McPherson  
 Laura Lee Kubin; McPherson  
 Helen Kunkel; Waverly  
 Irene Buckles Laceky; Beaumont, Tex.  
 Shirley June Lacy; Everest  
 Oliver Diston Lambirth; Elida, N. Mex.  
 John Henry Larkins; Le Roy  
 June Marguerite Larrick; Topeka  
 Dick Dillon Leaird; Mankato  
 Eunice Wilma Lee; Idana  
 Marjorie Ruth Lee; Manhattan  
 Eunice Lefebriere; Havensville  
 Hope Irene Leighton; Manhattan  
 Lee Roy Lennington; Wichita  
 Robert Andrews Leonard; Blue Mound  
 Evalyn Boyce Levin; Kensington  
 Theodore William Levin; Agra  
 Esther LeVerne Lewis; Home  
 William Preston Liljestrom; Ellsworth  
 Barney Lee Limes; La Harpe  
 Orrell Ruth Lipp; Alden  
 Freda Ellen Lipper; Sterling  
 Glenn Orville Lloyd; Oak Hill  
 Bernice Evangeline Long; Manhattan  
 Helen M. Loofbourrow; Scandia

‡ Also pursuing graduate study.

## UNDERGRADUATE STUDENTS—Continued

- Lucille Pauline Luckey; Woodston  
 Waldon DeWayne Lund; Green  
 David Lupfer; Larned  
 Lena Marie Luthi; Wakefield  
 Arlene Minnie Luthi; Wakefield  
 Hazel Juanita McAninch; Stockdale  
 Marjorie Marie McAninch; Neodesha  
 Dean McCandless; St. John  
 Mayme Catharine McCawley; Hollenberg  
 Ida Belle McClure; Valley Falls  
 Donald Dale McCollister; Pittsburg  
 Nelda May McDonald; Bremen  
 Marjorie Lucille McGrew; Coffeyville  
 Dorothy Miriam McInroy; Topeka  
 Ernest Lowe McLain; Kansas City  
 William McLean; Culver  
 Martin Eugene McMahon; Beattie  
 Lois Jeanette Mace; Willis  
 Avis Loretta Mack; Clay Center  
 Ruth Maxine Mangold; Vassar  
 Floye Madge Manuel; Havensville  
 Isla Irene Manuel; Havensville  
 Nola Marjorie Manuel; Havensville  
 Melvin Wayne Marcoux; Havensville  
 Minerva Shelton Marlow; Manhattan  
 Margaret Elnora Marrs; Longford  
 Ada Lillian Martin; Blue Mound  
 Jessie Marguerite Mason; Redfield  
 Ulysses Gail Mathews; Manhattan  
 Esther Carol Mathies; Alma  
 ‡V. Evelyn Matson; Clyde  
 Thayne Orval Mauch; Ness City  
 Blanche Greene Medaris; Manhattan  
 Raymond L. Meisenheimer; Hiawatha  
 Newell Clyde Melcher; Ottawa  
 Kathryn Marie Menhusen; Jewell  
 Norman Dale Merryman; Wamego  
 Donald Herman Martin; Morganville  
 Herbert Dalton Michael; St. John  
 Robert B. Michael; Hiawatha  
 Edith Frances Miller; Milford  
 Edsel Leo Miller; Manhattan  
 Thelma Ferne Miller; Longford  
 Max I. Miller; Newton  
 Walter McNab Miller; Tonganoxie  
 Helen Mabel Millison; Clyde  
 Evelyn Teresa Mitchell; Axtell  
 Gertrude Margaret Moeka; Smith Center  
 Pauline Hazel Moeka; Smith Center  
 Helene Mae Monfort; Iola  
 Earl Atlas Moody; Kansas City  
 Robert Beckwith Moody; Greeley  
 Betty Lou Moore; Kansas City, Mo.  
 Ellen Lucille Moore; Manhattan  
 William Dennis Moran; Weir  
 Merle Dodge Morris; Topeka  
 Mildred Hazel Morrow; Soldier  
 Ruthe Eileen Morrow; Larned  
 Thelma Mae Morton; Frankfort  
 William John Moseley; Topeka  
 Glen Edward Mueller; Anthony  
 Alvin Edgar Mulanax; Enterprise  
 Blanche Louise Murdock; Centralia  
 Channing Wayne Murray; Manhattan  
 Donald Kivett Myers; Topeka  
 ‡Homer Samuel Myers; Salina  
 Phillip Samuel Myers; Formoso  
 Catherine Ann Nabours; Manhattan  
 Robert Kirkland Nabours; Manhattan  
 Florence Ruth Nanning; Leonardville  
 Harold Francis Neaderhiser; Milford  
 Thelma Grace Neaderhiser; Manchester  
 Jesse Eugene Nease; Concordia  
 Russell Carl Nelson; Falun  
 Drusilla Marie Norby; Pratt  
 Eva Ione Noyes; Green  
 Lester Francis Oborny; Marion  
 Max Frederick Oelschlaeger; Manhattan  
 Helene Marcene Oetinger; Green  
 Mary Margaret O'Loughlin; Lakin  
 Anna Bernice Olson; Manhattan  
 Esther Selma Olson; Vermillion  
 Kathryn Irene Olson; Axtell  
 Evelyn Irene Osborn; Soldier  
 Leo Benedict Osterhaus; Marysville  
 Mary Ann Ott; Madison  
 Leonard Ray Ottman; Barnes  
 Harry Otto; Manhattan  
 Dorothy Jane Owens; Garnett  
 William Henry Packer; Manhattan  
 Peggy Paddock; Manhattan  
 Kenneth Elwood Palmer; Murdock  
 Lydia Marie Palmer; Summerfield  
 Charles Henry Parizo; Manhattan  
 Ethelinda Elizabeth Parrish; Manhattan  
 Lois Nelson Parrish; Dunlap  
 Duane Marshall Patterson; Kansas City  
 Mary Jean Peak; Manhattan  
 Harry Ash Pearce; Moline  
 Alice Gertrude Pearson; Olsburg  
 Grace Eva Peck; Dighton  
 Lloyd Lyman Peck; Dighton  
 Perry Cushman Peine; Manhattan  
 Carl Adolph Peterson; Overland Park  
 Elvera Esther Peterson; Clyde  
 Gladys Alberta Peterson; Garrison  
 Edward Charles Potter; Oswego  
 Juanita Wilma Potts; Leonardville  
 Lucile Ann Pralle; Bremen  
 Alma Pressgrove Proudfit; Manhattan  
 Carmen Fayette Pry; Vassar  
 Louis Earl Raburn; Manhattan  
 Emy Lou Ragland; Hutchinson  
 Beulah Sybil Randall; Protection  
 Lowell Robert Ray; Wilsey  
 Grace Read; Topeka  
 Geraldine June Redman; Dow City, Iowa  
 Jane Ellen Reed; Coffeyville  
 Alice Fern Reeves; Alma  
 Lois Vivian Reeves; Alma  
 Minnie Marie Reeves; Netawaka  
 Virgil Frederick Renz; Randolph  
 Earl Boise Reynolds; Colony  
 Jay Reynolds; Parsons  
 Eva Beatrice Richardson; Morrowville  
 Wallace F. Richardson; Kingman  
 Alma Florine Richey; Miltonvale  
 Louise Margaret Rieder; Lenexa  
 Betty Arlene Riek; Clay Center  
 Mona Ferne Rieschick; Soldier  
 Martha Eva Riggs; Welda  
 Theodore Kenneth Riggs; Hays  
 Oliver Virgil Riley; Stafford  
 John Lewis Riling; Lawrence  
 Dorothy Mae Ring; Marysville  
 Elsie Lucille Rising; Wetmore  
 Richard Gale RoBards;  
 Oklahoma City, Okla.  
 Rosetta Mae Roberts; Miltonvale  
 Mary Lou Robinson; Kansas City  
 Ralph Raymond Robinson; Wilsey  
 Orpha Jean Robison; Concordia  
 Marjorie Jane Rogers; Manhattan  
 Robert Rex Rogers; Manhattan  
 John Richard Romig; Bethany, Mo.  
 Sylvia Frances Roper; Manhattan  
 Earl William Rose; White Cloud  
 Bette Elaine Roth; Moundridge  
 Oral Dale Rundle; Axtell  
 Oliver George Russ; Corning  
 Robert Frank Sager; Manhattan  
 Violet Anna Schafer; Clay Center  
 Maude Irene Schane; Onaga  
 Paul Kenneth Schell; Marysville  
 Marguerette Annabeth Schlotzhauer;  
 Bucyrus

‡ Also pursuing graduate study.



UNDERGRADUATE STUDENTS—*Concluded*

Ethel Irene Schmedemann; Dwight  
 Margaret Winnifred Schnacke; La Crosse  
 Mary Franceska Schroller; Marysville  
 Glen Perry Schulthess; Alma  
 Bernadine Mary Schumaker; Clifton  
 Orville Arthur Schwanke; Maplehill  
 Virginia Jean Schwarz; Marysville  
 Margaret Lenora Scott; Louisville  
 Marguerite Eliza Seal; Wakefield  
 Jack Sheets; Cozad, Neb.  
 Barbara Ellen Sheffer; Manhattan  
 George Harlan Shepherd; Soldier  
 Myra Sherwood; Concordia  
 Joseph Clyde Short; Topeka  
 Raymond Lee Sigg; Soldier  
 Kemble Urban Sitterley; Kansas City  
 Lois Sitterley; Manhattan  
 Lawrence Oscar Slief; Pratt  
 † Frieda A. Sloop; Lyndon  
 Caleb William Smick; Oberlin  
 Alice Elizabeth Smith; White City  
 Fern Louise Smith; Morrowville  
 James Joseph Smith; Axtell  
 Margie Marie Smith; Palmer  
 Nellie Geneva Smith; Clay Center  
 Olive Maxine Smith; Kansas City  
 Phil Roger Smith; Manhattan  
 Robert Newton Smith; Sterling  
 Winifred Arlee Soderberg; Manhattan  
 Edith Margaret Southard; Stockton  
 Blanche LaVaughn Stacy; Byers  
 Lawrence LaMont Stalheim;  
 Sherman, S. Dak.  
 Helen Stallard; Topeka  
 Theresa Eileen Stapleton; Frankfort  
 Wayne Robert Starr; Hiawatha  
 Genevieve Cecelia Staten; Ogden  
 Mary Marguerite Staten; Ogden  
 Leland Lloyd Stephenson; Independence  
 Jack Murray Stevenson; Hutchinson  
 Arlabel Rosemary Stewart; Hutchinson  
 Clarence Elden Stewart; Hartford  
 Robert Hilmar Stewart, Jr; Wellington  
 T. Grier Stewart; Wellington  
 Eleanor Ruth Stoll; Rose  
 Margaret Frances Stone; Honolulu, T. H.  
 Kirk Stonebraker; Leavenworth  
 Elmer Henry Strathman; Seneca  
 Floyd Jay Stryker; Blue Rapids  
 Dorothy Irene Stutzman; Ransom  
 Nedra Mae Sumner; Havensville  
 Irene Charlotte Swanson; Manhattan  
 Elene Kathryn Sweany; Green  
 James Robert Swenson; Crowley, Colo.  
 Margaret Adelaide Swift; Holton  
 Dorothy Jean Swingle; Manhattan  
 Rex Robert Taylor; Hillsboro  
 Ethel Tempero; Broughton  
 John Harvey Tenny; Belle Plaine  
 Joyce Jacqueline Terrass; Alma  
 Ruth Anna Thomas; Clay Center  
 Mary Alice Thrush; Wakefield  
 Henry Albert Thurstin; Chanute  
 Wilma Huggins Tibbetts; Wamego  
 Alvin Paul Timmons; Geneseo  
 Wilma Irenah Tipton; Glasco  
 Kathryn Toothaker; Green  
 Earlene Eleanor Trekell; Manhattan  
 Lloyd Bryan Tribble; Soldier  
 Joseph Uhrin; Metuchen, N. J.  
 John Edward Vanlandingham; Spivey  
 Dorothy Mae Van Tuyl; Basehor  
 Philip Alexander Van Winkle; Manhattan  
 Richard James Van Winkle; Manhattan  
 Pauline Vogelsang; Randolph  
 Keith Wallingford; Manhattan  
 Keith Lee Wallis; Wichita  
 Leota Ferne Walters; Holton  
 Mary Elizabeth Walters; Manhattan  
 Glenn Weatherby; Neodesha  
 Helen Katherine Weber; Liberty  
 Dean Reax Weckman; Holton  
 Oliver Kets Wells; Marysville  
 William Henry Wells; Colony  
 John Edward Wenger; Powhattan  
 William Earl West; Hiawatha  
 Wilbur Waldo White; Garfield  
 Howard Elmer Whiteside; Neodesha  
 Margaret Winifred Whitfield; Lindsberg  
 Esther Irene Wiedower; Spearville  
 Dorothy Pauline Wieggers; Green  
 Leona Margaret Wilkerson; McFarland  
 Margaret Ann Wilkerson; Smith Center  
 Minnie Mildred Wilkes; Belleville  
 Margaret Stella Wilkins; Lebanon  
 Paul Holbert Wilkins; Walnut  
 Candles Asbury Wilkinson; Fort Riley  
 Charles Homer Williams; Marysville  
 Eva Irene Williams; Glasco  
 Harry McHenry Williams; Wadsworth  
 John Marks Williams; Parsons  
 Chase C. Wilson; Mulvane  
 Mary Elizabeth Wingfield; Norton  
 Agnes Joan Wolfe; Solomon  
 Hazel Wolfe; Jewell  
 Chester Blain Wood; Trousdale  
 Kittie Marie Woodman; Independence  
 Norman Lee Woolgar; Manhattan  
 Nelda LoRae Worcester; Hill City  
 Jean Frances Wright; Manhattan  
 Winnivere Button Wright; Manhattan  
 Geneva Jane Yeager; Green  
 Josephine Elizabeth Yeager; Green  
 Kenneth W. M. Yoon; Honolulu, T. H.  
 DePhayne Aileen Young; Westmoreland  
 Elsie L. Young; Clay Center  
 Joseph B. Zahn; Miltonvale  
 Dorothy Mae Zerbe; Salina  
 Maxine Odell Zimmerman; Belle Plaine  
 Zora Estelene Zimmerman; Belle Plaine  
 Jack Eugene Zumbum; Enterprise

† Also pursuing graduate study.

## Four-week Summer School

JUNE 30 TO JULY 26, 1941

### GRADUATE STUDENTS

Lawrence S. Alwin; Burns  
 Joseph Oscar Brown; Wakenney  
 F. E. Carpenter; Topeka  
 Robert Junior Cassidy; Chetopa  
 Jess Ralph Cooper; El Dorado  
 Dale Henry Edelblute; Kincaid  
 Carl Heinrich; Hays  
 Travis Berkeley Howard; New Madrid, Mo.  
 Rodney William Johnston;  
 Central City, Neb.  
 Robert Marvin Lay; Columbus  
 Paul Leroy Mize; Bonner Springs  
 W. Newell Page; Sabetha  
 Richard Donald Patton; McPherson  
 R. Glenn Raines; Mound City  
 Ralph William Russell; Belleville  
 Paul Henry Wilson; McCune  
 Wilbert John Wilson; Soldier



Students by States, Foreign Countries and Kansas Counties

STATE

Arizona .....	1	Maryland .....	1	Oklahoma .....	8
Arkansas .....	1	Massachusetts .....	7	Oregon .....	1
California .....	19	Michigan .....	6	Pennsylvania .....	7
Colorado .....	7	Minnesota .....	7	Rhode Island .....	2
Connecticut .....	5	Missouri .....	81	Tennessee .....	3
District of Columbia ..	4	Montana .....	1	Texas .....	23
Georgia .....	1	Nebraska .....	22	Utah .....	1
Idaho .....	2	Nevada .....	1	Vermont .....	1
Illinois .....	24	New Jersey .....	15	Virginia .....	1
Indiana .....	6	New Mexico .....	3	Washington .....	1
Iowa .....	4	New York .....	34	Wisconsin .....	7
Kansas .....	4,139	North Carolina .....	1		
Kentucky .....	1	South Dakota .....	5		
Louisiana .....	3	Ohio .....	9		
				Total .....	4,465

FOREIGN COUNTRIES

China .....	2	Palestine .....	1	Total .....	14
Hawaii .....	10	Uruguay .....	1		
				Grand Total ...	4,479

KANSAS COUNTIES

Allen .....	29	Greenwood .....	26	Pawnee .....	33
Anderson .....	23	Hamilton .....	8	Phillips .....	17
Atehison .....	32	Harper .....	22	Pottawatomie .....	96
Barber .....	18	Harvey .....	34	Pratt .....	22
Barton .....	56	Haskell .....	6	Rawlins .....	10
Bourbon .....	13	Hodgeman .....	11	Reno .....	79
Brown .....	43	Jaskson .....	62	Republic .....	52
Butler .....	54	Jefferson .....	22	Rice .....	69
Chase .....	21	Jewell .....	35	Riley .....	629
Chautauqua .....	8	Johnson .....	53	Rooks .....	22
Cherokee .....	12	Kearny .....	7	Rush .....	14
Cheyenne .....	12	Kingman .....	25	Russell .....	21
Clark .....	16	Kiowa .....	17	Saline .....	72
Clay .....	83	Labette .....	38	Scott .....	6
Cloud .....	63	Lane .....	11	Sedgwick .....	136
Coffey .....	24	Leavenworth .....	48	Seward .....	21
Comanche .....	18	Lincoln .....	29	Shawnee .....	170
Cowley .....	56	Linn .....	12	Sheridan .....	13
Crawford .....	26	Logan .....	13	Sherman .....	12
Decatur .....	23	Lyon .....	41	Smith .....	33
Dickinson .....	103	McPherson .....	47	Stafford .....	38
Doniphan .....	12	Marion .....	41	Stanton .....	2
Douglas .....	12	Marshall .....	113	Stevens .....	5
Edwards .....	28	Meade .....	19	Sumner .....	50
Elk .....	11	Miami .....	16	Thomas .....	24
Ellis .....	16	Mitchell .....	27	Trego .....	13
Ellsworth .....	33	Montgomery .....	42	Wabaunsee .....	67
Finney .....	17	Morris .....	35	Wallace .....	6
Ford .....	32	Morton .....	2	Washington .....	80
Franklin .....	29	Nemeha .....	60	Wichita .....	10
Geary .....	76	Neosho .....	17	Wilson .....	32
Gove .....	10	Ness .....	13	Woodson .....	11
Graham .....	16	Norton .....	40	Wyandotte .....	153
Grant .....	3	Osage .....	30		
Gray .....	10	Osborne .....	23		
Greeley .....	2	Ottawa .....	36		
				Total .....	4,139

Record of Enrollment and Degrees Conferred, 1863-1942

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	1	5			142	5	
1867-'68								103			6	5	1				115		1
1868-'69								137			10	10	2		1		160		
1869-'70								119			10	12	1				142		
1870-'71								118			13	5	4	5			145	5	5
1871-'72								129			20	11	3	5	2	2	168	3	1
1872-'73																	173	2	1
1873-'74								137			24	14	3	6			184	5	
1874-'75								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	77		316	174	77	82	57	10	803	69	10
1898-'99						26	35	40	110		306	177	92	65	40	21	871	53	10
1899-1900		24			57	47	50	32	162		376	163	109	69	27	22	1,094	58	3
1900-'01		47			72	109	79	23	318		348	183	80	74	40	52	1,321	60	9
1901-'02		41			66	125	87	19	298		396	206	120	65	32	59	1,396	52	3
1902-'03		63			38	123	78	36	342		471	229	141	86	24	57	1,574	55	
1903-'04		17	51		16	122	72	33	443		403	206	161	114	20	36	1,605	102	1
1904-'05		15	88		24	99	12	30	500		289	198	122	117	26	43	1,462	107	2
1905-'06		18	92		28	118		46	598		373	214	145	110	30	64	1,690	96	4
1906-'07		18	134		23	179		48	144	511	411	269	149	133	24	88	1,937	119	5
1907-'08		29	188		26	173		42	134	528	450	357	202	148	26	82	2,192	116	4
1908-'09		25	168		18	197		42	134	521	491	381	243	171	28	86	2,308	139	12
1909-'10		22	152	4	111	124		87	89	453	456	417	286	170	26	70	2,305	144	2
1910-'11		31	160	9	26	235		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		129		654	444	432	355	268	55	166	2,928	230	4
1913-'14		370	149	12		223		112		658	516	431	324	327	64	159	3,027	283	8
1914-'15		472	127	18		199		120		560	575	368	383	321	48	200	3,089	223	6
1915-'16		536	85	17		207	188	175		484	605	454	305	401	76	219	3,314	341	18
1916-'17		586	103	14		228	191	172		422	693	471	378	282	68	279	3,339	197	13
1917-'18		481	84			119	135	138		231	483	349	294	238	36	190	2,406	216	17
1918-'19		519	25	5		160	400	199		216	810	322	254	201	34	144	2,991	167	7
1919-'20		415	57	3		117	362	271		224	894	400	297	273	44	167	3,376	260	11
1920-'21		604	30	10		96	278	270		280	878	602	318	273	42	294	3,395	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, 1863-1942—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	710	79
1940-'41...	935	.....	.....	.....	.....	.....	40	.....	.....	.....	1284	969	905	900	524	655	4,902	734	85
1941-'42...	880	.....	.....	.....	.....	.....	17	.....	.....	.....	1274	926	807	748	417	590	4,479	.....	.....

† Figures above this column include neither graduate students in summer session, nor undergraduate students pursuing graduate work.

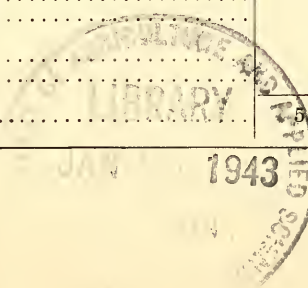


## College Registration 1941-'42

THE DIVISION.	Men.	Women.	Total.
<b>The Division of Agriculture</b> . . . . .	<b>681</b>		<b>681</b>
Graduate students . . . . .	33		33
Seniors . . . . .	138		138
Juniors . . . . .	121		121
Sophomores . . . . .	157		157
Freshmen . . . . .	229		229
Special students . . . . .	3		3
<b>The Division of Veterinary Medicine</b> . . . . .	<b>222</b>	<b>2</b>	<b>224</b>
Graduate students . . . . .	3		3
Seniors . . . . .	53		53
Juniors . . . . .	46		46
Sophomores . . . . .	57		57
Freshmen . . . . .	63	2	65
<b>The Division of General Science</b> . . . . .	<b>780</b>	<b>411</b>	<b>1,191</b>
Graduate students . . . . .	92	16	108
Seniors . . . . .	103	90	193
Juniors . . . . .	113	90	203
Sophomores . . . . .	170	93	263
Freshmen . . . . .	296	116	412
Special students . . . . .	6	6	12
<b>The Division of Home Economics</b> . . . . .		<b>865</b>	<b>865</b>
Graduate students . . . . .		31	31
Seniors . . . . .		169	169
Juniors . . . . .		214	214
Sophomores . . . . .		208	208
Freshmen . . . . .		239	239
Special students . . . . .		4	4
<b>The Division of Engineering and Architecture</b> . . . . .	<b>1,101</b>	<b>6</b>	<b>1,107</b>
Graduate students . . . . .	29	1	30
Seniors . . . . .	202		202
Juniors . . . . .	230	2	232
Sophomores . . . . .	260	2	262
Freshmen . . . . .	380	1	381
Totals . . . . .	2,784	1,284	4,068
Counted twice . . . . .	93	30	123
Net totals . . . . .	2,691	1,254	3,945
<b>The Summer Schools, 1941</b> . . . . .	<b>383</b>	<b>497</b>	<b>880</b>
Totals . . . . .	3,074	1,751	4,825
Counted twice . . . . .	187	159	346
Net grand totals . . . . .	2,887	1,592	4,479
<b>The Division of Graduate Study</b> . . . . .	<b>257</b>	<b>160</b>	<b>417</b>
Graduate students in regular session . . . . .	132	41	173
Graduate students in summer schools . . . . .	131	124	255
Counted twice . . . . .	31	12	43
Net in summer schools only . . . . .	100	112	212
Graduate students in absentia (included in above figures) . . . . .	11	4	15
Undergraduate carrying graduate work . . . . .	25	7	32

## Degrees Conferred in the Year 1941

DIVISION AND CURRICULUM (OR MAJOR STUDY).	Men.	Women.	Total.
<b>Division of Agriculture (B. S.)</b> .....	<b>138</b>		<b>138</b>
Agriculture.....	124		124
Milling Industry.....	14		14
<b>Division of Engineering and Architecture (B. S.)</b> .....	<b>167</b>		<b>167</b>
Agricultural Engineering.....	7		7
Architecture.....	5		5
Architectural Engineering.....	10		10
Chemical Engineering.....	27		27
Civil Engineering.....	25		25
Electrical Engineering.....	46		46
Industrial Arts.....	3		3
Mechanical Engineering.....	44		44
<b>Division of General Science (B. S.)</b> .....	<b>135</b>	<b>63</b>	<b>198</b>
General Science.....	51	34	85
Business Administration.....	47	9	56
Industrial Chemistry.....	12		12
Industrial Journalism.....	14	11	25
Music Education.....	5	5	10
Physical Education.....	6	4	10
<b>Division of Home Economics (B. S.)</b> .....		<b>170</b>	<b>170</b>
Home Economics.....		166	166
Home Economics and Nursing.....		4	4
<b>Division of Veterinary Medicine (D. V. M.)</b> .....	<b>61</b>		<b>61</b>
Veterinary Medicine.....	61		61
Total of undergraduate degrees.....	501	233	734
<b>Division of Graduate Study (M. S.)</b> .....	<b>55</b>	<b>27</b>	<b>82</b>
Agricultural Economics.....	1		1
Agricultural Engineering.....	1		1
Agronomy.....	5		5
Animal Husbandry.....	1		1
Applied Mechanics.....	1		1
Art.....		1	1
Bacteriology.....	1		1
Botany and Plant Pathology.....	2		2
Chemistry.....	4	1	5
Chemical Engineering.....	2		2
Civil Engineering.....	1		1
Child Welfare and Euthenics.....		4	4
Clothing and Textiles.....		5	5
Dairy Husbandry.....	2		2
Dietetics.....		1	1
Economics and Sociology.....	2		2
Education.....	7		7
English.....	1	4	5
Entomology.....	4		4
Food Economics and Nutrition.....		2	2
History and Government.....	1		1
Home Economics Education.....		4	4
Horticulture.....	3		3
Household Economics.....		1	1
Industrial Journalism.....	1		1
Institutional Management.....		4	4
Machine Design.....	1		1
Mathematics.....	1		1
Mechanical Engineering.....	1		1
Milling Industry.....	1		1
Physics.....	2		2
Poultry Husbandry.....	2		2
Psychology.....	1		1
Zoology.....	6		6
<b>Division of Graduate Study (Ph. D.)</b> .....	<b>2</b>		<b>2</b>
Bacteriology.....	1		1
Parasitology.....	1		1
<b>Honorary Degree</b> .....	<b>1</b>		<b>1</b>
Doctor of Science.....	1		1
Total of degrees conferred in 1941.....	559	260	819







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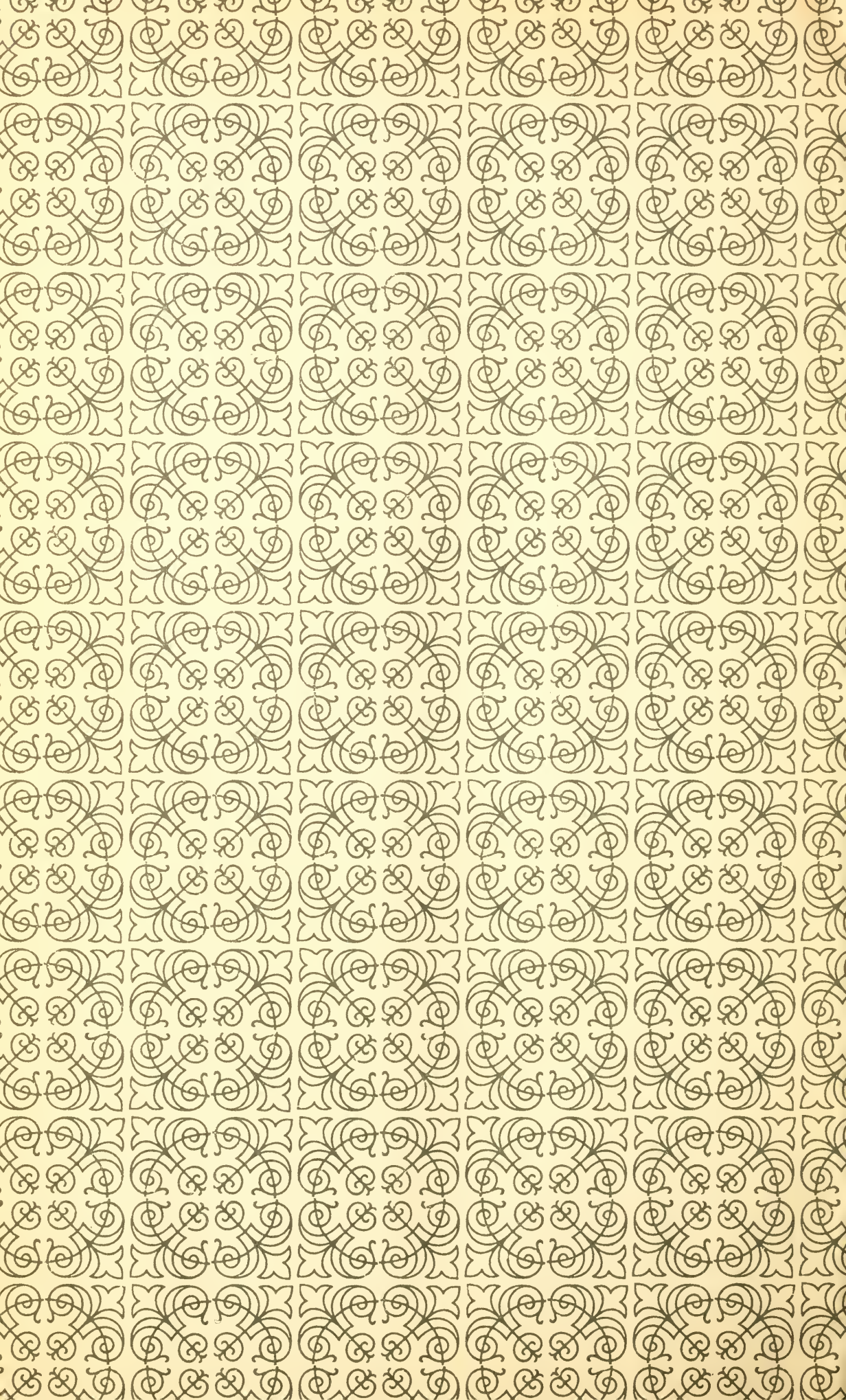














CONTINUATION

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Kansas. State college of  
agr. and applied science.  
Catalogue. 1941/42.

*R. G. Johnson*

*F. P. Richards*

*Spoman*

*Lois V. Sims*

*E. TORRES*



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