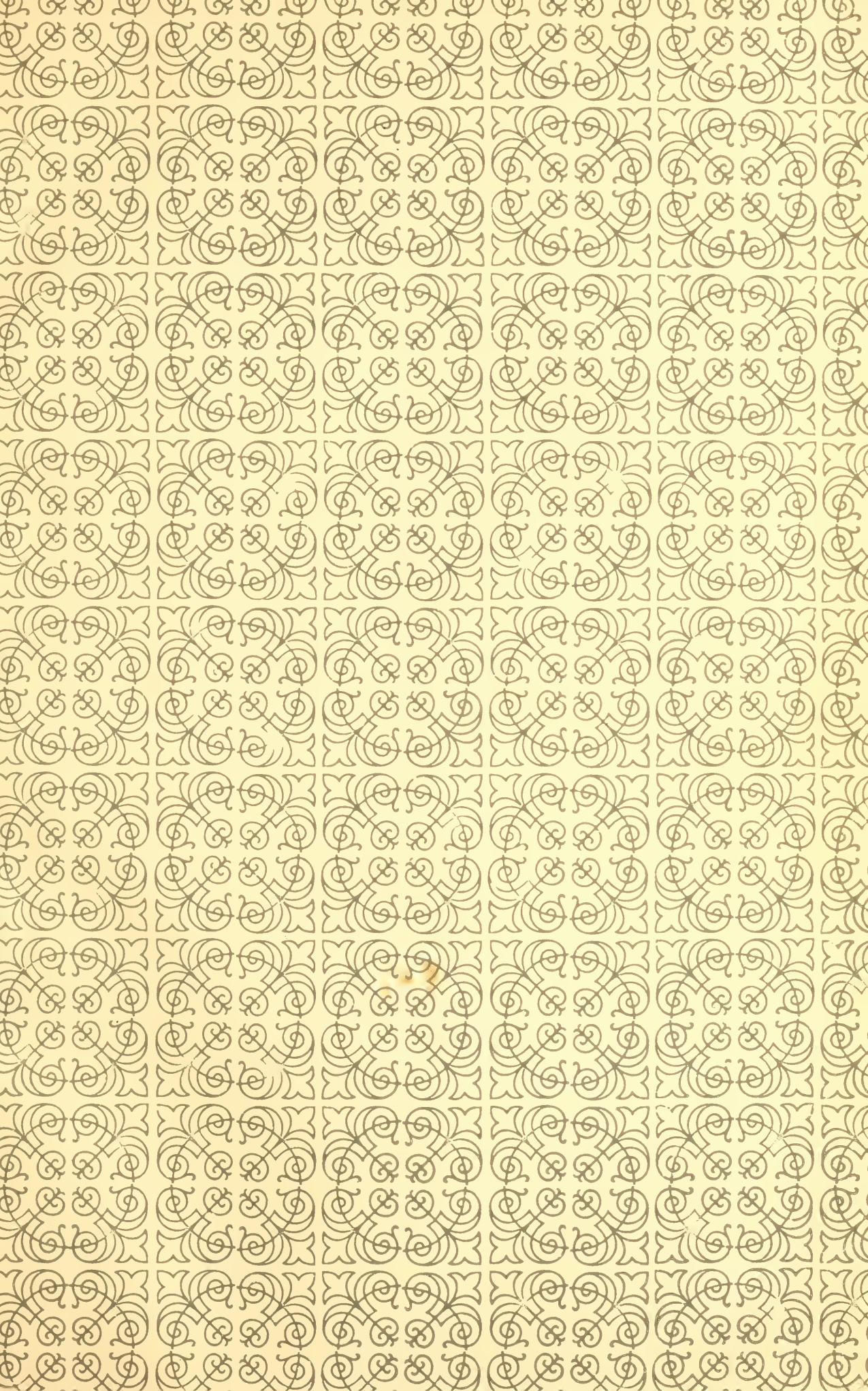

Kansas State College Bulletin

Volume XXIII | May 15, 1939 | Number 7

Complete Catalogue Number

Seventy-sixth Session, 1938-1939

Announcements for the Session of 1939-1940

KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

MANHATTAN, KANSAS
Published by the College

PRINTED BY KANSAS STATE PRINTING PLANT
W. C. AUSTIN, STATE PRINTER
TOPEKA 1939
17-8766

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KANSAS STATE COLLEGE BULLETIN

VOLUME XXIII | FEBRUARY 15, 1939 | NUMBER 4

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THE COLLEGE CALENDAR

SUMMER SCHOOL, 1939

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

FIRST SEMESTER, 1939-1940

Aug. 16, Wednesday.—All preparatory school credentials and college credentials should be filed with the vice-president of the college not later than this date.
Sept. 7, Thursday.—Assigners meet with committee on schedule at 2 p. m. in W 101, and with deans at 3 p. m.
Sept. 8, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Sept. 8, Friday.—*Registration and assignment of freshmen.
Sept. 9, Saturday.—†Induction exercises for freshmen.
Sept. 11 and 12, Monday and Tuesday.—†Induction exercises for freshmen.
Sept. 11 and 12, Monday and Tuesday.—‡Registration and assignment of all other students.
Sept. 13, Wednesday.—§Classes meet according to schedule, beginning at 8 a. m.
Sept. 13, Wednesday.—Opening convocation at 11 a. m.
Sept. 29, Friday.—Annual All-College Mixer at 8 p. m.
Oct. 7, Saturday.—Examinations to remove conditions.
Oct. 14, Saturday.—Scholarship deficiency reports to students and deans are due.
Nov. 10, Friday.—Midsemester scholarship deficiency reports to students and deans are due.
Nov. 11, Saturday.—Armistice Day, holiday.
Nov. 29, Wednesday.—Thanksgiving vacation begins at 12 m.
Dec. 2, Saturday.—Thanksgiving vacation closes at 6 p. m.
Dec. 20, Wednesday.—Christmas vacation begins at 6 p. m.
Jan. 3, 1940, Wednesday.—Christmas vacation closes at 6 p. m.
Jan. 23 to 27, Tuesday, 1 p. m. to Saturday, 12 m.—Examinations at close of semester.
Jan. 27, Saturday.—First semester closes at 12 m.
Jan. 27, Saturday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.

SECOND SEMESTER, 1939-1940

Jan. 29, Monday.—Assigners meet with committee on schedule at 2 p. m. in W 101.
Jan. 29, Monday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Jan. 30 and 31, Tuesday and Wednesday.—Registration and assignment of all students.
Feb. 1, Thursday.—§Classes meet according to schedule, beginning at 8 a. m.
Feb. 3, Saturday.—Reports of all grades for first semester are due in registrar's office.
Feb. 6 to 9, Tuesday to Friday.—Farm and Home Week.
Feb. 16, Friday.—Founders' Day. The College was located at Manhattan on February 16, 1863.
Feb. 22, Thursday.—Washington's Birthday, holiday.
Feb. 24, Saturday.—Examinations to remove conditions.
March 2, Saturday.—Scholarship deficiency reports to students and deans are due.
March 21, Thursday.—Easter vacation begins at 6 p. m.
March 25, Monday.—Easter vacation closes at 6 p. m.
March 30, Saturday.—Midsemester scholarship deficiency reports to students and deans are due.
May 15 to 21, Wednesday to Tuesday.—Examinations for seniors graduating May 27.
May 23 to 27, Thursday to Monday.—Examinations at close of semester.
May 25, Saturday.—Alumni Day. Business meeting at 2 p. m.; banquet at 6 p. m.
May 26, Sunday.—Baccalaureate services at 7:30 p. m.
May 27, Monday.—Seventy-seventh annual Commencement at 7:30 p. m.
May 28, Tuesday.—Semester scholarship deficiency reports to students and deans are due not later than 6 p. m.
June 1, Saturday.—Reports of all grades for second semester are due in registrar's office.

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* See "Registration and Assignment Schedule for Freshmen."

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

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

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

SUMMER SCHOOL, 1940

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

FIRST SEMESTER, 1940-1941

Aug. 16, Friday.—All preparatory school credentials and college credentials should be filed with the vice-president of the College not later than this date.
Sept. 5, Thursday.—Assigners meet with committee on schedule at 2 p. m. in W 101, and with deans at 3 p. m.
Sept. 6, Friday.—Examinations for students deficient in entrance subjects, 8 a. m. to 5 p. m.
Sept. 6, Friday.—Registration and assignment of freshmen.
Sept. 7, Saturday.—Induction exercises for freshmen.
Sept. 9 and 10, Monday and Tuesday.—Induction exercises for freshmen.
Sept. 9 and 10, Monday and Tuesday.—Registration and assignment of all other students.

REGISTRATION AND ASSIGNMENT SCHEDULES

NICHOLS GYMNASIUM

The following tabulation shows the schedule of hours for registration and assignment of students for the college year 1939-1940, arranged according to the initial letters of their last names:

FIRST SEMESTER

SCHEDULE FOR FRESHMEN STUDENTS

FRIDAY, SEPTEMBER 8, 1939

College Auditorium, 7:30 a. m.

General Meeting for All Freshmen

Hours	*Initial letters*
8:00 to 8:50 a. m.	H R X Z
8:50 to 9:40 a. m.	S D U
10:00 to 10:50 a. m.	B L V
10:50 to 11:40 a. m.	M I K Y
12:50 to 1:40 p. m.	J N O W
1:40 to 2:30 p. m.	C E G Q
2:30 to 4:00 p. m.	A F P T and any freshman students who failed to report during the period provided for their group.

SCHEDULE FOR ALL OTHER STUDENTS

MONDAY, SEPTEMBER 11, 1939

Hours	*Initial letters*
7:45 to 8:30 a. m.	Ha-Hol
8:30 to 9:15 a. m.	Hom-Hy R X Z
9:30 to 10:15 a. m.	Sa-Sm
10:15 to 11:00 a. m.	Sn-Sz D U
12:00 to 12:45 p. m.	Ba-Bra
12:45 to 1:30 p. m.	Bre-By L V
1:45 to 2:30 p. m.	Ma-Mi
2:45 to 3:30 p. m.	Mo-My I K Y

TUESDAY, SEPTEMBER 12, 1939

7:45 to 8:30 a. m.	Wa-Wh
8:30 to 9:15 a. m.	Wi-Wy J N O
9:30 to 10:15 a. m.	Ca-Con
10:15 to 11:00 a. m.	Coo-Cz E G Q
1:00 to 1:45 p. m.	A F
1:45 to 2:30 p. m.	P T
2:30 to 4:00 p. m.	Special students and any students who failed to report during the period provided for their group. Late assignment fee of $2.50 in effect after this period.

SECOND SEMESTER

SCHEDULE FOR ALL STUDENTS

TUESDAY, JANUARY 30, 1940

Hours	*Initial letters*
7:45 to 8:30 a. m.	A F
8:30 to 9:15 a. m.	P T
9:30 to 10:15 a. m.	Ca-Con
10:15 to 11:00 a. m.	Coo-Cz E G Q
12:00 to 12:45 p. m.	Ba-Bra
12:45 to 1:30 p. m.	Bre-By L V
1:45 to 2:30 p. m.	Ma-Mi
2:45 to 3:30 p. m.	Mo-My I K Y

WEDNESDAY, JANUARY 31, 1940

7:45 to 8:30 p. m.	Wa-Wh
8:30 to 9:15 a. m.	Wi-Wy J N O
9:30 to 10:15 a. m.	Sa-Sm
10:15 to 11:00 a. m.	Sn-Sy D U
1:00 to 1:45 p. m.	Ha-Hol
1:45 to 2:30 p. m.	Hon-Hy R X Z
2:30 to 4:00 p. m.	Special students and any students who failed to report during the period provided for their group. Late assignment fee of $2.50 in effect after this period.

The State Board of Regents

Name and address	Term expires
Ralph T. O'Neil, *Chairman,* Topeka	June 30, 1939
E. F. Beckner, Colby	June 30, 1941
L. J. Beyer, Lyons	June 30, 1942
Maurice L. Breidenthal, Kansas City	June 30, 1942
Lester McCoy, Garden City	June 30, 1939
Clarence G. Nevins, Dodge City	June 30, 1941
Howard Payne, Olathe	June 30, 1940
H. L. Snyder, Winfield	June 30, 1940
Leslie Wallace, Larned	June 30, 1942

J. A. Mermis, *Business Manager*
Mark Krouch, *Assistant Business Manager*

Administrative Officers* of the College

President	F. D. Farrell
College Historian	J. T. Willard
Dean of the Division of Agriculture, and Director of the Agricultural Experiment Station	L. E. Call
Dean of the Division of Engineering, and Director of the Engineering Experiment Station	R. A. Seaton
Dean of the Division of General Science	R. W. Babcock
Dean of the Division of Home Economics, and Director of the Bureau of Research in Home Economics	Margaret M. Justin
Dean of the Division of Veterinary Medicine	R. R. Dykstra
Dean of the Division of College Extension	H. J. Umberger
Dean of the Division of Graduate Study	J. E. Ackert
Dean of Women	Mary P. Van Zile
Dean of the Summer School	E. L. Holton
Vice-President	S. A. Nock
Registrar	Jessie McD. Machir
Librarian	Arthur B. Smith
Superintendent of Maintenance	G. R. Pauling

* Also included in the general alphabetical list.

Officers of Administration, Instruction and Research*

NELLIE ABERLE, Assistant Professor of English (1921, 1935).‡
B. S., K. S. C., 1912; M. S., ibid., 1914. † A 53.

ERWIN ABMEYER, Assistant Professor of Horticulture in Charge of Northeastern Kansas Experiment Fields (1934, 1936).
B. S., K. S. C., 1933. Atchison, Kan.

FULTON GEORGE ACKERMAN, Associate Soil Conservationist, Soil Conservation Service, U. S. D. A.; in charge of Soil and Water Conservation Investigations, Fort Hays Branch Agricultural Experiment Station (1933, 1934).
B. S., K. S. C., 1931. Hays, Kan.

JAMES EDWARD ACKERT, Dean of Division of Graduate Study (1931); Professor of Zoölogy (1913, 1918); Parasitologist, Agricultural Experiment Station (1913).
A. B., University of Illinois, 1909; A. M., ibid., 1911; Ph. D. ibid., 1918. F 26.

ANNA TESSIE AGAN, Assistant Professor of Household Economics (1930; Sept. 1, 1938).
B. S., University of Nebraska, 1927; M. S., K. S. C., 1930. T 53.

MICHAEL FRANCIS AHEARN, Professor and Head of Department of Physical Education, and Director of Athletics (1904, 1920).
B. S., Massachusetts Agricultural College, 1904; M. S., K. S. C., 1913. N 35.

LOUIS C. AICHER, Superintendent, Fort Hays Branch Agricultural Experiment Station (1921).
B. S., K. S. C., 1910. Hays, Kan.

HARRY WORKMAN AIMAN, Assistant Professor of Woodwork (1918, 1925).
A. B., Oskaloosa College, 1921. S 27A.

HARRY STARKEY ALDRICH, Capt., C. A. C., U. S. A.,; Assistant Professor of Military Science and Tactics (1937).
B. S., Michigan College of Mines, 1917; E. M., ibid., 1917. N 26.

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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:

A—Anderson Hall (Administration)
Ag—Waters Hall (Agr., Chem., Physics)
Bks—Barracks
C—Calvin Hall (Home Ec.)
CH—College Hospital
D—Dickens Hall (Hort., Botany)
E—Engineering Hall
EA—Extension Annex
F—Fairchild Hall (Hist., Zoöl., Ent.)
G—Education Hall (Educ., Publ. Spkg.)
I—Illustrations Hall
K—Kedzie Hall (Printing)
L—Library
M—Auditorium
N—Nichols Gymnasium (Phys. Ed., Mil. Sci., Music)
P—Stock Judging Pavilion
PP—Power, Heat and Service Building
R—Farm Machinery Hall
S—Engineering Shops
T—Thompson Hall (Cafeteria)
V—Veterinary Hall (Vet. Med., Bact.)
VH—Veterinary Hospital
VRL—Veterinary Research Laboratory
VZ—Van Zile Hall (Girls' Dormitory)
W—Physical Science Building
X—Chemistry Annex No. 1
XX—Chemistry Annex No. 2

‡ 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 304.

OSCAR WILLIAM ALM, Professor of Psychology (1929, 1933).
A. B. University of Nebraska, 1917; A. M., Columbia University, 1918; Ph. D., University of Minnesota, 1929. G 30.

ANNETTE ALSOP, Graduate Assistant in Zoölogy (Sept. 1, 1938).
B. S., K. S. C., 1938. F 36.

INEZ GERTRUDE ALSOP, Assistant Professor of History and Government (1923, 1927).
B. S., Kansas State Teachers College, Emporia, 1916; M. S., University of Kansas, 1920. F 63.

DONALD JULES AMEEL, Instructor in Zoölogy (1937).
A. B., Wayne University, 1928; M. A., University of Michigan, 1930; Sc. D., ibid., 1933. F 78.

EDITH EVELYN AMES, Graduate Assistant in Institutional Management (Sept. 1, 1938); resigned Oct. 3, 1938.
B. S., K. S. C., 1927. VZ.

EDGAR MCCALL AMOS, Associate Professor of Industrial Journalism and Printing (1920, 1936).
B. S., K. S. C., 1902. K 29.

WILLIAM GERALD AMSTEIN, Assistant Professor of Horticulture, Division of College Extension (1935).
B. S., Massachusetts Agricultural College, 1927; M. S., K. S. C., 1928. A 3.

JAMES RUSSELL ANDERSON, (Temporary) Instructor in Applied Mechanics (Feb. 1, 1939).
B. S., University of California, 1937. E 113.

JOHN EDMOND ANDERSON, Instructor in Milling Industry (1932, 1933).
B. S., K. S. C., 1932; M. S., ibid, 1933. E. Ag 101B.

KLING LEROY ANDERSON, Assistant Professor of Pasture Improvement (1936; July 1, 1938).
B. S., University of California, 1936; M. S., K. S. C., 1938. E. Ag 206A.

ARTHUR CLINTON ANDREWS, Assistant Professor of Chemistry (1926; Sept. 1, 1938).
B. S., University of Wisconsin, 1924; M. S., K. S. C., 1929; Ph. D., University of Wisconsin, 1938. XX 28.

ADELAIDE ASCHMANN, Graduate Assistant in Child Welfare and Euthenics (Sept. 10, 1938).
B. S., Carnegie Institute of Technology, 1938. C 62.

FLOYD WARNICK ATKESON, Professor and Head of Department of Dairy Husbandry (1935); Dairy Husbandman, Agricultural Experiment Station (1935).
B. S., University of Missouri, 1918; M. S., K. S. C., 1929. W. Ag 128.

CLIFF ERRETT AUBEL, Professor of Animal Husbandry (1919; July 1, 1938).
B. S., Pennsylvania State College, 1915; M. S., K. S. C., 1917; Ph. D., University of Minnesota, 1935. E. Ag 24.

MADALYN AVERY, Assistant Professor Physics (1928).
B. S., K. S. C., 1924; M. S., ibid., 1932. W. Ag 134.

THOMAS BURT AVERY, Graduate Assistant in Poultry Husbandry (1937; July 1, 1938).
B. S., K. S. C., 1934. W. Ag 230.

J. Dewey Axtell,[1] Research Assistant in Agronomy, Agricultural Experiment Station (October 25, 1938). E. Ag 207A.

Rodney Whittemore Babcock, Dean of Division of General Science (1930).
A. B., University of Missouri, 1912; A. M., University of Wisconsin, 1915; Ph. D., ibid., 1924. A 47.

Dorothy Alice Bacon, (Temporary) Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (Sept. 20, 1938).
B. S., K. S. C., 1936. A 35A.

Harry Charles Baird, Assistant Professor of Agricultural Extension; District Supervisor, Division of College Extension (1920, 1934).
B. S., K. S. C., 1914. A 60.

Clarence Potter Baker, (Temporary) Instructor in English (1937).
B. S., Haverford College, 1933; A. M., Harvard University, 1936. K 54.

Gladys Baker, Head Cataloguer in Library (1935; July 1, 1938).
B. L. S., University of Illinois, 1924. L 52.

Robert Metcalfe Baker, Instructor in Electrical Engineering (1937).
B. S. in E. E., University of Texas, 1926; M. S., University of Pittsburgh, 1931. E 120.

Nora Elizabeth Bare,[4] Assistant in Education (1927, 1937).
B. S., K. S. C., 1925. G 32B.

Dorothy Barfoot, Professor and Head of Department of Art (1930, 1935).
A. B., State University of Iowa, 1922; A. M., Columbia University, 1928. A 68A.

Edgar Lee Barger, Associate Professor of Agricultural Engineering (1930; July 1, 1938).
B. S., K. S. C., 1929; M. S., ibid., 1934. E 216.

Harold Nathan Barham, Associate Professor of Organic Chemistry (1929, 1932).
A. B., Bethany College, 1921; M. S., Ohio State University, 1922; Ph. D., University of Kansas, 1928. XX 28.

Mark Alfred Barmore,[1] Agent, Bureau of Plant Industry, U. S. D. A.; Cereal Chemist, Agricultural Experiment Station (Feb. 1, 1938).
A. B., Quaker College, 1927; M. A., Stanford University, 1929; Ph. D., ibid., 1931. E. Ag 102.

Jane Wilson Barnes, Assistant to the Dean, Division of Home Economics (1928; July 1, 1938); Acting Assistant Dean, Division of Home Economics, Aug. 1, 1938, to June 30, 1939.
B. S., K. S. C., 1912; M. S., ibid., 1932. C 38.

Robert John Barnett, Professor of Horticulture (1907-1911; 1920); Head of Department of Horticulture, 1930-1938.
B. S., K. S. C., 1895; M. S., ibid., 1911. D 29.

Ellen Margaret Batchelor, Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1917; July 1, 1938).
B. S., K. S. C., 1911. EA 306.

James Charles Bates, Instructor in Botany (1935).
A. B., University of Kansas, 1927; A. M., ibid., 1934; Ph. D., ibid., 1935. D 53.

Laura Falkenrich Baxter, Assistant Professor of Home Economics Education (1927, 1934).
B. S., K. S. C., 1915; M. S., ibid., 1930. G 28.

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1. In coöperation with the U. S. Department of Agriculture.
4. In coöperation with the State Board for Vocational Education.

Mabel Gertrude Baxter, Assistant in Charge of Continuations, College Library (1916, 1918). L 26.

Buell Wesley Beadle, Assistant Chemist, Agricultural Experiment Station (1935).
B. S., K. S. C., 1935; M. S., ibid., 1938. E. Ag 204A.

Edgar Sidney Beaumont, Graduate Assistant in Horticulture (Sept. 1, 1938).
B. S., Massachusetts State College, 1938. D 35A.

Glenn Hanse Beck, Instructor in Dairy Husbandary (1936, 1937).
B. S., University of Idaho, 1936; M. S., K. S. C., 1938. W. Ag 125.

Russell James Beers, Instructor in Chemistry (1935).
B. S., University of Nebraska, 1933; M. S., ibid., 1935. A 74.

Floyd Wayne Bell, Professor of Animal Husbandry, in Charge of Advanced Judging (1918, 1921).
B. S., Cornell University, 1911. E. Ag 12.

John Gregory Bell, Assistant Professor of Farm Crops, Division of College Extension (1933, 1937).
B. S., K. S. C., 1932. A 3.

Ada Grace Billings, Associate Professor of History and Government, Department of Home Study, Division of College Extension (1921, 1927).
B. S., K. S. C., 1916; M. S., ibid., 1927. A 5.

Chester Bert Billings, Instructor in Agriculture, Department of Home Study, Division of College Extension (1936).
B. S., Fort Hays Kansas State College, 1930; M. S., K. S. C., 1936. A 5.

Frank Otto Blecha, Assistant Professor of Agricultural Extension; District Agricultural Agent, Division of College Extension (1919, 1923).
B. S., K. S. C., 1918; M. S., ibid., 1926. A 60.

James A. Blodgett, Graduate Research Assistant in Agronomy (Sept. 1, 1938).
B. S., University of Oregon, 1939. E. Ag 208.

Robert Edmund Bock, Custodian (1936, 1937). PP 35.

Clara Bogue, (Temporary) Instructor in English (1921-1929; Sept. 1, 1938).
B. S., Kansas State Teachers College, Emporia, 1919; M. A., University of Chicago, 1921. A 52.

Mary Elsie Border, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1929, 1936); on sabbatic leave Sept. 20, 1938, to June 19, 1939.
B. S., Ohio State University, 1926. A 35.

Phyllis Boyle, Graduate Assistant in Bacteriology (Feb. 1, 1939).
B. S., K. S. C., 1939. V 52.

William Raymond Brackett, Associate Professor of Physics (1919, 1923).
A. B., University of Colorado, 1905. W. Ag 31.

Boyd Bertrand Brainard, Professor of Mechanical Engineering (1923; Sept. 1, 1938).
B. S. in M. E., University of Colorado, 1922; S. M., Massachusetts Institute of Technology, 1931. E 109.

George Francis Branigan, Assistant Professor of Engineering Drawing and Descriptive Geometry (1927, 1936).
B. S. in C. E., University of Nebraska, 1927; M. S., K. S. C., 1933. E 209.

Augustin Wilber Breeden, Associate Professor of English (1926).
Ph. B., University of Chicago, 1924; A. M., ibid., 1925. K 52.

JESSE LAMAR BRENNEMAN, Professor of Electrical Engineering (1920, 1928).
B. S., University of Chicago, 1908; E. E., University of Wisconsin, 1913. E 120.

EVERETT ERNEST BROWN, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (Sept. 1, 1938).
Graduate, Infantry School, 1926; Graduate, Command and General Staff School, 1938. N 26.

HALE H. BROWN,[4] Instructor in Vocational Education (1937).
B. S., K. S. C., 1928; M. S., ibid., 1937. G 28.

HELEN MARTIN BROWN,[4] Assistant in Education (1937).
A. B., Oberlin College, 1927. Capitol, Topeka, Kan.

MARY VIOLA BROWN, Laboratory Technician, Department of Student Health (1936).
B. S., Baldwin-Wallace College, 1934. A 57.

NINA MYRTLE BROWNING, Assistant Professor of Food Economics and Nutrition (1930, 1937); on sabbatic leave 1938-1939.
B. S., K. S. C., 1923; M. S., ibid., 1927. C 43.

HOWARD W. BRUBAKER, Professor of Analytical Chemistry (1913, 1922).
B. S., Carleton College, 1899; Ph. D., University of Pennsylvania, 1904. XX 3.

LOREN ALDRO BRYAN, Graduate Assistant in Chemistry (1937).
B. S. in Ed., Kansas State Teachers College, Emporia, 1937; B. A., ibid., 1937. X 29A.

HARRY RAY BRYSON, Assistant Professor of Entomology (1924, 1929).
B. S., K. S. C., 1917; M. S., ibid., 1924. F 54.

HARRY COPLEY BUCHHOLTZ, (Temporary) Graduate Assistant in Electrical Engineering (Feb. 1, 1939).
B. S., K. S. C., 1939. E 24.

JAMES HENRY BURT, Professor and Head of Department of Anatomy and Physiology (1909, 1919).
V. S., Ontario Veterinary College, 1895; D. V. M., Ohio State University, 1905. V 31.

LUCILE BEATRICE BURT, Graduate Assistant in Botany (1937).
B. S., K. S. C., 1928; M. A., University of Kansas, 1938. D 52A.

MARJORIE BURTON, Graduate Assistant in Child Welfare and Euthenics (Sept. 1, 1938).
B. S., Iowa State College, 1933. C 62.

LELAND DAVID BUSHNELL, Professor and Head of Department of Bacteriology (1908, 1912); Bacteriologist, Agricultural Experiment Station (1908, 1912).
B. S., Michigan Agricultural College, 1905; M. S., University of Kansas, 1915; Ph. D., Harvard University, 1921. V 56.

FRANK BYRNE, Instructor in Geology (1930).
B. S., University of Chicago, 1927. F 1A.

MARION JOHN CALDWELL, Instructor in Chemistry (1932, 1934).
B. S., K. S. C., 1931; M. S., ibid., 1933. X 29A.

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 56.

MILDRED CAMP, Head of Circulation Department, College Library (1927).
A. B., Eureka College, 1912; B. L. S., University of Illinois, 1924. L.

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

James Kirker Campbell, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1937).
Graduate, Culver Military Academy, 1905; Graduate, Infantry School, 1926. N 26.

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. Ag 225.

Walter William Carlson, Professor and Head of Department of Shop Practice (1910, 1917); Superintendent of Shops (1910, 1912); Industrial Engineer, Engineering Experiment Station (1913); on sabbatic leave July 1 to August 31, 1938.
B. S., K. S. C., 1908; M. E., ibid., 1916. S 62.

Arthur Adam Case, Graduate Research Assistant in Zoölogy, Agricultural Experiment Station (1937).
B. S., K. S. C., 1937. F 36.

Ralph Boyd Cathcart, Assistant Professor of Animal Husbandry (1935, 1937).
B. S., K. S. C., 1933; M. S., University of Nebraska, 1934. E. Ag 6A.

Wilbur John Caulfield, Assistant Professor of Dairy Husbandry (1927, 1930).
B. S., University of Minnesota, 1924; M. S., Pennsylvania State College, 1926. W. Ag 147.

George Edward Cauthen, Technician and Instructor in Zoölogy (1935); resigned Nov. 15, 1938.
B. A., Austin College, 1928; M. S., K. S. C., 1931. F 30.

Harry Winfield Cave, Professor of Dairy Husbandry (1918, 1926).
B. S. A., Iowa State College, 1914; M. S., K. S. C., 1916. W. Ag 128.

Dena C. Cederquist, Technician in Food Economics and Nutrition (1937).
B. S., Iowa State College, 1931; M. S., ibid., 1937. C 13.

Ernest Knight Chapin, Associate Professor of Physics (1923, 1932).
A. B., University of Michigan, 1918; M. S., ibid., 1923. W. Ag 134A.

James Percy Chapman, Assistant Extension Editor (1936).
B. S., K. S. C., 1932. EA 104.

Joseph Rudolph Chelikowsky, Instructor in Geology (1937).
B. A., Cornell University, 1931; M. A., ibid., 1932; Ph. D., ibid., 1935. F 1A.

Robert Frederick Childs,[2] Road Materials, Engineering Experiment Station (1931).
B. S., K. S. C., 1929. E 230.

Alfred Lester Clapp, Associate Professor of Agronomy, in Charge of Coöperative Experiments (1920, 1934).
B. S., K. S. C., 1914; M. S., ibid., 1934. E. Ag 201.

Francis Eugene Clark,[1] Associate Bacteriologist, U. S. D. A.; Soil Microbiology Investigations, Agricultural Experiment Station (1937).
B. A., University of Colorado, 1932; B. D. E., ibid., 1933; M. A., ibid., 1933; Ph. D., ibid., 1936. V 28.

Eugene Arthur Cleavinger, Assistant Professor of Farm Crops, Division of College Extension (1926, 1931).
B. S., K. S. C., 1925. A 3.

Owen Lovejoy Cochrane, Instructor in Physical Education (Jan. 1, 1939).
B. S., K. S. C., 1931. N 33.

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2. In coöperation with the Kansas State Highway Department.

MAYNARD HENRY COE, Professor and State Club Leader, Division of College Extension (1922, 1927).
B. S., University of Minnesota, 1917. A 35B.

ALICE COLE, Nurse, Department of Student Health (1938).
R. N., Bethany Methodist Hospital School of Nursing, 1937. CH.

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

TATE BENTON COLLINS, JR., (Temporary) Graduate Assistant in Electrical Engineering (Feb. 1, 1939).
B. S., K. S. C., 1937. E 19.

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. XX 28.

DORIS COMPTON, Instructor in Recreation, Division of College Extension (1937; July 1, 1938).
B. S., Northwestern University, 1937. EA 304.

LAURENCE LAUR COMPTON, Assistant Professor of Soils, Division of College Extension (1930, 1935).
B. S., K. S. C., 1930. A 3.

ROBERT WARREN CONOVER, Professor of English (1915, 1920).
A. B., Wesleyan University, 1911; A. M., ibid., 1914. K 53.

WILLIAM JOSEPH CONOVER, Assistant Professor of Agricultural Economics, Division of College Extension (1934, 1937).
B. S., K. S. C., 1932 Pratt, Kan.

LOWELL EDWIN CONRAD, Professor and Head of Department of Civil Engineering (1908, 1909); Civil Engineer, Engineering Experiment Station (1913).
B. S., Cornell College, 1904; C. E., ibid., 1906; M. S., Lehigh University, 1908. E 124.

RALPH MARTIN CONRAD, Assistant Professor of Poultry Chemistry (1936).
B. S., K. S. C., 1933; M. S., State University of Iowa, 1934; Ph. D., ibid., 1936. W. Ag 234.

JOHN HERBERT COOLIDGE, Assistant Professor of Agricultural Economics, Division of College Extension (1926, 1931).
B. S., K. S. C., 1925; M. S., ibid., 1932. Farm Bureau, Kingman, Kan.

LLOYD MARION COPENHAFER, Instructor in Landscape Gardening, Division of College Extension (Oct. 1, 1938).
B. S., K. S. C., 1933; M. S., ibid., 1936. A 3.

ESTHER MARGARET CORMANY, Assistant Professor of Clothing and Textiles (1936).
B. S., K. S. C., 1926; M. S., ibid., 1932. C 68.

CHARLES MECLAIN CORRELL, Professor of History and Government (1922, 1934); Assistant Dean, Division of General Science (1927).
B. S., K. S. C., 1900; Ph. B., University of Chicago, 1907; Ph. M., ibid., 1908. F 61 and A 47A.

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

RICHARD THOMAS COTTON,[3] Senior Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Stored Grain and Flour-mill Insects; in charge of U. S. Entomological Laboratory (1934).
B. S., Cornell University, 1914; M. S., ibid., 1918; Ph. D., George Washington University, 1924. U. S. Lab., 1204 Fremont.

JUNIETA HARBES COWAN,[4] (Temporary) Instructor in Home Economics Education (Sept. 1, 1938).
B. S., K. S. C., 1930.

INA FOOTE COWLES, Associate Professor of Clothing and Textiles (1902, 1918).
B. S., K. S. C., 1901; M. S., University of Wisconsin, 1931. C 68.

RUFUS FRANCIS COX, Associate Professor of Animal Husbandry (1930, 1935).
B. S., Oklahoma Agricultural and Mechanical College, 1923; M. S., Iowa State College, 1925. E. Ag 8A.

WILLIAM WESLEY CRAWFORD, Assistant Professor of Civil Engineering (1923, 1934).
A. B., State University of Iowa, 1912; B. S. in C. E., Iowa State College, 1917; M. Di., Iowa State Teachers College, 1908. E 220.

DON BAKER CREAGER, Instructor in Botany (1937).
B. S., Miami University, 1927; M. S., State University of Iowa, 1929; Ph. D., Harvard University, 1937. D 54.

LEONARD ROSCOE CREWS, Maj., C. A. C., U. S. A.; Assistant Professor of Military Science and Tactics (1934).
Graduate, Battery Officers Course, Coast Artillery School, 1929. N 22.

CORNELIA WILLIAMS CRITTENDEN, Associate Professor of Modern Languages (1926, 1929).
A. B., University of Nebraska, 1918; A. M., ibid., 1926. A 71.

MARTHA REBECCA CULLIPHER, Assistant Loan Librarian (1928); on sabbatic leave Sept. 1, 1938, to May 31, 1939.
A. B., Indiana University, 1926; B. S. in L. S., University of Illinois, 1928. L 51.

RUTH J. DALES, Instructor in Child Welfare and Euthenics (1937).
B. S., Elmira College, 1933; Merrill Palmer School, 1934. C 32B.

ROSE MARIE DARST, Assistant Professor of Art (1933; Sept. 1, 1938).
B. S., Ohio University, 1926; A. M., Columbia University, 1927. A 68B.

ROBERT DODDS DAUGHERTY, Assistant Professor of Mathematics (1930, 1932).
Ph. B., Iowa Wesleyan College, 1910; M. S., State University of Iowa, 1930. S 52.

ALLAN PARK DAVIDSON, Professor of Vocational Education (1919, 1930).
B. S., K. S. C., 1914; M. S., ibid., 1925. G 28.

FLOYD EWING DAVIDSON, Assistant in Agronomy, Southeastern Kansas Experiment Fields (1934).
B. S., K. S. C., 1933. R. F. D. 3, Parsons, Kan.

CHARLES DEFOREST DAVIS, Assistant Professor of Farm Crops (1921).
B. S., K. S. C., 1921; M. S., ibid., 1926. E. Ag 305A.

ELIZABETH HAMILTON DAVIS, Reference Librarian (1920).
A. B., MacMurray College for Women, 1909; B. L. S., University of Illinois, 1914. L 51.

HALLAM WALKER DAVIS, Professor of English (1913, 1918); Head of Department of English (1913, 1921).
A. B., Indiana University, 1909; A. M., Columbia University, 1913. K 54.

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3. In coöperation with the Kansas Agricultural Experiment Station.
4. In coöperation with the State Board for Vocational Education.

WILMER ESLA DAVIS, Professor of Plant Physiology (1909, 1927).
Graduate, Ohio Normal University, 1894; A. B., University of Illinois, 1903. D 77B.

EARLE REED DAWLEY,[2] Professor of Engineering Materials (1920, 1933); Acting Materials Testing Engineer, Engineering Experiment Station (1920; Feb. 1, 1939); Acting Head of the Department of Applied Mechanics June 1 to August 31, 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 51.

SAMUEL WESLEY DECKER, Associate Professor of Horticulture (1937).
B. S., K. S. C., 1924; M. S., University of Illinois, 1927. D 12.

MAUDE ELIZABETH DEELY, Assistant Professor and District Home Demonstration Agent Leader, Division of College Extension (1923, 1937).
B. S., K. S. C., 1923; A. M., Columbia University, 1932. EA 306B.

HERMANN CHARLES DEMPEWOLF, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (1935).
Graduate, Infantry School, 1925; Graduate, Chemical Warfare School, 1930. N 26.

GRACE EMILY DERBY, Associate Librarian (1911, 1918).
A. B., Western College for Women, 1905. L 55.

ARTHUR DEVOR, Graduate Assistant in Chemistry (1936).
B. S., McPherson College, 1935; M. S., K. S. C., 1937. X 29A.

ROSE GERALDINE DILLER, Class Reserves Assistant in Library (Sept. 1, 1938).
L 1.

GEORGE FRANKLIN DILLON, Graduate Assistant in Entomology (1937); resigned Jan. 31, 1939.
A. B., Friends University, 1936. F 51.

PAUL LAWRENCE DITTEMORE, (Temporary) Editorial Assistant in the Agricultural Experiment Station (Feb. 1, 1939).
B. S., K. S. C., 1932. E. Ag 105.

RAYMOND JOSEPH DOLL, Instructor in Agricultural Economics (1935, 1936).
B. S., K. S. C., 1935; M. S., ibid., 1938. W. Ag 328.

CHARLES EDWARD DOMINY, Assistant Professor of Agricultural Economics, Division of College Extension (1936.)
B. S., K. S. C., 1926; Graduate, Institute of Meat Packing, 1927. W. Ag 327.

VERNON LLOYD DORAN, (Temporary) Assistant in Agricultural Economics (Oct. 1, 1938).
B. S., K. S. C., 1938. W. Ag 327.

CARL ALFRED DORF, Instructor in Chemistry (1931, 1935).
A. B., Bethany College, 1920; M. S., K. S. C., 1932. X 26.

LYLE WAYNE DOWNEY, Associate Professor of Music and Director of the College Band and the College Orchestra (1928, 1935).
A. B., James Millikin University, 1923; B. Mus., American Conservatory, 1928; M. S., K. S. C., 1932. M 30.

LESTER HENRY DRAYER, Chief Engineer, Heat and Power Department (1916, 1927). E 3.

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2. In coöperation with the Kansas State Highway Department.

Hugh Durham, Associate Professor of Agricultural Education (1927); Assistant in the Division of Agriculture and in the Agricultural Experiment Station (1915, 1937); deceased Oct. 15, 1938.

Graduate, Kansas State Teachers College, Emporia, 1901; A. B., University of Kansas, 1909; A. M., ibid., 1915. E. Ag 105.

Merrill Augustus Durland, Professor of Machine Design (1919, 1928); Assistant Dean, Division of Engineering (1926).

B. S., K. S. C., 1918; M. E., ibid., 1922; M. S., ibid., 1923. E 116.

Ralph R. Dykstra, Dean of Division of Veterinary Medicine (1919); Professor of Surgery (1911, 1913).

D. V. M., Iowa State College, 1905. V 30.

Samuel Allen Edgar, Technician and Instructor in Zoölogy (1937; Nov. 16, 1938).

A. B., Sterling College, 1937. F 30.

Robert John Eggert, Assistant Professor of Agricultural Economics (Sept. 1, 1938).

B. S., University of Illinois, 1935; M. S., University of Illinois, 1936. W. Ag 330B.

Hal Field Eier, Instructor in Rural Engineering, Division of College Extension (1934, 1935).

B. S., K. S. C., 1936. E 131.

Harold Russell Ekroth, (Temporary) Instructor in Architecture (Feb. 1, 1939).

B. S., University of Illinois, 1938. E 223.

Helen Elizabeth Elcock, Associate Professor of English (1920, 1926).

A. B., College of Emporia, 1907; A. M., University of Chicago, 1921. A 52.

Carl G. Elling, Associate Professor of Animal Husbandry, Division of College Extension (1918, 1921).

B. S., K. S. C., 1904. A 3.

Vera May Ellithorpe, Graduate Assistant in Household Economics (Sept. 1, 1938).

B. S., K. S. C., 1935. T 53.

Otto Herman Elmer, Associate Professor of Botany and Plant Pathology (1927, 1937).

B. S., Oregon Agricultural College, 1911; M. S., ibid., 1916; Ph. D., Iowa State College, 1924. D 56.

Walter Titus Emery,[3] Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Staple Crop Insects (1934).

A. B., University of Kansas, 1911; A. M., ibid., 1913. U. S. Lab., 1204 Fremont.

Donald Engle, (Temporary) Instructor in Music (Sept. 1, 1938).

B. Music, K. S. C., 1938; B. S., K. S. C., 1938. M 54.

Andrew Brian Erhart, Assistant in Agronomy in charge of the Southwest Kansas Experiment Fields (1934, 1936).

B. S., K. S. C., 1933. Meade, Kan.

Fred Page Eshbaugh, Forest Nurseryman, Fort Hays Branch Agricultural Experiment Station (1934).

B. S., K. S. C., 1926; M. S., Purdue University, 1928. Hays, Kan.

Louise Helen Everhardy, Associate Professor of Art (1919, 1920).

Graduate New York School of Fine and Applied Art, 1916; B. S., Columbia University, 1925; A. M., ibid., 1926. A 55A.

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3. In coöperation with the Kansas Agricultural Experiment Station.

VERNETTA FAIRBAIRN, (Temporary) Instructor and District Home Demonstration Agent Leader, Division of College Extension (1928; Oct. 19, 1938).
A. B., University of Kansas, 1927. EA 306B.

WILLIAM LAWRENCE FAITH, Professor of Chemical Engineering (1933, 1936).
B. S., University of Maryland, 1928; M. S., University of Illinois, 1929; Ph. D., ibid., 1932. XX 28.

HERMAN FARLEY, Associate Professor of Pathology (1929; July 1, 1938).
D. V. M., K. S. C., 1926; M. S., ibid., 1934. V 61 and VRL.

FRANCIS DAVID FARRELL, President of the College (1918, 1925).
B. S., Utah Agricultural College, 1907; Agr. D., University of Nebraska, 1925. A 30.

MAE FARRIS, Instructor in Home Furnishings, Division of College Extension (Jan. 25, 1939).
B. S., Oklahoma Agricultural and Mechanical College, 1933; M. S., ibid., 1936. A 62A.

JACOB OLIN FAULKNER, Professor of English (1922, 1927).
A. B., Washington and Lee University, 1907; A. M., Pennsylvania State College, 1920. K 62.

HURLEY FELLOWS,[1] Associate Pathologist, U. S. D. A.; Cereal Investigations, Agricultural Experiment Station (1925).
B. S., Oregon State College, 1920; M. S., University of Wisconsin, 1921; Ph. D., ibid., 1923. D 2.

LEE SHRIVER FENT, Graduate Assistant in Zoölogy (Nov. 16, 1938).
B. S., K. S. C., 1938. F 36.

FREDERICK CHARLES FENTON, Professor and Head of Department of Agricultural Engineering (1928).
B. S., Iowa State College, 1914; M. S., ibid., 1930. E 214.

JOHN MOSES FERGUSON, Instructor in Farm Machinery, Division of College Extension (1937).
B. S., K. S. C., 1934. E 131.

CHRIS HENRY FICKE,[1] Junior Pathologist, U. S. D. A.; Cereal Investigations, Agricultural Experiment Station (1930).
B. S., Iowa State College, 1925; M. S., K. S. C., 1927. D 2.

MISCAL FIERKE, Instructor in Bacteriology (1937; Feb. 1, 1939).
B. S., Southern Illinois State Normal University, 1926; M. S., University of Illionis, 1933. V 54.

GEORGE ALBERT FILINGER, Associate Professor of Pomology (1931, 1937); Assistant Pomologist, Agricultural Experiment Station (1931).
B. S., K. S. C., 1924; M. S., ibid., 1925; Ph. D., Ohio State University, 1931. D 35.

JOHN CHARLES FINERTY, Graduate Research Assistant in Zoölogy, Agricultural Experiment Station (1937).
A. B., Kalamazoo College, 1937. F 5.

ALVA L. FINKNER, Graduate Research Assistant in Agronomy, Agricultural Experiment Station (July 1, 1938).
B. S., Colorado Agricultural College, 1938. E. Ag 208A.

KARL FREDERICK FINNEY,[1] Agent, Bureau of Plant Industry, U. S. D. A.; Baking Technologist, Agricultural Experiment Station (Jan. 3, 1938).
A. B., Kansas Wesleyan, 1935; B. S., K. S. C., 1936; M. S., ibid., 1937. E. Ag 102.

EMORY D. FISHER, Instructor in Chemistry (1935).
B. S., Dakota Wesleyan University, 1931; Ph. D., University of Wisconsin, 1935. A 74.

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

Lyle Craig Fitch, (Temporary) Instructor in Economics (Sept. 1, 1938).
B. S., State Teachers College, Chadron, Nebr., 1935; M. A., University of Nebraska, 1938. W. Ag 327.

Beatty Hope Fleenor, Professor of Education, Department of Home Study, Division of College Extension (1923, 1927).
B. S., K. S. C., 1919; M. S., ibid, 1923; Ph. D., University of Missouri, 1931. A 5.

Hazel Marie Fletcher, Assistant Professor of Clothing and Textiles (1937).
A. B., Indiana University, 1922; A. M., ibid., 1927; Ph. D., ibid., 1929. C 53.

Mary Genevieve Fletcher, Instructor in Foods and Nutrition, Division of College Extension (1936, 1937).
B. S., K. S. C., 1928; M. S., ibid., 1934. EA 304.

Arthur Oran Flinner, Assistant Professor of Mechanical Engineering (1929, 1934).
B. S. in M. E., K. S. C., 1929; M. S., ibid., 1933, S. M., Massachusetts Institute of Technology, 1937. E 109.

Eustace Vivian Floyd, Professor of Physics (1911, 1921).
B. S., Earlham College, 1903. W. Ag 228.

Vernon Daniel Foltz, Assistant Professor of Bacteriology (1927, 1932); Food Bacteriologist, Agricultural Experiment Station (1937).
B. S., K. S. C., 1927; M. S., ibid., 1929. V 52.

Kenney Lee Ford, Alumni Secretary (1928).
B. S., K. S. C., 1924; M. S., ibid., 1932. A 38A.

Helen Gertrude Forney, Instructor in Food Economics and Nutrition (1937).
A. B., Manchester College, 1927; A. M., Columbia University, 1936. C 64.

Sina Faye Fowler, Instructor in Institutional Management (1935).
B. S., Northeast Missouri State Teachers College, 1927; M. S., K. S. C., 1933. T 28.

Donald B. Frane, Assistant College Physician (Sept. 1, 1938).
B. S., University of Minnesota, 1935; M. B., ibid., 1937; M. D., ibid., 1938. A 63.

Edward Raymond Frank, Professor of Surgery (1926, 1935).
B. S., K. S. C., 1918; D. V. M., ibid., 1924; M. S., ibid., 1929. VH 53.

Karl C. Frank, Capt., C. A. C., U. S. A.; Assistant Professor of Military Science and Tactics (1935).
Graduate, Battery Officers Course, Coast Artillery School, 1930. N 27.

Forrest Faye Frazier, Professor of Civil Engineering (1911, 1922).
C. E., Ohio State University, 1910. E 123.

John Carroll Frazier, Instructor in Plant Physiology (1936, 1937).
A. B., DePauw University, 1925; A. M., University of Nebraska, 1926. D 28.

Edwin Jacob Frick, Professor of Medicine (1919, 1926); Head of Department of Surgery and Medicine (1935).
D. V. M., Cornell University, 1918. VH 54.

Lyman Frick, Graduate Research Assistant in Zoölogy, Agricultural Experiment Station (Sept. 1, 1938).
A. B., University of Kansas City, 1937. F 29.

Robert Jerome Frick, Graduate Research Assistant in Shop Practice (Sept. 1, 1938).
B. S., Rockhurst College, 1936; B. S., K. S. C., 1937; B. S. in M. E., K. S. C., 1938. S 60.

Roy Fred Fritz, Graduate Assistant in Entomology (Feb. 1, 1939).
B. S., K. S. C., 1937. F 81.

WESLEY LEONARD FRY, Professor of Physical Education (1934, 1935).
LL. B., State University of Iowa, 1926. N 35.

MANFORD W. FURR, Professor of Civil Engineering (1917, 1927).
B. S., Purdue University, 1913; C. E., ibid., 1925; M. S., K. S. C., 1926.

PERCEY LEIGH GAINEY, 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 26.

ANNABEL ALEXANDER GARVEY, Assistant Professor of English (1920, 1927).
A. B., Wellesley College, 1912; A. M., University of Kansas, 1914. A 51A.

FRANK CALEB GATES, Professor of Plant Taxonomy and Ecology (1919, 1928).
A. B., University of Illinois, 1910; Ph. D., University of Michigan, 1912. D 76A.

STEPHEN ARNOLD GEAUQUE, Assistant Custodian (1918, 1937).
PP 35.

GEORGE ALBERT GEMMELL, Professor of Education, in charge of Department of Home Study, Division of College Extension (1918, 1922).
B. S., Kansas State Teachers College, Pittsburg, 1917; B. S., K. S. C., 1920; M. S., ibid., 1922; Ph. D., University of Missouri, 1930. A 5.

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.

JOHN H. GIBSON, Graduate Assistant in Agronomy (Sept. 12, 1938); resigned Dec. 31, 1938.
B. S., University of Missouri, 1938. E. Ag 305A.

WILLIAM EVERETT GIBSON,[2] Engineer of Tests, Kansas State Highway Commission; Road Materials, Engineering Experiment Station (1930).
B. S., K. S. C., 1927; M. S., ibid., 1933; C. E., ibid., 1933. E 17.

HENRY WILBUR GILBERT, Instructor in Landscape Gardening, Division of College Extension (1935); resigned Sept. 30, 1938.
B. S., K. S. C., 1931. A 3.

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. E 207.

CLARENCE LEE GISH, Superintendent of Poultry Farm (1934).
B. S., K. S. C., 1934. Poultry Farm, R. F. D. 1.

KINGSLEY WALTON GIVEN, Associate Professor of Public Speaking (1930).
A. B., Park College, 1926; A. M., State University of Iowa, 1928. G 55.

KENNETH JACK GLEASON, Assistant College Physician (Sept. 1, 1938).
M. D., University of Kansas, 1937. A 63.

OTIS BENTON GLOVER, Assistant Professor of Agricultural Extension; District Supervisor, Division of College Extension (1929, 1934).
B. S., K. S. C., 1915. A 62.

ARTHUR LEONARD GOODRICH, JR., Assistant Professor of Zoölogy (1929; Sept. 1, 1938).
B. S., College of Idaho, 1928; M. S., University of Idaho, 1929; Ph. D., Cornell University, 1938. F 78.

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2. In coöperation with the Kansas State Highway Department.

STANLEY DOUGLAS GRALAK, JR., Instructor in Machine Design (1937).
B. S., University of Illinois, 1936; M. S., ibid., 1937. S 51.

CLARENCE OWEN GRANDFIELD,[1] Assistant Agronomist, U. S. D. A.; Forage Crops, Agricultural Experiment Station (1927, 1929).
B. S., K. S. C., 1917; M. S., ibid., 1929. E. Ag 206A.

EDWARD GRANT, Instructor in Foundry (1913); Foreman of Foundry (1913); on sabbatic leave July 1 to August 31, 1938. S 45.

JOHN WILLARD GREENE, Assistant Professor of Chemical Engineering (1937).
B. S., University of Washington, 1926; M. S., Carnegie Institute of Technology, 1927; Ph. D., University of Pittsburgh, 1930. XX 28.

GEORGE A. GRIES, Graduate Research Assistant in Botany, Agricultural Experiment Station (July 1, 1938).
A. B., Miami University, 1938. D 28.

WALDO ERNEST GRIMES, Professor and Head of Department of Economics and Sociology (1913, 1936).
B. S., K. S. C., 1913; Ph. D., University of Wisconsin, 1923. W. Ag 330A.

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 76B.

LAMOTTE GROVER, Assistant Professor of Applied Mechanics (1938; Sept. 1, 1938).
B. S. in C. E., K. S. C., 1924. E 135.

LOREN DWIGHT GRUBB, Graduate Assistant in Chemistry (1937).
B. S. in Ch. E., K. S. C., 1937; M. S., ibid., 1938. X 29A.

JESSIE GULICK, Acting Cataloguer in Library (1907, 1923); resigned Aug. 31, 1938.
L 52.

MYRTLE ANNICE GUNSELMAN, Associate Professor of Household Economics (1926, 1937).
B. S., K. S. C., 1919; A. M., University of Chicago, 1926. T 5.

RALPH LEONARD GUSTAFSON, Graduate Assistant in Applied Mechanics (Sept. 1, 1938).
B. S. in M. E., University of North Dakota, 1937. E 112.

ANNA HADDEN, Graduate Assistant in Institutional Management (Sept. 1, 1938).
B. S., Iowa State College, 1932. T 51B.

CHARLES W. HADLEY, (Temporary) Instructor in Mathematics (Sept. 1, 1938).
A. B., Southwestern College, 1938. S 52.

RUTH HAINES, Secretary of the Young Women's Christian Association (1934).
A. B., University of Denver, 1931; A. M., ibid., 1933. A 36.

EVERETT RAYMOND HALBROOK, Assistant Professor of Poultry Husbandry, Division of College Extension (1934).
B. S. in Agr., University of Missouri, 1930; M. S., University of California, 1936. W. Ag 230.

JOSEPH LOWE HALL, Assistant Professor of Chemistry (1922, 1923); Meat Investigations, Agricultural Experiment Station (1937).
B. S., University of Illinois, 1919; M. S., ibid., 1921; Ph. D., ibid., 1922. XX 27A.

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

LAWRENCE FENER HALL,[4] Assistant Professor of Vocational Education (1929, 1931).
B. S., K. S. C., 1923; M. S., ibid., 1927. G 28.

ALANSON LOLA HALLSTED,[1] Associate Agronomist, Division of Dry-land Agriculture, U. S. D. A., in charge of Dry-land Agriculture Investigations, Fort Hays Branch Agricultural Experiment Station (1909).
B. S., K. S. C., 1903. Hays, Kan.

JOHN ORR HAMILTON, Professor of Physics (1901, 1908); Physicist, Engineering Experiment Station (1913); Head of Department of Physics, 1908-1937; deceased Aug. 9, 1938.
B. S., University of Chicago, 1900. W. Ag 225.

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

MURVILLE JENNINGS HARBAUGH, Assistant Professor of Zoölogy (1929, 1930).
A. B., University of Montana, 1926; A. M., ibid., 1930. F 37.

ELIZABETH PERRY HARLING,[5] Seed Analyst, Department of Agronomy (1912, 1917); on indefinite leave April 1, 1938; deceased Nov. 30, 1938. A 77.

MARY THERESA HARMAN, Professor of Zoölogy (1912, 1921).
A. B., Indiana University, 1907; A. M., ibid., 1909; Ph. D., ibid., 1912. F 39.

CHARLES HAL HARNED, Graduate Assistant in Geology (Sept. 1, 1938).
B. S., K. S. C., 1938. F 3.

VIDA AGNES HARRIS, Assistant Professor of Art (1927, 1931).
B. S., K. S. C., 1914; A. M., University of Chicago, 1927. A 55A.

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. X 26.

LAWRENCE WILLIAM HARTEL, Assistant Professor of Physics (1920).
A. B., Central Wesleyan College, 1911; B. S., ibid., 1912; B. S. in Ed., University of Missouri, 1915; M. S., K. S. C., 1924. W. Ag 130.

RUTH HARTMAN, Assistant Professor of Music (1924).
Graduate in Public School Music, Iowa State Teachers College, 1912; Two-year Certificate, Northwestern University, 1923. M 56.

EFFIE LOVISA HASTINGS, Second Assistant to the Registrar (1927, 1928). A 29.

WARD HILLMAN HAYLETT, Assistant Professor of Physical Education for Men (1928, 1937).
A. B., Doane College, 1926. N 33.

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 54.

HENRY MILES HEBERER, Associate Professor of Public Speaking (1925, 1930).
A. B., University of Illinois, 1922; A. M., Stanford University, 1938. G 51A.

J. ELDRED HEDRICK, Instructor in Chemical Engineering (1936.)
B. A., Illinois College, 1931; M. S., State University of Iowa, 1932; Ph. D., ibid., 1934. XX 29.

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1. In coöperation with the U. S. Department of Agriculture.
4. In coöperation with the State Board for Vocational Education.
5. In coöperation with the Kansas State Board of Agriculture.

LINN HELANDER, Professor and Head of Department of Mechanical Engineering (1935); Mechanical Engineer, Engineering Experiment Station (1935).
B. S. in M. E., University of Illinois, 1915. E 109.

JOHN FREDERICK HELM, JR., Professor of Free-Hand Drawing and Painting (1924; Sept. 1, 1938).
B. D., Syracuse University, 1924. E 305.

JOHN VERN HEPLER,[1] Assistant Professor of Agricultural Extension; District Agricultural Agent, Division of College Extension (1921, 1930).
B. S., K. S. C., 1915. A 60.

EARL HOWARD HERRICK, Associate Professor of Zoölogy (1935); Mammalogist, Agricultural Experiment Station (1935).
B. S., K. S. C., 1926; M. S., ibid., Ph. D., Harvard, 1929. F 5.

KATHERINE JANE HESS, Associate Professor of Clothing and Textiles (1925, 1931).
B. S., K. S. C., 1900; M. S., ibid., 1926. C 53.

ELMER GEORGE HEYNE,[1] Junior Agronomist, U. S. D. A; Plant Breeder, Agricultural Experiment Station (1936; June 1, 1938).
B. S., University of Nebraska, 1936; M. S., K. S. C., 1938. E. Ag 303.

JOHN CLIFFORD HIDE, Assistant Professor of Soils (1935, 1937).
B. Sc., University of Alberta, 1930; M. S., University of Minnesota, 1932; Ph. D., ibid., 1935. E. Ag 207.

HOWARD TEMPLETON HILL, Professor and Head of Department of Public Speaking (1920, 1922).
B. S., Iowa State College, 1910; J. D., University of Chicago, 1917. G 55.

RANDALL CONRAD HILL, Professor of Sociology (1929, 1935).
B. S., K. S. C., 1924; M. S., ibid., 1927; Ph. D., University of Missouri, 1929. W. Ag 325B.

WILMA MARGUERITE HILT, (Temporary) Instructor in Physics (Sept. 1, 1938).
B. S., University of Nebraska, 1932; M. S., K. S. C., 1937. W. Ag 134.

LORA VALENTINE HILYARD, Instructor in Clothing and Textiles, Division of College Extension (1930, 1936).
B. S., K. S. C., 1930. EA 304.

JULIAN ADAIR HODGES, Professor of Agricultural Economics (1923, 1936).
B. S. in Agr., University of Kentucky, 1917; M. S., ibid., 1923; Ph. D., Harvard University, 1938. W. Ag 328.

LEONARD CASPER HOEGEMEYER,[1] Research Assistant in Agronomy, Agricultural Experiment Station (1937).
B. S., University of Nebraska, 1937. E. Ag 301.

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 26.

MARY ECK HOLLAND, Instructor in Art (Sept. 1, 1938).
B. F. A., Ohio State University, 1937; M. A., ibid., 1938. A 68B.

HILTON DELOS HOLLEMBEAK, Assistant in Agronomy, in charge of Coöperative Experiments (1936, 1937).
B. S., K. S. C., 1937. E. Ag 201.

THOMAS R. HOLMES, Maj., Inf., U. S. A.; Associate Professor of Military Science and Tactics (Sept. 1, 1938).
B. S., St. John's College, Annapolis, Md., 1917. N 27.

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

Ina Emma Holroyd, Assistant Professor of Mathematics (1900, 1929).
B. S., K. S. C., 1915; B. S., Kansas State Teachers College, Emporia, 1916; A. M., Columbia University, 1929. S 53.

Edwin Lee Holton, Professor and Head of Department of Education (1910, 1913); Dean of Summer School (1910, 1918).
A. B., Indiana University, 1904; Ph. D., Columbia University, 1927. G 27.

Adrian Augustus Holtz, Men's Adviser and Secretary of Young Men's Christian Association (1919); Associate Professor of Sociology (1929, 1935).
A. B., Colgate University, 1909; Ph. M., University of Chicago, 1910; B. D., ibid., 1911; Ph. D., ibid., 1914. A 43.

Maurice Wilson Horrell, Instructor in Electrical Engineering (1936); resigned Feb. 28, 1939.
B. S., K. S. C., 1935; M. S., ibid., 1938. E 22.

Abram Eldred Hostetter, Instructor in Chemistry (1930, 1934).
B. S., McPherson College, 1925; M. S., K. S. C., 1932; Ph. D., ibid., 1938. XX 28.

Helen Pansy Hostetter, Associate Professor of Industrial Journalism and Printing (1932, 1937).
A. B., University of Nebraska, 1917; M. S., Northwestern University, 1926. K 28.

Harold Howe, Professor of Agricultural Economics (1925, 1934).
B. S., K. S. C., 1922; M. S., University of Maryland, 1923; Ph. D., University of Wisconsin, 1937. W. Ag 325A.

Hazel Dell Howe, Instructor in Clothing and Textiles (1936).
B. S., K. S. C., 1921; M. S., ibid., 1935. C 51.

Leo Everett Hudiburg, Assistant Professor of Physics (1930).
B. S., Kansas State Teachers College, Pittsburg, 1923; M. S., K. S. C., 1930. W. Ag 130.

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. XX 28.

Robert Leo Hummer, Instructor in Surgery and Medicine (1937); resigned Aug. 1, 1938.
V. M. D., University of Pennsylvania, 1934. VH 53.

Orville Don Hunt, Associate Professor of Electrical Engineering (1923, 1935).
B. S. in E. E., Washington State College, 1923; M. S., K. S. C., 1930. E 127.

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 65.

Emma Hyde, Associate Professor of Mathematics (1920, 1926).
A. B., University of Kansas, 1912; A. M., University of Chicago, 1916. S 56.

Heman Lauritz Ibsen, Professor of Genetics (1919, 1924).
B. S., University of Wisconsin, 1912; M. S., ibid., 1913; Ph. D., ibid., 1916. E. Ag 58.

Ivor Victor Iles, Professor of History and Government (1911, 1920).
A. B., University of Kansas, 1905; A. M., ibid., 1905. F 57.

Clarence Roy Jaccard,[1] Assistant Professor of Agricultural Economics, Division of College Extension (1922, 1936).
B. S., K. S. C., 1926. A 4.

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

ELDEN VALORIUS JAMES, Professor of History and Government (1912, 1924).
A. B., Marietta College, 1901; A. B., University of Michigan, 1905; A. M., Marietta College, 1908. F 64.

FLORENCE ELIZABETH JAMES, Director of the Cafeteria; Instructor in Institutional Management (1934); Acting Head of Department, Sept. 1, 1938, to June 30, 1939.
B. S., K. S. C., 1931; M. A., Mills College, 1932. T 52.

WILLIAM CHARLES JANES, Assistant Professor of Mathematics (1922, 1926); on sabbatic leave 1938-1939.
B. S., Northwestern University, 1919; A. M., University of Nebraska, 1922. S 52..

ALICE CLAYPOOL JEFFERSON, Assistant Professor of Piano (1925, 1927); on leave 1938-1939.
Graduate, American Conservatory of Music, 1921; B. Mus., ibid., 1929. N 76D.

RICHARD ROSLYN JESSON, Assistant Professor of Music (1929, 1931); on sabbatic leave 1938-1939.
B. Mus., Oberlin College, 1929. M 54.

JOHN HAROLD JOHNSON, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1927, 1935).
B. S., K. S. C., 1927. A 35B.

CHARLES OTIS JOHNSTON,[1] Associate Pathologist, U. S. D. A.; Cereal Investigations, Agricultural Experiment Station (1919).
B. S., K. S. C., 1918; M. S., ibid., 1924. D 53.

EDWARD C. JONES, Assistant Professor of Machine Tool Work (1916, 1920).
B. M. E., Iowa State College, 1905; M. E., ibid., 1922; M. S., K. S. C., 1934. S 32.

ELMER THOMAS JONES,[3] Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Staple Crop Insects (1934).
B. S., University of Missouri, 1924; A. M., ibid., 1925. U. S. Lab., 1204 Fremont.

LOUIS MARK JORGENSON, Associate Professor of Electrical Engineering (1925, 1935).
B. S., K. S. C., 1907; M. S., ibid., 1930. E 127.

ROBERT WILLIAM JUGENHEIMER,[1] Agent, U. S. D. A.; Corn Breeder, Agricultural Experiment Station (March 21, 1938).
B. S., Iowa State College, 1934; M. S., ibid., 1936. E. Ag 301A.

MARGARET M. JUSTIN, Dean of Division of Home Economics (1923).
B. S., K. S. C., 1909; B. S. in Educ., Teachers College, Columbia University, 1915; Ph. D., Yale University, 1923. C 29.

ENEAS D. KANE, Graduate Assistant in Mechanical Engineering (Sept. 1, 1938).
B. S., University of California, 1938. E 109.

ROSAMOND KEDZIE, Instructor in Art (Sept. 1, 1938).
B. S., Michigan State College, 1906; M. A., University of California, 1937. A 54.

VIRGINIA VOIGT KEIM, Graduate Assistant in Child Welfare and Euthenics (Sept. 1, 1937).
B. S., University of Nebraska, 1937. C 33.

EDGAR TALBERT KEITH, Professor of Industrial Journalism and Printing (1912, 1925).
B. S., K. S. C., 1912. K 26A.

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1. In coöperation with the U. S. Department of Agriculture.
3. In coöperation with the Kansas Agricultural Experiment Station.

Ernest Baker Keith, Professor of Chemistry (1918; Sept. 1, 1938).
B. S., K. S. C., 1913; Ph. D., University of Chicago, 1924. X 27.

Leone Bower Kell, Associate Professor of Child Welfare and Euthenics (1927; Sept. 1, 1938).
B. S., K. S. C., 1923; M. S., ibid., 1928. C 33A.

Edward Guerrant Kelly, Professor of Entomology, Division of College Extension (1918, 1922).
B. S., University of Kentucky, 1903; M. S., ibid., 1904; Ph. D., Iowa State College, 1927. F 51.

Alvin Lawrence Kenworthy, Assistant in Horticulture (1937; Feb. 1, 1939).
B. S., Oklahoma Agricultural and Mechanical College, 1937. D 33.

Russell Marion Kerchner, Professor of Electrical Engineering (1922, 1934).
B. S., University of Illinois, 1922; M. S., K. S. C., 1927. E 121.

Alice Day Kimball, Technician in Veterinary Pathology (1935).
B. S., K. S. C., 1935. VH 59.

Mary Kimball, First Assistant to the Registrar (1918).
B. S., K. S. C., 1907. A 29.

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. XX 29.

Ralph Willcox Kingman, Col., Inf., U. S. A.; Professor and Head of Department of Military Science and Tactics (1937).
B. S. in C. E., University of Tennessee, 1902. N 26.

Eunice Leola Kingsley, Instructor in Botany and Plant Pathology (1929, 1935).
B. S., North Dakota Agricultural College, 1926; M. S., K. S. C., 1931. D 52A.

Charles Howard Kitselman, Professor of Pathology (1919, 1933).
V. M. D., University of Pennsylvania, 1918; M. S., K. S. C., 1927. V 61 and VRL.

Glenn Charles Klingman, Graduate Assistant in Agronomy (Feb. 1, 1939).
B. S., University of Nebraska, 1939. E. Ag 305A.

Royce Gerald Kloeffler, Professor and Head of Department of Electrical Engineering (1916, 1927).
B. S. in E. E., University of Michigan, 1913; S. M., Massachusetts Institute of Technology, 1930. E 120.

Kathleen Knittle, Assistant to the Dean of Women (1931).
B. S., K. S. C., 1923; M. A., Columbia University, 1938. A 42.

Lester Henry Koenitzer, Assistant Professor of Applied Mechanics (1929, 1934).
B. S., Iowa State College, 1926; M. S., ibid., 1929; C. E., ibid., 1930. E 14.

James Michael Koepper, Graduate Assistant in Botany (Feb. 1, 1939).
B. A., DePauw University, 1939. H 56.

Martha Morrison Kramer, Professor of Food Economics and Nutrition (1922, 1925); on leave July 1, 1938, to June 30, 1939.
B. S., University of Chicago, 1916; A. M., Columbia University, 1920; Ph. D., ibid., 1922. C 28.

Hillier Krieghbaum, Assistant Professor of Industrial Journalism (July 1, 1938).
B. A., University of Wisconsin, 1926. K 28B.

Bernice Lydia Kunerth, Instructor in Food Economics and Nutrition (1932, 1936); on sabbatic leave Oct. 15, 1938, to June 30, 1939.
B. S., Iowa State College, 1932; M. S., K. S. C., 1933. C 7.

Joseph Benjamin Kuska,[1] Associate Agronomist, Division of Dry-land Agriculture, U. S. D. A.; in charge of Dry-land Agriculture Investigations, Colby Branch Agricultural Experiment Station (1914).
B. S., University of Nebraska, 1913. Colby Branch Station, Colby, Kan.

Raymond John Ladd, Instructor in Shop Practice (Sept. 1, 1938).
B. S., Iowa State College, 1933. S 60.

Russell Laman, Instructor in English (1935).
B. S., K. S. C., 1931; M. A., State University of Iowa, 1932. K 56.

Paul Griffith Lamerson, Assistant in Entomology, Agricultural Experiment Station (1932, 1936).
B. S., K. S. C., 1927; M. S., ibid., 1931. Wathena, Kan.

Roy Clinton Langford, Associate Professor of Psychology (1925, 1937).
B. S., K. S. C., 1925; M. S., ibid., 1926; Ph. D., Stanford University, 1934. G 32C.

Ralph Kenneth Larmour, Professor of Milling Industry (May 15, 1938).
B. S., University of Saskatchewan, 1923; M. S., ibid., 1925; Ph. D., University of Minnesota, 1927. E. Ag 111.

Elmer Larson, Staff Sergt., D. E. M. L., U. S. A.; Instructor in Military Science and Tactics (1933). N 27.

Mendel Elmer Lash, Assistant Professor of Chemistry (1929).
A. B., Ohio State University, 1920; M. S., ibid., 1922; Ph. D., ibid., 1928. A 74.

Ralph Richard Lashbrook, Associate Professor in Industrial Journalism and Printing (1934; July 1, 1938).
B. S., K. S. C., 1929. K 28C.

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 55.

Hilmer Henry Laude,[1] Professor of Farm Crops (1920, 1931).
B. S., K. S. C., 1911; M. S., Texas A. and M. College, 1918; Ph. D., University of Chicago, 1936. E. Ag 208.

Alvin George Law,[1] Research Assistant in Agronomy, Agricultural Experiment Station (June 1, 1938).
B. S., K. S. C., 1938. E. Ag 206A.

Elden Emanuel Leasure, Professor of Physiology (1926, 1935).
D. V. M., K. S. C., 1923; M. S., ibid., 1930. V 34.

Henry H. Lee, (Temporary) Assistant in Physics (Oct. 1, 1938).
A. B., College of Emporia, 1936. W. Ag 134.

Wilfred Chester Leland, Jr., (Temporary) Instructor in Economics (Sept. 1, 1938).
B. A., University of Minnesota, 1937. W. Ag 327.

Thomas Doyle Letbetter, Instructor in Accounting (Sept. 1, 1938).
B. B. A., University of Texas, 1933. W. Ag 327.

Clarence Flavius Lewis, Associate Professor of Mathematics (1920, 1926).
A. B., University of Denver, 1913; M. S., K. S. C., 1925. E 105.

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

Louis Henry Limper, Professor of Modern Languages (1914, 1926).
A. B., Baldwin-Wallace College, 1907; A. M., University of Wisconsin, 1914; Ph. D., State University of Iowa, 1931. A 71.

Ruth Lindquist, Professor and Head of Department of Household Economics (Sept. 1, 1938).
B. S., University of Minnesota, 1916; M. A., University of Chicago, 1922; Ph. D., University of North Carolina, 1931. C 65.

William Lindquist, Professor and Head of Department of Music (1925, 1927).
B. Mus., Cosmopolitan School of Music and Dramatic Art, Chicago, 1925. M 33.

Ellen Lindstrom, Instructor in Home Management, Division of College Extension (1937).
B. S., University of Nebraska, 1928; M. S., K. S. C., 1937. EA 304.

Roger P. Link, Instructor in Veterinary Physiology (1935).
D. V. M., Iowa State College, 1934; M. S., K. S. C., 1938. V 34.

James Walton Linn, Associate Professor of Dairy Husbandry, Division of College Extension (1923, 1927).
B. S., K. S. C., 1915. W. Ag 125.

Beatrice M. Lins, Assistant Physician, Department of Student Health (1936); on leave 1938-1939.
B. A., University of Wisconsin, 1924; M. D., ibid., 1927. A 58.

Sarah Josephine Lister, Instructor in Child Welfare and Euthenics (1937; Sept. 1, 1938).
A. B., University of Kansas, 1937. C 32B.

Glenn Wesley Long, (Temporary) Instructor in Economics and Sociology (Sept. 1, 1938).
A. B., Baker University, 1926. W. Ag 325B.

Sam Long, Graduate Assistant in Chemistry (Sept. 1, 1938).
B. S. in Ch. E., K. S. C., 1937. X 29A.

Lisle Leslie Longsdorf, Extension Editor and Radio Program Director, Division of College Extension (1927).
B. S., University of Wisconsin, 1925; M. S., ibid., 1926. A 4.

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.

Morrison Lowenstein, Graduate Assistant in Dairy Husbandry (Sept. 1, 1938).
B. S., University of Nebraska, 1938. W. Ag 127.

John Wallace Lumb, Professor of Veterinary Medicine, Division of College Extension (1924, 1937).
D. V. M., K. S. C., 1910; M. S., ibid., 1930. V 32.

Eva Lyman, (Temporary) Instructor in Physical Education for Women (Sept. 1, 1938).
B. S., Battle Creek College, 1925; M. A., State University of Iowa, 1930. N 3.

Daniel Emmett Lynch, Assistant Professor of Forging (1914, 1920); Foreman of Blacksmith Shop (1914). S 41.

Eric Ross Lyon, Associate Professor of Physics (1921, 1928).
A. B., Phillips University, 1911; M. S., ibid., 1923. W. Ag 134.

Waldo Hiram Lyons, Associate Professor of Mathematics (1924, 1926).
A. B., University of Denver, 1912; A. M., ibid., 1916. S 52.

JESSIE MCDOWELL MACHIR, Registrar (1913). A 29.

ALBERT JOHN MACK, Professor of Mechanical Engineering (1917, 1928).
B. S., K. S. C., 1912; M. E., ibid., 1921. E 109.

EUGENE JOSEPH MACKEY, Instructor in Architecture (1937).
B. Arch., Carnegie Institute of Technology, 1936. E 223.

DAVID LESLIE MACKINTOSH, Associate Professor of Animal Husbandry (1921, 1935).
B. S., University of Minnesota, 1920; M. S., K. S. C., 1926. E. Ag 1.

DOROTHY MANCHESTER, Instructor in Clothing and Textiles (Sept. 1, 1938).
B. S., University of Washington, 1934; M. A., ibid., 1937. C 51A.

RACHEL MARKWELL, Instructor and District Home Demonstration Agent Leader (1929, 1937); on leave Oct. 19, 1938 to May 24, 1939.
B. S., Oklahoma Agricultural and Mechanical College, 1926. EA 306B.

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. X 27.

RACHEL MARTENS, Instructor in Home Furnishings, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. EA 304.

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. N 76A.

WILLARD HUNGATE MARTIN, Professor of Dairy Husbandry (1925, 1928).
B. S., Purdue University, 1918; M. S., Pennsylvania State College, 1922. W. Ag 128C.

WILLMIMA PEARL MARTIN, Instructor in Home Health and Sanitation, Division of College Extension (1919).
R. N., Christ's Hospital, Topeka. EA 304.

JAMES WARREN MATHER, Instructor in Agricultural Economics, Division of College Extension (1936).
B. S., K. S. C., 1934; M. S., ibid., 1936. W. Ag 329.

CHARLES WALTON MATTHEWS, Professor of English (1920, 1925); on sabbatic leave first semester, 1938-1939; on leave second semester, 1938-1939.
B. S., Kansas State Teachers College, Pittsburg, 1918; A. M., University of Chicago, 1923. K 55.

FRED WALTER MATTING, (Temporary) Instructor in Mechanical Engineering (Oct. 19, 1938).
B. S., University of California, 1937. E 109.

GEORGE WILLARD MAXWELL, Assistant Professor of Physics (1927, 1928).
A. M., University of Michigan, 1920. W. Ag 134A.

NELLIE MAY, Postmistress (1911). A 44.

LORRAINE MAYTUM, Instructor in Physical Education for Women (1933); on sabbatic leave 1938-1939.
B. S., University of Wisconsin, 1926. N 1.

THOMAS MARK MCCALLA, Instructor in Bacteriology (1937).
B. S., Mississippi State College, 1934; M. A., University of Missouri, 1935; Ph. D., ibid., 1937. V 28.

Charles Wilbur McCampbell, Professor and Head of Department of Animal Husbandry (1910, 1918); Animal Husbandman, Agricultural Experiment Station (1910, 1918).
B. S., K. S. C., 1906; D. V. M., ibid., 1910; B. S. in Agr., ibid., 1918. E. Ag 9A.

George Reeves McCaulley, Assistant Professor of Structural Design (1937).
B. S. in Arch. E., Massachusetts Institute of Technology, 1934; M. S., ibid., 1936. E 223.

Max Elton McCluggage,[1] Agent, Bureau of Plant Industry, U. S. D. A.; Milling Technologist, Agricultural Experiment Station (Dec. 1, 1937).
B. S., K. S. C., 1935. E. Ag 102.

Sterling McCollum, Instructor in Shop Practice (1930). S 34.

Elizabeth McCracken, Assistant in Botany (Sept. 1, 1938).
B. A., Wellesley College, 1929; M. A., ibid., 1932; Ph. D., University of California, 1937. D 52A.

Clifford Dale McDonald, Sergt., D. E. M. L., U. S. A.; Instructor in Military Science and Tactics (1933). N 27.

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. X 29A.

Florence Elizabeth McKinney, Instructor in Household Economics (1937).
B. S., K. S. C., 1934; M. S., Iowa State College, 1937. T 53.

William Max McLeod, Professor of Anatomy and Physiology (1919, 1933).
D. V. M., Iowa State College, 1917. V 33.

Eva Myrtle McMillan, Assistant Professor of Food Economics and Nutrition (1930, 1937); Assistant Dean of Division of Home Economics (1937); on leave Sept. 1, 1938, to June 30, 1939.
Ph. B., University of Chicago, 1918; M. S., ibid., 1929. C 38.

James Howard McMillen, Associate Professor of Physics (1937).
A. B., Oberlin College, 1926; M. S., Washington University, 1928; Ph. D., ibid., 1930. W. Ag 237.

Ella Jane Meiller, Instructor in Food Economics and Nutrition (1937).
B. S., K. S. C., 1932; M. S., University of Wisconsin, 1937. C 28.

Raymond Lamar Meisenheimer, Radio Operator, Division of College Extension (1937). EA 104 and N 79.

William Henry Meissinger, Instructor in Agricultural Economics, Division of College Extension (1934; March 15, 1938).
B. S., K. S. C., 1931. Farm Bureau, Holton, Kan.

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 57.

Alice Maude Melton, Assistant to the Dean, Division of General Science (1900, 1919).
B. S., K. S. C., 1898. A 47.

Joseph Farrington Merrill, Assistant Chemist, Agricultural Experiment Station (1921).
B. S., University of Maine, 1907. E. Ag 204A.

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

William Harold Metzger, Associate Professor of Soils (1932, 1935); on sabbatic leave July 9 to Sept. 8, 1938.
B. S., Purdue University, 1922; M. S., K. S. C., 1927; Ph. D., Ohio State University, 1931. E. Ag 207A.

Bernadine Helen Meyer, Instructor in Food Economics and Nutrition (1936).
B. S. in Ed., University of Illinois, 1933; M. S., ibid., 1936. C 64.

Edwin Cyrus Miller, Professor of Plant Physiology (1910, 1919).
A. B., Lebanon College, 1906; A. B., Yale University, 1907; Ph. D., ibid., 1910. D 27.

John Orville Miller, Instructor in Plant Pathology, Division of College Extension (1935, 1936).
B. S., K. S. C., 1934. A 3.

Kenneth William Miller,[1] Research Assistant in Agricultural Economics, Agricultural Experiment Station (1936, 1937).
B. S., K. S. C., 1936. W. Ag 327.

Leonard Fred Miller, Instructor in Agricultural Economics (1936).
B. S., K. S. C., 1936; M. S., ibid., 1938. W. Ag 328.

Reba Clare Miller, Assistant to the Vice-President (1937).
B. S., K. S. C., 1934. A 46.

Catherine Beatrice Mitchell, Assistant in Animal Husbandry (1936).
B. S., K. S. C., 1935. E Ag 9.

Maurice Charles Moggie, Assistant Professor of Education (1933, 1937).
B. S., K. S. C., 1929; M. S., ibid., 1931. G 27.

Conrad Stephen Moll, Assistant Professor of Physical Education for Men (1929, 1937).
Graduate, Concordia College, Fort Wayne, Ind., 1918; B. P. E., George Williams College, 1925; M. S., K. S. C., 1933. N 31A.

George Montgomery, Associate Professor of Agricultural Economics (1925; July 1, 1938).
B. S., K. S. C., 1925; M. S., ibid., 1927. W. Ag 330B.

Ruth Montgomery-Short, Assistant College Physician (Sept. 1, 1938).
B. S., Washburn College, 1932; M. D., University of Kansas, 1937. A 59.

Doris Leota Moon, Instructor in Piano (1937).
B. Mus., Illinois Wesleyan University, 1937; M. Mus., ibid., 1938. N 76D.

Fritz Moore, Professor and Head of Department of Modern Languages (1934).
B. A., University of Akron, 1927; M. A., University of Illinois, 1930; Ph. D., ibid., 1932. A 75A.

George Russell Moore, Instructor in Surgery and Medicine (Aug. 1, 1938).
A. B., Central Michigan State Teachers College, 1928; D. V. M., Michigan State College, 1938. VH 53.

Leo Albert Moore, Instructor in Shop Practice (1935, 1937).
B. S., K. S. C., 1925. S 27.

Charles Cleon Morrill, Associate Porfessor of Pathology (1935; July 1, 1938).
D. V. M., Michigan State College, 1933; M. S., ibid., 1935. V 57A.

Maria Morris, Assistant Professor of Art (1925, 1932).
B. S., K. S. C., 1911; Graduate, New York School of Fine and Applied Art, 1924; M. S., K. S. C., 1927. A 54.

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

MARGUERITE JANE MORRISON, (Temporary) Instructor in Institutional Management (Sept. 1, 1938).
B. S., Ohio University, 1935; M. S., K. S. C., 1936. T 28.

REED FRANKLIN MORSE, Assistant Professor of Civil Engineering (1929, 1934).
A. B., Cornell College, 1921; B. S., Iowa State College, 1923; M. S., K. S. C., 1933. E 220.

THIRZA ADALINE MOSSMAN, Assistant Professor of Mathematics (1922, 1926).
A. B., University of Nebraska, 1916; A. M., University of Chicago, 1922. S 53.

JEPTHA JERRY MOXLEY, Assistant Professor of Animal Husbandry, Division of College Extension (1925, 1927).
B. S., K. S. C., 1922. A 3.

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; Sept. 1, 1937).
B. S., K. S. C., 1925; M. S., Iowa State College, 1928. C 64.

ANNA NEAL MULLER, Assistant Cataloguer in Library (1929; July 1, 1938).
B. S., K. S. C., 1921; M. S. in L. S., University of Illionis, 1937. L 1.

GEORGE COLIN MUNRO, Assistant Professor of Mathematics (1937).
B. S., Acadia University, 1927; Ph. D., University of Michigan, 1930. E 105.

FRANK LEWIS MYERS, Assistant to the Director of Physical Education (1926).
B. Mus., K. S. C., 1925. N 35.

HAROLD EDWIN MYERS, Associate Professor Soils (1929, 1937).
B. S., K. S. C., 1928; M. S., University of Illinois, 1929; Ph. D., University of Missouri, 1937. E. Ag 207.

ROBERT KIRKLAND NABOURS, Professor and Head of Department of Zoölogy (1910, 1913); Zoölogist, Agricultural Experiment Station (1910, 1913); Curator of Natural History Museum (1910).
Ed. B., University of Chicago, 1905; Ph. D., ibid., 1911. F 29.

ARTHUR LESLIE NEAL, Instructor in Chemistry (1937).
B. S., Monmouth College, 1934; M. S., University of Illinois, 1935. A 74.

CARL LEROY NELSON, Assistant Professor of Economics (1935); on leave Sept. 1, 1938 to June 30, 1939.
B. B. A., University of Minnesota, 1931. W. Ag 325B.

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 28.

MARGARET ALICE NEWCOMB, Assistant Professor of Botany (1925, 1935).
B. S., K. S. C., 1925; M. S., ibid., 1927. D 52A.

SAMUEL ALBERT NOCK, Vice-President of the College (1936).
B. A., Haverford College, 1921; M. A., Carleton College, 1927; Ph. D., University of Tartu (Estonia), 1929. A 46B.

ELVA LAVINA NORRIS,[5] Seed Analyst, Department of Agronomy (Dec. 1, 1938).
A. B., Nebraska Wesleyan University, 1915; A. M., University of Wisconsin, 1924; Ph. D., University of Nebraska, 1938. E. Ag 307.

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

PAULINE NUTTER, (Temporary) Assistant Professor of Food Economics and Nutrition (Sept. 1, 1938).

B. S., State Teachers College, Kearney, Neb., 1932; M. S., University of Arizona, 1934; Ph. D., University of Rochester, 1938. C 43.

CHESTER WINFIELD OFELT, Research Fellow in Milling Industry (Sept. 1, 1938).

B. S., University of Minnesota, 1932. E. Ag 111.

ALLEN LESLIE OLSEN, Instructor in Chemistry (1935).

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

MAXINE JOSEPHINE OSBOURNE, Graduate Assistant in Institutional Management (Jan. 1, 1939).

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

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

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

CAROL LEE OWSLEY, (Temporary) Assistant Loan Librarian (Sept. 1, 1938).

B. S., K. S. C., 1932; Certificate in Library Science, Kansas State Teachers College, Emporia, 1937. L 51.

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

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

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

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

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

B. S., University of Wyoming, 1932. W. Ag 208.

EUNICE ANDERSON PARDEE, Assistant Professor of Home Management, Division of College Extension (1937; July 1, 1938).

B. S., Michigan State College, 1929; M. S., ibid., 1936. EA 304.

HARRIET SHIPLEY PARKER, Assistant Professor of English (1924, 1927); on sabbatic leave 1938-1939.

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

JOHN HUNTINGTON PARKER,[1] Professor of Crop Improvement (1917, 1921); Agronomist, U. S. D. A.; Plant Breeder, Agricultural Experiment Station (1917); on half-time leave Sept. 1, 1938, to Jan. 31, 1939; resigned Jan. 31, 1939.

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

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

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

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 61.

EARL FOSTER PARSONS, Research Fellow in Agricultural Economics (1937); resigned August 31, 1938.

B. S., K. S. C., 1938. W. Ag 329.

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

FRANKLIN LEONARD PARSONS, Assistant Professor of Agricultural Economics (1935).
B. S., K. S. C., 1932; M. S., ibid., 1934. W. Ag 330B.

DAN PARTNER, Assistant in Physical Education (Aug. 1, 1938).
B. S., K. S. C., 1936. N 34.

BUEL ROREX PATTERSON, Instructor in Physical Education (1933, 1937).
B. S., Oklahoma Agricultural and Mechanical College, 1934. N 32.

FLOYD PATTISON, Professor of Mechanical Engineering, Department of Home Study, Division of College Extension (1919, 1927).
B. S., K. S. C., 1912; M. S., Massachusetts Institute of Technology, 1929. A 5.

GEORGE RICHARD PAULING, Superintendent of Maintenance, in Charge of Buildings and Repairs, Custodian, and Heat and Power Departments (1913, 1925).
PP 28.

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 227A.

CLINTON ELLICOTT PEARCE, Professor and Head of Department of Machine Design (1917, 1922).
S. B., Massachusetts Institute of Technology, 1913; M. S., Cornell University, 1937.
E 210.

RUTH JEANETTE PECK, Instructor in Home Furnishings, Division of College Extension (1928, 1934); resigned Oct. 31, 1938.
B. S., K. S. C., 1928. A 62A.

FREDERICK ADAMS PEERY, Instructor in English (1935).
B. S., K. S. C., 1933; M. S., ibid., 1936. K 54.

THERESA PELTIER, Nurse, Department of Student Health (Sept. 1, 1938).
R. N., Kansas City General Hospital, Kansas City, Missouri, 1937. CH.

MARION HERFORT PELTON, Assistant Professor of Piano (1928, 1931).
B. Mus., University of Wisconsin, 1927; B. S., K. S. C., 1932; Graduate Study, Brussels Conservatory of Music. N 76E.

ROYCE OWEN PENCE, Assistant Professor of Milling Industry (1927, 1935).
B. S. in F. M. E., K. S. C., 1924; M. S., ibid., 1930; F. M. E., ibid., 1935. E. Ag 101.

ALFRED THOMAS PERKINS, Associate Professor of Chemistry (1925, 1933); Soil Chemist, Agricultural Experiment Station (1937).
B. S., Pennsylvania State College, 1920; M. S., Rutgers College, 1922; Ph. D., ibid., 1923.
E. Ag 204A.

MILFRED JOHN PETERS, Military Property Custodian, Department of Military Science and Tactics (1935).
B. S., K. S. C., 1934. N 29.

JOHN CHRISTIAN PETERSON, Professor of Psychology (1917, 1926).
A. B., University of Utah, 1913; Ph. D., University of Chicago, 1917. G 30.

MAURICE L. PETERSON,[1] Research Assistant in Agronomy, Agricultural Experiment Station (July 1, 1938).
B. S., University of Nebraska, 1938. E. Ag 206A.

WALTER JOHN PETERSON, Assistant Nutrition Chemist, Agricultural Experiment Station (1935, 1936).
B. S., Michigan State College, 1930; M. S., ibid., 1933; Ph. D., State University of Iowa, 1935. W. Ag 42.

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

Dorothy Bradford Pettis, Associate Professor of Modern Languages (1927, 1937); on sabbatic leave Sept. 1 to Dec. 31, 1938; on leave Jan. 1 to May 31, 1939.
A. B., University of Nebraska, 1919; A. M., ibid., 1924. A 70.

Hazel Elizabeth Taylor Pfuetze, Secretary, Department of Education (1925). G 27.

Lucile Phillips, Nurse, Department of Student Health (Sept. 1, 1938).
R. N., Kansas City General Hospital, Kansas City, Mo., 1938. CH.

Gerald Pickett, Associate Professor of Applied Mechanics (1929; Sept. 1, 1938).
B. S., Oklahoma Agricultural and Mechanical College, 1927; M. S., K. S. C., 1931; Ph. D., University of Michigan, 1938. E 113.

William Francis Pickett, Professor and Head of Department of Horticulture, (1917; July 1, 1938); Horticulturist, Agricultural Experiment Station (July 1, 1938).
B. S., K. S. C., 1917; M. S., ibid., 1923; Ph. D., Michigan State College, 1935. D 33.

Eugene H. Pietsch, Graduate Assistant in Machine Design (Sept. 1, 1938).
B. S., University of Illinois, 1938. S 51.

Frederick Van Loan Pindar, (Temporary) Editorial Assistant in Agricultural Experiment Station (July 1, 1938); resigned Dec. 31, 1938.
B. A., Princeton University, 1933. E. Ag 105A.

Wilfred Harold Pine, Assistant Professor of Agricultural Economics (1934; July 1, 1938); on leave Oct. 1, 1938, to June 30, 1939.
B. S., K. S. C., 1934; M. S., ibid., 1938. W. Ag 328.

Clarence Andrew Pippin, Instructor in Mechanical Engineering (1937).
B. S., University of Illinois, 1936. E 232.

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 39.

Clare Robert Porter, Assistant in Agronomy, South Central Kansas Experiment Fields (1937; Jan. 16, 1938).
B. S., K. S. C., 1937. Goddard, Kan.

Clarence Osborn Price, Assistant to the President (1920). A 30.

Imogene Price, Assistant in Institutional Management (1937).
A. B., Park College, 1932; B. S. in Ed., Central Missouri State Teachers College, 1934. T 51B.

Ralph Ray Price, Professor and Head of Department of History and Government (1903).
A. B., Baker University, 1896; A. M., University of Kansas, 1898. F 56.

William Morrow Proudfit, Graduate Assistant in Chemistry (Sept. 1, 1938).
B. S., K. S. C., 1938. X 29A.

Robert Emmett Pyle, (Temporary) Instructor in Modern Languages (Sept. 1, 1938).
A. B., University of Kansas, 1938. A 70.

Leon Reed Quinlan, Professor of Horticulture, in Charge of Landscape Gardening (1927, 1931).
B. S., Colorado Agricultural College, 1920; M. L. A., Harvard University, 1925. D 8.

George Ellsworth Raburn, Professor of Physics (1910, 1920); on leave 1938-1939.
A. B., University of Michigan, 1907; M. S., ibid., 1913. W. Ag 225.

Margaret Elizabeth Raffington, Assistant Professor of Child Welfare and Euthenics (July 1, 1938).
B. S., K. S. C., 1924; M. S., ibid., 1928. C 37.

Glen Bradshaw Railsback, Instructor in Agricultural Economics, Division of College Extension (1933, 1935).
B. S., K. S. C., 1925. Farm Bureau, Clay Center, Kan.

Robert Rawhouser, (Temporary) Instructor in Mathematics (Sept. 1, 1938).
B. S., Lebanon Valley College, 1932. S 52.

George Nathan Reed, Instructor in Chemistry (1929).
B. S., Oklahoma Agricultural and Mechanical College, 1922; M. S., University of Oklahoma, 1924; Ph. D., K. S. C., 1938. XX 27A.

Lawrence Reed, Assistant to the Superintendent, Fort Hays Branch Agricultural Experiment Station (1934).
B. S., K. S. C., 1933. Hays, Kan.

Roger Eli Regnier, Instructor in Junior Extension; Assistant State Club Leader, Division of College Extension (1934, 1937).
B. S., K. S. C., 1924; M. S., ibid., 1932. A 35A.

Louis Powers Reitz, Associate Professor of Agronomy (Feb. 1, 1939).
B. S., K. S. C., 1930; M. S., University of Nebraska, 1937. E. Ag 304A.

Benjamin Luce Remick, Professor of Mathematics (1900); Head of Department of Mathematics, 1900-1937.
Ph. B., Cornell College, 1889; Ph. M., ibid., 1892. S 54.

Ada Rice, Professor of English (1899, 1927).
B. S., K. S. C., 1895; M. S., ibid., 1912. A 51A.

Clarence Rice, Graduate Research Fellow in Animal Husbandry (August 22, 1938).
B. A., Kalamazoo College, 1938. E. Ag 58.

M. Vesta Richmond, Assistant to the Dean, Division of Extension (1936).
A 33.

William Hugh Riddell, Associate Professor of Dairy Husbandry (1929, 1931).
B. S. A., University of British Columbia, 1922; M. S., University of Minnesota, 1924; Ph. D., ibid., 1932. W. Ag 125.

Jules Henry Robert, Professor of Applied Mechanics and Hydraulics (1916, 1925); Acting Head of Department of Applied Mechanics second semester, 1938-1939 and first semester, 1939-1940.
B. S., University of Illinois, 1914. E 113.

June Roberts, Instructor in Agricultural Engineering (1934, 1935).
B. S., K. S. C., 1933; M. S., ibid., 1934. E 216.

Mary Eilleen Roberts, Documents Cataloguer in Library (Sept. 1, 1938).
B. S., K. S. C., 1930; B. S. in L. S., University of Illinois, 1938. L 26.

Stephen J. Roberts, Instructor in Surgery and Medicine (July 1, 1938).
D. V. M., Cornell University, 1938. VH 52.

Mott Luther Robinson, Assistant Professor of Agricultural Extension, District Supervisor (Wheat), Division of College Extension (1923, 1934).
B. S., K. S. C., 1923; M. S., ibid., 1938. EA 201.

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

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

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

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

VANCE MATHER RUCKER,[6] Assistant Professor of Agricultural Economics, Division of College Extension (1928, 1930).
B. S., K. S. C., 1928; M. S., ibid., 1937. A 3.

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

OLGA BARBARA SAFFRY, (Temporary) Instructor in Food Economics and Nutrition (1937; Sept. 1, 1938.)
B. S., K. S. C., 1928; M. S., ibid., 1937. C 7.

ADELBERT BOWER SAGESER, (Temporary) Professor of History and Government (Sept. 1, 1938).
A. B., State Teachers College, Wayne, Neb., 1925; M. A., University of Nebraska, 1930; Ph. D., ibid., 1934. F 59.

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 76C.

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

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

MILTON OTTO SCHMIDT, Instructor in Civil Engineering (Sept. 1, 1938); resigned Feb. 15, 1939.
B. S., University of Wisconsin, 1938. E 220.

CHARLES HENRY SCHOLER,[2] Professor and Head of Department of Applied Mechanics (1920, 1922); Materials Testing Engineer, Engineering Experiment Station (1920); on leave Feb. 1, 1939, to Jan. 31, 1940.
B. S., K. S. C., 1914. E 112.

WILLIAM GEORGE SCHRENK, Instructor in Chemistry (Sept. 1, 1938).
A. B., Western Union College, 1932; M. S., K. S. C., 1936. X 29A.

LUKE MICHAEL SCHRUBEN, Instructor in Agricultural Economics, Division of College Extension (1933, 1935).
B. S., K. S. C., 1933. EA 307.

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2. In coöperation with the Kansas State Highway Department.
6. In coöperation with the Federal Crop Insurance Corporation.

E. Robert Schwartz, Assistant Physician, Department of Student Health (1938; July 1, 1938).
B. S., University of Minnesota, 1936; M. B., ibid., 1936; M. D., ibid., 1937. A 64.

Louise Schwensen, Secretary to the Dean, Division of Engineering (1915, 1918). E 115.

Harold Martin Scott, Associate Professor of Poultry Husbandry (1928, 1931).
B. S., Oregon Agricultural College, 1924; M. S., K. S. C., 1927; Ph. D., University of Illinois, 1938. W. Ag 230.

Myra Edna Scott, Assistant Professor of English (1928, 1937).
B. S., K. S. C., 1921; A. M., Stanford University, 1928. A 53.

Dwight M. Seath, Assistant Professor of Dairy Husbandry, Division of College Extension (1930).
B. S., Iowa State College, 1926; M. S., K. S. C., 1930. W. Ag 125.

Martine A. Seaton, Assistant Professor of Poultry Husbandry, Division of College Extension (1928).
B. S. in Agr., University of Missouri, 1924. A 3.

Roy Andrew Seaton, Dean of Division of Engineering (1904, 1920); Director of the Engineering Experiment Station (1904, 1920).
B. S., K. S. C., 1904; M. S., ibid., 1910; S. B., Massachusetts Institute of Technology, 1911. E 115.

Gabe Alfred Sellers, Professor of Metallurgy and Metallography (1919, 1928).
B. S., K. S. C., 1917; M. S., ibid., 1929. S 30.

Harner Selvidge, Assistant Professor of Electrical Engineering (1938).
S. B., Massachusetts Institute of Technology, 1932; S. M., ibid., 1933; M. S., Harvard University, 1934; D. Sc., ibid., 1937. E 19.

Fred Albert Shannon, Professor of History and Government (1926, 1934); on leave 1938-1939.
A. B., Indiana State Teachers College, 1914; A. M., Indiana University, 1918; Ph. D., State University of Iowa, 1924. F 59.

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. XX 3C.

Christiana Marie Shields,[4] Assistant in Education (1931, 1937).
B. S., K. S. C., 1929. Capitol, Topeka, Kan.

Raymon Shobe, (Temporary) Instructor in Mathematics (Sept. 1, 1938).
B. S., Kansas State Teachers College, Emporia, 1936. E 105.

Clara Magdalene Siem, Financial Secretary, Division of College Extension (1920, 1924). A 34.

Daniel T. Sigley, Assistant Professor of Mathematics (Sept. 1, 1938).
A. B.; University of Kansas, 1927; A. M., ibid., 1928; Ph. D., University of Illinois, 1932. S 52.

Earl LeRoy Sitz, Assistant Professor of Electrical Engineering (1927, 1935).
B. S. in E. E., Iowa State College, 1927; M. S., K. S. C., 1932. E 24.

Laurence Nelson Skold,[1] Research Assistant in Agronomy, Agricultural Experiment Station (July 1, 1938).
B. S., Colorado Agricultural College, 1938. E. Ag 301.

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1. In coöperation with the U. S. Department of Agriculture.
4. In coöperation with the State Board for Vocational Education.

BERNIECE SLOAN, Graduate Research Assistant in Household Economics (Sept. 1, 1938).
B. S., K. S. C., 1928. T 53.

LELAND MILTON SLOAN, Superintendent, Garden City Branch Agricultural Experiment Station (July 1, 1938).
B. S., K. S. C., 1932. Garden City, Kan.

ROBERT FRED SLOAN, Assistant in Pasture Improvement (July 1, 1938).
B. S., K. S. C., 1938. E. Ag 206A.

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

LLOYD FRANCIS SMITH, Associate Professor of Forestry (1935); State Forester (1936).
A. B., University of Kansas, 1930; M. F., Yale University, 1932; Ph. D., ibid., 1938. D 34.

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

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

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. X 29.

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

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

RAYMOND SOLLENBERGER, Graduate Research Assistant in Applied Mechanics (July 1, 1938).
B. S., K. S. C., 1938. E 112.

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

MARY ASHMAN STALDER, Instructor in Art (1936).
A. B., Ohio University, 1929; M. A., ibid., 1931. A 68B.

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

ELIZABETH A. STEWART, (Temporary) Instructor in Food Economics and Nutrition (1937; Sept. 1, 1938).
A. B., Southwestern College, 1922; M. A., Columbia University, 1924. C 7.

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

THOMAS BRUCE STINSON, Superintendent, Tribune Branch Agricultural Experiment Station (1924).
B. S., K. S. C., 1924. Tribune, Kan.

EVA STOTTS, (Temporary) Instructor in Clothing and Textiles (Feb. 13, 1939).
B. S., University of Nebraska, 1930; M. A., ibid., 1937. C 51A.

HAROLD EARL STOVER, Instructor in Rural Engineering, Division of College Extension (1936).
B. S., K. S. C., 1929. E 131.

MARIE JEANETTE STOVER, (Temporary) Assistant Reference Librarian (Sept. 1, 1938).
B. S., Kansas State Teachers College, Emporia, 1938. L 51.

CHARLES WILLIAM STRATTON, Assistant Professor of Piano (1927, 1930).
B. Mus., K. S. C., 1926; M. S., ibid., 1933. M 55.

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. S 54.

VIVAN LEWIS STRICKLAND, Professor of Education (1917, 1922).
A. B., University of Nebraska, 1906; A. M., ibid., 1915; Ph. D., ibid, 1925. G 28.

LILLIAN LAURA STRNAD, Head Hospital Nurse (1937; Sept. 1, 1938).
R. N., Halstead (Kan.) Hospital, 1934. CH.

ANNA MARIE STURMER, Associate Professor of English (1920, 1926).
A. B., University of Nebraska, 1917; A. M., ibid., 1920. A 69.

MILO J. STUTZMAN, Assistant Professor of Metallurgy and Metallography (1934, 1936).
A. B., McPherson College, 1920; M. S., University of Nebraska, 1922; Ph. D., Iowa State College, 1927. S 30.

FRANCIS JOSEPH SULLIVAN, Instructor in Machine Design (1938).
B. S. in M. E., Harvard University, 1936. S 51.

HARRISON BOYD SUMMERS, Professor of Public Speaking (1923, 1930).
A. B., Fairmount College, Wichita University, 1917; A. M., University of Oklahoma, 1921; Ph. D., University of Missouri, 1931. G 55.

ARTHUR FRITHIOF SWANSON,[1] Associate Agronomist, Division of Cereal Crops and Diseases, U. S. D. A.; in charge of Cereal Investigations, Fort Hays Branch Agricultural Experiment Station (1919).
B. S., K. S. C., 1919; M. S., University of Minnesota, 1923. Hays, Kan.

CHARLES OSCAR SWANSON, Professor and Head of Department of Milling Industry (1906, 1923).
A. B., Carleton College, 1899; M. Agr., University of Minnesota, 1905; Ph. D., Cornell University, 1922. E. Ag 110.

LILLIAN JULIETTE SWENSON, Assistant Reference Librarian (1927); on sabbatic leave Sept. 1, 1938, to June 30, 1939.
A. B., Colorado College, 1924; B. S., Simmons College, 1927. L 51.

MARTHA ELIZABETH SWOYER,[4] Assistant in Education (1936, 1937).
A. B., Southwestern College, 1929; M. S., K. S. C., 1937. T 51B.

WILLIAM AUGUSTUS TANNER, Graduate Assistant in Bacteriology (1937, 1938).
B. S., University of Illinois, 1938. V 54.

DELOS CLIFTON TAYLOR, Instructor in Applied Mechanics (1931).
B. S. in C. E., K. S. C., 1925; M. S., ibid., 1937. E 14.

EARL HICKS TEAGARDEN, Assistant Professor of Agricultural Extension, District Agent, Division of College Extension (1929, 1934).
B. S., K. S. C., 1920. A 60.

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1. In coöperation with the U. S. Department of Agriculture.
4. In coöperation with the State Board for Vocational Education.

CHARLES RAY THOMPSON, Associate Professor of Economics (1929, 1937).
A. B., University of Kansas, 1927; A. M., ibid., 1928. W. Ag 327.

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 35.

HAZEL E. THOMPSON,[4] State Supervisor of Vocational Homemaking (1925).
B. S., Kansas State Teachers College, Pittsburg, 1919; M. S., K. S. C., 1927. Capitol, Topeka, Kan.

WALTER W. THOMPSON, Assistant Professor of Pathology (1936, 1937).
D. V. M., Michigan State College, 1929. VH 51B.

WILLIAM T. THOMSON, Instructor in Applied Mechanics (1937).
B. S., University of California, 1933; M. S., ibid., 1934; Ph. D., ibid., 1938. E 135.

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.

FRANCIS LEONARD TIMMONS,[1] Agent, Bureau of Plant Industry, U. S. D. A.; in charge of Bindweed Control Investigations, Fort Hays Branch Agricultural Experiment Station (1928, 1935).
B. S., K. S. C., 1928; M. S., ibid., 1932. Hays, Kan.

SUE TOWNSEND, Instructor in Modern Languages (1934).
B. S., Kansas State Teachers College, Emporia, 1923; M. A., University of Colorado, 1927. A 70.

WILSON TRIPP, Assistant Professor of Mechanical Engineering (1936; Sept. 1, 1938).
B. S., University of California, 1930; M. S., ibid., 1933. E 232.

WILLIAM CHILTON TROUTMAN, Assistant Professor of Public Speaking (1937).
A. B., University of Illinois, 1917; M. A., ibid., 1918. G 55.

ALONZO FRANKLIN TURNER,[1] Associate Professor, Field Agent, Division of College Extension (1917, 1920).
B. S., K. S. C., 1905. EA.

MARVIN JOHN TWIEHAUS, Instructor in Bacteriology (1937).
D. V. M., K. S. C., 1936. V 53.

GRACE ELLEN UMBERGER, Head Nurse, Department of Student Health (1919).
B. S., K. S. C., 1905; R. N., Illinois Training School for Nurses, 1909. A 64.

HARRY JOHN CHARLES UMBERGER, Dean and Director, Division of College Extension (1911, 1919).
B. S., K. S. C., 1905. A 33.

GLADYS ELLEN VAIL, Associate Professor of Food Economics and Nutrition (1927; Sept. 1, 1938).
A. B., Southwestern College, 1924; M. S., University of Chicago, 1927. C 43.

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. XX 28.

MARY PIERCE VAN ZILE, Dean of Women (1908); Professor of Domestic Science, 1908-1918; Dean of the Division of Home Economics, 1912-1918.
Diploma, Iowa State College, 1904; B. S., K. S. C., 1929. A 42.

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1. In coöperation with the U. S. Department of Agriculture.
4. In coöperation with the State Board for Vocational Education.

Richard George Vogel, (Temporary) Instructor in Economics (1937); resigned August 31, 1938.
B. S., K. S. C., 1931. W. Ag 327.

Robert Phillip Wagers, Instructor in Anatomy and Physiology (Sept. 1, 1937).
D. V. M., Ohio State University, 1936; M. S., ibid., 1937. V 33.

George B. Wagner,[3] Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Stored Grain and Flour Mill Insects (1934).
B. S., K. S. C., 1928; M. S., ibid., 1929. U. S. Lab., 1204 Fremont.

Elizabeth Daniel Walbert, Graduate Assistant in Household Economics (Sept. 1, 1938).
B. S., K. S. C., 1935. T 53.

Herbert Halden Walkden,[3] Assistant Entomologist, Bureau of Entomology and Plant Quarantine, U. S. D. A.; Investigator of Staple Crop Insects (1934).
B. S., Massachusetts Agricultural College, 1916. U. S. Lab., 1204 Fremont.

Carroll Kramer Ward, Instructor in Economics and Sociology (1935); on leave Sept. 1, 1938 to May 31, 1939.
B. S., University of Kansas, 1930; M. B. A., ibid., 1937. W. Ag 327.

Walter Gilling Ward, Professor in Charge of Rural Engineering, Division of College Extension (1920, 1925).
B. S. in Arch., K. S. C., 1912; Architect, ibid., 1922; M. S., Iowa State College, 1931. E 131

Joseph Thomas Ware, Assistant Professor of Architecture (1929, 1935); on leave Feb. 1, 1939, to Jan. 31, 1940.
B. S., Georgia School of Technology, 1929. E 223.

Eugene D. Warner, Instructor in Rural Architecture, Division of College Extension (1935, 1937).
B. S. in Arch., K. S. C., 1934. E 131.

Don Cameron Warren, Professor of Poultry Husbandry (1923, 1929).
A. B., Indiana University, 1914; A. M., ibid., 1917; Ph. D., Columbia University, 1923. W. Ag 229.

Ellen Grace Warren, Assistant Extension Editor, Division of College Extension (1936).
B. S., K. S. C., 1933. EA 104.

Louis Pierce Washburn, Professor of Physical Education for Men (1926, 1931).
B. S., Carleton College, 1907; B. P. E., Springfield Y. M. C. A. College, 1911; M. P. E., ibid., 1926. N 35.

Arthur D. Weber, Professor of Animal Husbandry (1931).
B. S., K. S. C., 1922; M. S., ibid., 1926. E. Ag 13.

Norman Coates Webster, Instructor in Public Speaking (1937).
B. O., Geneva College, 1927; A. B., ibid., 1928. G 55.

Paul Weigel, Professor and Head of Department of Architecture (1921, 1924).
B. Arch., Cornell University, 1912; Architect, University of State of New York, 1920; Graduate, Buffalo Normal School, 1921. E 305.

George H. Wellington, Graduate Research Assistant in Animal Husbandry (Sept. 1, 1938).
B. S., Michigan State College, 1937. Meats Lab.

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3. In coöperation with the Kansas Agricultural Experiment Station.

Leon Elbert Wenger,[1] Agent, Bureau of Plant Industry, U. S. D. A.; Forage Crops Specialist, Fort Hays Branch Agricultural Experiment Station (1936; March 1, 1937).
B. S., K. S. C., 1936. Hays, Kan.

Bessie Brooks West, Professor and Head of Department of Institutional Management (1928); Manager of Cafeteria (1928); on sabbatic leave Sept. 1, 1938, to June 30, 1939.
A. B., University of California, 1924; A. M., ibid., 1928. T 52.

Alfred Everett White, Professor of Mathematics (1909, 1918).
B. S., Purdue University, 1904; M. S., ibid., 1909. A 72.

Hattie Helen White, Secretary and Treasurer, Business Office (1912, 1925).
A 27.

Hugh Erwin White, Graduate Research Assistant in Agricultural Engineering (Sept. 1, 1938).
B. S., K. S. C., 1929. E 217.

Leon Vincent White, Associate Professor of Civil Engineering (1918, 1927).
B. S., K. S. C., 1903; C. E., ibid., 1918; M. S., ibid., 1927. E 122.

John Hendrick Whitlock, Assistant Professor of Pathology (1934; July 1, 1938).
D. V. M., Iowa State College, 1934; M. S., K. S. C., 1935. V 36.

Carrell Henry Whitnah, Assistant Professor of Chemistry (1929); Dairy Chemist, Agricultural Experiment Station (1929, 1937).
A. B., University of Nebraska, 1913; M. S., University of Chicago, 1917; Ph. D., University of Nebraska, 1925. W. Ag 42.

Henry Evert Wichers, Associate Professor of Rural Architecture (1924, 1934).
B. S. in Arch., K. S. C., 1924; M. S., ibid., 1925; Architect, ibid., 1930. E 224.

Mary Christine Wiggins, Instructor in Clothing and Textiles, Division of College Extension (1931, 1934).
B. S., K. S. C., 1929. A 62A.

Donald Alden Wilbur, Assistant Professor of Entomology (1928).
B. S., Oregon State College, 1925; A. M., Ohio State University, 1927. F 83.

Julius Terrass Willard, College Historian (1883, 1936); Vice-president, 1918-Dec. 31, 1935; Dean, Division of General Science, 1909-1930; Professor of Chemistry, 1901-1918.
B. S., K. S. C., 1883; M. S., ibid., 1886; Sc. D., ibid., 1908. A 32.

Cyrus Vance Williams, Professor of Vocational Education (1920).
B. Ed., State Teachers College, Peru, Nebr., 1909; A. M., University of Nebraska, 1910; B. S. in Agr. ibid., 1919; Ph. D., ibid., 1925. G 28.

Dwight Williams, Associate Professor of History and Government (1926).
A. B., University of Minnesota, 1916; LL. B., ibid., 1918; A. M., ibid., 1926. F 60.

Harvey O. Williams, Staff Sergt., D. E. M. L., U. S. A.; Instructor in Military Science and Tactics (1932). N 27.

Jennie Williams, Assistant Professor of Child Welfare and Euthenics (1932, 1937).
B. S., K. S. C., 1910; R. N., University of Michigan Hospital, 1924; M. S., K. S. C., 1933. C 63.

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. A 4.

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

STANLEY L. WILLIAMSON, Associate Professor of Physical Education (1935; Dec. 1, 1938).
B. S. in Ed., University of Southern California, 1932. N 35.

LUTHER EARL WILLOUGHBY,[1] Associate Professor of Farm Crops, Division of College Extension (1917, 1926).
B. S., K. S. C., 1912; B. S. in Agr., ibid., 1916. A 4.

CHARLES PEAIRS WILSON, Instructor in Agricultural Economics (1938; March 1, 1938).
B. S., K. S. C., 1938. W. Ag 330.

MANNIE RAY WILSON, Associate Professor of Shop Practice (1936).
B. S. in E. E., K. S. C., 1925. S 37.

ROY ELMER WILSON, Staff Sergt., D. E. M. L., U. S. A.; Instructor in Military Science and Tactics (1921). N 27.

EDWARD JOSEPH WIMMER, Associate Professor of Zoölogy (1928, 1937).
A. B., University of Wisconsin, 1925; A. M., ibid., 1927; Ph. D., ibid., 1928. F 38.

TEMPLE FAY WINBURN,[3] Junior Entomologist, Bureau of Entomology and Plant Quarantine, U S. D. A.; Investigator of Stored Grain and Flour-mill Insects (1938).
B. S., K. S. C., 1929; M. S., ibid., 1931. U. S. Lab., 1204 Fremont.

JOE NATE WOOD, Instructor in Machine Design (1936).
B. S. in E. E., State University of Iowa, 1936. E 209.

LEVELLE WOOD, Assistant Professor of Institutional Management (1928).
B. S., Oregon State College, 1921; M. S., Columbia University, 1928. VZ.

EARL BOOTH WORKING, Associate Professor of Milling Industry (1923).
A. B., University of Denver, 1917; A. M., ibid., 1919; Ph. D., University of Arizona, 1922. E. Ag 111.

BERNIE WILLIAM WRIGHT, Assistant Professor of Agricultural Economics, Division of College Extension (1929, 1934); resigned Oct. 16, 1938.
B. S., K. S. C., 1924. A 3.

GLADYS WYCKOFF,[4] Instructor in Education (1935).
B. S., Central Missouri State Teachers College, 1920; M. A., University of Missouri, 1928. Capitol, Topeka, Kan.

FLORENCE E. YOUNG, Instructor in Physical Education for Women (1937).
B. S., University of Wisconsin, 1937. N 4.

JAMES WALTER ZAHNLEY[5], Associate Professor of Farm Crops (1915, 1921).
B. S., K. S. C., 1909; M. S., ibid., 1926. E. Ag 308.

MYRTLE EVELYN ZENER, Secretary to the Vice-President (1918). A 46.

COUNTY AGRICULTURAL AGENTS[1]

WALTER ABMEYER, Franklin County Agricultural Agent, Division of College Extension (1938; Oct. 1, 1938); resigned Oct. 31, 1938.
B. S., K. S. C., 1938. Ottawa, Kan.

HENRY JOSEPH ADAMS, Republic County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1917. Belleville, Kan.

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1. In coöperation with the U. S. Department of Agriculture.
3. In coöperation with the Kansas Agricultural Experiment Station.
4. In coöperation with the State Board for Vocational Education.
5. In coöperation with the Kansas State Board of Agriculture.

Dale Allen, Assistant County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1922. Council Grove, Kan.

William R. Allen, Assistant County Agricultural Agent, Division of College Extension (June 1, 1938); resigned Oct. 25, 1938.
B. S., K. S. C., 1938. Manhattan, Kan.

Samuel Edward Alsop, Haskell County Agricultural Agent, Division of College Extension (1937, 1938).
B. S., K. S. C., 1935. Sublette, Kan.

Milburne Clinton Axelton, Jackson County Agricultural Agent, Division of College Extension (1929, 1935).
B. S., K. S. C., 1928. Holton, Kan.

Kimball Lincoln Backus, Wyandotte County Agricultural Agent, Division of College Extension (1932).
B. S., K. S. C., 1931. Kansas City, Kan.

Clarence E. Bartlett, Jewell County Agricultural Agent, Division of College Extension (1937).
B. S., University of Nebraska, 1929. Mankato, Kan.

R. E. Bausman, Assistant County Agricultural Agent, Division of College Extension (1935). Parsons, Kan.

Deane Redmond Bell, Assistant County Agricultural Agent, Division of College Extension (Dec. 1, 1938). Leavenworth, Kan.

Herman Albert Biskie, Franklin County Agricultural Agent, Division of College Extension (1928); on indefinite leave Oct. 1, 1938.
B. S., University of Nebraska, 1917. Ottawa, Kan.

Harold Andrew Borgelt, Edwards County Agricultural Agent, Division of College Extension (1937; 1937).
B. S., K. S. C., 1937. Kinsley, Kan.

John Robson Brainard, Jr., Assistant County Agricultural Agent, Division of College Extension (Jan. 1, 1939). Dodge City, Kan.

Lee Justin Brewer, Greeley County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1935. Tribune, Kan.

Frank L. Brooks, Jr., Assistant County Agricultural Agent, Division of College Extension (Aug. 1, 1938).
B. S., K. S. C., 1938. Hoxie, Kan.

Albert Brown, Bourbon County Agricultural Agent, Division of College Extension (1934); resigned Jan. 7, 1939.
B. S., K. S. C., 1929. Fort Scott, Kan.

Gerald James Brown, Hamilton County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Syracuse, Kan.

Frank Sherman Burson, Chase County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1934. Cottonwood Falls, Kan.

Jewell C. Campbell, Assistant County Agricultural Agent, Division of College Extension (Oct. 10, 1938).
B. S., K. S. C., 1938. Seneca, Kan.

Richard Henry Campbell, Assistant County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1935. Oskaloosa, Kan.

Sylvester Ulric Case, Crawford County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1923. Girard, Kan.

Francis Willard Castello, Ellsworth County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1933. Ellsworth, Kan.

Herbert William Clutter, Finney County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1933. Garden City, Kan.

Carl Clarence Conger, Pawnee County Agricultural Agent, Division of College Extension (1934; April 1, 1938).
B. S., K. S. C., 1933. Larned, Kan.

Ralph A. Cooley, Assistant County Agricultural Agent, Division of College Extension (1937).
B. S., K. S. C., 1912. Abilene, Kan.

Lawrence Edward Crawford, Pratt County Agricultural Agent, Division of College Extension (1937).
B. S., K. S. C., 1928. Pratt, Kan.

Vernon Simpson Crippen, Assistant County Agricultural Agent, Division of College Extension (1934; April 1, 1938); resigned Oct. 31, 1938.
B. S., K. S. C., 1920. Belleville, Kan.

Fred B. Cromer, Kingman County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1916. Kingman, Kan.

Wilbur R. Crowley, Assistant County Agricultural Agent, Division of College Extension (June 6, 1938); resigned Jan. 5, 1939.
B. S., K. S. C., 1938. Ottawa, Kan.

Harold Amos Daily, Stafford County Agricultural Agent, Division of College Extension (1935, 1938).
B. S., K. S. C., 1933. St. John, Kan.

Walter Jones Daly, Cowley County Agricultural Agent, Division of College Extension (1925, 1937).
B. S., K. S. C., 1925. Winfield, Kan.

Laurence Robert Daniels, Rooks County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1933. Stockton, Kan.

Ivor Harold Davies, Wyandotte County Club Agent, Division of College Extension (1937, 1938).
B. S., K. S. C., 1937. Kansas City, Kan.

Elmer A. Dawdy, Saline County Agricultural Agent, Division of College Extension (1938; Feb. 1, 1939).
B. S., K. S. C., 1938. Salina, Kan.

John William Decker, Wabaunsee County Agricultural Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1930. Alma, Kan.

Marion Maxwell Dickerson, Stevens County Agricultural Agent, Division of College Extension (1937, 1938).
B. S., K. S. C., 1937. Hugoton, Kan.

Carl Emmert Elling, Scott County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C. 1932. Scott City, Kan.

Carl Mudge Elling, Hodgeman County Agricultural Agent, Division of College Extension (1938).
B. S., K. S. C., 1937. Jetmore, Kan.

Roland Baker Elling, Franklin County Agricultural Agent, Division of College Extension (1938; Nov. 14, 1938).
B. S., K. S. C., 1938. Ottawa, Kan.

Kermit Vernon Engle, Kearny County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1931. Lakin, Kan.

Wayne Ewing, Sedgwick County Club Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1932. Wichita, Kan.

Roy Henry Freeland, Assistant County Agricultural Agent, Division of College Extension (Dec. 8, 1938).
B. S., K. S. C., 1937. Iola, Kan.

Raleigh Bordner Flanders, Rawlins County Agricultural Agent, Division of College Extension (1936).
B. S., Colorado Agricultural College, 1928. Atwood, Kan.

Robert Whitsel Fort, Saline County Agricultural Agent, Division of College Extension (1935); resigned Jan. 10, 1939.
B. S., K. S. C., 1926. Salina, Kan.

George Willis Gerber, Osage County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Lyndon, Kan.

Ralph Friedly Germann, Russell County Agricultural Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1931. Russell, Kan.

Joe Myron Goodwin, Linn County Agricultural Agent, Division of College Extension (1919, 1937). Mound City, Kan.

Elmer Oscar Graper, Thomas County Agricultural Agent, Division of College Extension (1929; Nov. 15, 1938).
B. S., K. S. C., 1913. Colby, Kan.

William Ellsworth Gregory, Harper County Agricultural Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1929. Anthony, Kan.

Paul Wilson Griffith, Decatur County Agricultural Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1934. Oberlin, Kan.

Paul Bernard Gwin, Geary County Agricultural Agent, Division of College Extension (1921, 1925).
B. S., K. S. C., 1916. Junction City, Kan.

Roy Elmer Gwin, Wichita County Agricultural Agent, Division of College Extension (1921, 1934).
B. S., K. S. C., 1914. Leoti, Kan.

Frank Alexander Hagans, Marion County Agricultural Agent, Division of College Extension (1930).
B. S., K. S. C., 1925. Marion, Kan.

Charles Adrian Hageman, Wilson County Agricultural Agent, Division of College Extension (1936; Feb. 1, 1939).
B. S., K. S. C., 1936. Fredonia, Kan.

Dale Evart Halbert, Assistant County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1933. Hutchinson, Kan.

Preston Orin Hale, Shawnee County Agricultural Agent, Division of College Extension (1929, 1934).
B. S., K. S. C., 1916. Topeka, Kan.

Charles Tomas Hall, Jefferson County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1932. Oskaloosa, Kan.

John Hamon, Wilson County Agricultural Agent, Division of College Extension (1934); resigned Jan. 18, 1939.
B. S., K. S. C., 1933. Fredonia, Kan.

John Bonar Hanna, Butler County Club Agent, Division of College Extension (1935; Jan. 1, 1939).
B. S., K. S. C., 1932. El Dorado, Kan.

Leonard Beath Harden, Johnson County Agricultural Agent, Division of College Extension (1928, 1934).
B. S., K. S. C., 1926. Olathe, Kan.

Harold Byron Harper, Harvey County Agricultural Agent, Division of College Extension (1932, 1933).
B. S., K. S. C., 1933. Newton, Kan.

A. Eugene Harris, Seward County Agricultural Agent, Division of College Extension (1938; Oct. 10. 1938).
B. S., K. S. C., 1938. Liberal, Kan.

Edwin Hedstrom, Clay County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1924. Clay Center, Kan.

John Albert Hendriks, Anderson County Agricultural Agent, Division of College Extension (1920, 1924).
B. S. A., Iowa State College, 1913. Garnett, Kan.

Harvey J. Hensley, Cloud County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Concordia, Kan.

Sherman Stanley Hoar, Barton County Agricultural Agent, Division of College Extension (1929).
B. S., K. S. C., 1928. Great Bend, Kan.

Clarence Athel Hollingsworth, Bourbon County Agricultural Agent, Division of College Extension (1937; Jan. 23, 1939).
B. S., K. S. C., 1931. Fort Scott, Kan.

Ray Mitchell Hoss, Woodson County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1930. Yates Center, Kan.

Donald Walter Ingle, Reno County Agricultural Agent, Division of College Extension (1930, 1934).
B. S., University of Missouri, 1929. Hutchinson, Kan.

Zara W. Johnson, Morton County Agricultural Agent, Division of College Extension (1938; July 18, 1938).
B. S., K. S. C., 1938. Elkhart, Kan.

Charles C. Jones, Assistant County Agricultural Agent, Division of College Extension (Jan. 1, 1939). Hiawatha, Kan.

Eugene F. Keas, Assistant County Agricultural Agent, Division of College Extension (July 1, 1938). Lyons, Kan.

Oliver Willard Kershaw, Smith County Agricultural Agent, Division of College Extension (1935; Jan. 1, 1939).
B. S., K. S. C., 1935. Smith Center, Kan.

Claude Lewis King, Shawnee County Club Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1932. Topeka, Kan.

Richard Franklin King, Jr., Crawford County Club Agent, Division of College Extension (1938; Feb. 1, 1939).
B. S., K. S. C., 1938. Girard, Kan.

Arthur William Knott, Montgomery County Agricultural Agent, Division of College Extension (1927).
B. S., University of Wisconsin, 1917. Independence, Kan.

Ben C. Kohrs, Gray County Agricultural Agent, Division of College Extension (1935, 1937); resigned Sept. 18, 1938.
B. S., K. S. C., 1935. Cimarron, Kan.

Reuben Carl Lind, Lincoln County Agricultural Agent, Division of College Extension (1933).
B. S., K. S. C., 1923. Lincoln, Kan.

Philip Warner Ljungdahl, Gray County Agricultural Agent, Division of College Extension (1936; Oct. 19, 1938).
B. S., K. S. C., 1936. Cimarron, Kan.

Charles Enoch Lyness, Doniphan County Agricultural Agent, Division of College Extension (1923).
B. S., K. S. C., 1912. Troy, Kan.

Verl Ephriam McAdams, Barber County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1928. Medicine Lodge, Kan.

Ralph Waldo McBurney, Mitchell County Agricultural Agent, Division of College Extension (1930).
B. S., K. S. C., 1927. Beloit, Kan.

Frances Dean McCammon, Ford County Agricultural Agent, Division of College Extension (1934, 1936).
B. S., K. S. C., 1932. Dodge City, Kan.

Everett Lynn McClelland, Sheridan County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1928. Hoxie, Kan.

John Edwin McColm, Meade County Agricultural Agent, Division of College Extension (1936, 1938).
B. S., K. S. C., 1936. Meade, Kan.

Dewey Zollie McCormick, Morris County Agricultural Agent, Division of College Extension (1925).
B. S., K. S. C., 1921. Council Grove, Kan.

Ernest Lee McIntosh, Lyon County Agricultural Agent, Division of College Extension, (1920, 1937).
B. S., K. S. C., 1920. Emporia, Kan.

Robert Fred McNitt, Pottawatomie County Agricultural Agent, Division of College Extension (1934, 1935); resigned Jan. 31, 1939.
B. S., K. S. C., 1933. Westmoreland, Kan.

Earl Thomas Means, Allen County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1922. Iola, Kan.

Wilmer Abele Meyle, Atchison County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1931. Effingham, Kan.

John Delmont Montague, Sedgwick County Agricultural Agent, Division of College Extension (1926, 1930).
B. S., K. S. C., 1920. Wichita, Kan.

Lawrence Dale Morgan, Sherman County Agricultural Agent, Division of College Extension (1933).
B. S., K. S. C., 1935. Goodland, Kan.

Harold Lewis Murphey, Comanche County Agricultural Agent, Division of College Extension (1930, 1936).
B. S., K. S. C., 1928. Coldwater, Kan.

Howard Cecil Myers, Elk County Agricultural Agent, Division of College Extension (1938; Jan. 23, 1939).
B. S., K. S. C., 1938. Howard, Kan.

Leonard Neff, Washington County Agricultural Agent, Division of College Extension (1925, 1930).
B. S. A., Purdue University, 1922. Washington, Kan.

Paul Harold Nelson, Phillips County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Phillipsburg, Kan.

Russell C. Nelson, Assistant County Agricultural Agent, Division of College Extension (1936). Hiawatha, Kan.

William O'Connell, Marshall County Agricultural Agent, Division of College Extension (1924).
B. S., K. S. C., 1916. Marysville, Kan.

Charles Herman Olson, Assistant County Agricultural Agent, Division of College Extension (June 16, 1938); resigned Jan. 15, 1939.
B. S., K. S. C., 1938. Girard, Kan.

Merton Louis Otto, Leavenworth County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1921. Leavenworth, Kan.

Robert Thomas Patterson, Cherokee County Agricultural Agent, Division of College Extension (1928).
B. S., K. S. C., 1924. Columbus, Kan.

Leonard William Patton, Graham County Agricultural Agent, Division of College Extension (1933, 1937).
B. S., K. S. C., 1933. Hill City, Kan.

Albert Arnold Pease, Rice County Club Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1932. Lyons, Kan.

Allison Glen Pickett, Kiowa County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1935. Greensburg, Kan.

Edward W. Pitman, Assistant County Agricultural Agent, Division of College Extension (April 7, 1938.)
B. S., K. S. C., 1938. Kingman, Kan.

William Harold Polhamus, Assistant County Agricultural Agent, Division of College Extension (1938; Feb. 2, 1939). ———, Kan.

Robert Louis Rawlins, Nemaha County Agricultural Agent, Division of College Extension (1931).
B. S., K. S. C., 1929. Seneca, Kan.

Clyde Cadwell Reed, Assistant County Agricultural Agent, Division of College Extension (June 6, 1938); resigned Jan. 5, 1939.
B. S., K. S. C., 1938. Independence, Kan.

Leonard Abbott Rees, Riley County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1932. Manhattan, Kan.

Oren J. Reusser, Assistant County Agricultural Agent, Division of College Extension (July 22, 1938).
B. S., K. S. C., 1937. Lyons, Kan.

Donald Rice, Assistant County Agricultural Agent, Division of College Extension (Jan. 1, 1939). Iola, Kan.

Cecil E. Richards, Assistant County Agricultural Agent, Division of College Extension (1935). Iola, Kan.

Arthur Eugene Schafer, Norton County Agricultural Agent, Division of College Extension (1937, 1937).
B. S., K. S. C., 1937. Norton, Kan.

Lester Shepard, Neosho County Agricultural Agent, Division of College Extension (1928).
A. B., University of Iowa, 1913; B. S., Iowa State College, 1916. Erie, Kan.

Karl Gardner Shoemaker, Ellis County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Hays, Kan.

George W. Sidwell, Rice County Agricultural Agent, Division of College Extension (1913, 1937).
A. B., Fairmount College, 1915. Lyons, Kan.

Deal D. Six, Douglas County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1922. Lawrence, Kan.

Joseph Daniel Smerchek, Sumner County Agricultural Agent, Division of College Extension (1933, 1937).
B. S., K. S. C., 1932. Wellington, Kan.

Orin Grover Steele, Assistant County Agricultural Agent, Division of College Extension (May 2, 1938).
B. S., K. S. C., 1935. Manhattan, Kan.

ALVIN HOWARD STEPHENSON, Dickinson County Agricultural Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1932. Abilene, Kan.

HAROLD CALVIN STEVENS, Assistant County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1930. Fredonia, Kan.

HARVEY J. STEWART, Cheyenne County Agricultural Agent, Division of College Extension (1929).
B. S., K. S. C., 1928. St. Francis, Kan.

RAYMOND LUTHER STOVER, Brown County Agricultural Agent, Division of College Extension (1927, 1930).
B. S., K. S. C., 1924; M. S., Oregon Agricultural College, 1927. Hiawatha, Kan.

FRANK B. STUCKEY, Assistant County Agricultural Agent, Division of College Extension (1936); resigned Oct. 15, 1938. Leavenworth, Kan.

VICTOR FRED STUEWE, Ottawa County Agricultural Agent, Division of College Extension (1934, 1937).
B. S., K. S. C., 1915. Minneapolis, Kan.

BYRON J. TAYLOR, Logan County Agricultural Agent, Division of College Extension (1937; April 5, 1938).
B. S., K. S. C., 1916. Page City, Kan.

JOHN EDWARD TAYLOR, Grant County Agricultural Agent, Division of College Extension (1930).
B. S., K. S. C., 1930. Ulysses, Kan.

LOT FORMAN TAYLOR, Chautauqua County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1931. Sedan, Kan.

MERRILL MEDSGAR TAYLOR, Thomas County Agricultural Agent, Division of College Extension (1931, 1935); resigned Oct. 26, 1938.
B. S., K. S. C., 1930. Colby, Kan.

CHESTER GORDON THOMPSON, Assistant County Agricultural Agent, Division of College Extension (1936).
B. S., K. S. C., 1932. Florence, Kan.

MERLE BARTON THOMSON, Assistant County Agricultural Agent, Division of College Extension (1937). Topeka, Kan.

ABRAM B. THUT, Assistant County Agricultural Agent, Division of College Extension (1936). Anthony, Kan.

WAYNE TJADEN, Assistant County Agricultural Agent, Division of College Extension (1938).
B. S., K. S. C., 1938. Burlington, Kan.

OBED LEE TOADVINE, JR., Ness County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1932. Ness City, Kan.

JAMES FREDERICK TRUE, JR., Coffey County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1929. Burlington, Kan.

FRANCIS JOHN TURNER, Assistant County Agricultural Agent, Division of College Extension (1936). Manhattan, Kan.

HOWARD VICTOR VERNON, Osborne County Agricultural Agent, Division of College Extension (1934, 1937).
B. S., K. S. C., 1928. Osborne, Kan.

Harold Osmond Wales, Stanton County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., North Dakota Agricultural College, 1934; M. S., K. S. C., 1936. Johnson, Kan.

Herman W. Westmeyer, Lane County Agricultural Agent, Division of College Extension (1936).
B. S., University of Missouri, 1936. Dighton, Kan.

Ray H. Whitenack, Assistant County Agricultural Agent, Division of College Extension (1937).
B. S., K. S. C., 1916. Olathe, Kan.

Earl LaVerne Wier, McPherson County Agricultural Agent, Division of College Extension (1934).
B. S., K. S. C., 1931. McPherson, Kan.

Carl Williams, Clark County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1932. Ashland, Kan.

Richard Gordon Wiltse, Miami County Agricultural Agent, Division of College Extension (1938; July 1, 1938).
B. S., K. S. C., 1938. Paola, Kan.

William Alexander Wishart, Greenwood County Agricultural Agent, Division of College Extension (1935; March 15, 1938).
B. S., K. S. C., 1935. Eureka, Kan.

Maurice Ivan Wyckoff, Labette County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1935. Altamont, Kan.

Walter William Zeckser, Butler County Agricultural Agent, Division of College Extension (1935).
B. S., K. S. C., 1933. El Dorado, Kan.

Robert Zilliox, Assistant County Agricultural Agent, Division of College Extension (Jan. 1, 1939). Smith Center, Kan.

Frank Zitnik, Rush County Agricultural Agent, Division of College Extension (1931, 1934).
B. S., K. S. C., 1931. La Crosse, Kan.

Joseph Zitnik, Wallace County Agricultural Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Sharon Springs, Kan.

HOME DEMONSTRATION AGENTS[1]

Marie Antrim, Wyandotte County Home Demonstration Agent, Division of College Extension (1935).
B. S., K. S. C., 1934. Kansas City, Kan.

Mildred Beil, Cloud County Home Demonstration Agent, Division of College Extension (1936. 1937).
B. S., K. S. C., 1932. Concordia, Kan.

Ellen Blair, Lyon County Home Demonstration Agent, Division of College Extension (1935, 1937); resigned Dec. 31, 1938.
B. S., K. S. C., 1934. Emporia, Kan.

Grace Dorothy Brill, Bourbon County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1931; M. S., K. S. C., 1932. Fort Scott, Kan.

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

VIRA BROWN, Assistant Home Demonstration Agent, Division of College Extension (1935; Nov. 1, 1938); resigned Jan. 31, 1939.
B. S., K. S. C., 1925. Leavenworth, Kan.

PAULINE CRAWFORD, Stafford County Home Demonstration Agent, Division of College Extension (1938; Jan. 1, 1939).
B. S., K. S. C., 1935. St. John, Kan.

RUTH ESTHER CRAWFORD, Harper County Home Demonstration Agent, Division of College Extension (1934).
B. S., K. S. C., 1932. Anthony, Kan.

ELEANOR DALES, Wabaunsee County Home Demonstration Agent, Division of College Extension (1938; Jan. 1, 1939).
B. S., K. S. C., 1938. Alma, Kan.

PAULINE DRYSDALE, Smith County Home Demonstration Agent, Division of College Extension (1938; Feb. 1, 1939).
B. S., K. S. C., 1938. Smith Center, Kan.

ERMINA J. FISHER, Barton County Home Demonstration Agent, Division of College Extension (1938; July 1, 1938).
B. S., K. S. C., 1938. Great Bend, Kan.

MARJORIE FORBES, Barber County Home Demonstration Agent, Division of College Extension (1938; Jan. 1, 1939).
B. S., K. S. C., 1938. Medicine Lodge, Kan.

EMMA FREEHLING, Osborne County Home Demonstration Agent, Division of College Extension (1937, 1937).
B. S., University of Nebraska, 1933. Osborne, Kan.

ISABEL GALLEMORE, Franklin County Home Demonstration Agent, Division of College Extension (1937).
B. S., K. S. C., 1928; M. S., ibid., 1932. Ottawa, Kan.

MAE GORDON, McPherson County Home Demonstration Agent, Division of College Extension (1935, 1936).
B. S., K. S. C., 1934. McPherson, Kan.

GERTRUDE GREENWOOD, Atchison County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Effingham, Kan.

GERSILDA GUTHRIE, Assistant Home Demonstration Agent, Division of College Extension (1937; Jan. 1, 1939).
B. S., K. S. C., 1936. Emporia, Kan.

AVIS HALL, Kiowa County Home Demonstration Agent, Division of College Extension (1938; Jan. 1, 1939).
B. S., K. S. C., 1938. Greensburg, Kan.

MILDRED HOFMANN, Marion County Home Demonstration Agent, Division of College Extension (1938; Feb. 1, 1939).
B. S., K. S. C., 1936. Marion, Kan.

MAXINE HOFMANN, Ellsworth County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S .C., 1936. Ellsworth, Kan.

RUTH HOFSESS, Montgomery County Home Demonstration Agent, Division of College Extension (1938; Oct. 19, 1938).
B. S., K. S. C., 1938. Independence, Kan.

Iva Luella Holladay, Leavenworth County Home Demonstration Agent, Division of College Extension (1929).
B. S., K. S. C., 1929. Leavenworth, Kan.

Mary Alice Howard, Cherokee County Home Demonstration Agent, Division of College Extension (1937, 1938).
B. S., K. S. C., 1937. Columbus, Kan.

Ruth Kathrina Huff, Pratt County Home Demonstration Agent, Division of College Extension (1931).
B. S., K. S. C., 1924. Pratt, Kan.

Velma Good Huston, Harvey County Home Demonstration Agent, Division of College Extension (1935, 1937).
B. S., K. S. C., 1931. Newton, Kan.

Agnes Jenkins, Comanche County Home Demonstration Agent, Division of College Extension (1938).
B. S., K. S. C., 1938 Coldwater, Kan.

Alice Jennings, Greenwood County Home Demonstration Agent, Division of College Extension (1937).
B. S., K. S. C., 1923; M. S., ibid. 1936. Eureka, Kan.

Naomi Johnson, Neosho County Demonstration Agent, Division of College Extension (1938; May 7, 1938).
B. S., K. S. C., 1932. Erie, Kan.

Edith Kelley, Cheyenne County Home Demonstration Agent, Division of College Extension (1938; Jan. 1, 1939).
B. S., Baker University, 1937. St. Francis, Kan.

Mildred McBride, Labette County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1933. Altamont, Kan.

Mary McCroskey, Miami County Home Demonstration Agent, Division of College Extension (1937, 1938).
B. S., K. S. C., 1931. Paola, Kan.

Ella Mabel Meyer, Rice County Home Demonstration Agent, Division of College Extension (1932).
B. S., K. S. C., 1907. Lyons, Kan.

Muriel Morgan, Pawnee County Home Demonstration Agent, Division of College Extension (1938; Sept. 1, 1938).
B. S., K. S. C., 1934. Larned, Kan.

Irene Morris, Morris County Home Demonstration Agent, Division of College Extension (1937, 1938).
B. S., K. S. C., 1934. Council Grove, Kan.

Eula May Neal, Johnson County Home Demonstration Agent, Division of College Extension (1930, 1936).
B. S., State Teachers College, Kirksville, Mo., 1927. Olathe, Kan.

Edythe LaVerne Parrott, Crawford County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1929. Girard, Kan.

Minnie Belle Peebler, Sumner County Home Demonstration Agent, Division of College Extension (1932, 1937).
B. S., University of Oklahoma, 1924; M. S., University of Colorado, 1929.
Wellington, Kan.

KATHRYN PETERMAN, Ford County Home Demonstration Agent, Division of College Extension (1937, 1937).
B. S., K. S. C., 1936. Dodge City, Kan.

FLORENCE PHILLIPS, Rawlins County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Atwood, Kan.

JUANITA LOUISE RILEY, Assistant Home Demonstration Agent, Division of College Extension (Jan. 26, 1939). Cottonwood Falls, Kan.

ELIZABETH RONIGER, Allen County Home Demonstration Agent, Division of College Extension (1936).
B. S., K. S. C., 1933. Iola, Kan.

ANNA RUESCHHOFF, Dickinson County Home Demonstration Agent, Division of College Extension (1936, 1937).
B. S., K. S. C., 1936. Abilene, Kan.

BERNIECE ETHEL SLOAN, Pawnee County Home Demonstration Agent, Division of College Extension (1935); resigned Aug. 31, 1938.
B. S., K. S. C., 1928. Larned, Kan.

MARY ETHEL STEWART, Finney County Home Demonstration Agent, Division of College Extension (1938; Jan. 1, 1939).
B. S., K. S. C., 1938. Garden City, Kan.

LEONA ZOE TIBBETTS, Cowley County Home Demonstration Agent, Division of College Extension (1938; Feb. 1, 1939).
B. S., K. S. C., 1938. Winfield, Kan.

MARGUERITE WHITTEN, Reno County Home Demonstration Agent, Division of College Extension (1938; July 1, 1938).
B. S., K. S. C., 1936. Hutchinson, Kan.

LAURA B. WILLISON, Butler County Home Demonstration Agent, Division of College Extension (1937; 1937).
B. S., K. S. C., 1911. El Dorado, Kan.

ANNA MARIAN WILSON, Doniphan County Home Demonstration Agent, Division of College Extension (1936; 1938).
B. S., K. S. C., 1931. Troy, Kan.

LAURA WINTER, Sedgwick County Home Demonstration Agent, Division of College Extension (1925).
Cornell University, 1916. Wichita, Kan.

MARY DUNLAP ZIEGLER, Shawnee County Home Demonstration Agent, Division of College Extension (1928, 1930).
B. S., K. S. C., 1916. Topeka, Kan.

Standing Committees of the Faculty

Admission: Jessie McD. Machir, E. L. Barger, Ina Holroyd, A. B. Cardwell, H. L. Ibsen, George A. Dean, W. T. Stratton, S. A. Nock.

Advanced Credit: S. A. Nock, L. D. Bushnell, W. L. Faith, H. H. King, H. W. Davis, R. R. Dykstra, L. F. Payne, M. A. Durland, Myrtle Gunselman.

Assembly: S. A. Nock, H. W. Davis, E. L. Holton, William Lindquist, V. D. Foltz, C. H. Scholer.

Assignment: Jessie McD. Machir, A. E. White, C. H. Scholer, W. E. Grimes, J. H. Robert, C. V. Williams, S. A. Nock, Margaret Raffington.

Athletic Council: H. H. King, F. D. Farrell, M. F. Ahearn, E. L. Holton, R. A. Seaton, R. I. Throckmorton, G. A. Dean, R. W. Babcock.

Calendar: Mary P. Van Zile, J. C. Peterson, M. F. Ahearn, H. T. Hill, S. A. Nock, William Lindquist, R. R. Lashbrook.

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

Community Chest Executive: F. L. Parrish, H. T. Hill, Mary P. Van Zile, F. D. Farrell, A. A. Holtz, Jessie McD. Machir, Ruth Haines.

Control: I. V. Iles, Margaret M. Justin, R. A. Seaton, R. R. Dykstra, Mary P. Van Zile, R. J. Barnett.

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

Faculty Council on Student Affairs: Mary P. Van Zile, A. A. Holtz, L. E. Conrad, R. I. Throckmorton, Grace E. Derby, Harold Howe, F. P. Root, Helen Saum.

Faculty Loan Fund: R. R. Dykstra, Mary P. Van Zile, L. E. Call, R. A. Seaton, Jessie McD. Machir.

Freshman Induction: S. A. Nock, C. H. Scholer, C. V. Williams, Harold Howe, W. M. McLeod, Margaret Raffington.

Graduate Council: J. E. Ackert, L. E. Conrad, L. E. Call, H. H. King, L. D. Bushnell, J. H. Burt, Margaret M. Justin, R. C. Langford.

Honorary Degrees: R. W. Babcock, Margaret M. Justin, L. E. Call.

Major Musical and Dramatic Entertainments: S. A. Nock, William Lindquist, H. T. Hill, H. W. Bouck, R. H. Brown, W. E. Sheffer, Mrs. R. W. Conover.

Reinstatement: R. I. Throckmorton, W. M. McLeod, J. H. Robert, E. C. Miller, Ella J. Meiller.

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: Mary P. Van Zile, W. H. Riddell, Emma Hyde, R. M. Kerchner, Gladys E. Vail, W. M. McLeod.

Selection of Veterinary Students: R. R. Dykstra, S. A. Nock, J. H. Burt, E. J. Frick, L. M. Roderick.

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

Student Honors: M. W. Furr, R. W. Conover, B. L. Remick, R. F. Morse, A. B. Cardwell.

Use of Rooms: R. A. Seaton, R. I. Throckmorton, Margaret M. Justin, A. E. White, S. A. Nock.

Vocational Guidance: Mary P. Van Zile, R. A. Seaton, R. R. Dykstra, E. L. Holton, Margaret M. Justin, L. E. Call, R. W. Babcock.

Kansas State College of Agriculture and Applied Science

History and Location

Kansas State Agricultural College was established under the authorization of an act of congress, approved by Abraham Lincoln, July 2, 1862, the provisions of which were accepted by the state February 3, 1863. By act of the legislature, effective March 9, 1931, the name was changed to Kansas State College of Agriculture and Applied Science.

Under the enabling act the College received an endowment of 90,000 acres of land, and its leading object as stated by law is—

> "Without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The College was located at Manhattan February 16, 1863, partly in order to receive as a gift the land, building, library, and equipment of Bluemont Central College, an institution chartered by a group of pioneers on February 9, 1858. The Bluemont College building was erected in 1859.

The Agricultural College opened September 1, 1863, in the Bluemont College building. Most of the work of the College was moved to the present site in 1875.

Manhattan is on the Union Pacific and Rock Island railways, U. S. highways 40 and 24, and state highways 13 and 29.

The residents of Manhattan give most cordial support to the College.

PURPOSES

Kansas State College has three purposes: To give to the young men and women of Kansas undergraduate and graduate training in agriculture, engineering, home economics, general science, and veterinary medicine; to investigate, through its experiment stations, the agricultural and industrial problems of Kansas; and by means of its extension division to carry the full benefits of the College to all parts of the state. The college encourages in all students sound thinking and good citizenship.

The second purpose of Kansas State College is to investigate scientifically the state's problems in agriculture and the industries. This work is done through the agricultural and engineering experiment stations, and is directly connected with the educational work of the College, so that the students are benefited directly by scientific investigation. Many opportunities in the United States Department of Agriculture and in the various experiment stations of the country are open to such students as show interest and skill in investigational work.

In addition to the regular instructional work conducted on the campus, the College serves also, through the Division of College Extension, a highly organized system of agricultural education carried directly to the homes of the farmers. The work has been so well developed that the College has come to look upon the whole state as its campus. In addition to the regular staff of the Division of College Extension, many members of the College faculty and the staff of the experiment stations give several weeks of each year to this work.

Buildings and Grounds

The College campus adjoins the western limits of the city of Manhattan. The grounds, laid out by a landscape architect, are planted with a variety of trees and shrubbery, interspersed with lawns and gardens.

Including the campus of 155 acres, the College owns 1,428.7 acres of land at Manhattan, valued at $415,093. Outside the campus proper, all the land is devoted to educational and experimental work in agriculture.

The College buildings are constructed of native limestone obtained in part from the College quarries. These buildings are listed below.

Anderson Hall. Named in honor of John Alexander Anderson (1834-1891), second president of the College, 1873-1879. Erected, 1879, 1883, and 1885. Cost, $79,000. Administration, College post office, student health, alumni office, 4-H office, Division of General Science, and Division of College Extension.

Animal Husbandry Barn. Erected, 1914. Cost, $25,000.

Auditorium. Erected, 1904. Cost, $40,000.

Calvin Hall. Named in honor of Frances Henrietta Willard Calvin (1865—), librarian of the College, 1901-1903; professor of domestic science, 1903-1908. Erected, 1908. Cost, $70,000. Division of Home Economics.

Chemistry Annex No. 1. Erected, 1876. Cost, $8,000.

Chemistry Annex No. 2. Erected, 1904. Cost, $15,000.

Dairy Barn. Erected, 1933. Cost, $45,000.

Dickens Hall. Named in honor of Albert Dickens (1867-1930), assistant in horticulture, 1899-1901; professor of horticulture, 1901-1930. Erected, 1907. Cost, $50,000.

Education Hall. Erected, 1900. Cost, $25,000.

Engineering Hall. Erected, 1909, 1921. Cost, $270,000. Division of Engineering.

Engineering Shops. Erected, 1875, 1890, 1900, and 1905. Cost, $35,000.

Fairchild Hall. Named in honor of George Thompson Fairchild (1838-1901), third president of the College, 1879-1897. Erected, 1894, 1903, and 1927. Cost, $91,750. Division of Graduate Study.

Farm Machinery Hall. Erected, 1873. Cost, $11,250.

Heat, Power, and Service Building. Erected, 1928. Cost, with plant equipment, $375,000.

Horticulture Barn. Erected, 1917. Cost, $1,500.

Illustrations Hall. Erected, 1876. Cost, $4,000.

Infirmary. Erected, 1866; enlarged, 1919. Cost, $6,500.

Kedzie Hall. Named in honor of Nellie Sawyer Kedzie Jones (1858—), teacher of household economy and hygiene, superintendent of sewing, 1882-1884; teacher of household economy and hygiene, 1884-1885; instructor in household economy and hygiene, 1885-1887; professor of household economy and hygiene, 1887-1897. Erected, 1898. Cost, $16,000.

Library. Erected, 1927. Cost, $250,000.

Memorial Stadium. Erected, 1922, 1924. Cost, $260,000

Nichols Gymnasium. Named in honor of Ernest Reuben Nichols (1858-1938), instructor in physics, 1890-1891; professor of physics, 1891-1900; acting president, 1899-1900; fifth president of the College, 1900-1909. Erected, 1911. Cost, $122,000.

Nurses' Quarters. Erected, 1888. Cost, $5,000.

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

President's House. Erected, 1923. Cost, $31,000.

Thompson Hall. Named in honor of Helen Bishop Thompson (1875—), assistant in preparatory department, 1903-1907; professor of nutritions and dietetics, 1918-1922; professor of food economics and nutrition, 1922-1923; dean of the Division of Home Economics, 1918-1923. Erected, 1922. Cost, $125,000.

Van Zile Hall. Named in honor of Mary Pierce Van Zile (1874—), professor of domestic science, 1908-1918; dean of the Division of Home Economics, 1912-1918; dean of women, 1908—. Erected, 1926. Cost $200,000.

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

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

Waters Hall. Named in honor of Henry Jackson Waters (1865-1925), sixth president of the College, 1909-1917. Erected: East wing, 1913; West wing, 1923. Cost, $500,000. Division of Agriculture.

Experiment Station Building. Erected, 1918.

General-Purpose Building. Erected, 1918.

Greenhouses. Erected, 1910, 1927. Cost, $20,000.

Plant Museum. Erected, 1907. Cost, $2,500.

Pump House.

Sheep Barn. Erected, 1927. Cost, $10,000.

Shop Warehouse. Erected, 1918.

Tractor Laboratories. Erected, 1918.

Veterinary Research Laboratory Buildings. Erected, 1914. Cost, $10,000.

Admission

Correspondence about the admission of undergraduate students should be addressed to the vice-president of the College.

REQUIREMENTS FOR ADMISSION

The entrance requirements of the College are broad and flexible, only fundamental subjects being required. These requirements are made upon the supposition that high schools are local institutions in which the courses should be adapted to the needs of the individual localities.

Any person who has completed a four-year course of study in any high school or academy accredited by the State Board of Education will be admitted to the freshman class, except in the Division of Veterinary Medicine.

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

In 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

- Agriculture (4 years)
- Agricultural Administration (4 years)
- Applied Music (4 years)
- Home Economics (4 years)
- Home Economics with special training in Art (4 years)
- Home Economics with special training in Institutional Management and Dietetics (4 years)
- Home Economics and Nursing (5½ years)
- Industrial Journalism (4 years)
- Music Education (4 years)
- Physical Education for Men (4 years)
- Physical Education for Women (4 years)
- Pre-veterinary (1 year)

English, 3 Units; Algebra, 1½ Units; Geometry, 1 Unit; Science, Physical or Biological, 1 Unit

- Business Administration (4 years)
- Business Administration with special training in Accounting (4 years)
- General Science (4 years)
- Milling Industry (4 years)
- Specialized Horticulture (4 years)

English, 3 Units; Algebra, 1½ Units; Geometry, 1½ Units; Science, Physical or Biological, 1 Unit

- Agricultural Engineering (4 years)
- Architecture (4 years)
- Architectural Engineering (4 years)
- Chemical Engineering (4 years)
- Civil Engineering (4 years)
- Electrical Engineering (4 years)
- Industrial Arts (4 years)
- Industrial Chemistry (4 years)
- Mechanical Engineering (4 years)

The above curriculums were formulated on the assumption that high-school subjects named will be offered for admission. A graduate of an accredited high school who in accordance with a state law is admitted as a freshman without all the high-school subjects that are prerequisite to carry the curriculum chosen, will be assigned, if necessary, to a five-hour course in college algebra instead of the regular three-hour course, and to a two-hour course in solid geometry, and may be allowed college credit toward graduation for the extra hours, except in the curriculums in the Division of Engineering and Architecture. A student lacking the required unit of high-school science is held for four hours of college physical or biological science in addition to any science required by his college

curriculum, but may be allowed elective credit toward graduation on such science, except in the Division of Engineering and Architecture.

A student without high-school credit in one unit of algebra and one unit of geometry is not permitted to register for an engineering curriculum, the curriculum in industrial chemistry, or the curriculum in milling industry, until those fixed requirements are completed. Geometry, one unit, is offered each semester in classes provided by the Department of Home Study. A student without high-school credit in one unit of algebra must, during his first semester of attendance, enroll in algebra by correspondence study. A student with one unit of algebra, but without one unit of geometry, should enroll in the geometry class during his first semester of attendance; such a student must complete this requirement in geometry by the close of his third semester of attendance. **A student will not be advanced in classification until these required units are completed.**

A person who is not a graduate of an accredited high school or academy will be admitted to the freshman class if he has completed fifteen acceptable units of high-school work, including the fixed requirements. (A unit is defined as the work in an accredited high school or academy in five recitation periods a week for one school year.) One who offers fourteen such units will be admitted as a freshman, but will be conditioned in one unit. Such deficiency (whether fixed or optional requirement) must be made up during the first year that the student is in attendance. If the optional requirement is not made up within that time, College credits are taken in its place.

Subjects acceptable for entrance, arranged in eight groups, together with the number of units that may be offered, are shown as follows:

GROUP I English	English, three to four units Journalism, one-half or one unit Public speaking, one-half or one unit
GROUP II Foreign Languages	French, one to four units German, one to four units Greek, one to four units Latin, one to four units Spanish, one to four units
GROUP III Mathematics	Elementary algebra, one or one and one-half units Plane geometry, one unit Advanced algebra, one-half unit Solid geometry, one-half unit Plane trigonometry, one-half unit
GROUP IV Natural Sciences	*Botany, one half or one unit *Chemistry, one unit *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 History and Social Sciences	American history, one unit Civics, one-half or one unit 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 Normal Training Subjects	Higher arithmetic, one-half unit Methods and management, one-half unit *Music, one unit Psychology, one-half unit Reviews Grammar, geography, and reading twelve weeks each, *or* two of these, eighteen weeks each } 1 unit

* In courses consisting of laboratory work, wholly or in part, two periods of laboratory work are to be considered the equivalent of one recitation period.

GROUP VII..... INDUSTRIAL SUBJECTS	*Agriculture, one-half to four units *Domestic art, one-half, one, or two units *Domestic science, one-half, one, or two units *Drawing, one-half or one unit *Forging, one-half or one unit *Printing, one-half, one, or two units *Woodwork, one-half, one, or two units
GROUP VIII..... COMMERCIAL SUBJECTS	Bookkeeping, one-half or one unit Commercial geography, one-half unit Commercial law, one-half unit Salesmanship, one-half unit *Shorthand and typewriting, one-half or one unit each

METHODS OF ADMISSION

Admission by certificate. The applicant must apply to the vice-president of the College for a blank, "Vital Statistics," to be properly filled in and returned to the vice-president; **on it he must indicate the curriculum in which he wishes to enroll.** The vice-president will then send to the applicant's high-school principal for an official transcript of record. The registrar will send the student a permit to register shortly before the opening of the semester. **The permit cannot be sent unless the prospective student chooses a curriculum.** The students who present permits at the registration room in Nichols Gymnasium will not have to meet the Committee on Admission, as must those not holding permits. High-school transcripts received later than one week before enrollment cannot be acted upon before the opening of College. An applicant from another state will be accepted on certificate, provided—

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

Admission by examination. Examinations for admission will be held at the College on the dates stated in the College calendar (see page 7 of this catalogue). These examinations are given for the benefit of students who need some additional high school credits to qualify them for admission to the freshman class. Applications for these examinations should be made in advance to the registrar.

Admission as special students. In recognition of the fact that experience and maturity often compensate for lack of scholastic attainment, the College admits as special students persons over twenty-one years of age who cannot meet the regular entrance requirements. For admission as special students in Veterinary Medicine, applicants must have completed at least fifteen units of high-school work. The age limit does not apply to special students in music.

Students who meet the regular entrance requirements may also register as special students for specific work not provided for in the regular curriculums. This classification does not, however, include students who merely fulfill curricular requirements irregularly or who take approved courses in addition to those provided for in their curriculums.

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

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

Admission with advanced credit. The applicant must apply to the vice-president of the College for a blank, "Vital Statistics of Students with Advanced Credit," to be properly filled in and returned to the vice-president. **On it he must indicate all other institutions in which he has been enrolled and the curriculum in which he wishes to enroll in the College.** The vice-president will then obtain the 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 necessary arrangements with his former institutions. **College catalogues covering the period of attendance at the former institutions should be sent with the "Vital Statistics."** Students whose transcripts show credits for college work done in other acceptable institutions are allowed hour-for-hour credit on courses in this College insofar as the credits may be directly applied or can be accepted as substitutes or electives. A student who cannot furnish an acceptable certificate of work for which he wishes advanced credit, may be examined in subjects studied under competent instructors.

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

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

SUMMARY

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

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

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

Matriculated students may secure advanced credit in certain subjects of freshman rank by examination, on account of surplus high-school units over and above the fifteen acceptable units required for admission. On request, the registrar will furnish to the Committee on Advanced Credit a statement of such surplus units, and that committee will conduct the examination within the first thirty days of the semester or summer school. Examinations, however, which affect the assignment of a semester or summer school will be given on the first Saturday of that semester or summer school. After the expiration of the thirty-day period such examinations may be authorized by the student's dean.

If the work of the student shows that advanced credits have been wrongly allowed, such credits will be revoked.

FRESHMAN INDUCTION

Freshmen enrolling for the first time in Kansas State College must be on the campus at 7:30 a. m. on the Friday before the Monday on which upper-class registration begins. Because these freshmen are separately assigned before the other classes, they receive the entire attention of the assigners, and have every opportunity to get desirable class schedules. Furthermore, their deans and faculty advisers meet them in small groups to discuss with them

their work and their ambitions, to take them on tours of the campus, and to introduce them to other members of the faculty. During the week-end, the freshmen may meet the clergymen of Manhattan's churches and get acquainted with the officials of the Y. M. C. A. and the Y. W. C. A., the Student Governing Association, and the Collegiate 4-H Club. Before the first classes meet on the following Wednesday, the freshmen will have had their aptitude tests and the benefit of other freshmen-induction activities, and will be ready to begin their classwork with some understanding of the College and its methods, and some acquaintance with faculty, students, and townspeople.

JUNIOR COLLEGES

Every junior college student who expects to continue his education at this College should arrange his course in junior college to meet the requirements of the curriculum which he expects to pursue here. Different curriculums have different prerequisites; but admission to advanced standing in the College is reasonably flexible, hour-for-hour credit being given for two years' work wherever the work done in an accredited junior college can be directly applied or can be accepted as substitutes or electives in the curriculum chosen. If his course in junior college has been arranged to meet the requirements of the curriculum to be pursued here, a junior college graduate carrying the maximum assignment can usually complete the requirements for the degree of Bachelor of Science in two years.

Detailed statements as to the requirements for graduation in each of the several curriculums at the College are printed in other sections of this catalogue.

Kansas Junior Colleges in Fully Accredited Relations With the College

PUBLIC

Municipal Junior College, Arkansas City
Chanute Junior College, Chanute
Coffeyville Junior College, Coffeyville
Dodge City Junior College, Dodge City
El Dorado Junior College, El Dorado
Fort Scott Junior College, Fort Scott
Garden City Junior College, Garden City
Highland Junior College, Highland
Hutchinson Junior College, Hutchinson
Independence Junior College, Independence
Iola Junior College, Iola
Kansas City Junior College, Kansas City
Parsons Junior College, Parsons

PRIVATE

Central Academy and College, McPherson
College of Paola, Paola
Sacred Heart, Wichita
Saint John's College, Winfield
Saint Joseph's College, Hays
Tabor Academy and College, Hillsboro
Western University, Kansas City

LATE ADMISSION

A student is not admitted to the College later than ten days after the opening of a semester, except by special permission of his dean. Except in summer school, a fee of $2.50 is charged any one assigned after the time set for the close of registration (see the College calendar). **There is no exception to this rule.**

General Information

BUSINESS DIRECTIONS

General information concerning the College may be obtained from the president or the vice-president. Financial matters are handled through the office of the business manager, State Board of Regents, Topeka, Kan.

Prospective students who desire information or catalogues should communicate with the vice-president.

Scientific and practical questions and requests for special advice in subjects in which the College and the experiment stations are prepared to give information, should be addressed to the heads of the departments concerned with the work regarding which information is sought.

Applications for farmers' institutes should be made as early in the season as possible, to the Division of Extension. Requests for the publications of the Agricultural Experiment Station or of the Engineering Experiment Station should be made to the director of the station concerned.

Donations to the Library should be addressed to the librarian, and donations to the Museum to the curator of the Museum.

DUTIES AND PRIVILEGES

In the informal and democratic life of the College, every student is very largely his own preceptor. He is a part of the community life, and as such a responsible member of College society.

College discipline is usually limited to dismissing from College those whose further attendance is unprofitable or inadvisable.

A student must account to the instructor concerned for absences from class. Only the dean of the division in which the student is enrolled can give permission for an absence from College of one or more days. Except by previous arrangement with his dean, a student must not leave College before the close of a semester.

Various societies and clubs give opportunities, in addition to College courses, for literary, scientific, musical, and forensic activity. At various times during the year students present dramatic and musical entertainments under the direction of the Manhattan Theater and the Department of Music.

FEES

Fees Subject to Change. All fees are subject to change at any time by the State Board of Regents.

Payment of Fees. The matriculation fee is paid upon admission to the College. The incidental fee, the student-health fee, the student-activity fee, and laboratory fees are payable at the beginning of each semester.

Students must be prepared to pay these fees in full at the time of registration; assignments cannot be completed without the payment. Checks on out-of-town banks or on local banks are accepted to the amount of the fees.

Tuition. There is no charge for tuition. Class instruction in music is free, but fees are charged for individual instruction. (See Department of Music for statement of fees for music.)

Matriculation Fee. A matriculation or entrance fee of $10 for residents of Kansas, or $20 for nonresidents, is charged all students in College curriculums, but it is not paid by students who enroll in the summer school only, unless they are candidates for a degree at the end of the session. Special students must pay this fee.

Incidental Fee. An incidental fee of $25 a semester, or $20 for the nine-week summer school, is charged residents of Kansas; nonresidents pay $75 a semester, or $50 for the nine-week summer school. The incidental fee for the four-week summer school is $10 for residents of Kansas, or $20 for nonresidents.

Student-health Fees. Undergraduate students pay a student-health fee of $5 a semester, or $2 for the nine-week summer school, for which they receive the services of the Department of Student Health. Graduate students do not pay this fee, or receive the services of the Department of Student Health.

Student-activity Fee. In accordance with a vote by the student body, each undergraduate student pays a student-activity fee of $7.50 a semester, collected by the College with the fees levied by the state. Payment of the student-activity fee admits one to athletic contests and plays presented by the Manhattan Theater. It gives one membership in the Student Governing Association, and entitles one to the student newspaper and the College yearbook. Members of the faculty, employees of the College, and graduate students have the privilege of paying the fee and receiving its benefits. In the nine-week summer school, every student pays a student-activity fee of one dollar.

Recapitulation. To make clear the amount of fees due at the opening of each semester of the College year, **exclusive of laboratory fees,** the following tabular statement is given:

FOR RESIDENTS OF KANSAS

	New Students	*Old Students*
Matriculation (paid only once)	$10.00	None
Incidental (one semester)	25.00	$25.00
Student-health (one semester)	5.00	5.00
Student-activity (one semester)	7.50	7.50
Totals	$47.50	$37.50

FOR NONRESIDENTS OF KANSAS

	New Students	*Old Students*
Matriculation (paid only once)	$20.00	None
Incidental (one semester)	75.00	$75.00
Student-health (one semester)	5.00	5.00
Student-activity (one semester)	7.50	7.50
Totals	$107.50	$87.50

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

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

Laboratory Fees. In all laboratories students pay for supplies used and for apparatus broken or lost. Charges are noted under the descriptions of the several courses; changes in charges are effective June 1. The following tabulation shows the laboratory charges for each semester of the freshman year in the several curriculums. In a few instances these are approximate, since options exist in some curriculums and charges are affected by the subjects chosen.

Curriculum	*First semester*	*Second semester*
Agricultural Administration	$20.55	$10.75
Agricultural Engineering	17.50	13.00
Agriculture	20.55	10.75
Applied Music (not incl. sheet music and private lesson)	14.25*	.....
Architectural Engineering	17.00	7.50
Architecture	18.00	3.50
Business Administration	18.85*	4.75*
Business Administration and Accounting	18.85*	4.75*
Chemical Engineering	18.50	8.50
Civil Engineering	22.00	10.00
Electrical Engineering	13.50	13.50
General Science	20.95	4.00
General Science Pre-veterinary	18.70*	4.00
Home Economics	16.35	9.60
Home Economics and Art	16.35	9.60
Home Economics and Institutional Management and Dietetics	16.35	9.60
Home Economics and Nursing	15.85	6.60
Industrial Arts	17.00	14.00
Industrial Chemistry	22.45	9.75
Industrial Journalism	18.60*	9.25*
Mechanical Engineering	19.00	13.50
Milling Industry	16.65	7.55
Music Education (not incl. sheet music and private lesson)	15.00	5.00*
Physical Education for Men	13.85	7.10
Phsical Education for Women	15.85	6.50
Specialized Horticulture	18.80	5.75
Veterinary Medicine	22.80	5.00

Late Assignment Fees. Except in summer school, for assignment after the close of the regular registration period the fee is $2.50. **There is no exception to this rule.**

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

Commencement Fee. On graduation and on receiving an advanced degree, students pay a commencement fee of $7.50 to cover the cost of the diploma and other commencement expenses.

Transcript Fee. Rules governing issuance of transcripts of record:

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

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

Refund of Fees. **No refund is made on the matriculation fee.** Certain refunds are made on other fees, as shown below, and **no exceptions are made to these rules.**

Refunds are given **only** on the presentation of the fee receipts for various fees paid. Refunds are authorized at the office of the registrar. **The student must keep fee receipts.** To be accepted, claims for fee refunds must be presented at the office of the registrar not later than the end of the semester or summer school for which the fees were paid.

A student permitted to withdraw before the end of the first week of the semester or summer school may receive a refund of all the fees paid for that semester or summer school. The first week ends at 5 p. m., Saturday, following the first day of enrollment.

A student permitted to withdraw after remaining the first week and less than one third of a semester or summer school may receive a refund of one half of the fees paid for that semester or summer school.

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* Approximate figures.

The unused portion of laboratory fees is refunded. All claims for refunds on laboratory deposits must be made within fifteen days of the close of the semester or summer school.

A student dropping music before the end of a semester or summer school may receive a refund of fees paid, proportional to the remainder of the first three fourths of the semester or summer school; that is, the fees for at least the last fourth of a semester or summer school are retained.

OTHER EXPENSES

Textbooks. The cost of textbooks varies considerably from semester to semester and according to to the curriculum pursued. The following tabulation shows the approximate cost of books required during the freshman year:

Curriculum	*First semester*	*Second semester*
Agricultural Administration	$19.50*	$11.00*
Agricultural Engineering	9.00	12.50
Agriculture	19.50*	11.00*
Applied Music	3.25*	3.25*
Architectural Engineering	6.50	13.50
Architecture	5.50	7.00
Business Administration	8.50*	8.50*
Business Administration and Accounting	8.50*	8.50*
Chemical Engineering	14.50	14.50
Civil Engineering	5.50	14.00
Electrical Engineering	11.00	12.00
General Science	17.00*	17.00*
General Science Pre-veterinary	15.00*	16.50*
Home Economics	19.25	14.00
Home Economics and Art	21.00	15.25
Home Economics and Institutional Management and Dietetics	19.25	14.00
Home Economics and Nursing	19.75	14.00
Industrial Arts	17.00	16.50
Industrial Chemistry	13.50*	13.50*
Industrial Journalism	15.00*	10.00*
Mechanical Engineering	9.00	14.50
Milling Industry	16.50	6.50
Music Education	3.25*	7.50*
Physical Education for Men	14.75	6.75
Physical Education for Women	12.50	14.00
Specialized Horticulture	18.00	9.50
Veterinary Medicine	21.00	22.00

Drawing Instruments. In several curriculums, especially in architecture and engineering, drawing instruments are necessary. These range in price from $7.50 to $25 a set.

Gymnasium Suits. Each young woman taking physical training must have an approved gymnasium suit costing about $2.75. In the major course the cost of a suit is $6.75.

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

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

Rooms. Van Zile Hall is a residence for 130 women; other rooms are not furnished by the College, but many rooms are available in the city. A room for two persons costs each occupant from $7 to $9 a month.

Board. In clubs and private boarding houses the cost of board is $4 a week and upward, but students may board themselves for less. The College operates

* Approximate figures.

a cafeteria where all meals may be obtained, except on Saturday evenings and on Sundays, at moderate prices. Food is furnished at cost. The expense to the student depends upon his judgment. A limited number of students may exchange services for a portion of their board.

Board and room may be obtained at a minimum cost of about $5.50 a week.

LAUNDRY. The expense for laundry may be estimated at 40 cents to 70 cents a week.

APTITUDE TESTS FOR FRESHMEN

Aptitude tests are designed to ascertain what features of the students' mental endowment and attainment are strongest. The results are helpful to deans and advisers in judging the intellectual progress of students, and in giving counsel concerning occupational aptitudes, as well as in placing students or graduates in positions.

ASSIGNMENTS

The student is responsible for seeing that he conforms to the requirements of the curriculum in which he is enrolled. His assigner and his dean will assist him in planning his work, but are not responsible for his errors. The catalogue is the authentic source of information. The student should read all catalogue statements concerning assignments and curriculum.

No student may be enrolled in classes or for private lessons in music or other subjects before receiving an assignment, and no assignment is completed until after the incidental fee and any special fees or charges are paid.

Assignments on the dates shown in the College calendar are made in Nichols Gymnasium, where detailed directions are announced by placards. Later assignments are made by the student's assigner during regular office hours, but are subject to checking by the registrar in respect to availability of classes. Classes are closed when the limits as to numbers are reached. A student is not admitted later than ten days after the opening of the semester except by special permission of his dean. An extra fee of $2.50 is charged for assignments secured after the last period provided for assignment of students at the opening of each semester as announced in the College calendar.

A student desiring to take work at any other than the regular time must obtain the written consent of his dean, the head of the department in which the work is to be done, and the dean of the division to which the department belongs.

Each student must take full work unless excused by his dean. No student may take more than regular work except by permission of his dean, and under no circumstances may a student do so who failed or was conditioned or deficient in any subject the preceding semester, or whose average grade was below B.

A student must not carry work by correspondence while enrolled here, except by permission of his dean.

Special requests concerning assignments, and permission to make up deficiencies by outside study under an approved tutor, are acted upon by the student's dean in conference with the heads of the departments involved.

CHANGES IN ASSIGNMENTS

Deans do not alter assignments within two weeks of the end of a period covered by midsemester or final scholarship-deficiency reports.

No student may drop a study or modify his assignment except by a reassignment; 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 reassignment.

WITHDRAWAL FROM COLLEGE

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

AUDITING CLASSES

Auditing a class consists in attending it regularly without other participation, and without credit. Only persons having written permits may audit classes. Permission to audit is issued to (*a*) any person who is enrolled for credit, by the dean in charge of his assignment; (*b*) any employee of the College not enrolled for credit, by the dean of the division in which the person is employed, with approval of the head of the department in which the course is offered; (*c*) any other person, on payment of a fee of one dollar a credit hour, by the dean of the division in which the courses are offered, with the approval of the head of the department. Laboratory courses may not be audited.

SCHOLARSHIP DEFICIENCES

Probation

Any freshman student who receives at the end of a semester deficiencies (grades of F or Con) in one third of the work to which he is assigned, or any other student who receives at the end of a semester deficiencies in one fourth of his work, is automatically placed on probation for one semester, and his parent or guardian is informed of the fact. A third such probation automatically involves dismissal from College.

Dismissal

Any freshman who receives at the end of a semester deficiencies in one-half of his work, or any other student who receives at the end of a semester deficiencies in two-fifths of his work is automatically dismissed from the College. The deans notify parents and guardians when students are dismissed or put on probation on account of scholarship deficiencies.

Reinstatement

Students dismissed at the end of the first semester are excluded until the beginning of the next summer session. Those dismissed at the end of the second semester are excluded until the end of the next fall semester. During this period of dismissal the student must not habitually appear upon the campus or enter any classes. Any student dismissed for scholarship deficiencies may petition in writing, on a form provided by the College, for immediate reinstatement. The Committee on Reinstatement considers such petitions, granting reinstatement in exceptional cases only.

ABSENCE AND TARDINESS

Each student must appear at the first exercise of his classes after he is assigned. Students must be present on the first day of each semester or render a reasonable excuse. All absences are reported from the first day of the semester, even though the student enrolled late. Failure to take out an assignment is not accepted as an excuse for absence from classes. A student is not admitted later than ten days after the opening of the semester except by special permission of his dean.

Each undergraduate, except seniors, must attend every exercise of a class to which he is assigned, unless exempted under the provision that a junior student

has the privileges of optional attendance if, during the last two semesters he attended this College, he made not fewer than thirty points each semester, with an average record of not fewer than two points per credit hour each semester and no grades below passing.

All absences and all cases of tardiness must be promptly reported on the "absence blanks." Permission for necessary absences from College for a day or more must, in all cases, be previously obtained from the dean. Any student desiring to be excused for the day from certain classes must apply in advance to the instructors in those subjects.

At the beginning of each class period the instructor takes the attendance. A late-comer may have his record of absence changed to one of tardiness if at the end of the class he gives his instructor, on the absence blank, a written statement of his presence.

Any class is excused if for any reason the instructor fails to report at the end of ten minutes after the beginning of the recitation period, unless the instructor sends word that he will be there later.

Before 5 p. m., instructors send signed reports of absences for the day to the deans. Excuses submitted by students are transmitted with a recommendation concerning the absence, which only the dean can excuse. Excuse for an absence does not relieve the student of responsibility for lecture, recitation, or laboratory work lost by absence.

If, after due warning, a student is persistently inattentive to his work, his dean will report him to the president for suspension.

EXAMINATIONS

Final examinations are held during the last four days of each semester, according to a definite schedule; students who are to be graduated at the close of the semester take their examinations earlier, usually at the regular hours for the respective courses.

No regular examination may be given at a date earlier than the one scheduled except that, at the discretion of the head of the department, a student may take his examination with another class in the same subject instead of with his own class; in cases of extreme importance the student's dean may authorize an earlier examination.

Any student who receives a grade of A for the semester, in any subject, and whose absences for all causes from the class in that subject do not exceed one tenth of the number of times the class is scheduled to meet during the semester, may be excused from the final examination in that subject, at the discretion of the instructor; provided, however, that instructors are to announce such exemption lists in their respective subjects not earlier than the last session of the class preceding the final examination.

Examinations to remove conditions are held on the fourth Saturday of each semester. A student who has received the grade of Con may take such conditional examination, if he applies for permission to his instructor or department head not later than the Tuesday evening preceding the Saturday set for the examination. If a student does not at the first opportunity pass an examination in a subject in which he is conditioned, his grade is changed from Con to F, except that in individual instances the student's dean may authorize such examination at a special date.

Permission for examination in subjects not taken in class or to make up failures by special examination must be obtained, on recommendation of the professor in charge, from the dean of the division in which the student is assigned. Permission to take such examination is not granted unless the preparation for it is made under an approved tutor. All such examinations are under the immediate supervision of the professor in whose department the subject is.

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

GRADES

Grades are A, B, C, D, Con, and F, having the following significance:

A, distinguished achievement; only five to ten percent of the students in a course are apt to get A.

B, superior achievement; about twenty-five percent of the students in a course are apt to get A or B.

C, average achievement; about half the students in a course are apt to get C.

D, passed; below average; about twenty-five percent of the students in a course are apt to get D, Con, or F.

Con, conditioned, for unsatisfactory work. The result of examinations to remove conditions is reported simply as D (passed) or F (failed). If such examinations are not taken at the first opportunity, the grade Con automatically becomes F, unless in the meantime the student has reënrolled in the course; then Con shall not become F if the student completes the course satisfactorily.

F, failed; the work must be repeated in class or under an approved tutor.

Inc, meaning incomplete, is reported when, in the judgment of the instructor, the student deserves further time to complete work which has been excusably interfered with. This is only a temporary report and in no way prejudices the student's final grade in a course. Students in laboratory and industrial work must put in at least four-fifths of the required time in order to get a passing grade in the subject. Should the required time minimum not be reached, a mark of Inc is reported if the quality of the work done is satisfactory and F if it is unsatisfactory. Incomplete work for which a mark of Inc has been reported, if not made up within the first subsequent semester the student is in attendance, automatically becomes an F. The dean concerned may, however, extend the time in meritorious cases, if he sends the registrar notice of such extension within the "first semester" time limit.

The distribution of grades indicated above applies to large numbers, and is not necessarily true of small numbers. It is not a foregone conclusion, for example, that one in a class of twenty must fail or even that one in a class must get an A. In a small group the chances are great of a departure from the normal. Such a departure should of course be recognized in the grades issued. In the long run the accumulated grades for a series of small classes should, however, approach the normal distribution.

REPORT OF GRADES

(1) On the fifth and the ninth Saturday of each semester; (2) not later than 6 p. m. on the last day of the first semester; (3) and not later than 6 p. m. on the day after the close of the second semester, reports of all grades below passing on those dates are sent to the students concerned and the deans. The dates appear in the College calendar; these reports are an imperative duty of all instructors. The first two reports are made in percentages on a scale of seventy for passing. The reports at the end of the semester are on the letter system.

Students desiring reports of intrasemester grades must supply their instructors with properly filled official cards after the fifth or the ninth Saturday of the semester. Instructors will make reports so requested to the students or send them to the student organizations.

The instructor prepares for each student a semester grade based on the examination and classwork, and must report this to the registrar for record within one week after the close of the semester.

If a student drops a subject before midsemester a mark of Wd (withdrawn) is reported. Subjects may not be dropped from assignments within the last two weeks of a period covered by midsemester or final scholarship-deficiency reports.

If a student withdraws from College before midsemester a mark of Wd is reported for each subject, irrespective of the standing of the student in the

subject. Regardless of the time of withdrawal, however, a final grade shall be reported, if all the required work of a course has been completed. If a student goes through the first half of the semester, but not the second half, a half-semester grade is reported for record, and designated as such; but a subject dropped at any time after midsemester on account of failure is given a semester grade of F.

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

The result of an examination to remove a condition is reported in quadruplicate to the dean of the student, who transmits copies to the registrar, the student, and the student's assigner. The same procedure is followed in reporting a grade to replace Inc and in reporting corrections of grades.

Instructors are to leave all class books on file in the proper department or with the president of the College when severing their connection with the institution.

THE POINT SYSTEM

For each hour of work assigned, the student receives points, according to the grade attained, as follows: Grade A, 3 points; B, 2 points; C, 1 point; and D (or lower), no points. For graduation the total requirement in points is the same as in hours. Above the freshman year classification is based on the same requirement in points as in hours.

Seniors meeting the graduation requirement in hours but failing to meet it in points must take further courses designated by the dean of the division in which their major work lies, until the requirement in points is met.

HONORS

In each of the divisions of the College, "sophomore honors" are awarded at commencement to not more than five percent of the sophomore class having the highest standing up to the close of the sophomore year.

In a similar manner "senior honors" are awarded to not more than ten percent of the senior class having the highest standing during their junior and senior years.

For honors, the grades for each semester hour have the following values: A, 3; B, 2; C, 1; D, 0; Con. minus 1; and F, minus 2. The honor grade is found by dividing the sum of the honor points by the number of semester hours of work taken. To receive honors, the student must have an average of B or higher.

The diplomas of the highest three percent of the senior class are inscribed "with high honor" and of the remainder of the highest ten percent "with honor."

CLASSIFICATION OF STUDENTS

The Committee on Admission classifies new students. To be classified as a freshman on entrance a student must be a graduate of an accredited high school, or offer fifteen units of acceptable high-school work. A student offering fourteen acceptable high-school units is classified as a conditioned freshman. A student is not advanced in classification until the required entrance units are completed. A student is classified as a sophomore, junior, or senior when he has credit in a number of hours and also of points nine less than the full number of hours required in one, two, or three years, respectively, of the curriculum in which he is enrolled. The registrar reclassifies students each academic year before the opening of the first semester.

CREDITS FOR EXTRACURRICULAR WORK

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

Subject	*Per semester*	*Total*
Orchestra	½	4
Band	½	4
Choral Ensemble	½	4
Debate	2	4
Oratorical Contest	2	4
Kansas State Collegian journalism	1	4
Agricultural Student journalism	1	4
Kansas State Engineer journalism	1	4

To obtain credit on one of these subjects, the student must be regularly assigned to it in accordance with the general rules governing assignments, but may be assigned only upon the written recommendation of the instructor in charge of the work. This recommendation is filed in the office of the student's dean, and is effective until revoked.

Credits obtained in the above-named subjects may be counted as electives in the student's curriculum, or may be formally substituted for required subjects if the curriculum does not offer sufficient elective opportunity. Approval as electives or substitutions is obtained only through the regular procedures. A total of not more than eight semester hours may be allowed a student for these subjects, and not more than two of these may be obtained in any one semester.

BIBLE STUDY

Bible study is an elective. Two semester hours are granted for each completed one-year course. A student may get credit for not more than two courses. Instructors must have College approval as tutors; the Department of Education supervises the work and conducts the examination for credit.

COURSE NUMBERS

Each course offered bears a number indicating in a general way the classification of students for whom it is given. Courses for undergraduates bear numbers 101 to 199, courses for undergraduates and graduates bear numbers 201 to 299, and courses for graduates only bear numbers 301 to 399. Each department numbers its courses independently.

CLASSES

The minimum numbers for which classes are organized are as follows:

Freshmen	15
Sophomores, juniors, or seniors	7

This rule is varied only by special permission of the Board of Regents.

COLLEGE ASSEMBLY

The College Assembly is held one hour fortnightly. Students and faculty gather in the College auditorium for the exercises, which consist of devotional services, usually conducted by a Manhattan minister; music by soloists, ensembles, or the College orchestra; and an address by a prominent visitor or a member of the College faculty.

COLLEGE PUBLICATIONS

The official organ of the College is *The Kansas Industrialist,* published weekly and printed at the College by the Department of Industrial Journalism and Printing. It discusses the work of the College, investigations of the Experiment Stations, and local and alumni news. *The Kansas Industrialist* will be sent to any address for $3 a year. Alumni having active membership in the Alumni Association receive *The Kansas Industrialist* free of charge.

The Kansas State Collegian, a semiweekly newspaper, and *Royal Purple,* the College year book, are published by the Board of Student Publications.

The Kansas Agricultural Student is issued quarterly by the Agricultural Association of the Division of Agriculture, and *The Kansas State Engineer* is published by students in the Division of Engineering.

COLLEGE POST OFFICE

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

PARKING REGULATIONS

Public Parks. There are two public automobile parks for general use by students, faculty members, employees, and visitors. One of these is northwest of Engineering Hall and the other is north of Waters Hall. No permits are required for the use of these parks.

Restricted Parks. To accommodate crippled students and others having special need for parking spaces, a few small parks have been provided; permits for the exclusive use of these parks are issued when necessary. Each stall is assigned to a certain car and may be used by that car only.

Parking on Driveways. No parking is permitted on driveways except during public exercises, and for a short time before and after them.

BOARDING AND ROOMING HOUSES

Students who are not residents of Manhattan live in rooming houses approved by the College administration. The Department of Student Health inspects the rooms and the Faculty Council on Student Affairs issues certificates of approval for those that are satisfactory. Young women should address correspondence about rooms and board to the dean of women, and upon arriving in Manhattan should visit her office or that of the secretary of the Y. W. C. A. Young men should address such correspondence to the adviser to men, and visit his office upon arriving in Manhattan.

Van Zile Hall, a residence hall which accommodates 130 women students, is located on the campus. It is a beautifully furnished, well-equipped fireproof building of stone. Applications for rooms are considered in the order in which they are received. To validate an application for residence in the Hall a deposit of $10 is required, which will be refunded in case of a change in plans, if request is made to the dean of women by August 25. The contract for room and board in Van Zile Hall is for a full semester (eighteen weeks) and the obligation is canceled only for reasons satisfactory to the dean of women. All correspondence about the residence hall should be addressed to the dean of women.

SELF-SUPPORT

Students of limited means are encouraged and aided in every possible way; but unless they are exceptionally strong, such students should take lighter work by extending their courses, if they are obliged to give any considerable time to self-support. As a rule, a student should have means for at least a semester, as some time is required to make acquaintances and to find suitable work.

The College employs student labor to the extent of about $6,000 a month, at rates varying from 25 to 40 cents an hour, according to the nature of the employment and the experience of the employee. Most of this labor is on the College farm, in the orchards and gardens, in the shops and the printing office, and for the janitor. Students of exceptional ability are sometimes employed in special duties about the College. Many students secure employment in town; and there is some opportunity for obtaining board in exchange for work with families either in town or in the neighboring country.

About a third of the students support themselves wholly, while another third support themselves in part.

Undergraduate Degrees

To be graduated, a student must complete a prescribed curriculum. Under special conditions such substitutions are allowed as the interests of the student demand. The total requirement, including military science or physical training, or both, is about 120 to 140 semester hours, according to the curriculum taken. (A semester hour is one hour of recitation or lecture work, or three hours of laboratory a week, for one semester of eighteen weeks. When no ambiguity is involved, the term "hour" is used for "semester hour" in this catalogue.)

To be considered as a candidate for an undergraduate degree, a student must have completed in residence twenty of his last thirty undergraduate hours with not less than thirty hours of undergraduate work at this institution. Resident work is interpreted to include all regularly scheduled class or laboratory instruction given by the regular College faculty, exclusive of Extension courses. In special cases candidates will be considered who have completed three full years of work in this institution and have taken their last year of work in an institution approved by the faculty.

Seniors meeting the graduation requirement in hours but failing to meet it in points must take further courses designated by the dean of the division in which their major work lies, until the requirement in points is met.

No student is considered a candidate for graduation in the spring who, at the beginning of the first semester, is deficient more than nine hours in addition to his regular assignment for the year. Candidates desiring to be graduated must make application to the registrar at least thirty days before the date of graduation. The candidate is responsible for complying with all requirements.

A candidate for graduation must be present in person, unless he has arranged in advance to receive his degree *in absentia*. The candidate must apply for this privilege to his dean. Degrees are conferred in the spring and in the summer. Candidates must be present at the Baccalaureate Exercises, unless excused by the Council of Deans.

DEGREES

The following degrees are conferred on completion of four-year curriculums:

Bachelor of Science.
Bachelor of Science in Agriculture (Agriculture; Agricultural Administration; Specialized Horticulture)
Bachelor of Science in Agricultural Engineering
Bachelor of Science in Architecture
Bachelor of Science in Architectural Engineering
Bachelor of Science in Business Administration (Business Administration; Business Administration and Accounting)
Bachelor of Science in Chemical Engineering
Bachelor of Science in Civil Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Home Economics (Home Economics; Home Economics and Art; Home Economics and Institutional Management and Dietetics)
Bachelor of Science in Industrial Arts
Bachelor of Science in Industrial Chemistry
Bachelor of Science in Industrial Journalism
Bachelor of Science in Mechanical Engineering

Bachelor of Science in Milling Industry
Bachelor of Music
Bachelor of Science in Music Education
Bachelor of Science in Physical Education
Doctor of Veterinary Medicine

The degree of Bachelor of Science in Home Economics and Nursing is conferred upon those who complete the five-and-one-half-year curriculum in Home Economics and Nursing.

For a second bachelor's degree an additional year of not fewer than thirty semester hours is required. This work is in charge of the dean who administers the curriculum chosen.

College Organizations

THE STUDENT GOVERNING ASSOCIATION

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

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

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

THE CHRISTIAN ASSOCIATIONS

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

All men students are welcome as members of the College Y. M. C. A. There is no fixed fee, but each member gives what he can afford. The work of the organization is carried on by a student cabinet, composed of the officers and the chairmen of the standing committees. Each year a freshman commission is organized for the benefit of the new men, especially those who have had Hi-Y experience. The Y. M. C. A. maintains an employment bureau for men students, and has a complete list of rooms and boarding places for men. The permanent secretary is glad to correspond with prospective students and to receive them for interviews.

THE YOUNG WOMEN'S CHRISTIAN ASSOCIATION

The College Y. W. C. A. maintains an office and a reading room. The full-time secretary has the assistance of the student leaders of the association and of a group of local women. Through its college sister work the association endeavors to reach every new woman student. Any young woman who expects to enter College may write to the secretary of the association for assignment to a college sister who will help her to make campus adjustments during the opening weeks of the College year. Coöperating with the dean of women, the association helps women students to find satisfactory rooms and boarding places, and maintains an employment bureau for them.

THE NEWMAN CLUB

On alternate Sundays, the Newman Club, an organization of Catholic students, holds meetings devoted to religious study supervised by the local pastor. The College authorities recognize this Bible study by allowing a two-hour credit for it when duly certified. There are social as well as religious meetings. The club is affiliated with the national organization of Newman clubs of the state universities and colleges. Its aim is to foster sound morality, to develop character, and to promote the knowledge and practice of their faith among Catholic students.

HONOR SOCIETIES

A chapter of Phi Kappa Phi, membership in which is open to honor students in all departments of American universities and colleges, was installed at Kansas State College on November 15, 1915. Scholarship determines the eligibility of undergraduates for membership.

A chapter of Sigma Xi was installed at Kansas State College in March, 1928. Members of the faculty and graduate students who have shown noteworthy

achievement in original investigation are eligible for election to active membership; seniors who have shown marked excellence in two or more departments of pure or applied science are eligible for election to associate membership.

A chapter of Gamma Sigma Delta, national honor society of agriculture, was established at Kansas State College in May, 1914. Its object is the encouragement of scholarship in agricultural science and education, and of excellence in the practice of agricultural pursuits. Seniors in the upper one fourth of their class are eligible for election by the faculty members of the local chapter.

A chapter of Omicron Nu was established at Kansas State College in 1915. Its object is the recognition and promotion of scholarship, leadership, and research in home economics. From the upper one-fourth of their class fifteen percent of the seniors, and from the upper one-fifth of their class five percent of the second semester juniors may be elected by the active faculty and student members of the local chapter.

HONORARY AND PROFESSIONAL ORGANIZATIONS

There are a number of honorary and professional fraternities, sororities, and societies in the College, membership in which is based on scholarship and achievement. They seek to promote the interests of the various divisions or departments which they serve or represent. The list of organizations follows:

Organization	*Division or department*
Alpha Kappa Psi	Business
Alpha Zeta	Agriculture
Blue Key	Senior Men
K Fraternity	Athletics
Kappa Eta Kappa	Electrical Engineering
Mortar and Ball	Military
Mortar Board	Senior Women
Mu Phi Epsilon	Music
Phi Delta Kappa	Education
Phi Epsilon Kappa	Physical Education
Phi Lambda Upsilon	Chemistry
Pi Kappa Delta	Debating
Pi Mu Epsilon	Mathematics
Quill Club	College Writers
Scabbard and Blade	Military
Sigma Delta Chi	Industrial Journalism
Sigma Tau	Engineering
Tau Epsilon Kappa	Architecture
Theta Sigma Phi	Industrial Journalism

AMERICAN CHEMICAL SOCIETY

The Kansas State College section of the American Chemical Society arranges during the school year for monthly meetings which are usually addressed by eminent chemists from out of town.

SCIENCE CLUB

The Science Club, meeting monthly, is an organization of instructors, students, and others interested in science. Its programs include popular lectures by prominent men of science, papers giving the results of research work at the College, and discussions.

AGRICULTURAL SOCIETIES

The Agricultural Association meets during regular agricultural seminar periods. Special meetings are held at the call of the president of the association. All resident students enrolled in the Division of Agriculture are members. The objectives of the association are to encourage and support divisional activities; to correlate the work of various clubs and other organizations of students within the division; and, in general, to have leaders elected and authorized to speak for the student body of the division at all times.

The Agricultural Economics Club meets on the first and third Tuesdays of each month. Membership is open to students enrolled in the curriculum in

agricultural administration, to majors in agricultural economics, to graduate students majoring or minoring in agricultural economics, and to members of the faculty whose work lies within the field of agricultural economics. The objectives of the club are to promote interest in agricultural economic topics and to further the acquaintanceship of faculty and students. Faculty members and outside speakers are usually secured for programs. Some social meetings are held each year.

The Alpha Mu Club meets on the second Monday of each month during the college year. Its object is to promote interest in milling and its closely associated fields. Membership is open to those taking the milling industry curriculum, the milling faculty, and others associated with the milling industry. Outside speakers are frequently secured for programs.

The Block and Bridle Club meets on the first and third Tuesdays of each month. Membership is open to students majoring in animal husbandry and to students signifying their intention of majoring in animal husbandry. The object of the club is to promote the interests of animal husbandry in the College and in the state. Livestock problems of all kinds are discussed, and members of the faculty and outside speakers are secured for addresses on special topics.

The Dairy Club meets on the first and third Tuesdays of each month. Membership is open to anyone who is taking any four-year curriculum in the Division of Agriculture and also to anyone actively engaged in dairy work at the College. The object of the organization is the furtherance of dairying in Kansas. Current topics and records of the dairy breeds are read and lectures on special subjects are given by faculty and outside speakers.

The Horticultural Club meets the first and third Mondays of each month during the College year. Its object is to promote the horticultural interests of the state and to afford opportunity for students to improve their knowledge of horticulture. Faculty members and students of the college interested in horticulture are eligible for membership. Students present the majority of the programs.

The Klod and Kernel Club meets on the second and fourth Tuesdays of each month. Membership is open to all students and members of the agronomic faculty. The object of the society is to arouse more interest in agronomic work and to help students and faculty members of the department of agronomy to become better acquainted. Faculty members and outside speakers appear on the programs.

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

ENGINEERING SOCIETIES

All the students enrolled in the Division of Engineering and Architecture are members of the Engineering Association, which meets usually once each month. In addition, the students in agricultural, chemical, civil, electrical, and mechanical engineering are organized as student branches of the American Society of Agricultural Engineers, the American Institute of Chemical Engineers, the American Society of Civil Engineers, the American Institute of Electrical Engineers, and the American Society of Mechanical Engineers, respectively. The Gargoyle Club conducts the meetings of the students in architecture. The Kansas State Glider Club is an organization open to all students interested in glider flying; meetings are held weekly, and flying operations are supervised by experienced glider pilots.

The purpose of these various societies is to acquaint the students with the latest developments in engineering and architecture, to give them more definite ideas as to the opportunities and the requirements for success in their profes-

sions, to promote acquaintance and fellowship among the students, and to further the interests of the Division of Engineering and Architecture in the College and in the state.

POPENOE CLUB

The Popenoe Entomological Club meets twice a month. The object of the club is to promote interest in entomological work at the College. Membership is open to students and faculty members interested in insects. Entomological topics are discussed by members of the club and outside speakers. The club sponsors occasional field trips.

HOME ECONOMICS CLUB

The Margaret Justin Home Economics Club includes all students in the Division of Home Economics. Its purpose is to promote professional interest by means of social contacts and talks by leaders in home economics. It is affiliated with the American Home Economics Association and leads to continued membership in that organization after graduation.

VETERINARY MEDICAL ASSOCIATION

The Junior Chapter of the American Veterinary Medical Association is a student organization in affiliation with the American Veterinary Medical Association. The object of the chapter is to promote interest and knowledge in veterinary science. The organization meets on the second and fourth Thursdays of each month; students present papers, and members of the faculty and outside speakers also appear on the program.

COLLEGIATE 4-H CLUB

The Collegiate 4-H Club is composed of former 4-H Club members among the College students. Its purpose is to maintain the interest of its members in extension and 4-H Club work, to develop more effective leadership in such work, to maintain and increase a loan fund for 4-H Club members in college, and in general to aid and promote the well-being of former 4-H Club members at Kansas State College. It participates actively in many campus activities and lends its aid to the various extension activities conducted on the campus or in connection with the College. The club publishes each year the yearbook of 4-H Club work in Kansas known as the "Who's Whoot." Outside speakers are frequently secured, and the organization sends representatives to various national or interstate student conventions or meetings.

THE COLLEGE BANDS

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

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

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

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

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

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

THE COLLEGE ORCHESTRA

The Orchestra is a student organization connected with the Department of Music, membership in which is voluntary. Its daily training under competent leadership results in the acquisition of a considerable repertory.

ATHLETIC ORGANIZATIONS

Kansas State College gives complete physical training. In addition to gymnasium classes and the physical training of the military corps of cadets, intramural sports as well as varsity games are popular. Every encouragement is given to a man who wishes to play football, basketball, baseball, or tennis, or to take part in track athletics. Only the most proficient enter intercollegiate contests, but others receive sound instruction and get considerable enjoyment from their athletics. All professionalism is strictly repressed and the athletic rules adopted by the faculty prevent students deficient in their studies from participating in intercollegiate games. Kansas State College is a member in good standing of the Big Six Conference.

Young women as well as young men have opportunity to develop themselves physically. In the part of the gymnasium reserved for their use they not only carry out a program of physical education, but likewise enjoy many intramural sports, such as basketball, tennequoit, dancing, and swimming. Orchesis, a national interpretive dancing organization, the swimmers' Frog Club, and other athletic groups are active at the College. All the work of the Women's Athletic Association, as well as in the required courses, is under the supervision of the professor of physical education for women.

LITERARY SOCIETIES

The literary societies of the College, four in number, are wholly student organizations, holding weekly meetings in the College buildings. The Ionian and Browning societies admit only women to membership; the Hamilton and the Athenian societies admit only men. These societies jointly maintain an oratorical board which arranges for the intersociety oratorical contest.

COSMOPOLITAN CLUB

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

Loan Funds

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

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

1. A student loan is made only when a note is signed by the borrower and one other responsible person, preferably the borrower's parents or guardian. This endorser must be recommended by his bank as of good financial standing and as otherwise satisfactory as an endorser.
2. In general, loans will be made only to juniors, seniors, and graduate students who have attended Kansas State College for at least one semester, and preferably for one year, and who have a scholarship average of at least C.
3. The maximum total amount loaned from all loan funds to one individual usually shall not exceed $250.

ALUMNI LOAN FUNDS

The Alumni Loan Fund. The Alumni Association of Kansas State College has created a loan fund, chiefly from payments for life memberships in the association. Members pay the association $3 a year, but on payment of $50 in one sum they are relieved from further dues. If husband and wife are both eligible for membership they may obtain joint membership by paying $75. The fund so created, about $70,412, is administered by a committee appointed by the directors of the Alumni Association. The committee announces no specific rules governing the granting of loans, but in general gives preference to junior and senior students, and to loans of smaller amounts on short time over larger amounts which cannot be paid for several years. Interest is charged at the rate of six percent a year. Alumni are urged to take life memberships and thus add to the funds available to worthy students.

Acknowledgment of additions to the life membership fund is made in this place from year to year. Since the last report, up to and including September 20, 1938, the following alumni have completed payments for life membership: Lyman Abbott, A. W. Aicher, Theodore Appl, W. R. Ballard, W. L. and Alta (Handlin) Blizzard, James P. Bonfield, Andrew Boss, David G. Brandt, Vira Brown, Frank S. Campbell, L. L. Compton, Ralph Conrad, Ralph M. Crowell, William E. Forney, Sina Faye Fowler, Myrtle Gohlke, Lloyd O. Gugler, John Oscar Johnson, Aldene (Scantlin) Langford, C. F. Laude, Allen V. Lester, Dan McLachlan, Abby L. Marlatt, F. A. Marlatt, A. H. Montford, Louise S. Moyer, Elmer L. Munger, Karl B. and Madge (Rowley) Musser, Norris W. Nelson, John L. Noble, Mildred (Bobb) Paulsen, Marion E. Phillips, H. A. and Edna (Grizzell) Praeger, David A. Reid, Earl H. Regnier, Harold G. Rethmeyer, Henry W. and Maud (Sauble) Rogler, Carl H. Rupp, Mrs. Lucile O. Rust, Glen R. Sawyer, Herbert G. Schultz, Lois Scripter, Harry G. Sitler, Louis V. Skidmore, Oscar Steanson, Jean P. Sullivan, Raymond J. and Amy (Jones) Tillotson, Theodore R. Varney and O. O. Wolf. This list brings the total of paid-up life members to 890.

GIFTS, MEMORIALS, AND BEQUESTS

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

Albert Dickens, '93, Memorial. $1,912.70, contributed by friends, alumni, and faculty members.

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

J. Chester Allen, '82, Memorial. $1,000, given by E. A. Allen, '87, in memory of his brother.

Frances M. Allen Memorial. $1,000, given by E. A. Allen, '87, in memory of his wife.

Vilona Cutler, '17, Endowment Membership. $1,000; a loan to relatives of the donor and, upon repayment, to other students.

J. U. Higinbotham, '86, and Mrs. Higinbotham. $1,000.

Nellie Sawyer Kedzie, '76, Unit. $801.60, contributed by friends and former students.

Samuel and Eleanor Thackrey Memorial. $696.75, given by their descendants.

Kary C. Davis, '91, Memorial. $500, given by his widow, Fanny Waugh Davis, '91.

Lydia Gardiner Willard Fund... $500, given by her husband, J. T. Willard, '83.

Venus Kimble Wilson, '08, Memorial. $400, given by her husband, Bruce Wilson, '08.

Albert Dietz, '85. $117.97.

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

Clara F. Castle, '94, Memorial. $100.

Jacob Lund, '83, Memorial. $70.

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

E. C. Trembly, '95, Memorial. $50.

Ethel Arnold, '18, Memorial. $26, contributed by her students.

OTHER UNITS IN THE ALUMNI LOAN FUND

Manhattan Chamber of Commerce. $3,023.72.

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

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

Cosmopolitan Club. $700, for foreign members of the Cosmopolitan Club.

Klod and Kernel Klub Unit. $200, for students in the Department of Agronomy.

Future Farmers Unit. $180, from high-school vocational agriculture students and teachers.

Phi Kappa Phi. $150, for members or pledges of Phi Kappa Phi.

Sigma Delta Chi. $150, for students in Industrial Journalism.

Classes:

Class of 1916. $100.
Class of 1919. $622.47.
Class of 1922. $106.39.
Class of 1923. $76.16.
Class of 1926. $9.13.
Class of 1927. $3.10.

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

Class of 1929. $674.12.
Class of 1930. $647.30.
Class of 1931. $592.38.
Class of 1932. $647.37.
Class of 1935. $57.50.
Class of 1936. $111.50.
The Architectural Unit. $20.

LOAN FUNDS ADMINISTERED BY THE COLLEGE

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.

Social Club. $3,000, loaned by the Kansas State College Social Club.

Belle Selby Curtice, '82. $1,000, available to women in the curriculum in Home Economics.

D. A. R. $750, available to men and women students.

Student Emergency. $540, available for short-term loans not in excess of $15.

Franklin Literary Society. More than $300.

Woman's Club of Manhattan. Available to both men and women.

Housemothers' Club. Available to undergraduates.

LOAN FUNDS NOT ADMINISTERED BY THE COLLEGE

American Association of University Women. Maintained by the Manhattan branch of the Association and available to a graduate woman student.

State Federation of Women's Clubs. For women students.

Women's Pan-Hellenic. For women students.

P. E. O. For women students.

Masonic. Established by the Knights Templar Commandery, available to junior and senior men and women. Applicants should seek recommendations from the commandery with whose members they may be acquainted.

Order of the Eastern Star. For members and sons and daughters of members if juniors or seniors. Applications are passed on in August for the first

semester and in January for the second, but should be filed considerably earlier. For information address the Grand Secretary, The Order of the Eastern Star, National Reserve Building, Topeka.

Rebecca Dubbs, '28, Memorial. Established by members of her family to assist students in any college in Kansas who are graduates of any high school in Ness, Lane, Scott, Wichita, Greeley, or Gove counties. For information address Mr. G. 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.

Sears, Roebuck. Fifteen scholarships of $150, the annual gift of Sears, Roebuck and Company to leading high-school graduates who have distinguished themselves in 4-H Clubs or in vocational agriculture, and whose attendance at college is dependent on such an award. From the holders of these scholarships a student is selected at the end of the freshman year to receive an additional award of $200, to apply on the expenses of his sophomore year.

Union Pacific. $100 scholarships, the gift of the Union Pacific Railroad Company, to winners in 4-H Club work and in the study of vocational agriculture in thirty-six counties named; to be used to enroll for a full-year course in agriculture or home economics.

La Verne Noyes. $1,000 annually from the trustees of the estate of La Verne Noyes, to deserving and necessitous students who served in the army or the navy of the United States between April 6, 1917, and September 11, 1918; or are descended by blood from some one who so served. Enlistments must have been previous to May 11, 1918, unless active overseas, prearmistice service was rendered. The student's dean must have all applications for these scholarships by August 1 preceding the academic year in which the scholarship is desired.

GRADUATE ASSISTANTSHIPS

Graduate assistantships and graduate research assistantships have been established for some years by action of the Board of Regents, and are available in several departments of the College. See Division of Graduate Study.

Prizes and Medals

PRIZES

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 freshmen, sophomores, and juniors in architecture.

American Institute of Chemical Engineers. A certificate of merit to the sophomore in chemical engineering ranking highest in his freshman year.

American Society of Civil Engineers. To the civil engineer ranking highest during his senior year, payment of the initiation fee into the American Society of Civil Engineers.

Capper. The leading student in agricultural journalism each year has his name engraved upon one of 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; $50 to the junior woman enrolled in the curriculum in general science ranking highest at the close of the second semester of her sophomore year. To be eligible a student must have done her sophomore work in the Division of General Science in Kansas State College.

Phi Beta Kappa. $10; to the highest ranking eight-semester senior in the curriculum in general science.

Quill Club. $10; for the best short story in the annual contest.

Omicron Nu Scholarship Award. $10; to the highest ranking freshman in the Division of Home Economics.

Prizes in Veterinary Medicine

Dr. Benjamin F. Pfister, '21, and Dr. Earl F. Hoover, '24. $15 and $10; as alumni prizes in general efficiency; to seniors.

Dr. C. W. Bower, '18. $10 and $5; for senior students leading in work in the small-animal clinic.

Dr. O. M. Franklin, '12. $10 and $5; to seniors ranking highest in pathology.

Dr. N. D. Harwood, '18. $10 and $5; for sophomores ranking highest in physiology.

Dr. C. E. Salsbery, representing the alumni of the suspended Kansas City Veterinary College. $10 and $5; for juniors ranking highest in therapeutics.

MEDALS

Block and Bridle Club. For stock judging: gold, silver, and two bronze.

Student Dairy Club. For dairy judging: gold, silver and bronze.

Alpha Rho Chi. To the graduating senior in the Department of Architecture selected for leadership and professional merit.

American Institute of Architects. To the leading senior architect.

Electrical Engineering. Gold and silver; to seniors who have made the best records in twenty semester hours of required subjects in electrical engineering. Gold and silver; to the highest ranking juniors who have completed at least eighty semester hours of the required curriculum in electrical engineering.

Sigma Tau Scholarship Award. To three sophomore engineering students ranking highest in their freshman year.

Alpha Kappa Psi. By the Alpha Omega Chapter; a scholarship medallion to the highest ranking junior man enrolled in the curriculum in business administration.

Oratory. By the literary societies through the Inter-Society Council; three cash and medal prizes in the Inter-Society Oratorical Contest.

By the Missouri Valley Oratorical Association; cash and medal awards in its annual contest.

Student Health

Head Physician Husband
Assistant Physician Frane
Assistant Physician Gleason
Assistant Physician Montgomery-Short
Assistant Physician Schwartz
Head Dispensary Nurse Umberger
Head Hospital Nurse Strnad
Nurse Cole
Nurse Peltier
Nurse Phillips
Technician Brown

The Department of Student Health is supported by the student-health fee fund. There are five full-time physicians, five nurses, and a technician in the department. The College Hospital has a capacity of fifty beds.

The offices of the department are in Anderson Hall and are open to students each school day from 7:45 a. m. to 5 p. m. Students have the privilege of consulting any of the College physicians on any question of personal hygiene. Students who need medical service and are able to walk should go to the department offices, unless there is a possibility that they have a contagious disease. Those who are unable to walk, or who suspect that they have some contagion, should go to the hospital at once. The College maintains no ambulance service. The health department observes the same holidays and vacations as other departments of the College.

The College hospital is ready to receive students at any hour of the day or night, but patients are admitted only on the recommendation of staff physicians. Hospital service does not include major surgical cases, such as appendicitis, hernia, etc. If such a case develops while the student is in the hospital, he will be transferred, at his own expense, to a hospital of his choice. The College physicians are not required to treat chronic diseases, but, if practicable, may handle them as they do acute cases. They do not treat fractures and dislocations of a serious nature, but may handle minor cases at the option of the head physician. Students with fractures are admitted to the hospital.

During a regular semester not to exceed three days, and during the nine-weeks summer school not to exceed two days of hospitalization may be provided for each student without charge; for additional hospitalization, a charge of $1 a day is made. Students admitted to the hospital or remaining in the hospital at a time for which the student-health fee has not been paid, or during Christmas holidays, will be charged $2 a day for hospitalization.

The following charges are made for the indicated special services which are optional with students: (1) for X-rays, $1 for large-size films, 50 cents for medium-size films, and 25 cents for small-size films; (2) for each basal metabolism test, 75 cents. All ordinary medicines and dressings are furnished free both at the hospital and at the dispensary. The services of the college physicians and standard hospital nursing service are free, but a student may employ, at his own expense, any physician or private nurse he may desire.

The College Library

Librarian Smith
Associate Librarian Derby
Loan Librarian Camp
Reference Librarian Davis
Documents Librarian Hoff
Assistant Reference Librarian Swenson
Assistant Reference Librarian Stover
Assistant Loan Librarian Cullipher
Assistant Loan Librarian Owsley
Head Cataloguer Baker
Assistant Cataloguer Muller
Documents Cataloguer Roberts
Continuations Assistant Baxter
Class Reserves Assistant Diller

The general College Library consists of all books belonging to the College, including the library of the Agricultural Experiment Station, which is incorporated with it. On June 30, 1938, the Library contained 118,909 bound volumes, besides much unbound material. It receives currently about 1,100 serial publications. As a depository the Library receives the documents and other publications of the United States government. The books are classified according to the Dewey system and are indexed in a dictionary card catalogue. The Library is primarily for free reference, but the privilege of drawing books is accorded to all of those connected with the College as registered students or as members of the faculty. Books not specially reserved may be drawn for home use for two weeks. All books are subject to recall at any time.

General reference books, books reserved for classes, general periodicals, and certain other groups of books are to be consulted only in the reading rooms. They may not be loaned from the Library except when the reading rooms are closed. They must be returned to the Library by the time it next reopens. Any violation of the regulations of the Library subjects the offender to a fine or to a withdrawal of library privileges, or to both, according to the gravity of the offense. More serious offenses, such as mutilation or theft of books or periodicals, are considered just causes for suspension or expulsion of the offender, who is also required to make good the loss incurred.

Reading Rooms. Three reading rooms are maintained in connection with the Library: the general reference room, containing encyclopedias, dictionaries, atlases, bibliographies, and general reference books; the special reference room, containing books reserved for classes; and the periodical room, containing current magazines and the important daily and weekly Kansas newspapers. These rooms are freely open to the student and to the public for purposes of reading and study.

Divisional Libraries. Divisional and departmental collections are deposited in certain College buildings apart from the main Library. These collections are for the special convenience of the instructors and students of the departments concerned. They are under the direction of the librarian and are accessible to all students at regular hours.

The Division of Graduate Study

James Edward Ackert, *Dean*

ADMISSION

Correspondence regarding admission to graduate study should be addressed to the dean of the Division of Graduate Study, who will on request supply the required application blanks. Each applicant who is not a graduate of this College must submit with his application an official transcript of his college record.

Admission to graduate study is granted to graduates of institutions whose requirements for the bachelor's degree are substantially equivalent to those of Kansas State College. Admission to graduate study, however, may not be construed to imply admission to candidacy for an advanced degree. Such candidacy is determined after the student has demonstrated by his work for a period of two months or longer (M. S.), or approximately two years (Ph. D.), that he has the ability to do graduate work of major rank.

REGISTRATION

Students who have been admitted to graduate study register, obtain their assignments from the dean of the division, and pay their fees during the regular registration periods.

FEES*

Graduate students are subject to the same fees as other students except that (1) they are exempt from the student-health fee; (2) they pay the student-activity fee in summer school, only; and (3) the fee for problem or research work pursued *in absentia* is $2.50 a semester hour.

ASSIGNMENTS

Not more than sixteen hours, including research, may be assigned in a single semester, nor more than eight hours during the nine-week summer school, nor more than four hours during the four-week summer school. Students holding graduate assistantships may not be assigned to more than twelve hours, including thesis, in one semester.

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 have been made in advance for the conferring of the degree *in absentia*. Ap-

* See section headed Fees, under General Information.

† See section headed Grades, under General Information.

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plication 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:
- Agronomy
- Animal Husbandry
- Dairy Husbandry
- Economics and Sociology
- Horticulture
- Milling Industry
- Poultry Husbandry

Division of Engineering:
- Agricultural Engineering
- Applied Mechanics
- Architecture
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Machine Design
- Mechanical Engineering
- Shop Practice and Industrial Arts

Division of General Science:
- Bacteriology
- Botany and Plant Pathology
- Chemistry
- Economics and Sociology
- Education*
- English
- Entomology
- Geology
- History and Government
- Industrial Journalism and Printing
- 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

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* 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 collegiate year in residence, except under certain special conditions when the residence may be reduced to one and one-half semesters, or three nine-week summer schools. The equivalent of thirty semester hours, including a thesis, must be satisfactorily completed.

Language Requirements. A reading knowledge of two modern foreign languages is desirable.

Master's Thesis. Each candidate for a master's degree is required to present a thesis on some subject approved by the major instructor, the head of the department, and the Graduate Council. (See general requirements for the master's and doctor's degrees.)

The thesis ordinarily demands one-fourth of the student's time and may not exceed one-third of it. The thesis and special reports upon it must be prepared in accordance with specifications to be obtained from the office of the dean of the Division of Graduate Study.

A candidate for the master's degree is subject to an oral examination covering the major and minor subjects and thesis by a committee consisting of instructors with whom the major and minor work was taken, the head of the major department, and a member of the Graduate Council as chairman. The dean of the division in which the major work is offered is a member ex officio.

REQUIREMENTS FOR THE DEGREE DOCTOR OF PHILOSOPHY

Departments Offering Major Work. Major work leading to the degree Doctor of Philosophy is offered in the following fields: Bacteriology, Chemistry, Entomology, Plant Genetics, Poultry Genetics, Genetics, and Milling Industry. Minor work for this degree may be chosen in the departments offering major work for the degree and in supporting fields in other departments offering graduate work.

Residence and Credit Requirements. At least three years (of nine months each) of graduate study beyond the bachelor's degree, equivalent to 90 semester hours, including a thesis, are required of candidates for the degree Doctor of Philosophy. At least one year of this time must be spent in residence at this College.

Language Requirements. Each candidate for the degree Doctor of Philosophy must demonstrate to the head of the Department of Modern Languages, or to members of his staff designated by him, ability to read the literature of the major field in two modern foreign languages, to be designated by the supervisory committee. The language requirements shall be fulfilled before the preliminary examinations are taken.

Supervisory Committee. For each student who contemplates working for the degree Doctor of Philosophy, a supervisory committee is chosen by the dean of the Division of Graduate Study. This committee, consisting of not fewer than five members representing the major and minor fields, aids the student in the preparation of the program of study, which must be approved by the Graduate Council, and has charge of all examinations except the language examinations. The chairman of the preliminary and final examinations is a member of the Graduate Council.

Majors and Minors. Approximately two-thirds of the graduate work (program of study) shall be in a major field and the remainder devoted to one or two minors. In exceptional cases, all the graduate work may be chosen in one field. The work in the major field may be taken wholly within a department or it may include closely related courses and problems in other departments or divisions of the College. The same principle applies to the minor

or minors. (See general requirements for the degrees Master of Science and Doctor of Philosophy.)

Program of Study and Examinations. Students enrolling in graduate study leading to the degree Doctor of Philosophy work on a tentative program of study until approximately two-thirds of the program, including a substantial portion of the thesis, has been completed. Ordinarily at the close of the second year of graduate study, and not later than the beginning of the year in which the student contemplates receiving the degree, the candidate must pass written and oral preliminary examinations over the entire field of study. When the student has passed the language examinations and the preliminary ones, he is recommended by the supervisory committee to the Graduate Council for admission to candidacy for the degree Doctor of Philosophy. The program of study leading to the degree accompanies the recommendation.

On completion of three years of graduate study as prescribed in the program of study and on submission of a thesis satisfactory to the supervisory committee, at least one month before commencement, the candidate is given the final examination.

Doctor's Thesis. Early in the graduate work a thesis subject is chosen in the major field and approved by the supervisory committee. The finished thesis must constitute a contribution to knowledge, either presenting conclusions from new material, or reinterpreting previous knowledge. Two complete typewritten copies of the thesis approved by the supervisory committee shall be submitted to the dean of the Division of Graduate Study at least one month before commencement. On the completion of all requirements for the degree, one copy shall be placed in the College library and the other filed with the head of the department in which the major work is taken.

Before the degree is conferred the candidate shall guarantee the printing of the doctor's thesis (wholly or in part as determined by the supervisory committee) within three years after the date of the conferring of the degree. This guarantee shall be either a statement from the editor of an appropriate technical serial or publishing company that the thesis has been accepted for publication or shall be in the form of a cash deposit of $100 or a bond acceptable to the Graduate Council. If the thesis is not published in acceptable form within three years, the deposit or the bond shall be forfeited unless an extension of time is granted by the Graduate Council for delayed publication after acceptance. When the thesis has been published, 125 copies shall be consigned to the College library.

VACATION CREDIT

Two semester hours of graduate credit in problem or research work may be earned between the close of the summer school and the beginning of the first semester provided that permission to do so is secured in advance from the major instructor and from the dean of the Division of Graduate Study.

On completion the credit so earned will be included on the student's next regular assignment marked "vacation credit," and will be in addition to the regularly allowed number of hours assigned. Such credits will be forwarded to the registrar by the instructor as soon as the latter receives the class cards.

GRADUATE WORK *IN ABSENTIA*

Graduates may be enrolled for a limited amount of research or problem work *in absentia* on the recommendation of the head of the department and with the approval of the dean of the Division of Graduate Study.

GRADUATE ASSISTANTS

To facilitate research work, laboratory teaching and the acquisition of advanced degrees, the College has established graduate assistantships in several departments. Part-time positions with the United States Department of Agriculture and fellowships with commercial concerns are sometimes available.

These assistantships, which may be graduate assistantships, or graduate research assistantships, are part-time appointments which demand approximately one-half of the time of the student for laboratory or research assistance in the field of his major work during the regular collegiate year. The remainder of his time is given to advanced study. No graduate assistant or graduate research assistant may receive more than twelve hours of credit per semester nor satisfy the residence requirements for the master's degree in less than two semesters and one nine-week summer school.

Graduate assistantships, paying a salary fixed each year by the State Board of Regents. have been established as follows:

Subject	*Number*
Agronomy	1
Applied Mechanics	1
Bacteriology	1
Botany	1
Chemistry	5
Child Welfare	3
Dairy Husbandry	1
Entomology	1
Geology	1
Horticulture	2
Household Economics	2
Institutional Management	2
Machine Design	1
Mechanical Engineering	1
Poultry Husbandry	1
Zoölogy	2

Graduate research assistantships, as listed below, usually are maintained in the departments named. Holders of these positions assist in conducting the regular research work in the institution.

Subject	*Number*
Agricultural Engineering	1
Agronomy	6
Animal Husbandry	2
Applied Mechanics	1
Botany	1
Household Economics	1
Shop Practice	1
Zoölogy	4

By completing six hours of graduate work in the nine-week summer school, graduate assistants and graduate research assistants may meet the requirements for the master's degree within one year.

Applications for all assistantships should be made annually by April 1 for the following academic year. Students desiring such appointments may obtain application blanks from the dean of the Division of Graduate Study.

GRADUATE LOAN

The Manhattan Branch of the American Association of University Women maintains a loan fund which is available to graduate women students enrolled in any department of the Kansas State College that offers graduate work. Application for this loan shall be made to the chairman of the Graduate Loan Fund Committee of the Manhattan Branch of the American Association of University Women.

SENIORS AND GRADUATE STUDY

A senior who has completed so much of his work for the bachelor's degree that his program for the year is not full may, with the consent of his dean and of the dean of the Division of Graduate Study, be assigned to one or more courses for graduate credit. In no case shall such combination of courses exceed seventeen hours.

GRADUATE WORK IN THE SUMMER SCHOOL

Graduate students desiring to do a part or all of the work for the master's degree in the summer may complete the requirements, in certain fields only, by pursuing graduate work for four nine-week summer schools. Persons interested should correspond in advance with the dean of the Division of Graduate Study.

In special cases it may be possible to complete the residence requirements for the master's degree in three nine-week summer schools.

Full information concerning the courses offered is contained in the Summer School number of the Kansas State College *Bulletin,* which may be obtained upon application to the vice-president of the College.

THE GRADUATE CLUB

The Graduate Club is an organization composed of graduate students and members of the graduate faculty. Its purpose is to promote sociability and wide acquaintance among its members.

GRADUATE CALENDAR

SUMMER SCHOOL, 1939

May 31, Wednesday. Registration of students for nine-week Summer School begins at 8 a. m.*
June 10, Saturday.—Preliminary reports on masters' theses are due.
July 7, Friday.—Abstracts of masters' theses are due.
July 22. Saturday.—Masters' theses are due.
July 28, Friday.—Graduation exercises at 7:30 p. m. for those receiving degrees at end of Summer School.

FIRST SEMESTER, 1939-1940

Sept. 11 and 12, Monday and Tuesday.—Registration and assignment of graduate students.*
Dec. 9, Saturday.—Programs of study are due from candidates for the masters' degree in 1939.

SECOND SEMESTER, 1939-1940

Jan. 30 and 31, Tuesday and Wednesday.—Registration and assignment of graduate students.*
Mar. 15, Friday.—Preliminary reports on Masters' theses are due.
April 27, Saturday.—Doctors' theses are due.
May 20, Monday.—Masters' theses are due.
May 26, Sunday.—Baccalaureate services at 7:30 p. m.
May 27, Monday.—Seventy-seventh annual Commencement at 7:30 p. m.

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* See general calendar for vacation, holiday, and other special dates.

The Division of Agriculture

Leland Everett Call, *Dean*

The successful farmer must have scientific and economic knowledge and training. They are quite as essential as practical knowledge of agriculture in the development of an agricultural state such as Kansas. Soil is most effectively utilized by those who have knowledge of how soils have been formed, how fertility has been stored in them, and how the resources of the soil can be maintained.

The successful farmer also knows what kind of plants to grow and how to improve them. He understands the principles of selection, breeding, and feeding of livestock. He knows how to maintain orchards, gardens, and attractive surroundings. He has an appreciation for good and adequate farm buildings and a farm home equipped with modern conveniences. He is familiar with the best methods of marketing the products of the farm.

Kansas State College gives systematic training in agriculture which fits young men for the farm.

The College also prepares students for the scientific investigation of agricultural problems in state and national institutions, for agricultural extension work, for the teaching of agriculture, for service in industries closely related to agriculture, and for a variety of other public and private services of an agricultural nature.

The College owns 1,428 acres of land, which are used for experimental work and instruction, and maintains large and well-equipped laboratories for soil and crop work. There is ample greenhouse space for problems and research work in crops and soils.

The College herds and flocks contain high-class representatives of the important breeds of dairy and beef cattle, poultry, hogs, horses, and sheep. The student becomes familiar with types and breeds by actual work with the stock.

Three of the four-year curriculums offered in this Division lead to the degree of Bachelor of Science in Agriculture. The four-year curriculum in milling industry leads to the degree of Bachelor of Science in Milling Industry.

The curriculums in agriculture and agricultural administration have a common freshman year, toward the end of which students decide which curriculum they will pursue.

CURRICULUM IN AGRICULTURE

Students choosing the curriculum in agriculture need not name the department in which they will major before the second semester of the sophomore year. They have their choice of numerous electives in soils, crops, agricultural economics, animal husbandry, dairy husbandry, horticulture, milling, and poultry husbandry.

All electives in any of the departments must be officially approved by the dean of the Division of Agriculture and the head of the department in which the student majors.

A student may major not only in any department in the Division of Agriculture but also in the departments of Botany, Entomology, Zoölogy, Bacteriology, Chemistry, or Agricultural Engineering. Substitutions may be made to meet definite objectives. See "Substitutions to Meet Certain Objectives," following the outline of "Curriculum in Agriculture."

Any candidate for such a degree must have had at least six months' farm experience approved by the dean of the Division of Agriculture. Students in dairy manufacturing, milling industry, or specialized horticulture may 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 AGRICULTURAL ADMINISTRATION

The curriculum in agricultural administration is planned to meet the needs of students preparing for industries closely related to farming, which require training in both agriculture and business principles. Among such industries and occupations are: rural banking, development and sale of lands, processing and marketing of grains, agricultural journalism, and the teaching of agriculture in high schools and elsewhere.

There is ample opportunity to elect business subjects such as accounting, business organization, credit and finance, business law, and marketing.

CURRICULUM IN SPECIALIZED HORTICULTURE

The curriculum in specialized horticulture is planned for students who wish to prepare for one of the highly specialized subdivisions of horticulture such as landscape gardening and floriculture. It gives such students opportunity to elect a larger number of courses in artistic and technical branches of horticulture.

CURRICULUM IN MILLING INDUSTRY

The curriculum in milling industry is planned for students in three major fields: (1) milling administration, (2) milling technology, (3) milling chemistry.

Major electives in each of the three fields are listed following the curriculum in milling industry. Minor electives which are not listed are selected to meet the needs of the individual student.

Students choosing the field of milling chemistry must so indicate at the time of assignment in the first semester of their freshman year in order to be assigned to proper chemistry courses.

MILLING ENROLLMENT LIMITED

By authority of the State Board of Regents, the number of students enrolled in the four-year curriculum in milling industry is limited to 65. Students having their residence in Kansas have first preference. Out-of-state students who have had practical milling experience are given second preference. Selections from either group are further based on scholarship and other evidence of fitness.

Persons wishing to be selected for this curriculum must apply several weeks before the beginning of the academic year. Application should be made before August 15. Application blanks may be obtained from the dean of the Division of Agriculture.

STATE TEACHER'S CERTIFICATE

By selection of proper electives in the Department of Education, the four-year curriculum in either agriculture or agricultural administration may lead to the degree of Bachelor of Science in Agriculture and also qualify the graduate for the three-year Kansas state teacher's certificate, valid in any high school or other public school in the state, and renewable for life.

A student in the curriculum in agriculture desiring to qualify for teaching,

should elect General Psychology in the first semester of his junior year. (This course is required in the second semester of the sophomore year in the curriculum in agricultural administration.) A total of 18 hours in the Department of Education is required for this certificate, as follows: General Psychology, Principles of Secondary Education, Educational Psychology, Methods of Teaching Agriculture, Teaching Participation in Agriculture, and Vocational Education.

STATE CERTIFICATE FOR TEACHERS OF VOCATIONAL AGRICULTURE

Electives in the field of agricultural education may be so chosen as to meet requirements for the state certificate for teaching vocational agriculture in Kansas high schools participating in federal Smith-Hughes funds. The group of minor electives in related nonagricultural subjects must complete the candidate's professional preparation in education, and the group of general electives must include the mechanical training necessary for the handling of farm shop problems. Therefore these groups must include the following courses or their equivalents:

Minor electives		15
Principles of Secondary Education, Educ. 236	3	
Educational Psychology, Educ. 109	3	
Methods of Teaching Agriculture, Educ. 136	3	
Teaching Participation in Agriculture, Educ. 161	3	
Vocational Education, Educ. 241	3	
General electives		17
Gas Engines and Tractors, Agr. Engr. 130	3	
Farm Buildings, Agr. Engr. 101	3	
Farm Machinery, Agr. Engr. 108	3	
Farm Carpentry I, 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 of this Division usually offer courses in the Summer School. Some of these are basic college courses, but graduate work particularly suited to high-school teachers of vocational agriculture is emphasized. The Summer School number of the Kansas State College Bulletin may be obtained upon application to the vice-president of the College.

HOME STUDY IN AGRICULTURE

The home study department of the Division of College Extension offers a number of college courses in agriculture which can be taken by correspondence. Such courses carry the same credit as resident college courses having the same description. These courses will be found especially advantageous to college students who desire to make up deficiencies or to gain certain credits during the summer vacation season. All courses given by correspondence are listed in the latter part of this catalogue under the title "Home Study" in the Division of College Extension.

Curriculum in Agriculture

FRESHMEN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	*3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Botany I, Bot. 101	3(1-6)	Gen. Geology, Geol. 103	3(3-0)
Chemistry I, Chem 101	5(3-6)	Gen. Botany II, Bot. 105	3(1-6)
El. of An. Husb., An. Husb. 125	3(2-4) *or*	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) *or*
Freshman Lect., Gen. Agr. 102	1(2-0)	El. of An. Husb., An. Husb. 125	3(2-4)
Infantry I, Mil. Sc. 101A	1(1-2)	Library Methods, Lib. Ec. 101	1(1-0)
Phys. Education M. Phys. Ed. 103,	R(0-2)	Infantry II, Mil Sc. 102A	1(1-2)
Agr. Seminar,[1] Gen. Agr. 103	R	Phys. Education M, Phys. Ed. 104,	R(0-2)
		Agr. Seminar,[1] Gen. Agr. 103	R
Total	16	Total	17

SOPHOMORE

First Semester		Second Semester	
El. of Horticulture, Hort. 107	3(2-3)	Prin. of Feeding, An. Husb. 152[2]	3(3-0)
Organic Chemistry, Chem. 124	3(2-3)	Economics I, Econ. 101	3(3-0)
Anat. and Physiol., Anat. 131	3(2-3) *or*	Farm Crops, Agron. 101	4(2-6) *or*
Plant Physiology I,[3] Bot. 208	3(3-0)	Soils, Agron. 130	4(3-3)
Soils, Agron. 130	4(3-3) *or*	General Zoölogy, Zoöl. 105	5(3-6)
Farm Crops, Agron. 101	4(2-6)	Infantry IV, Mil. Sc. 104A	1(1-2)
Farm Poult. Pro., Poult. Husb. 101,	2(1-2, 1)	Phys. Education M, Phys. Ed. 106,	R(0-2)
Infantry III, Mil. Sc. 103A	1(1-2)	Agr. Seminar,[1] Gen. Agr. 103	R
Phys. Education M, Phys. Ed. 105,	R(0-2)		
Agr. Seminar,[1] Gen. Agr. 103	R		
Total	16	Total	16

JUNIOR

First Semester		Second Semester	
Genetics, An. Husb. 221	3(3-0)	Gen. Econ. Entomology, Ent. 203	3(2-3)
Plant Pathology I, Bot. 205	3(2-3)	Gen. Microbiology, Bact. 101	3(1-6)
Farm Organization, Agr. Ec. 106	3(2-3)	Agr. Journalism, Ind. Jour. 160	3(2-3)
Elective	7	Elective	7
Agr. Seminar,[1] Gen. Agr. 103	R	Agr. Seminar,[1] Gen. Agr. 103	R
Total	16	Total	16

SENIOR

First Semester		Second Semester	
Elective	16	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Agr. Seminar,[1] Gen. Agr. 103	R	Elective	16
		Agr. Seminar,[1] Gen. Agr. 103	R
Total	16	Total	16

Number of hours required for graduation, 129.§

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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.

1. Four meetings each semester.

2. Some time during the second semester of the sophomore year each student is required to file a written statement in the office of the dean of the Division of Agriculture, designating the department of the division in which he will major.

3. Students who do not expect to major in animal husbandry, dairy husbandry, or poultry husbandry may, with the approval of the head of the department in which they expect to major, take Plant Physiology I (Bot. 208) instead of Anatomy and Physiology (Anat. 131).

§ 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:

	Semester hours
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; *e. g.*, Chemistry, Entomology, Bacteriology.	
MINOR AGRICULTURAL ELECTIVES	9
These electives may be taken from one or more departments but must directly strengthen the student's preparation in agriculture.	
MINOR NONAGRICULTURAL ELECTIVES	6
These electives must be chosen from one or more of the following departments: English, Education, Economics and Sociology, History and Government, Mathematics, Modern Languages.	
GENERAL ELECTIVES	19
These electives should be chosen to meet individual needs and to round out the preparation provided by the rest of the student's curriculum. All students not offering one unit of high-school physics for entrance must include three hours of general physics in their electives.	

All electives must be officially approved before assignment, by both the dean of the Division of Agriculture and the head of the department in which the student majors.

SUBSTITUTION TO MEET CERTAIN OBJECTIVES

Students desiring to prepare themselves for scientific or special work in the field of agriculture may, with the approval of the dean of the Division of Agriculture and the head of the department in which they expect to major, substitute courses in the departments of Mathematics, Physics, Chemistry, Bacteriology, Entomology, Zoölogy, Botany and Plant Pathology, Education, Agricultural Engineering, Modern Languages, and other approved departments, for twenty-five hours in the curriculum in agriculture; provided, that no student may receive a degree in agriculture who does not have at least twenty-five hours in technical agriculture in not fewer than three departments.

Curriculum in Agricultural Administration

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Botany I, Bot. 101	3(1-6)	Gen. Geology, Geol. 103	3(3-0)
Chemistry I, Chem. 101	5(3-6)	Gen. Botany II, Bot. 105	3(1-6)
El. of An. Husb., An. Husb. 125	3(2-4) *or*	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) *or*
Freshman Lect., Gen. Agr. 102	1(2-0)	El. of An. Husb., An. Husb. 125	3(2-4)
Infantry I, Mil. Sc. 101A	1(1-2)	Library Methods, Lib. Ec. 101	1(1-0)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Infantry II, Mil. Sci. 102A	1(1-2)
Agr. Seminar,* Gen. Agr. 103	R	Phys. Education M, Phys. Ed. 104,	R(0-2)
		Agr. Seminar,* Gen. Agr. 103	R
Total	16	Total	17

SOPHOMORE

First Semester		Second Semester	
Organic Chemistry, Chem. 124	3(2-3)	El. of Hort., Hort. 107	3(2-3)
Economics I, Econ. 101	3(3-0)	Feeding L. S., An. Husb. 172	3(3-0)
General Algebra, Math. 108	5(5-0)	General Psychology, Educ. 184	3(3-0)
Soils, Agron. 130	4(3-3) *or*	Soils, Agron. 130	4(3-3) *or*
Farm Crops, Agron. 101	4(2-6)	Farm Crops, Agron. 101	4(2-6)
Infantry III, Mil. Sci. 103A	1(1-2)	Farm Poult. Pro., Poult. Husb. 101,	2(1-2, 1)
Phys. Education M, Phys. Ed. 105,	R(0-2)	Infantry IV, Mil. Sci. 104A	1(1-2)
Agr. Seminar,* Gen. Agr. 103	R	Phys. Education M, Phys. Ed. 106,	R(0-2)
		Agr. Seminar,* Gen. Agr. 103	R
Total	16	Total	16

JUNIOR

First Semester		Second Semester	
Agr. Journalism, Ind. Jour. 160	3(2-3)	Agr. Seminar,* Gen. Agr. 103	R
Agr. Seminar,* Gen. Agr. 103	R	Elective	16
Elective	13		
Total	16	Total	16

SENIOR

First Semester		Second Semester	
Agr. Seminar,* Gen. Agr. 103	R	Agr. Relationships, Gen. Agr. 105,	R(1-0)
Elective	16	Agr. Seminar,* Gen. Agr. 103	R
		Elective	16
Total	16	Total	16

Number of hours required for graduation, 129.

Electives

The electives in the curriculum in agricultural administration are grouped as indicated below in the following fields: (1) rural banking, (2) land economics, (3) grain industries, (4) agricultural journalism, (5) agricultural engineering, and (6) agricultural education.

SEMESTER HOURS OF ELECTIVES REQUIRED FOR VARIOUS FIELDS

Group	*Hours in fields 1, 2, 3, 4, 5*	*Hours in field 6*
Major electives in agricultural economics	15	10
Minor agricultural electives (not more than nine semester hours from one department)	15	17
Minor electives in related nonagricultural subjects	15	15
General electives	16	19
Total	61	61

Note.—All students not offering one unit of high-school physics for entrance must include three hours of general physics in their electives.

All electives must be officially approved before assignment by both the dean of the Division of Agriculture and the head of the Department of Economics and Sociology.

* Four meetings each semester.

Curriculum in Specialized Horticulture

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Botany I, Bot. 101	3(1-6)	Gen. Botany II, Bot. 105	3(1-6)
Chemistry I, Chem. 101	5(3-6)	Chemistry II Rec., Chem. 103	3(3-0)
Library Methods, Lib. Ec. 101	1(1-0)	Gen. Geology, Geol. 103	3(3-0)
Freshman Lect., Gen. Agr. 102	1(2-0)	Infantry II, Mil. Sc. 102A (men)	1(1-2)
Infantry I, Mil. Sc. 101A (men)	1(1-2)	Phys. Education M, Phys. Ed. 104,	R(0-2) *or*
Phys. Education M, Phys. Ed. 103,	R(0-2) *or*	Phys. Education W, Phys. Ed. 152A,	R(0-3)
Phys. Education W, Phys. Ed. 151A,	R(0-3)	Elective	4
Elective[1]	2	Agr. Seminar, Gen. Agr. 103[2]	R
Agr. Seminar, Gen. Agr. 103[2]	R		
Total	15 or 16	Total	16 or 17

SOPHOMORE

First Semester		Second Semester	
Economics I, Econ. 101	3(3-0)	Plane Trigonometry, Math. 101	3(3-0)
Soils, Agron. 130	4(3-3)	El. of Horticulture, Hort. 107	3(2-3)
Tax. Bot. Flrg. Plnts., Bot. 225	3(1-6)	Agr. Journalism, Ind. Jour. 160	3(2-3)
Infantry III, Mil. Sc. 103A (men)	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2) *or*	Phys. Education M, Phys. Ed. 106,	R(0-2) *or*
Phys. Education W, Phys. Ed. 153,	R(0-3)	Phys. Education W, Phys. Ed. 154,	R(0-3)
Elective	5	Elective	6
Agr. Seminar, Gen. Agr. 103[2]	R	Agr. Seminar, Gen. Agr. 103[2]	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Plant Materials I, Hort. 224	3(2-3)	Plant Materials II, Hort. 226	3(2-3)
Plant Physiology I, Bot. 208	3(3-0)	Gen. Entomology, Ent. 101	4(3-3)
Elective	10	Elective	9
Agr. Seminar, Gen. Agr. 103[2]	R	Agr. Seminar, Gen. Agr. 103[2]	R
Total	16	Total	16

SENIOR

First Semester		Second Semester	
Plant Pathology I, Bot. 205	3(1-6)	Agr. Relationships, Gen. Agr. 105	R(1-0)
Elective	13	Plant Ecology, Bot. 228	2(2-0)
Agr. Seminar, Gen. Agr. 103[2]	R	Spraying, Hort. 207	3(2-3)
		Elective	11
		Agr. Seminar, Gen. Agr. 103[2]	R
Total	16	Total	16

Number of hours required for graduation: Men, 129; women, 125.

Electives in Landscape Gardening

Engr. Drawing, Mach. Des. 101	2(0-6)	Domestic Arch., Arch. 124	2(2-0)
Free-hand Draw. I, Arch. 111	2(0-6)	Free-hand Draw. II, Arch. 114	2(0-6)
Silviculture, Hort. 119	3(2-3)	Ext. Speech I, Pub. Spk. 106	2(2-0)
Forest Nursery Prac., Hort. 120	3(2-3)	Physiographic Geol., Geol. 110	3(3-0)
Landscape Gardening I, Hort. 125,	3(3-0)	Water Color I, Arch. 118	2(0-6)
Pencil Rend. and Sketch., Arch. 116,	2(0-6)	Surveying III, Civ. Engr. 151, 155,	3(2-3)
Surveying I, Civ. Engr. 102	2(0-6)	Appreciation of Arch., Arch. 244	3(3-0)
Theory of Lands. Design. Hort. 243	3(3-0)	Landscape Gardening III, Hort. 246,	3(2-3)
El. of Floriculture, Hort. 127	3(3-0)	Applied Floriculture, Hort. 212	3(2-3)
Landscape Gardening II, Hort. 238,	3(1-6)	Plant Ecology, Bot. 228	2(2-0)
Landscape Constr., Hort. 227	3(2-3)	Horticultural Probs., Hort. 244	2 to 8
Civic Art, Hort. 223	3(1-6)		

From this group of courses, together with other courses, the student will elect fifty-eight credit hours to be approved in advance of assignment by the head of the Department of Horticulture and the dean of the Division of Agriculture.

1. All students not offering one unit of high-school physics for entrance must include three hours of general physics in their electives.

2. Four meetings each semester.

Electives in Floriculture

El. of Floriculture, Hort. 127	3(3-0)	Gen. Org. Chemistry, Chem. 122,	5(3-6)
Floral Arrangement, Hort. 129	2(1-3)	Org. Chemistry, Chem. 124	3(2-3)
Landscape Gardening I, Hort. 125,	3(3-0)	Business Management, Econ. 126	2(2-0)
Genetics, An. Husb. 221	3(3-0)	Applied Floriculture, Hort. 212	3(2-3)
Forest Nursery Prac., Hort. 120	3(2-3)	Plant Physiology III, Bot. 211	3(3-0)
Plant Genetics, Agron. 208	3(3-0)	Credits and Collections, Econ. 223,	2(2-0)
Accounting I, Econ. 133	3(2-3)	Extem. Speech I, Pub. Spk. 106	2(2-0)
Engr. Draw., Mach. Des. 101	2(0-6)	Horticulture Seminar, Hort. 235	1(1-0)
Modern Language	3(3-0)	El. of Vegetable Gard., Hort. 133,	3(2-3)
Meteorology, Phys. 133	3(3-0)	Literature of Hort., Hort. 208	2(2-0)
Botanical Microtechnic, Bot. 217	3(1-6)	Modern Language	3(3-0)
		Horticultural Probs., Hort. 244	2 to 8

From this group of courses, together with other courses, the student will elect fifty-eight credit hours to be approved in advance of assignment by the head of the Department of Horticulture and the dean of the Division of Agriculture.

Curriculum in Milling Industry

FRESHMAN

First Semester		Second Semester	
El. of Milling, Mill. Ind. 101	2(1-3)	College Rhetoric II, Engl. 104	3(3-0)
College Rhetoric I, Engl. 101	3(3-0)	Plane Trigonometry, Math. 101	3(3-0)
College Algebra, Math. 104	3(3-0)	Chemistry II Rec., Chem. 103	3(3-0)
Chemistry I, Chem. 101	5(3-6)	Milling Entomology, Ent. 117	2(2-0)
Freshman Lect., Gen. Agr. 102	1(2-0)	Engr. Drawing, Mach. Des. 101	2(0-6)
Library Methods, Lib. Ec. 101	1(1-0)	Flow Sheets, Mill. Ind. 103	2(0-6)
Infantry I, Mil. Sc. 101A	1(1-2)	Infantry II, Mil. Sc. 102A	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Phys. Education M, Phys. Ed. 104,	R(0-2)
Milling Seminar[1]	R	Milling Seminar[1]	R
Total	16	Total	16

SOPHOMORE

First Semester		Second Semester	
Milling Practice I, Mill. Ind. 109	3(1-6)	Gen. Physics II, Phys. 103	4(3-3)
Gen. Physics I, Phys. 102	4(3-3)	Gen. Botany II, Bot. 105	3(1-6)
Gen. Botany I, Bot. 101	3(1-6)	Current History, Hist. 126	1(1-0)
Infantry III, Mil. Sc. 103A	1(1-2)	Infantry IV, Mil. Sc. 104A	1(1-2)
Phys. Education M, Phys. Ed. 105,	R(0-2)	Phys. Education M, Phys. Ed. 106,	R(0-2)
Milling Seminar[1]	R	Milling Seminar[1]	R
Elective[2]	5	Elective[2]	7
Total	16	Total	16

JUNIOR

First Semester		Second Semester	
Mkt. Grading Cereals, Agron. 115,	3(1-6)	Mill. Qual. of Wheat, Mill. Ind. 212,	3(3-0)
Economics I, Econ. 101	3(3-0)	Milling Seminar[1]	R
Milling Seminar[1]	R	Elective[2]	13
Elective[2]	10		
Total	16	Total	16

SENIOR

First Semester		Second Semester	
Milling Seminar[1]	R	Milling Seminar[1]	R
Elective[2]	16	Agr. Relationships, Gen. Agr. 105	R
		Elective[2]	16
Total	16	Total	16

Number of hours required for graduation: 128—basic courses, 61 hours; elective courses, 67 hours.

1. Two meetings each month.

2. Major electives may be in milling administration, milling technology,[3] or milling chemistry. These groups of electives are listed below. Minor electives are flexible to adapt the curriculum to individual needs. Minor electives must be officially approved before assignment by the dean of the Division of Agriculture and the head of the Department of Milling Industry.

3. Students majoring in milling technology must include solid geometry in their minor electives unless this subject was included in their entrance requirements.

Electives for Students in Milling Administration

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122	5(3-6)	Corp. Org. & Fin., Econ. 219	2(2-0)
General Psychology, Educ. 184	3(3-0)	Grain Marketing, Econ. 203	3(3-0)
Extem. 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)
Extem. Speech II, Pub. Spk. 108,	2(2-0)	Business Law II, Hist. 164	3(3-0)
Coml. Correspondence, Eng. 122	3(3-0)	Prin. of Advertising, Ind. Jour. 178,	4(4-0)
Writ. and Oral Salesmanship, Engl. 123	3(3-0)	Business Finance, Econ. 217	3(3-0)
Accounting I, Econ. 133	3(2-3)		
Accounting II, Econ. 134	3(2-3)		
Mktg. of Farm Prod., Econ. 202,	3(3-0)	Total	48

MINOR ELECTIVES: A total of 19 hours of minor electives completes the work of the curriculum.

Electives for Students in Milling Technology

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122	5(3-6)	Mill. Prac. II, Mill. Ind. 111	3(1-6)
Plane Anal. Geometry, Math. 110,	4(4-0)	Str. of Material E, Ap. Mech. 216,	3(3-0)
Calculus I, Math. 114	4(4-0)	Flour Mill. Constr., Mill. Ind. 203,	3(0-9)
Calculus II, Math. 115	4(4-0)	Steam and Gas Engineering C, Mech. Engr. 120, 125	3(2-3)
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Elec. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Des. Geom., Mach. Des. 106	2(0-6)	Engr. Woodwork, Shop 101	1(0-3)
Mechanism, Mach. Des. 121	3(3-0)		
Mach. Drawing I, Mach. Des. 111,	2(0-6)		
Mill. Tech. I, Mill. Ind. 201	2(0-6)		
Mill. Tech. II, Mill. Ind. 202	2(0-6)	Total	48

MINOR ELECTIVES: A total of 19 hours of minor electives completes the work of the curriculum.

Electives for Students in Milling Chemistry

MAJOR ELECTIVES

Gen. Org. Chem., Chem. 122	5(3-6)	Mill. Ind. Probs., Mill. Ind. 214	3(0-9)
Chemistry II Lab., Chem. 104	2(0-6)	Chemistry of Proteins, Chem. 236A,	3(2-3)
Plane Anal. Geometry, Math. 110,	4(4-0)	Experimental Baking, Mill. Ind. 207	4(2-6)
Calculus I, Math. 114	4(4-0)	Colloidal Chemistry, Chem. 213	2(2-0)
Physiological Chemistry, Chem. 231,	5(3-6)	Adv. Wheat and Flour Testing, Mill. Ind. 210	2(0-6)
Quan. Analysis A, Chem. 250	3(1-6)	Chemical Microscopy, Chem. 245,	1(0-3)
Quan. Analysis B, Chem. 251	3(1-6)		
Gen. Microbiology, Bact. 101	3(1-6)		
Wheat, Flour Test, Mill. Ind. 205,	3(0-9)		
Physical Chemistry I, Chem. 206	5(3-6)	Total	52

MINOR ELECTIVES: A total of 15 hours of minor electives completes the work of the curriculum.

Electives for Students of Agriculture Majoring in Industrial Journalism

Students who wish to prepare for agricultural journalism may major in industrial journalism, thus combining training in agriculture or agricultural administration with the fundamentals of journalism. The electives provided for students selecting such a field for major work are as follows:

Industrial Writing, Ind. Jour. 161,	2(2-0)	Copy Reading, Ind. Jour. 254	2(0-6)
Editorial Practice, Ind. Jour. 257	2(2-0)	History and Ethics of Journalism, Ind. Jour. 273	3(3-0)
Ind. Feature Writing, Ind. Jour. 167,	2(2-0)	Journalism Surveys, Ind. Jour. 278,	2(0-6)
The Rural Press, Ind. Jour. 181	2(2-0)		
Prin. of Advertising, Ind. Jour. 178,	4(4-0)		

* For juniors and seniors.

Agricultural Economics

Section of
ECONOMICS AND SOCIOLOGY

Professor Grimes
Professor Howe
Professor Hill
Associate Professor Hodges
Associate Professor Montgomery
Assistant Professor Parsons
Assistant Professor Eggert
Assistant Professor Pine
Instructor Doll
Instructor Miller
Instructor Wilson
Assistant Doran
Assistant Reed

Work in economics and sociology is offered in the divisions of Agriculture and General Science. The more general courses are listed in the general science section of the catalogue. Those courses listed here have a direct bearing on agriculture.

The investigational work in agricultural economics and rural sociology brings together the latest information concerning the business problems of agriculture and the problems of rural life. These data are used in the instructional work of the department. The student has an opportunity to learn of the factors and economic forces involved in farm management, marketing, taxation, land utilization, agricultural finance, rural life, and other closely related subjects.

COURSES IN AGRICULTURAL ECONOMICS

FOR UNDERGRADUATE CREDIT

106. Farm Organization. 3(2-3)*; I and II. Prerequisite: Econ. 101, Agron. 130, and An. Husb. 152. Hodges and staff.

Economic forces affecting the organization and operation of the farm business. Charge, $1.

112. Farm Cost Accounting. 3(2-3); I and II. Prerequisite: Econ. 101. Staff.

Systems of farm records and accounts. Analysis and utilization of cost of production data. Charge, $1.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Marketing of Farm Products. 3(3-0); I and II. Prerequisite: Econ. 101. Staff.

Marketing services and functions and price-making forces.

203. Grain Marketing. 3(3-0); I. Prerequisite: Econ. 202. Montgomery, Wilson.

Price influences and relationships, buying and selling problems, domestic and export trade; grain trade organization and regulation.

206A. Advanced Farm Organization. 3(2-3); II. Prerequisite: Econ. 106. Hodges, Pine.

Advanced studies of factors affecting the successful organization and operation of farms.

212. Conservation of Agricultural Resources. 2(2-0); II. Prerequisite: Econ. 101; junior standing. Howe, Miller.

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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.

218. Land Economics. 3(3-0); I. Prerequisite: Econ. 101. Howe, Miller.
Relation of population to land supply; land tenure, ownership, and valuation.

220. Taxation and Land Ownership. 3(3-0); II. Prerequisite: Econ. 101. Not open to students having credit in Econ. 214. Howe.
Public expenditures and revenues, public credit, and fiscal administration.

Land Law. See Hist. 276.

225. Agricultural Finance. 3(3-0); II. Prerequisite: Econ. 101. Parsons.
Sources and use of credit for purchase of farm land and to finance farm operations.

227. Farmer Movements. 3(3-0); I. Prerequisite: Econ. 101. Hodges.
Principles underlying successful organization of farmers.

231. Agricultural Economics Seminar. 1(1-0); II. Prerequisite: Econ. 101. Staff.
Current questions in agricultural economics.

235. Livestock Marketing. 3(3-0); II. Prerequisite: Econ. 202. Eggert, Wilson.
Livestock marketing services, functions, and prices.

240. Principles of Coöperation. 3(3-0); II. Prerequisite: Econ. 101. Montgomery.
Principles underlying successful coöperative activities.

251. Marketing of Dairy Products. 3(3-0); I. Prerequisite: Econ. 202. Parsons.
Factors affecting prices; dairy marketing organizations.

270. Agricultural Economic Problems. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.

271. Economic Analysis and Interpretation. 3(3-0); I. Prerequisite: Econ. 101. Hodges.

FOR GRADUATE CREDIT

301. Research in Agricultural Economics. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.
Individual research problems which may be used for a master's thesis.

COURSES IN RURAL SOCIOLOGY

FOR UNDERGRADUATE CREDIT

156. Rural Sociology. 3(3-0); I. Preferably preceded by a course in sociology. Hill.

FOR GRADUATE AND UNDERGRADUATE CREDIT

256. Advanced Rural Sociology. 3(3-0); II. Prerequisite: Econ. 156. Hill.
A continuation of Econ. 156.

FOR GRADUATE CREDIT

350. Research in Rural Sociology. Credit to be arranged; I, II, and SS. Prerequisite: Econ. 156.

Agronomy

Professor Throckmorton
Professor Laude
Associate Professor Zahnley
Associate Professor Clapp
Associate Professor Reitz
Associate Professor Metzger
Associate Professor Myers
Associate Professor Mullen
Assistant Professor Davis
Assistant Professor Hide
Assistant Professor Anderson
Assistant Hollembeak
Seed Analyst Norris
Graduate Assistant Klingman
Graduate Research Assistant Blodgett

The farm used by the Department of Agronomy comprises 320 acres of medium rolling upland soil, suited to experimental and demonstration work. The general fields and experimental plots used for the breeding and testing of farm crops, and for conducting experiments in soil fertility and methods of culture, afford the student excellent opportunities for study and investigation.

Laboratories for soil and crop work are maintained for the regular use of students. Material is provided for the study of the grain and forage crops best adapted to different purposes and most suitable for growing in the state. Greenhouse space is provided for problems and research work in crops and soils.

COURSES IN FARM CROPS

FOR UNDERGRADUATE CREDIT

101. Farm Crops. 4(2-6); I and II. Prerequisite: Bot. 101. Davis.
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(1-6); I. Prerequisite: Mill. Ind. 101. Zahnley, Mullen. Charge, $3.50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Crop Improvement. 3(2-3); or 4(2-6); II. Prerequisite: Agron. 101 and An. Husb. 221. Reitz.
Principles of breeding field crops; selection, hybridization, and breeding for special qualities.

Laboratory.—Laboratory, greenhouse, and field methods of plant breeding. Charge, $1.

205. Principles of Agronomic Experimentation. 3(2-3); I. Prerequisite: Agron. 101 and 130. Laude. Charge, $1.

207. Pasture Improvement I. 3(2-3); II. Prerequisite: Bot. 105 and Agron. 101. Anderson.
Grazing management of tame and native pastures, poisonous plants and methods to eliminate losses. Charge, $1.

208. Plant Genetics. 3(3-0); I. Prerequisite: An. Husb. 221. Reitz.
An advanced course. Offered in 1938-'39 and alternate years thereafter.

209. Genetics Seminar. 1(1-0); I and II. Prerequisite: Consult instructors. Nabours, Reitz, Warren, Ibsen, Jugenheimer.
Study and criticism of genetic experiments in plants and animals, and of the biological and mathematical methods employed.

210. Crop Problems. Credit to be arranged; I, II, and SS. Prerequisite: Agron. 101 and 130. Staff.
Special problems assigned; written reports thereon. Deposit, $4.

211. Crop Ecology. 2(2-0); II. Prerequisite: Agron. 101 and 130. Laude.
A study of the environmental conditions that influence growth of crops; natural and economic factors primarily responsible for the concentration of crop production in different regions and countries.

214. Advanced Crops. 3(2-3); I. Prerequisite: Agron. 101. Offered in 1939-'40 and alternate years thereafter. Zahnley.
Recent investigations in production and handling of forage, fiber, sugar, root, and other crops not considered in previous courses.
Laboratory.—Growth habits, classification, preparation for market, and grading of crops studied. Charge, $1.

215. Pasture Improvement II. 2(2-0); II. Prerequisite: Agron. 207 and 208. Offered in 1938-'39 and alternate years thereafter. Anderson.
Experimental methods; selection and breeding of pasture plants.

216. Agronomic Literature. 2(2-0); I. Prerequisite: Senior standing. Staff.

FOR GRADUATE CREDIT

301. Research in Crops. Credit to be arranged; I, II, and SS. Prerequisite depends on the problem selected. Staff.
Special problems chosen or assigned, resulting data being available for master's thesis. Deposit, $4.

COURSES IN SOILS

FOR UNDERGRADUATE CREDIT

130. Soils. 4(3-3); I and II. Prerequisite: Chem. 101 and Geol. 103. Throckmorton, Myers, Hide.
Fundamental principles underlying the management of soils. Charge, $3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

231. Dry-land Farming. 2(2-0); I. Prerequisite: Agron. 130. Myers.
Principles of soil management under light rainfall conditions.

235. Development and Classification of Soils. 3(2-3); II. Prerequisite: Agron. 130. Metzger.
Influence of soil-forming agencies on soil characteristics. Charge, $1.

236. Soil Problems. Credit to be arranged; I, II, and SS. Prerequisite depends on problem assigned. Staff. Deposit, $4.

244. Soil Management. 3(2-3); I and II. Prerequisite: Agron. 101 and 130. Myers.
Tillage, erosion control, nitrogen maintenance, crop rotations; use of lime, manure, and commercial fertilizers.

248. Soil Fertility. 3(3-0); I. Prerequisite: Agron. 130 and Bot. 208. Hide.
Chemistry of soils and related physical and biological factors. Major emphasis on fundamental soil fertility problems.

249. Soil Fertility Laboratory. 2(0-6); I. Prerequisite: Agron. 130 and Chem. 102. Metzger.
Chemical and physical laboratory studies of soils. Charge, $4.

FOR GRADUATE CREDIT

331. Research in Soils. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.
Special problems, which may extend throughout the year and furnish data for a master's thesis. Deposit, $4.

Animal Husbandry

Professor McCampbell
Professor Weber
Professor Bell
Professor Ibsen
Professor Aubel
Associate Professor Mackintosh
Associate Professor Cox
Assistant Professor Cathcart
Assistant Mitchell

The courses in this department give the student special instruction in the selection, breeding, feeding, marketing, and management of all classes of 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.

COURSES IN ANIMAL HUSBANDRY

FOR UNDERGRADUATE CREDIT

125. Elements of Animal Husbandry. 3(2-4); I and II. Staff.

Survey of the field of animal husbandry, special emphasis on the importance of livestock as a major phase of agriculture. Type, conformation, quality, character, and breed characteristics are studied in the laboratory. Charge, 50 cents.

140. Advanced Stock Judging I. 2(0-6); I. Prerequisite: An. Husb. 125. Bell.

Judging market animals and different breeds of livestock. One field trip. Charge, 50 cents.

143. Advanced Stock Judging II. 2(0-6); II. Prerequisite: An. Husb. 140. Bell.

Continuation of An. Husb. 140; occasional trips to livestock farms and shows. Charge, 50 cents.

146. Form and Function in Livestock. 2(0-6); I. Prerequisite: An. Husb. 143. Bell.

A detailed study of animal form and type; influence of type upon function; special training in presenting orally the relative merits of animals of all breeds. Charge, 50 cents.

152. Principles of Feeding. 3(3-0); II. Prerequisite: Anat. 131 and Chem. 124. Open 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.

156. Beef-cattle Production. 2(2-0); II. Prerequisite: An. Husb. 152 or 172. Weber. One field trip.

159. Swine Production. 2(2-0); II. Prerequisite: An. Husb. 152 or 172. Aubel. One field trip.

162. Sheep Production. 2(2-0); I. Prerequisite: I. An. Husb. 152 or 172. Cox. One field trip.

165. Horse Production. 2(2-0); I. Prerequisite: An. Husb. 152 or 172. Cathcart. One field trip.

168. Meats. 3(2-3); I and II. Prerequisite: An. Husb. 125. Mackintosh.

Killing, dressing, cutting, curing, judging, selecting, and grading meats. Charge, $1.

171. Livestock Production. 3(3-0); I. Prerequisite: An. Husb. 152 or 172. Open only to juniors and seniors not majoring in animal husbandry. Cox.

Practical insight into the production of beef cattle, horses, swine, and sheep.

172. Feeding Livestock. 3(3-0); II and SS. Prerequisite: Chem. 124 or its equivalent. Open only to students not enrolled in the curriculum in agriculture. Bell.
Processes of digestion and assimilation, feed requirements, feed values, calculating rations.

176. Meats H. E. 1(0-3); I and II. Prerequisite: Food and Nutr. 106. For juniors and seniors in home economics. Mackintosh.
Selecting, cutting, and curing meats; grading carcasses, uses of the various cuts. At least one field trip. Charge, $1.

184. Breed Studies. 2(2-0); I. Prerequisite: An. Husb. 125. Mackintosh.
Origin, development, adaptability, families, strains, noted sires, and noted breeders of the leading breeds of farm livestock other than dairy cattle.

187. Animal Husbandry Practicums. 3(1-6); II. Staff. Manual phases of livestock management. Charge, 50 cents.

189. Feeds and Feeding. 3(3-0); II. Prerequisite: Chem. 124 and Anat. 222. Open only to students in the curriculum in veterinary medicine. Weber.
A résumé of digestion and nutrition dealing primarily with practical feeding.

FOR GRADUATE AND UNDERGRADUATE CREDIT

221. Genetics. 3(3-0); I, II, and SS. Prerequisite: Zoöl. 105 and Bot. 105. Ibsen.
Variation, Mendelian inheritance, and related subjects.

224. Animal Breeding. 2(2-0); I. Prerequisite: An. Husb. 221. Aubel.
Physiology of reproduction; heredity; variation; systems of mating; pedigrees and herdbook standards; practices of leading breeders.

225. Advanced Genetics. 4(3-3); II. Prerequisite: An. Husb. 221. Ibsen.
Particular attention to the relation of chromosomes to heredity.

227. Genetics Seminar. 1(1-0); I and II. Prerequisite: Consult instructors. Nabours, Ibsen, Reitz, Warren.
Genetic experiments in plants and animals, the biological and mathematical methods employed, and the validity of conclusions drawn.

229. Research in Genetics. Credit to be arranged; I and II. Prerequisite: An. Husb. 225. Ibsen.
Problems in which small mammals are used as the experimental animals.

231. Advanced Studies in Pedigrees. 3(1-6); II. Prerequisite: An. Husb. 184. Mackintosh.
Pedigrees and performances of outstanding individuals. Important strains and families of beef cattle, horses, sheep, and swine.

233. Advanced Feeding. 2(2-0); I. Prerequisite: An. Husb. 152 or 172. Weber.
Application of the principles of nutrition in the feeding of farm animals.

244. Animal Husbandry Seminar. 1(1-0); II. Prerequisite: An. Husb. 152. Open only to senior and graduate students majoring in animal husbandry. Weber.

245. Animal Husbandry Problems. Credit to be arranged; I, II, and SS. Prerequisite: An. Husb. 152 and other courses; consult instructor. McCampbell.

250. Purebred Livestock Production. 2(2-0); II. Prerequisite: An. Husb. 184 and 224; senior or graduate standing. McCampbell.
One field trip.

260. Livestock and Meat Industry. 3(3-0); II. Prerequisite: An. Husb. 125 and 152. McCampbell.
The livestock and meat industry; its organization, operation, and development; relation to the public. Lectures, assigned readings, and reports.

268. Principles of Animal Husbandry Experimentation. 2(2-0); II. Prerequisite: An. Husb. 152 and 221. McCampbell, Ibsen, Weber.
Conducting and interpreting experiments involving the use of animals.

274. Advanced Meats. 1 to 4 hours; I. Prerequisite: An. Husb. 168. Mackintosh.
Grading; nutritive values; factors influencing quality; dressing percentages; identification of meats from different animals.

290. Problems in Training Agricultural Judging Teams. 2(10-0); four-week SS. Prerequisite: An. Husb. 125, Agron. 101, Poult. 101, Dairy Husb. 101, and one year's teaching experience. Cox, Zahnley, Scott, Cave, Davidson.
A seminar course in training agricultural judging teams.

FOR GRADUATE CREDIT

301. Research in Animal Husbandry. Credit to be arranged; I and II. Prerequisite: Consult instructor. Staff.
Special problems in genetics and in the production of all kinds of livestock except dairy cattle.

305. Animal Nutrition Seminar. 1(1-0); I and II. Prerequisite: Senior or graduate standing. McCampbell.
Study and criticism of experimental work in animal nutrition, of the methods employed, and of the validity of conclusions drawn.

311. The Wool Industry. 3(2-3); II. Prerequisite: An. Husb. 162. Cox.
Supply and demand, production, marketing, manufacturing.

Dairy Husbandry

Professor Atkeson
Professor Cave
Professor Martin
Associate Professor Riddell
Assistant Professor Caulfield
Instructor Beck
Graduate Assistant Lowenstein

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.

COURSES IN DAIRY HUSBANDRY

FOR UNDERGRADUATE CREDIT

101. Elements of Dairying. 3(2-3); I and II. Staff.
Problems of the milk producer and manufacturer; feeding, handling, breeding, and selecting of dairy cattle; composition and properties of milk; manufacture of dairy products.

Laboratory.—Selection of dairy cattle, production, manufacture, and common tests of dairy products. Charge, $1.50.

104. Dairy Cattle Judging for Veterinary Students. 1(0-3); I. Riddell, Cave.

105. Dairy Cattle Judging. 2(0-6); II. Prerequisite: Dairy Husb. 101. Cave.

106. Dairy Inspection. 2(1-3); I. Prerequisite: Dairy Husb. 101. Caulfield.
Advanced work in testing dairy products and testing for adulterations; practice in use of dairy and creamery score cards; state and city ordinances; duties of city, state, and government inspectors. Charge, $3.

108. Milk Production. 3(3-0); II. Prerequisite: Dairy Husb. 101 and An. Husb. 152 or 172. Atkeson.
Handling the dairy herd; construction of dairy barns and buildings; other subjects concerning the dairy farmer.

110. Butter Making. 3(2-3); I. Prerequisite: Dairy Husb. 101 and Bact. 101. To be taught concurrently with Bact. 235. Martin.
The butter industry; cream production and care on the farm and in the plant; manufacturing, marketing, and food value of butter.
Laboratory.—Sampling and grading cream, butter analysis and tests, preparation of cream for churning, manufacture of butter. Charge, $3.

116. Market Milk. 3(2-3); II. Prerequisite: Dairy Husb. 101 and Bact 101. Martin.
Classes of market milk; clean milk production; relation of clean milk to producer, dealer, and consumer; milk inspection, score cards, and milk and cream contests; milk plants.
Laboratory.—Actual processing of market milk and cream. Charge, $3.

119. Dairy Inspection for Veterinary Students. 2(1-3); II. Caulfield.
Composition and properties of milk; clean milk production; study of state and city ordinances affecting milk and dairy products.
Laboratory.—Testing of milk and dairy products; preparation and testing chemical disinfectants; scoring of dairy farms and milk plants. Charge, $3.

120. Advanced Dairy Cattle Judging. 1(0-3); I. Cave.
Continuation of Dairy Husb. 105; visits to some of the best farms in the state.

128. Condensed and Powered Milk. 3(2-3); I. Prerequisite: Dairy Husb. 101 and Bact. 101. Offered in 1939-'40 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 1938-'39 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 1939-'40 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.
Study of dairy periodicals, bulletins, books, other dairy literature.

207. Feeding and Management of Dairy Cattle. 3(2-3); II. Prerequisite: Dairy Husb. 108 and An. Husb. 152. Offered in 1938-'39 and alternate years thereafter. Cave.

Laboratory.—Includes fitting of animals for show and sale. Charge, $1.

214. Dairy Cattle Breeding and Selection. 3(2-3); II. Prerequisite: Dairy Husb. 108. Offered in 1939-'40 and alternate years thereafter. Riddell.

History of breeds and families; inheritance of milk secretion; bull indexes; selection of herd sire; systems of breeding.

Laboratory.—Herdbook studies; pedigree writing and analysis.

216. Dairy Production Problems. Credit to be arranged; I and II. Prerequisite: Dairy Husb. 101, 105, and 108, and An. Husb. 152. Atkeson, Cave, Riddell.

Dairy production problems that may be continued for more than one semester.

221. Dairy Manufacturing Problems. Credit to be arranged; I and II. Prerequisite: Dairy Husb. 101, 106, 108, and 110. Martin, Caulfield.

Dairy manufacturing problems that may be continued for more than one semester.

226. Creamery Management. 2(2-0); II. Prerequisite: Dairy Husb. 110. Offered in 1938-'39 and alternate years thereafter. Martin.

An advanced course for students specializing in dairy manufacturing.

FOR GRADUATE CREDIT

301. Research in Dairy Husbandry. Credit to be arranged; I and II. Prerequisite: Dairy Husb. 108, 110, 116, and 226; consult instructors. Staff.

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

305. Animal Nutrition Seminar. 1(1-0); I and II. Prerequisite: Consult instructors. Atkeson, Cave, Riddell.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of the validity of conclusions drawn.

Dairy Refrigeration. See Mech. Engr. 170 and 175.

Dairy Bacteriology. See Bact. 211.

Bacteriology of Butter Cultures. See Bact. 235.

Dairy Chemistry. See Chem. 254.

Marketing of Dairy Products. See Econ. 251.

General Agriculture

Dean Call
Associate Professor Mullen

102. Freshman Lectures. 1(2-0); I. Call, Mullen, Peterson, various faculty members.

Guidance in learning to study; information regarding opportunities for graduates in various fields.

103. Agricultural Seminar. R; I and II. Four meetings each semester.

Programs presented by students, members of faculty, invited speakers. Charge, 75 cents.

105. Agricultural Relationships. R(1-0); II. Call.

Responsibilities and opportunities for agricultural graduates as citizens and as specialists in various phases of agricultural activity.

Horticulture

Professor Pickett
Professor Barnett
Professor Quinlan
Associate Professor Smith
Associate Professor Filinger
Associate Professor Decker
Assistant Professor Abmeyer
Assistant Kenworthy
Graduate Assistant Beaumont

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

The horticultural farm, the campus, and the college greenhouses provide adequate materials for instructional use. There are ornamental plantings of many species, and vegetable and flower gardens on the campus. Field work in pomology and forestry is provided for on the horticultural farm.

In general, the basic curriculum in horticulture is the same as that followed by other departments in the Division of Agriculture. Students who desire to prepare for specialized work in horticulture, such as landscape gardening and floriculture, may arrange electives adapted to their objective throughout the four years of the curriculum. Each student should make provision for these electives with the head of the department before taking out his first freshman assignment.

COURSES IN GENERAL HORTICULTURE

FOR UNDERGRADUATE CREDIT

107. Elements of Horticulture. 3(2-3); I and II. Prerequisite: Bot. 105. Barnett and staff.

Principles and practices of successful orcharding and gardening.

Laboratory.—Study of fruit-bearing habits, propagation, pruning, spraying, transplanting, cover crops, fruit varieties, etc. Charge, $2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

207. Spraying. 3(2-3); II. Prerequisite: Chem. 103 or equivalent. Pickett, Filinger.

Spray machinery; chemical properties; insecticides; fungicides; spray dates; fumigation.

Laboratory.—Spray materials, residue determinations, fumigants; spray machinery and accessories. Charge, $2.

208. Literature of Horticulture. 2(2-0); II. Open only to junior, senior, and graduate students in horticulture. Offered in 1938-'39 and alternate years thereafter. Filinger.

Books and publications are reviewed and bibliographies prepared.

235. Horticulture Seminar. 1(1-0); I and II. Open only to junior, senior, and graduate students in horticulture. Barnett.

Critical discussion of horticultural publications and of experimental and research projects under way at this and other experiment stations.

244. Horticultural Problems. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Investigations and reports in pomology, olericulture, floriculture, forestry, or landscape gardening.

FOR GRADUATE CREDIT

301. Research in Horticulture. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.

Problems in pomology, olericulture, floriculture, or landscape gardening. Data collected may form basis for a master's thesis.

COURSES IN FORESTRY

FOR UNDERGRADUATE CREDIT

114. Farm Forestry. 3(2-3); I. Prerequisite: Bot. 105. Smith.
Management and utilization of woodlots and tree belts. Charge, $2.

119. Silviculture. 3(2-3); I. Prerequisite: Bot. 105. Smith.
Ecology of the forest; regions, types. Charge, $2.

120. Forest Nursery Practice. 3(2-3); I. Prerequisite: Bot. 105. Smith.
Tree seed; planting practice; regeneration. Charge, $2.

COURSES IN LANDSCAPE GARDENING

FOR UNDERGRADUATE CREDIT

125. Landscape Gardening I. 3(3-0); I and SS. Quinlan.
An introductory course in the fundamental principles of landscape gardening.

FOR GRADUATE AND UNDERGRADUATE CREDIT

223. Civic Art. 3(1-6); II. Prerequisite: Hort. 243. Offered in 1939-'40 and alternate years thereafter. Quinlan.
Growth and development of cities and towns; land subdivision. Charge, $1.

224. Plant Materials I. 3(2-3); I. Prerequisite: Bot. 105. Quinlan.
Perennials and annuals for general ornamental planting; planting plans.

226. Plant Materials II. 3(2-3); II. Prerequisite: Hort. 224. Quinlan.
Trees, shrubs, vines for ornamental planting; planting plans and reports.

227. Landscape Construction. 3(2-3); I. Prerequisite: Civ. Engr. 151, 155. Offered in 1938-'39 and alternate years thereafter. Quinlan.
Topographic maps; grading plans; structures, sewage, water supply, lighting, and drainage on the private estate. Charge, $1.

238. Landscape Gardening II. 3(1-6); I. Prerequisite: Hort. 125 and 226. Quinlan.
Elementary designing of the home grounds, country estates, special gardens; sketch problems. Charge, $1.

243. Theory of Landscape Design. 2(2-0); I. Prerequisite: Hort. 125. Offered in 1939-'40 and alternate years thereafter. Quinlan.
The economic and esthetic theory of design; taste, character, historic styles, and composition; natural elements in design; planting design.

246. Landscape Gardening III. 3(1-6); II. Prerequisite: Hort. 226, 243, and 238. Quinlan.
Advanced course in designing of large parks, cemeteries, golf courses, educational groups, and high-class land subdivisions. Sketch problems. Charge, $1.

COURSES IN POMOLOGY

FOR UNDERGRADUATE CREDIT

109. Small Fruits. 3(2-3); II. Prerequisite: Bot. 105. 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 1939-'40 and alternate years thereafter. Barnett.
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.

Laboratory.—Advanced apple judging; production and marketing studies. 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.

130. School Gardening. 2(2-0); SS. Decker.
Soils, pests, and machinery as related to vegetable culture.

133. Vegetable Gardening. 3(2-3); II. Decker.
Principles underlying vegetable production for the home or local market, special attention given to farm gardens.

Laboratory.—Varieties, planting schedules, and crop rotations. Charge, $2.

135. Floral Arrangement I. 2(1-3); I. Decker. Consult instructor for prerequisites.
The commercial flower shop, source of supplies, sales.

Laboratory.—Arrangement of flowers for various occasions. Charge, $2.

136. Floral Arrangement II. 2(1-3); II. Decker. Consult instructor for prerequisites. Continuation of Hort. 135.

Laboratory.—Care of cut flowers, packing, delivery, and arrangement. Charge, $2.

140. Commercial Floriculture I. 3(2-3); I. Prerequisite: Hort. 127. Decker.
Principles underlying the culture of greenhouse crops. Charge, $2.

141. Commercial Floriculture II. 3(2-3); II. Prerequisite: Hort. 140. Decker.
Continuation of Hort. 140. Charge, $2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

210. Market Gardening. 3(2-3); I. Prerequisite: Agron. 130 and Hort. 133. Decker.
Competitive areas, market requirements, harvesting, grading, and costs.

Laboratory.—Grading and packing, sources of market supplies, and prices. Charge, $2.

214. Horticultural Cash Crops. 2(2-0); I. Decker.
Vegetable crops grown in Kansas principally as cash crops; potatoes, sweet potatoes, watermelons, and cantaloupes.

Milling Industry

Professor Swanson
Professor Larmour
Associate Professor Working
Assistant Professor Pence
Instructor Anderson

The Department of Milling Industry offers courses to prepare students for work in flour-milling operation, products control, or administration.

The department has a flour mill of 65 barrels daily capacity, equipped as a commercial plant and also with many features designed for research and instruction. For the study of elementry principles in milling and special problems in milling technology there are several units of nonautomatic mills.

The baking laboratory has dough mixers, proofing cabinets, ovens and other apparatus needed for baking tests in elementary and advanced work. The chemical laboratory has the usual chemical apparatus for wheat and flour testing, and special equipment for work on advanced problems.

COURSES IN MILLING INDUSTRY

FOR UNDERGRADUATE CREDIT

101. Elements of Milling. 2(1-3); I. Larmour, Anderson.
A survey of the field; basic work on experimental mills. Charge, $2.

103. Flow Sheets. 2(0-6); II. Prerequisite: Mill. Ind. 101. Pence.
The construction and assembling of a flow sheet. Charge, $2.

105. Principles of Baking. 4(2-6); II. Larmour.
Baking procedures and interpretation of qualities in baked products. Not open for credit to students who major in milling chemistry. Charge, $5.

109. Milling Practice I. 3(1-6); I. Prerequisite: Mill. Ind. 103. Pence.
A study of milling machinery and methods of checking flour mill operations. Charge, $2.

111. Milling Practice II. 3(1-6); II. Prerequisite: Mill. Ind. 109. Pence.
A study of roll and bolting surfaces, power transmission, lubrication, millwright work, and controls for flour mill operation. Charge, $2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Milling Technology I. 2(0-6); I. Prerequisite: Mill. Ind. 111. Anderson.
Technical study of special phases of wheat conditioning and flour milling. Charge, $2.

202. Milling Technology II. 2(0-6); II. Prerequisite: Mill. Ind. 201. Anderson.
A study of the physical, chemical, and engineering principles used in the control of flour mill operations. Charge, $2.

203. Flour Mill Construction. (0-8-1); I. Prerequisite: Mach. Des. 111 and 121; prerequisite or concurrent, Ap. Mech. 216. Pence.

205. Wheat and Flour Testing. 3(0-9); I. Prerequisite: Mill. Ind. 212 and Chem. 122 or 123, and 251. Working.
Special quantitative tests of cereals and their products; methods of analysis and interpretation of results. Deposit $7.50.

207. Experimental Baking. 4(2-6); II. Prerequisite: Chem. 122. Larmour.
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. Milling Qualities of Wheat. 3(3-0); II. Prerequisite: Chem. 122. Swanson.

The qualities of wheat and flour as affected by growth, storage, physical, chemical and biological factors.

214. Milling Industry Problems. Credit to be arranged; I, II, and SS. Prerequisite: Mill. Ind. 212, or such other courses as are necessary for the problem selected. Staff. Charge, $2.50 per hour.

218. Milling Industry Seminar. R(½-0); I and II.

Discussion of problems of general interest to all students in milling industry. Charge, 75 cents.

FOR GRADUATE CREDIT

301. Research in Milling Industry. Credit to be arranged; I, II, and SS. Prerequisite: Consult staff.

Research may be used as basis for the master's thesis.

Poultry Husbandry

Professor Payne
Professor Warren
Associate Professor Scott
Graduate Assistant Avery
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.

COURSES IN POULTRY HUSBANDRY

FOR UNDERGRADUATE CREDIT

101. Farm Poultry Production. 2(1-3); I and II. Payne, Scott, Avery. Charge, $2.

109. Poultry Judging. 3(1-6); I. Prerequisite: Poult. Husb. 101. Scott.

Production characteristics and evolution of present breed types.

Laboratory.—Judging the standard breeds and varieties by comparison; judging hens for egg production on the basis of their trap-nest records. Charge, $2.

116. Market Poultry and Eggs. 4(2-6); I. Prerequisite: Poult. Husb. 101. Offered in 1939-'40 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. Artifical Incubation and Brooding. 3(1-6); (laboratory 3 times a day, 7 days a week, for not less than 8 weeks, at hours outside the regular schedule); II. Prerequisite: Poult. Husb. 101 and Zoöl. 105. Scott.

Development of the chick; metabolism; survey of the literature on incubation and brooding; actual care of an incubator; bringing off the hatch; care of chicks in brooder for 3 weeks. Charge, $2.

125. Advanced Incubation. 1(0-3); (laboratory 3 times a day, 7 days a week, for not less than 3 weeks, at hours outside the regular schedule); II. Prerequisite: Poult. Husb. 101 and 120. Offered 1939-'40 and alternate years thereafter. Scott.

Study of the baby chick industry; operation of a Mammoth incubator; packing and shipping of baby chicks. Charge, $2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

204. Poultry Genetics. 3(3-0); II. Prerequisite: An. Husb. 221. Warren.
Special reference to bearing of genetics on practical breeding problems.

Poultry Farm Organization. See Ag. Ec. 206A.

Poultry Sanitation. See Bact. 218.

Poultry Anatomy. See Anat. 202.

206. Poultry Problems. Credit to be arranged; I, II, and SS. Prerequisite: Poult. Husb. 101 and 104; consult instructors. Payne, Warren, Scott.
Investigations which may be continued into the next semester if necessary.

210. Genetics Seminar. 1(1-0); I and II. Prerequisite: Consult Warren.
Genetics experiments in plants and animals; the biological and mathematical methods employed; and the validity of conclusions drawn.

216. Poultry Management. 3(3-0); II. Prerequisite: Poult. Husb. 101; senior or graduate standing. Payne.
A detailed study of all phases of farm and commercial flocks, including cost of production.

220. Poultry Seminar. 1(1-0); I. Prerequisite: Poult. Husb. 101. Required of all graduate students and of both juniors and seniors majoring in poultry husbandry. Warren.

FOR GRADUATE CREDIT

301. Research in Poultry Husbandry. Credit to be arranged; I, II, and SS. Prerequisite: Poult. Husb. 101, 104, 109, 116, and 120; consult instructors. Warren, Payne, Scott.
Investigations which may form the basis of a master's thesis.

305. Animal Nutrition Seminar. 1(1-0); I and II. Prerequisite: Consult Payne.
Study and criticism of experimental work in animal nutrition.

The Agricultural Experiment Station

The Kansas Agricultural Experiment Station was organized under the provisions of an act of congress, approved March 2, 1887, which is commonly known as the Hatch act.

Two days later, March 4, 1887, the legislature of Kansas adopted a resolution accepting the conditions of the Hatch act, and vesting the responsibility of carrying out its provisions in the Board of Regents of Kansas State College.

The Hatch act carried an annual congressional appropriation of $15,000. No further addition to this amount was made until the passage of the Adams act, approved March 16, 1906, which provided a sum beginning with $5,000, and increasing each year by $2,000 over the preceding years for five years. Since this time the annual appropriation has been $15,000. Under the Adams act, experiments entered upon must be approved by the Office of Experiment Stations of the United States Department of Agriculture.

The Purnell act, approved February 24, 1925, authorized an appropriation of $20,000 for the fiscal year beginning July 1, 1925, with allotments increasing annually by $10,000 until a total of $60,000 was reached for the fiscal year beginning July 1, 1929. The Purnell act is broad in scope and provides specifically for scientific research in agricultural economics, home economics, and rural sociology, in addition to providing more liberal support for the older established work of the Agricultural Experiment Station.

A fourth act authorizing support for the agricultural experiment stations is the Bankhead-Jones act, approved June 29, 1935. This act authorizes appropriations to the land-grant colleges for research, based upon the rural population of the various states. The amount available to Kansas was approximately $12,000 for the first fiscal year, and will amount to approximately $60,000 annually when the act is in full force. The Bankhead-Jones act states specifically that the research authorized shall be in addition to research provided for under existing laws and that no allotment of funds shall be made to a state for any fiscal year in excess of the amount which the state makes available for such fiscal year out of its own funds for research.

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

Farms, livestock, laboratories, and general equipment of the college are all directly available for the use of the station.

More than one hundred projects covering practically all phases of agricultural investigation are being studied by the members of the experiment station staff. Results of this work are published in the form of scientific papers and bulletins and circulars intended primarily for the general reader.

All bulletins and other publications from the Agricultural Experiment Station are sent without charge to citizens of the state. Any person in the state may have his name placed on the permanent mailing list of the station.

Letters of inquiry and general correspondence should be addressed to Agricultural Experiment Station, Manhattan, Kan. Special inquiries should be directed, as far as possible, to the head of the department having charge of the matter concerning which information is desired.

Branch Agricultural Experiment Stations

FORT HAYS BRANCH STATION

Land occupied by this station is a part of what was originally the Fort Hays military reservation. A bill was approved by congress March 28, 1900, setting aside this reservation for experimental and educational purposes. By act of the state legislature, approved February 7, 1901, the act of congress donating this land and imposing the support of these institutions was accepted. The same session of the legislature passed an act providing for the organization of a branch experiment station and appropriating a small fund for preliminary work. In the division of this land, the college received 3,560 acres.

The work of this station may be divided into two divisions: (a) experimental projects; (b) general farm and livestock work. Investigations are confined primarily to the study of problems peculiar to the western half of the state where rainfall is limited. Facilities of the station are also being used for the growing of large quantities of pure seed of the strains and varieties which have proved in actual test to be most productive in the western part of the state.

GARDEN CITY BRANCH STATION

In 1906, the county commissioners of Finney county purchased for purposes of agricultural experimentation a tract of land amounting to 320 acres, situated four and one-half miles from Garden City in western Kansas. The land has been leased for a term of ninety-nine years to the Kansas Agricultural Experiment Station as an experimental and demonstration farm. Investigations in irrigation are conducted at this station.

COLBY BRANCH STATION

The legislature of 1913 provided for the establishment of a branch experiment station near Colby, in northwestern Kansas. It is located on a tract of 314 acres. The land was purchased by the county and deeded to the state. Operations were begun in March, 1914. Cropping experiments are being conducted under dry-land conditions and under irrigation. The primary purpose of the Colby station is to determine the best methods of developing the agriculture of northwestern Kansas.

TRIBUNE BRANCH STATION

At the Tribune station experimental and demonstration work is conducted for the benefit of the surrounding western territory. Special attention is paid to the problems of producing crops under conditions of limited rainfall.

The Division of Engineering and Architecture

Roy Andrew Seaton, *Dean*

The Division of Engineering and Architecture offers curriculums in agricultural engineering, architectural engineering, architecture, chemical engineering, civil engineering, electrical engineering, industrial arts, and mechanical engineering, each leading to the degree of Bachelor of Science in the particular branch of the profession selected.

The curriculums as tabulated give fundamental preparation for entering upon work in the several branches of the professions, with some opportunity for specialization through options and electives. To a limited extent substitutions may be made for certain of the courses listed as required when there appears to be good reason for them, but each such substitution must have the approval of the head of the department in which the curriculum is administered, the head of 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 in agricultural engineering includes all of the basic courses which are common to the other engineering curriculums such as mathematics, physics, and mechanics. Courses in agriculture are also included in order to familiarize the student with the modern methods of agriculture. Training along engineering lines includes farm machinery, farm power, farm structures, highway engineering, drainage, irrigation, soil-erosion control, and modern farm and home equipment.

CURRICULUM IN ARCHITECTURAL ENGINEERING

The curriculum in architectural engineering emphasizes the structural and mechanical phases of architecture. The field of the architectural engineer comprises the superintending of building construction, general contracting, structural design, estimating construction costs, and specification writing.

Students pursuing the curriculum in architectural engineering are urged to devote a fifth year to the work. By so doing a student can combine the curriculums in architecture and architectural engineering and receive the bachelor of science degree in both. Students intending to receive both degrees should consult with the head of the department at the beginning of the sophomore year.

It is also recommended that students obtain practical experience during the summer vacations in the building industry, either on construction projects or in the office of an architect, construction engineer, or contractor.

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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.

It is recommended that students obtain practical experience during the summer vacations in the building industry, either on construction projects or in the office of an architect.

CURRICULUM IN CHEMICAL ENGINEERING

The aim of the curriculum in chemical engineering is to prepare the student for work in the design, construction, and operation of chemical plants. The scope of chemical engineering includes the strictly chemical industries, such as those manufacturing acids, alkalis, lacquer solvents, dyes, explosives, metals and like materials, and also the process industries, such as those processing petroleum, rubber, foods, leather, and those manufacturing cement, glass, soap, paints and varnishes, pulp and paper.

CURRICULUM IN CIVIL ENGINEERING

The aim of the curriculum in civil engineering is to give preparation for the active practice of the profession. The first and second years are devoted largely to general cultural studies and the sciences, including mathematics. An introduction to the technical work is given in these years through courses in drawing, surveying, and the elementary phases of engineering.

The last two years are devoted largely to technical work. In recognition of the mechanical trend of the age, provision is made for class and laboratory work in mechanical and electrical engineering. In view of the growing importance of municipal problems, such as paving, sewerage, and water supply, the curriculum in civil engineering includes required courses in these subjects.

Advanced elective courses in railway, highway, and irrigation and drainage engineering are offered in the second semester of the senior year.

CURRICULUM IN ELECTRICAL ENGINEERING

The 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.

In order to qualify for the various divisions of the profession, the student should have a thorough grounding in mathematics and the sciences; practice and theoretical training in drawing, surveying, and shop practice; and a liberal training in the cultural subjects, English, history, and economics. Such a broad foundation serves as the basis for the more technical training in electrical engineering. This technical training begins with a course in the first year, is followed by another course in the second year, and is completed by several courses extending through the junior and senior years. The curriculum provides, in addition, elective work, giving the student opportunity for the selection of extra work along cultural, economic, or technical lines.

CURRICULUM IN INDUSTRIAL ARTS

The curriculum in industrial arts is designed to prepare students for positions as supervisors and directors of training schools in industry, or as teachers in colleges, high schools, and trade schools; also to give some technical training and experience in shop work and drafting, preparatory to entering industrial shops.

CURRICULUM IN MECHANICAL ENGINEERING

The curriculum in mechanical engineering is a combination of theory and practice, to give the student the technical skill required for engineering operations, and also an understanding of the scientific and economic principles necessary for the solution of engineering and industrial problems.

Throughout the four years the theoretical studies in the classroom are supplemented by practical work in the laboratories. In the testing laboratories the work does not end when the test is completed, but the entire problem must be written up in such a manner as would be approved in commercial testing laboratories. The laboratory work in the shops gives the student practice in operating the machinery and performing the various mechanical operations, and includes a scientific study of the factors of production, so that loss of material and expenditure of human effort will be at a minimum.

Optional and elective courses are available in the senior year and give the student an opportunity for instruction in the more specialized branches of mechanical engineering, including industrial engineering, power production, petroleum production, and aeronautical engineering.

Students pursuing a mechanical engineering curriculum are urged to spend at least two summers in some shop or commercial plant.

ENGINEERING AND ARCHITECTURE IN THE SUMMER SCHOOL

The Division offers summer courses in free-hand and mechanical drawing, water-color and oil painting, manual training and shop practice for high-school and grade-school teachers, 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. Engr. 122	2(1-3)
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Engr. Drawing, Mach. Des. 101	2(0-6)	Desc. Geometry, Mach. Des. 106	2(0-6)
Oxyacetylene Welding, Shop 171,	1(0-2, 1)	Foundry Production, Shop 161	1(0-3)
Artillery I, Mil. Sc. 113A	1(1-2)	Artillery II, Mil. Sc. 114A	1(1-2)
Engr. Lectures, Gen. Engr. 101	R	Engr. Lectures, Gen. Engr. 101	R
Phys. Educ. M, Phys. Ed. 103	R(0-2)	Phys. Educ. M, Phys. Ed. 104	R(0-2)
Total	17	Total	17

SOPHOMORE

First Semester		Second Semester	
Engr. Physics I, Phys. 105	5(4-3)	Engr. Physics II, Phys. 106	5(4-3)
Calculus I, Math. 114	4(4-0)	Calculus II, Math. 115	4(4-0)
Surveying I, Civ. Engr. 102	2(0-6)	Surveying II, Civil Engr. 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(2-4)	General Geology, Geol. 103	3(3-0)
Artillery III, Mil. Sc. 115A	1(1-2)	Artillery IV, Mil. Sc. 116A	1(1-2)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Phys. Educ. M, Phys. Ed. 105	R(0-2)	Phys. Educ. M, Phys. Ed. 106	R(0-2)
Total	17	Total	18

JUNIOR

First Semester		Second Semester	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mtls., Ap. Mech. 211, 220,	6(5-3)
Field and Power Mach., Agr. Engr. 111	4(2-6)	Farm Motors, Agr. Engr. 225	4(2-6)
Engr. Thermo. A, Mech. Engr. 201A	3(3-0)	Farm Crops, Agron. 101	4(2-6)
Public Speaking, Pub. Spk. 107	2(2-0)	Economics I, Econ. 101	3(3-0)
Metals and Alloys, Shop 165	2(2-0)	Graphic Statics, Ap. Mech. 225	1(0-3)
Machine Tool Work I, Shop 170	2(0-6)	Engr. Assembly, Gen. Engr. 105	R
Technical Reports, Engl. 215	1(1-0)		
Engr. Assembly, Gen. Engr. 105	R		
Total	18	Total	18

SENIOR

First Semester		Second Semester	
Farm Structures, Agr. Engr. 203	4(2-6)	Mod. Farm and Home Equipment, Agr. Engr. 210	3(2-3)
Soils, Agron. 130	4(3-3)	Land Reclamation, Agr. Engr. 250,	3(2-3)
Hydraulics, Ap. Mech. 230, 235	4(3-3)	Air Conditioning A, Mech Engr. 135	3(3-0)
Highway Engr. I, Civil Engr. 231	2(2-0)	Elec. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Amer. Ind. History, Hist. 105	3(3-0)	Farm Organization, Agr. Econ. 106,	3(2-3)
Engr. Assembly, Gen. Engr. 105	R	Elective†	2(-)
Inspection Trip, Agr. Engr. 140	R	Engr. Assembly, Gen. Engr. 105	R
Total	17	Total	17

Number of hours required for graduation, 139.

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

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

Curriculum in Architectural Engineering

FRESHMAN

First Semester		Second Semester	
Chemistry E-I, Chem. 107	4(3-3)	Chemistry E-II, Chem. 108	4(3-3)
College Alegbra,* Math. 104	3(3-0)	Plane Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
College Rhetoric I, Engl. 101	3(3-0)	Shades and Shadows and Perspective, Mach. Des. 108	3(0-9)
Desc. Geometry A, Mach. Des. 107,	3(0-9)	Freehand Drawing I, Arch. 112	2(0-6)
Artillery I, Mil. Sc. 113A	1(1-2)	Artillery II, Mil. Sc. 114A	1(1-2)
Engr. Lectures, Gen. Engr. 101	R	Engr. Lectures, Gen. Engr. 101	R
Phys. Educ. M, Phys. Ed. 103	R(0-2)	Phys. Educ. M, Phys. Ed. 104	R(0-2)
Total	17	Total	17

SOPHOMORE

First Semester		Second Semester	
Engr. Physics I, Phys. 105	5(4-3)	Engr. Physics II, Phys. 106	5(4-3)
Calculus I, Math. 114	4(4-0)	Calculus II, Math. 115	4(4-0)
Freehand Drawing II, Arch. 113	2(0-6)	Economics I, Econ. 101	3(3-0)
El. of Arch. I, Arch. 106A	3(0-9)	El. of Arch. II, Arch. 107A	3(0-9)
Surveying I, Civil Engr. 102	2(0-6)	Pencil Rend. and Sketch., Arch. 116,	2(0-6)
Artillery III, Mil. Sc. 115A	1(1-2)	Artillery IV, Mil. Sc. 116A	1(1-2)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Phys. Educ. M, Phys. Ed. 105	R(0-2)	Phys. Educ. M, Phys. Ed. 106	R(0-2)
Total	17	Total	18

JUNIOR

First Semester		Second Semester	
Applied Mechanics, Ap. Mech. 202	4(4-0)	Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Bldg. Materials and Construction, Arch. 187A	3(3-0)	Working Draw. and Speci., Arch. 191	3(0-9)
Architectural Design I, Arch. 142	3(0-9)	Architectural Design II, Arch. 144,	3(0-9)
Hist. of Arch. I, Arch 154A	2(2-0)	Hist. of Arch. II, Arch. 157A	2(2-0)
Foundations, Civil Engr. 121	2(2-0)	Water Color I, Arch. 118	2(0-6)
Law for Engineers, Hist. 167	2(2-0)	Illumination A, Elec. Engr. 116	2(2-0)
Public Speaking, Pub. Spk. 107	2(2-0)	Engr. Assembly, Gen. Engr. 105	R
Engr. Assembly, Gen. Engr. 105	R		
Total	18	Total	18

SENIOR

First Semester		Second Semester	
Stresses in Framed Struc., Civil Engr. 201	4(4-0)	Des. of Framed Struc., Civ. Engr. 246	3(0-9)
Architectural Design III, Arch. 145,	5(0-15)	Reinforced Concrete Design, Civ. Engr. 250, 255	3(2-3)
Hist. of Arch. III, Arch. 158A	2(2-0)	Hist. of Arch. IV, Arch. 160A	2(2-0)
Civ. Engr. Draw. II, Civ. Engr. 205,	2(0-6)	Building Equipment, Arch. 188	2(2-0)
Soil Mechanics, Ap. Mech. 290	2(0-6)	Air Cond. A, Mech. Engr. 135,	3(3-0)
Elective†	2(-)	Elective†	4(-)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Inspection Trip, Arch. 199	R		
Total	17	Total	17

Number of hours required for graduation, 139.

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

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

Curriculum in Architecture

FRESHMAN

First Semester		Second Semester	
College Algebra,* Math. 104	3(3-0)	Plane Trigonometry, Math. 101	3(3-0)
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Desc. Geometry A, Mach. Des. 107,	3(0-9)	Shades and Shadows and Perspective, Mach. Des. 108	3(0-9)
El. of Arch. I, Arch. 106A	3(0-9)	El. of Arch. II, Arch. 107A	3(0-9)
History of Arch. I, Arch. 154A	2(2-0)	History of Arch. II, Arch. 157A	2(2-0)
Freehand Drawing I, Arch. 112	2(0-6)	Freehand Drawing II, Arch. 113	2(0-6)
Artillery I, Mil. Sc. 113A (men)	1(1-2)	Artillery II, Mil. Sc. 114A (men)	1(1-2)
Engr. Lectures, Gen. Engr. 101	R	Engr. Lectures, Gen. Engr. 101	R
Phys. Educ. M, Phys. Ed. 103	R(0-2) *or*	Phys. Educ. M, Phys. Ed. 104	R(0-2) *or*
Phys. Educ. W, Phys. Ed. 151A	R(0-3)	Phys. Educ. W, Phys. Ed. 152A	R(0-3)
Total, men	17	Total, men	17
Total, women	16	Total, women	16

SOPHOMORE

First Semester		Second Semester	
General Physics I, Phys. 102	4(3-3)	General Physics II, Phys. 103	4(3-3)
Economics I, Econ. 101	3(3-0)	Applied Mech. A, Ap. Mech. 102	3(3-0)
Architectural Design I, Arch. 142	3(0-9)	Architectural Design II, Arch. 144,	3(0-9)
Building Mat. and Con., Arch. 187A	3(3-0)	Work. Drawing and Spec., Arch. 191	3(0-9)
History of Arch. III, Arch. 158A	2(2-0)	History of Arch. IV, Arch. 160A	2(2-0)
Pencil Rend. and Sketch., Arch. 116	2(0-6)	Water Color I, Arch. 118	2(0-6)
Artillery III, Mil. Sc. 115A (men),	1(1-2)	Artillery IV, Mil. Sc. 116A (men)	1(1-2)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Phys. Educ. M, Phys. Ed. 105	R(0-2) *or*	Phys. Educ. M, Phys. Ed. 106	R(0-2) *or*
Phys. Educ. W, Phys. Ed. 153	R(0-3)	Phys. Educ. W, Phys. Ed. 154	R(0-3)
Total, men	18	Total, men	18
Total, women	17	Total, women	17

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, Arch. 179	3(3-0)	Building Equipment, Arch. 188	2(2-0)
		Public Speaking, Pub. Spk. 107	2(2-0)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
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(-)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Inspection Trip, Arch. 199	R		
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		Second Semester	
Chemistry I, Chem. 101	5(3-6)	Chemistry II Rec., Chem. 103	3(3-0)
College Algebra,* Math. 104	3(3-0)	Chemistry II Lab., Chem. 104	2(0-6)
Plane Trigonometry, Math. 101	3(3-0)	Plane Analytical Geom., Math. 110,	4(4-0)
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Engr. Drawing, Mach. Des. 101	2(0-6)	Desc. Geometry, Mach. Des. 106	2(0-6)
Artillery I, Mil. Sc. 113A	1(1-2)	Mach. Drawing I, Mach. Des. 111,	2(0-6)
Engr. Lectures, Gen. Engr. 101	R	Artillery II, Mil. Sc. 114A	1(1-2)
Phys. Educ. M, Phys. Ed. 103	R(0-2)	Engr. Lectures, Gen. Engr. 101	R
		Phys. Educ. M, Phys. Ed. 104	R(0-2)
Total	17	Total	17

SOPHOMORE

First Semester		Second Semester	
Engr. Physics I, Phys. 105	5(4-3)	Engr. Physics II, Phys. 106	5(4-3)
Calculus I, Math. 114	4(4-0)	Calculus II, Math. 115	4(4-0)
German I, Mod. Lang. 101	3(3-0)	German II, Mod. Lang. 102	3(3-0)
Chem. Engr. Materials, Chem. 280,	2(2-0)	Quan. Analysis, Chem. 241	5(1-12)
Mechanism, Mach. Des. 121	3(3-0)	Artillery IV, Mil. Sc. 116A	1(1-2)
Artillery III, Mil. Sc. 115A	1(1-2)	Engr. Assembly, Gen. Engr. 105,	R
Engr. Assembly, Gen. Engr. 105	R	Phys. Educ. M, Phys. Ed. 106	R(0-2)
Phys. Educ. M, Phys. Ed. 105	R(0-2)		
Total	18	Total	18

JUNIOR

First Semester		Second Semester	
Applied Mechanics, Ap. Mech. 202,	4(4-0)	Str. of Mat. E., Ap. Mech. 216, 220,	4(3-3)
Phys. Chemistry I, Chem. 206	5(3-6)	Phys. Chemistry II, Chem. 272	3(3-0)
Org. Chemistry I, Chem. 218	4(2-6)	Org. Chemistry II, Chem. 219	4(2-6)
Industrial Stoichiometry, Chem. 244,	2(2-0)	El. of Chem. Engr. I, Chem. 278,	4(3-3)
Elective†	2(-)	Economics I, Econ. 101	3(3-0)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Total	17	Total	18

SENIOR

First Semester		Second Semester	
Heat Power Engr. B, Mech. Engr. 211	5(4-3)	Elec. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Chem. Engr. Calculations, Chem. 273	3(3-0)	Chem. Engr. Plant Design, Chem. 293	4(3-3)
El. of Chem. Engr. II, Chem. 279,	4(3-3)	Org. Chem. Technology, Chem. 212,	3(3-0)
Inorg. Chem. Tech. Rec., Chem. 247	3(3-0)	Elective	7(-)
Inorg. Chem. Tech. Lab., Chem. 248	2(0-6)	Engr. Assembly, Gen. Engr. 105	R
Engr. Assembly, Gen. Engr. 105,	R		
Inspection trip, Chem. 130	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 alegbra, Math. 107, the first semester, postponing two hours of other work.

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

Curriculum in Civil Engineering

FRESHMAN

First Semester		Second Semester	
Chemistry E-I, Chem. 107	4(3-3)	Chemistry E-II, Chem. 108	4(3-3)
College Algebra,* Math. 104	3(3-0)	Plane Analytical Geom., Math. 110,	4(4-0)
Plane Trigonometry, Math. 101	3(3-0)	Amer. Ind. History, Hist. 105	3(3-0)
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Engr. Drawing, Mach. Des. 101	2(0-6)	Descriptive Geom., Mach. Des. 106,	2(0-6)
Surveying I, Civ. Engr. 102	2(0-6)	Artillery II, Mil. Sc. 114A	1(1-2)
Artillery I, Mil. Sc. 113A	1(1-2)	Engr. Lectures, Gen. Engr. 101	R
Engr. Lectures, Gen. Engr. 101	R	Phys. Educ. M, Phys. Ed. 104	R(0-2)
Phys. Educ. M, Phys. Ed. 103	R(0-2)		
Total	18	Total	17

SOPHOMORE

First Semester		Second Semester	
Engr. Physics I, Phys. 105	5(4-3)	Engr. Physics II, Phys. 106	5(4-3)
Calculus I, Math. 114	4(4-0)	Calculus II, Math. 115	4(4-0)
Surveying II, Civ. Engr. 111	2(0-6)	Surveying III, Civ. Engr. 151, 155,	3(2-3)
Economics I, Econ. 101	3(3-0)	Metals and Alloys, Shop 165	2(2-0)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	C. E. Drawing I, Civ. Engr. 125	2(0-6)
Artillery III, Mil. Sc. 115A	1(1-2)	Artillery IV, Mil. Sc. 116A	1(1-2)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Phys. Educ. M, Phys. Ed. 105	R(0-2)	Phys. Educ. M, Phys. Ed. 106	R(0-2)
Total	17	Total	17

JUNIOR

First Semester		Second Semester	
Ap. Mechanics, Ap. Mech. 202	4(4-0)	Str. of Mat., Ap. Mech. 211, 220,	6(5-3)
Engr. Geology, Geol. 102	4(3-3)	Hydraulics, Ap. Mech. 230, 235	4(3-3)
Surveying IV, Civ. Engr. 156, 157,	3(2-3)	Foundations, Civ. Engr. 121	2(2-0)
Highway Engr. I, Civ. Engr. 231	2(2-0)	Drain and Irrig. I, Civ. Engr. 161,	2(2-0)
Steam and Gas Engr. C, Mech. Engr. 120, 125	3(2-3)	Railway Engr. I, Civ. Engr. 145	2(2-0)
Water and Sewage Bact., Bact. 125,	2(0-6)	Public Speaking, Pub. Spk. 107	2(2-0)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Total	18	Total	18

SENIOR

First Semester		Second Semester	
Str. in Fmd. Struc., Civ. Engr. 201	4(4-0)	Reinforced Concrete Design, Civ. Engr. 250, 255	3(2-3)
Astr. and Geod., Civ. Engr. 211, 216,	4(2-6)	Design of Framed Structure, Civ. Engr. 246	3(0-9)
Water Supply, Civ. Engr. 220	2(2-0)	Elec. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Sewerage, Civ. Engr. 225	2(2-0)	Law for Engineers, Hist. 167	2(2-0)
C. E. Drawing II, Civ. Engr. 205,	2(0-6)	Technical Reports, Engl. 215	1(1-0)
Soil Mechanics, Ap. Mech. 290	2(0-6)	Elective†	5(-)
High Mat. Lab., Ap. Mech. 250	1(0-3)	Engr. Assembly, Gen. Engr. 105	R
Engr. Assembly, Gen. Engr. 105	R		
Inspection Trip, Civ. Engr. 180	R		
Total	17	Total	17

Number of hours required for graduation, 139.

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

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

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. Engr. 112	2(0-6)
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Engr. Drawing, Mach. Des. 101	2(0-6)	Desc. Geometry, Mach. Des. 106	2(0-6)
Forging and Heat Treating, Shop 150	1(0-2, 1)	Arc Welding, Shop 172	1(0-2, 1)
Artillery I, Mil. Sc. 113A	1(1-2)	Artillery II, Mil. Sc. 114A	1(1-2)
Engr. Lectures, Gen. Engr. 101	R	Engr. Lectures, Gen. Engr. 101	R
Phys. Educ. M, Phys. Ed. 103	R(0-2)	Phys. Educ. M, Phys. Ed. 104	R(0-2)
Total	17	Total	17

SOPHOMORE

First Semester		Second Semester	
Engr. Physics I, Phys. 105	5(4-3)	Engr. Physics II, Phys. 106	5(4-3)
Calculus I, Math. 114	4(4-0)	Calculus II, Math. 115	4(4-0)
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. Engr. 102	2(0-6)	Principles of Electronics, Elec. Engr. 120	2(2-0)
Artillery III, Mil. Sc. 115A	1(1-2)	Artillery IV, Mil. Sc. 116A	1(1-2)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Phys. Educ. M, Phys. Ed. 105	R(0-2)	Phys. Educ. M, Phys. Ed. 106	R(0-2)
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. & 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. Engr. 207	4(4-0)	A. C. Circuits, Elec. Engr. 209	4(4-0)
Electrodynamics, Elec. Engr. 201,	2(2-0)	Elec. Meas. Rec., Elec. Engr. 227,	2(2-0)
Differential Equations, Math. 121,	2(2-0)	Elec. Meas. and Electronics Lab., Elec. Engr. 229	2(0-4, 2)
Engr. Assembly, Gen. Engr. 105	R	D. C. Machinery Lab., Elec. Engr. 208	2(0-4, 2)
		Engr. Assembly, Gen. Engr. 105	R
Total	17	Total	18

SENIOR

First Semester		Second Semester	
A. C. Mach. I, Elec. Engr. 210, 211,	5(3-4, 2)	A. C. Mach. II, Elec. Engr. 212, 213,	5(3-4, 2)
Engr. Thermo. A, Mech. Engr. 201A, 202	4(3-3)	Heat Power Engr. A, Mech. Engr. 204	4(3-3)
Wire Commun. I, Elec. Engr. 244,	3(3-0) *or*	Hydraulics, Ap. Mech. 230	3(3-0)
Pub. Util. Managt., Elec. Engr. 290	3(3-0)	Elective†	6(-)
Elec. Mach. Des., Elec. Engr. 270,	1(0-3)	Engr. Assembly, Gen. Engr. 105	R
Technical Reports, Engl. 215	1(1-0)		
Elective†	3(-)		
Engr. Assembly, Gen. Engr. 105	R		
Inspection Trip, Elec. Engr. 190	R		
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)
Engr. Drawing, Mach. Des. 101	2(0-6)	Desc. Geometry, Mach. Des. 106	2(0-6)
Sheet Metal Work, Shop 173	2(0-6)	Surveying I, Civ. Engr. 102	2(0-6)
Wood Turning, Shop 135	2(0-6)	Foundry Production, Shop 161	1(0-3)
Artillery I, Mil. Sc. 113A	1(1-2)	Farm Blacksmithing I, Shop 157	1(0-3)
Engr. Lectures, Gen. Engr. 101	R	Artillery II, Mil. Sc. 114A	1(1-2)
Phys. Education M, Phys. Ed. 103,	R(0-2)	Engr. Lectures, Gen. Engr. 101	R
		Phys. Education M, Phys. Ed. 104,	R(0-2)
Total	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 120	2(0-6)	Farm Carpentry, Shop 147	3(1-6)
Arc Welding, Shop 172	1(0-2, 1)	Wood and Metal Fin., Shop 121	2(0-6)
Elec. Mach. and Const., Elec. Engr. 112	2(0-6)	Artillery IV, Mil. Sc. 116A	1(1-2)
Artillery III, Mil. Sc. 115A	1(1-2)	Engr. Assembly, Gen. Engr. 105	R
Engr. Assembly, Gen. Engr. 105	R	Phys. Education M, Phys. Ed. 106,	R(0-2)
Phys. Education M, Phys. Ed. 105,	R(0-2)		
Total	18	Total	17

JUNIOR

First Semester		Second Semester	
Ap. Mechanics A, Ap. Mech. 102	3(3-0)	Str. of Mat. A, Ap. Mech. 116, 121	4(3-3)
Economics I, Econ. 101	3(3-0)	Labor Problems, Econ. 234	3(3-0)
Principles of Accounting, Econ. 136,	3(3-0)	Bus. Engl. and Sales, Engl. 125	3(3-0)
Machine Tool Work I, Shop 170	2(0-6)	Gas Engines and Tractors, Agr. Engr. 130	3(2-3)
Farm Blacksmithing II, Shop 158,	1(0-3)	Metallography I, Shop 262	1(0-3)
Amer. Ind. History, Hist. 105	3(3-0)	Technical Reports, Engl. 215	1(1-0)
Public Speaking, Pub. Spk. 107	2(2-0)	Elective†	3(-)
Engr. Assembly, Gen. Engr. 105	R	Engr. Assembly, Gen. Engr. 105	R
Total	17	Total	18

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)	Credits and Collections, Econ. 223,	2(2-0)
El. of Heat Power, Mech. Engr. 131,	2(2-0)	Educ. Sociology, Educ. 239	3(3-0)
Woodwork II, Shop 126	2(0-6)	Elec. Engr. C, Elec. Engr. 102, 106,	3(2-2, 1)
Machine Tool Work II, Shop 192,	2(0-6)	Engr. Thermo. A Lab., Mech. Engr. 202	1(0-3)
Oxyacetylene Welding, Shop 171	1(0-2, 1)	Elective†	5(-)
Elective†	6(-)	Engr. Assembly, Gen. Engr. 105	R
Engr. Assembly, Gen. Engr. 105	R		
Inspection Trip, Shop 194	R		
Total	18	Total	17

Number of hours required for graduation, 139.

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

† Electives are to be chosen with the advice and approval of the head of the department 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)
Engr. Drawing, Mach. Des. 101	2(0-6)	Metals and Alloys, Shop 165	2(2-0)
Oxyacetylene Welding, Shop 171	1(0-2, 1) *or*	Forging and Heat Treating, Shop 150	1(0-2, 1)
Arc Welding, Shop 172	1(0-2, 1)	Artillery II, Mil. Sc. 114A	1(1-2)
Artillery I, Mil. Sc. 113A	1(1-2)	Engr. Lectures, Gen. Engr. 101	R
Engr. Lectures, Gen. Engr. 101	R	Phys. Ed. M, Phys. Ed. 104	R(0-2)
Phys. Ed. M, Phys. Ed. 103	R(0-2)		
Total	17	Total	17

SOPHOMORE

First Semester		Second Semester	
Engr. Physics I, Phys. 105	5(4-3)	Engr. Physics II, Phys. 106	5(4-3)
Calculus I, Math. 114	4(4-0)	Calculus II, Math. 115	4(4-0)
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. Engr. 131,	2(2-0)
Machine Tool Work I, Shop 170,	2(0-6)	Surveying I, Civ. Engr. 102	2(0-6)
Artillery III, Mil. Sc. 115A	1(1-2)	Foundry Prod., Shop 161	1(0-3)
Engr. Assembly, Gen. Engr. 105	R	Artillery IV, Mil. Sc. 116A	1(1-2)
Phys. Ed. M, Phys. Ed. 105	R(0-2)	Engr. Assembly, Gen. Engr. 105	R
		Phys. Ed. M, Phys. Ed. 106	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)
Engr. Thermodynamics, Mech. Engr. 208	4(4-0)	Hydraulics, Ap. Mech. 230	3(3-0) *or*
Economics I, Econ. 101	3(3-0)	Fluid Mechanics, Ap. Mech. 231	3(3-0)
Mach. Drawing II, Mach. Des. 118,	2(0-6)	Option (see below)	9(-)
Metallography I, Shop 262	1(0-3)	Engr. Assembly, Gen. Engr. 105	R
Heat Power Lab. I, Mech. Engr. 209,	1(0-3)		
Option (see below)	3(-)		
Engr. Assembly, Gen. Engr. 105	R		
Total	18	Total	18

SENIOR

First Semester		Second Semester	
Elec. Engr. M-I, Elec. Engr. 237, 238	5(4-3)	Elec. Engr. M-II, Elec. Engr. 242, 243	4(3-2, 1)
Mach. Design I, Mach. Des. 204, 205	5(3-6)	Air Conditioning, Mech. Engr. 228,	3(2-3)
Heat Power Lab. II, Mech. Engr. 213	1(0-3)	Air Cond. Equipment Lab., Mech. Engr. 229	1(0-3)
Technical Reports, Engl. 215	1(1-0)	Graphic Statics, Ap. Mech. 225	1(0-3)
Option (see below)	5(-)	Hydr. Lab., Ap. Mech. 235	1(0-3)
Engr. Assembly, Gen. Engr. 105	R	Option (see below)	7(-)
Inspection Trip, Mech. Engr. 180,	R	Engr. Assembly, Gen. Engr. 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.

Options: Curriculum in Mechanical Engineering

Power Option

JUNIOR YEAR

First Semester		Second Semester	
Elective†	3(-)	Heat Transfer and Fluid Flow, Mech. Engr. 251	4(3-3)
		Public Speaking, Pub. Spk. 107	2(2-0)
		Elective†	3(-)
Total	3	Total	9

SENIOR YEAR

First Semester		Second Semester	
Pr. Plant Equipment, Mech. Engr. 216	3(2-3)	Pr. Plant Design, Mech. Engr. 217,	3(1-6)
Elective†	2(-)	Ht. Pr. Lab. III, Mech. Engr. 219,	1(0-3)
		Elective†	3(-)
Total	5	Total	7

Industrial Option

JUNIOR YEAR

First Semester		Second Semester	
Elective†	3(-)	Heat Power Engr., Mech. Engr. 214	4(3-3)
		Public Speaking, Pub. Spk. 107	2(2-0)
		Elective†	3(-)
Total	3	Total	9

SENIOR YEAR

First Semester		Second Semester	
Ind. Management, Shop 246	3(3-0)	Factory Design, Shop 255	2(0-6)
Elective†	2(-)	Machine Tool Work II, Shop 192,	2(0-6)
		Elective†	3(-)
Total	5	Total	7

Petroleum Production Option

JUNIOR YEAR

First Semester		Second Semester	
General Geology, Geol. 103	3(3-0)	Heat Power Engr., Mech. Engr. 214	4(3-3)
		Historical Geology, Geol. 203	4(3-3)
		Elective†	1(-)
Total	3	Total	9

SENIOR YEAR

First Semester		Second Semester	
Petroleum Production I, Mech. Engr. 270	3(3-0)	Petroleum Production II, Mech. Engr. 271	3(2-3)
Public Speaking, Pub. Spk. 107	2(2-0)	Economic Geology, Geol. 207	4(3-3)
Total	5	Total	7

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

Agricultural Engineering

Professor Fenton
Associate Professor Barger
Instructor Roberts
Instructor Otis
Graduate Research Assistant White

This department gives instruction in farm power and machinery, farm structures, farm land drainage, irrigation, soil and water conservation, and the equipment of the home and farmstead.

Laboratory equipment is ample. Especial attention is given to the solution of farm problems and to research.

COURSES IN AGRICULTURAL ENGINEERING

FOR UNDERGRADUATE CREDIT

101. Farm Buildings. 3(2-3)*; II. Fenton, Otis.

Requirements, details of arrangements, and materials of construction for farm buildings; preparation of plans, bills of material, and estimates of costs; water supply, sewage disposal, lighting, and other modern equipment for the farmstead.

108. Farm Machinery. 3(2-3); I and II. Roberts, assistants.

Construction, operation, adjustment, power requirements, use, service and repair of farm machinery. (For agricultural students.) Charge, $2.

111. Field and Power Machinery. 4(2-6); I. Prerequisite: Mach. Des. 121 and Phys. 106. Roberts, assistants.

A comprehensive study of the development, design, construction, economics, power requirements, use and servicing of farm machinery. Charge, $2.

122. Agricultural Machines and Construction. 2(1-3); I. Barger, assistants.

Review of introductory principles of mechanics and physics as applied to the construction and operation of farm machinery; practice in identification of structural parts, construction methods, and servicing of farm machinery. (For freshman agricultural engineers.) Charge, $2.

130. Gas Engines and Tractors. 3(2-3); I, II, and SS. Barger, assistants.

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

140. Inspection Trip. R; I. Prerequisite: Senior classification. Fenton, assistants.

A trip of three to five days for the purpose of studying farm machinery production and other projects of special interest to agricultural engineers. Cost of trip, $25 to $50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Power and Machinery in Agriculture. 2(2-0); I and II. Prerequisite: Junior or senior classification. Fenton.

History and development of machinery in agriculture; the application, selection, management, and cost of machines; future development; a survey course dealing with the mechanization of agriculture. Open to all students who have not taken Agr. Engr. 108 or 130.

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* 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.

203. Farm Structures. 4(2-6); I. Prerequisite: Ap. Mech. 211 and 225 Fenton, assistants.
Design of farm structures; details and materials of construction; specifications and estimates.

205. Agricultural Engineering Problems. Credit to be arranged; I, II, and SS. Prerequisite: Permission of instructors. Fenton, Barger.
Problems in the design, construction or application of machinery or power in agriculture, structures, modern conveniences, rural electrification.

210. Modern Farm and Home Equipment. 3(2-3); II. Prerequisite: Ap. Mech. 230 and 235. Roberts.
Water supply, sewage disposal, lighting, heating, and ventilation of farm buildings; refrigeration; rural electrification. Charge, $2.

215. Tractor Research. Credit to be arranged; I. Prerequisite: Agr. Engr. 225 or equivalent. Barger, Roberts.
Research studies relating to tractor construction and operation.

225. Farm Motors. 4(2-6); II. Prerequisite: Phys. 106, Math. 114, and Mech. Engr. 201A. Barger, assistants.
Theory, design, operation, and adjustment of the internal combustion engine, and a comprehensive study of power and its application to agriculture. Charge, $3.

240. Drainage, Erosion Control, and Irrigation. 3(2-3); I and II. Prerequisite: Agron. 130. Otis.
Principles and practices of land improvement by terracing and other methods of erosion control; drainage, irrigation, and land clearing. (For agricultural students.) Charge, $1.

250. Land Reclamation. 3(2-3); II. Prerequisite: Ap. Mech. 230 and Agron. 130. Fenton, Otis.
Principles and methods of land drainage, soil and water conservation, and irrigation. Charge, $1.

FOR GRADUATE CREDIT

301. Research in Agricultural Engineering. Credit to be arranged; I, II, and SS. Prerequisite: Agron. 130 and Phys. 106 or equivalent. Fenton, Barger.
The laboratories of the College are available for research in the design, use, and application of machinery and equipment in the development of agriculture. The results of such investigation, if suitable, may be incorporated in bulletins of the Engineering Experiment Station, or furnish material for the master's thesis.

Applied Mechanics

Professor Scholer
Professor Robert
Professor Dawley
Associate Professor Pickett
Assistant Professor Koenitzer
Assistant Professor McCaulley
Assistant Professor Grover
Instructor Taylor
Instructor Thomson
Instructor Anderson
Graduate Research Assistant Sollenberger
Graduate Assistant Gustafson

COURSES IN APPLIED MECHANICS

FOR UNDERGRADUATE CREDIT

102. Applied Mechanics A. 3(3-0); I and II. Prerequisite: Math. 101 and Phys. 102. McCaulley.
A study of statics, with applications to stress in structures; center of gravity; moment of inertia.

116. Strength of Materials A Recitation. 3(3-0); II. Prerequisite: Ap. Mech. 102. McCaulley.
Behavior of materials subjected to tension, compression, shear, and bending; designs of beams of wood, steel, and reinforced concrete; design and investigation of columns; practice in the use of a handbook.

121. Strength of Materials A Laboratory. 1(0-3); II. Prerequisite: Ap. Mech. 102. McCaulley.
A study of various testing machines; tension, compression, shear, and bending tests on iron, steel, wood, and concrete; tests on cement and on the fine and coarse aggregates for concrete. Charge, $2.

150. Thesis. Credit to be arranged; I and II. Scholer, Robert.
Subject of investigation to be selected in consultation with the head of the department at the beginning of the senior year.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Applied Mechanics. 4(4-0); I, II, and SS. Prerequisite: Math. 115 and Phys. 105. Staff.
Composition, resolution, and conditions of equilibrium of concurrent and nonconcurrent forces; center of gravity; friction; laws of rectilinear and curvilinear motion of material points; moments of inertia; relations between forces acting on rigid bodies and the resulting motions; work, energy, and power.

211. Strength of Materials Recitation. 5(5-0); I, II, and SS. Prerequisite: Ap. Mech. 202. Staff.
Behavior of materials subject to tension, compression, and shear; riveted joints; torsion; shafts, and the transmission of power; strength and stiffness of simple and continuous beams, bending moments and shear forces in beams; design of beams; stresses in columns and hooks; design of columns; the mechanics of reinforced concrete. About two-fifths of the time is devoted to the mechanics of reinforced concrete.

216. Strength of Materials E Recitation. 3(3-0); I, II, and SS. Prerequisite: Ap. Mech. 202. Staff.
Similar to Ap. Mech. 211, but much less time given to study of continuous girders and of reinforced concrete.

220. Strength of Materials Laboratory. 1(0-3); I, II, and SS. Must accompany or follow Ap. Mech. 211 or 216. Staff.
Tension, compression, shear, and bending tests on specimens of iron, steel, wood, and concrete; torsion tests on steel shafting; standard tests on fine and coarse aggregates for concrete. Charge, $2

225. Graphic Statics. 1(0-3); I and II. Must accompany or follow Ap. Mech. 102 or 202. Robert.
Graphical solutions of the stresses existing in a number of typical trusses under a variety of loadings.

230. Hydraulics Recitation. 3(3-0); I, II, and SS. Prerequisite: Ap. Mech. 202. Staff.

Fluid pressures, center of pressure, immersion and flotation; Bernoulli's theorem; orifices, weirs, short and long pipes, flow of water in open channels, and its measurement; elements of water power, impulse wheels, reaction turbines, and centrifugal pumps.

231. Fluid Mechanics. 3(3-0); II. Prerequisite: Ap. Mech. 202 and Mech. Engr. 208. Robert, Pickett.

An optional course to hydraulics, for mechanical engineering students, in which both gaseous and liquid fluids are treated. (Not open to students with credit in Ap. Mech. 230.)

235. Hydraulics Laboratory. 1(0-3); I, II, and SS. Prerequisite: Ap. Mech. 202; must accompany or follow Ap. Mech. 230 or 231. Staff.

Tests to determine the coefficients of weirs and orifices, loss and head in pipes, water wheels, water turbines, rams and pumps. Charge, $1.

250. Highway Materials Laboratory. 1(0-3); I. Prerequisite: Ap. Mech. 220. Koenitzer, Taylor.

A comprehensive course in the examination and testing of road materials. Charge, $1.50.

265. Advanced Mechanics of Materials. 2(2-0); I. Prerequisite: Ap. Mech. 211 or 216. Scholer.

Theory of elasticity and its applications; advanced problems in continuous girders involving general three-moment equations.

268. Elastic Energy Theory. 3(3-0); I. Prerequisite: Ap. Mech. 211 or 216. Scholer, Pickett.

The elastic energy theory applied to trusses, frames, beams, and curved beams.

269. Applied Elasticity. 3(3-0); I and II. Prerequisite: Ap. Mech. 211 or 216; Math. 201. Pickett.

Theory of elasticity with its application to stress analysis.

270. Hydraulic Machinery. 2(2-0); I. Prerequisite: Ap. Mech. 230. Robert.

Characteristics and applications of water wheels, turbines, pumps, and other hydraulic machinery.

275. Advanced Highway Materials. 2(1-3); II. Prerequisite: Ap. Mech. 250. Scholer.

An advanced course in the properties and testing of the various materials used in road construction.

276. Design of Concrete Mixtures. 3(1-6); I. Prerequisite: Ap. Mech. 220. Dawley.

Practical applications of the fundamental principles of concrete making, using various kinds of cement and placing special emphasis on the proper designing, mixing and placing of concrete mixtures to meet certain strength and durability requirements. Charge, $2.50.

280. Mechanics of Reinforced Concrete. 2(2-0); I. No credit for students who have had Ap. Mech. 211. Prerequisite: Ap. Mech. 216. Scholer, Robert.

The behavior of reinforced concrete structural elements, including slabs, rectangular beams, T-beams, columns, and special floor systems under load.

290. Soil Mechanics. 2(0-6); I. Prerequisite: Ap. Mech. 250. Scholer, Koenitzer.

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

FOR GRADUATE CREDIT

301. Research in Materials of Construction. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Scholer, Robert, Dawley.

Many problems related to materials used in engineering construction offer attractive fields for research. A number of special pieces of apparatus in addition to the usual equipment of strength-of-materials laboratory are available for this work. The results of such investigations, if suitable, may be incorporated in bulletins of the Engineering Experiment Station, or furnish materials for the master's thesis.

Architecture

Professor Weigel
Professor Helm
Associate Professor Wichers
Assistant Professor Ware
Assistant Professor McCaulley
Instructor Mackey
Instructor Ekroth

Students are urged to 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 of architectural engineering for the first three years.

All drawings or designs made by the student during the course becomes the property of the department, to be used or returned at the discretion of the faculty.

COURSES IN ARCHITECTURE

FOR UNDERGRADUATE CREDIT

106A. Elements of Architecture I. 3(0-9); I and II. Mackey.

A study of the fundamentals of architectural design by their application in the original solution and presentation of simple architectural problems. Charge, $1.

107A. Elements of Architecture II. 3(0-9); I and II. Prerequisite: Arch. 106A. Mackey.

A continuation of Arch. 106A. Charge, $1.

112. Freehand Drawing I. 2(0-6); I, II, and SS. Helm, Wichers.

A basic course in the fundamentals of freehand drawing.

113. Freehand Drawing II. 2(0-6); I, II, and SS. Prerequisite: Arch. 112. Helm, Wichers.

A continuation of Arch. 112.

116. Pencil Rendering and Sketching. 2(0-6); I, II, and SS. Prerequisite: Arch. 112. Mackey.

117. Still-Life Drawing. 2(0-6); I and SS. Prerequisite: Arch. 112. Helm.

Sketches in various media of still-life groups in the studio and out-of-doors.

118. Water Color I. 2(0-6); I, II, and SS. Prerequisite: Arch. 116 or approval of instructor. Helm.

Rudiments of water color painting; translation and theory of color. Sketching of simple objects and groups of objects; includes both studio and outdoor sketching.

119. Water Color II. 2(0-6); I, II, and SS. Prerequisite: Arch. 118. Helm.

Advanced study in the technique of the medium. Includes both studio work and outdoor sketching.

120. Interior Design. 2(0-6); I and SS. Prerequisite: Arch. 118, 125, and 145. Helm.
A study of the principles of interior architecture. Deposit, $1.

121. Life Drawing I. 2(0-6); I, II, and SS. Prerequisite: Arch. 118. Helm. Charge, $3.

123. Life Drawing II. 2(0-6); I, II, and SS. Prerequisite: Arch. 121. Helm.
A continuation of Arch. 121. Charge, $3.

124. Domestic Architecture. 2(2-0); II. Wichers.
An elective course intended for students not enrolled in the department of architecture. A study of the design and planning problems of the small home.

125. Appreciation of Architecture. 3(3-0); II. Ware.
A survey of the history of architecture. An elective, nontechnical course intended for students not enrolled in the department of architecture.

133. Clay Modeling. 2(0-6); I and SS. Prerequisite: Arch. 117. Helm, Mackey.
The making of clay models, plaster casts of simple decorative fragments and anatomical forms; and construction of relief maps. Charge, $1.

134. Pen and Ink Drawing. 2(0-6); I, II, and SS. Prerequisite: Approval of instructor. Mackey.

137. Block Prints. 2(0-6); I and SS. Prerequisite: Arch. 113 or approval of instructor. Helm.
The carving of original compositions in linoleum and wood blocks. Charge, $1.

142, 144. Architectural Design I and II. 3(0-9) each; I and II each. Prerequisite: For I, Arch. 107A; for II, Arch. 142. Mackey.
A continuation of Arch. 107A. Charge, $1 for each course.

145, 147. Architectural Design III and IV. 5(0-15) each; I and II each. Prerequisite: For III, Arch. 144; for IV, Arch. 145. Ware.
Continuation of Arch. 144; time problems and rapid design sketches required at frequent intervals. Charge, $1 for each course.

153. Rural Architecture. 2(0-6); I. Prerequisite: Arch. 144 and 191. Wichers.
A study of the architectural needs of rural communities, with special emphasis on the small home, using architectural models as a medium.

154A, 157A. History of Architecture I and II. 2(2-0) each; I and II, respectively. Prerequisite: For II, Arch. 154A. Ware.
I, preclassical and classical architecture; II, medieval architecture.

158A, 160A. History of Architecture III and IV. 2(2-0) each; I and II, respectively. Prerequisite: For III, Arch. 157A; for IV, Arch. 158A. Ware.
III, Italian and French Renaissance architecture; IV, continuation of Arch. 158A through modern architecture.

165, 170. Commercial Illustration I and II. 2(0-6) each; I, II, and SS, each. Helm.
The principles of advertising arrangements; making various types of advertising design, such as newspaper advertisements, lettering, and posters; making cover designs for magazines, books, and trade catalogues; for headings, tail pieces, and decorative page arrangements; drawings carried out in black and white and in one or more colors.

179. History of Painting and Sculpture. 3(3-0); I. Helm.
The appreciation and development of painting and sculpture. A required course for students in architecture and a recommended elective for other students.

187A. Building Materials and Construction. 3(3-0); I. McCaulley.
An introduction to the properties and uses of the materials of construction; construction methods; occasional visits to buildings under construction.

188. Building Equipment. 2(2-0); II. Prerequisite: Arch. 187A. McCaulley.
A study of plumbing, sanitation systems, and mechanical equipment of buildings.

191. Working Drawings and Specifications. 3(0-9); II. Prerequisite: Arch. 142 and 187A. Wichers.
Preparing working drawings and specifications for a residence.

192. Theory of Structures I. 4(2-6); II. Prerequisite: Ap. Mech. 116 and 121. McCaulley.
Mathematical and graphical solutions of stresses in framed structures under static loading; practical problems in the design of wood construction; occasional inspection trips to buildings under construction.

194A. Theory of Structures II. 5(3-6); I. Prerequisite: Arch. 192. McCaulley.
A continuation of Theory of Structures I applied to steel and masonry structures.

195. Professional Practice. 2(0-6); II. Prerequisite: Arch. 147. Weigel.
The preparation of building documents; interpretation of building codes and analysis of documents of American Institute of Architects; office organization; client and contractor relationships.

196. Theory of Structures III. 4(2-6); II. Prerequisite: Arch. 194A. McCaulley.
A continuation of Theory of Structures II, including design of reinforced concrete building frames; footings, columns, and floor systems, attention being given to costs and economical design.

199. Inspection Trip. R; I. Prerequisite: Senior classification. Weigel.
An inspection trip is made to one of the larger cities of the Middle West, usually Chicago, by the senior students in Architectural Engineering and Architecture. The inspection party is under the charge of one or more faculty members of the Department of Architecture. Time allotted to the trip is from three days to one week. Approximate cost of trip, $50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Advanced Freehand Drawing. Credit to be arranged. I, II, and SS. Prerequisite: Arch. 117 and 118. Helm.

217. Etching. 2(0-6); I, II, and SS. Prerequisite: Arch. 117 and 134. Helm.
Technical principles and practice of etching on copper and zinc plate. Charge, $1.

221. Problems in Architectural Development. Credit to be arranged; I, II, and SS. Prerequisite: Approval of instructor. Weigel, McCaulley.
Under direct supervision of some member of the departmental staff, study of specific architectural problems. Deposit, $1.

230. Oil Painting. Credit to be arranged. I, II, and SS. Prerequisite: Arch. 118 or approval of instructor. Helm.

249. City Planning. 3(0-9); II. Prerequisite: Arch. 144. Weigel.
A detailed study of city planning, including transportation and street systems, parks and recreation facilities, public buildings and civic centers, subdivisions of land, restrictions and zoning.

254, 257. Architectural Design V and VI. 7(0-21) each; I and II each. Prerequisite: For V, Arch. 147; for VI, Arch. 254. Weigel.
Continuation of Arch. 147. Charge, $1 for each course.

FOR GRADUATE CREDIT

301, 304. Advanced Architectural Design I and II. 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.

Civil Engineering

Professor Conrad
Professor Frazier
Professor Furr
Associate Professor White
Assistant Professor Crawford
Assistant Professor Morse
Instructor ————

COURSES IN CIVIL ENGINEERING

FOR UNDERGRADUATE CREDIT

102. Surveying I. 2(0-6); I and II. Prerequisite or parallel: Math. 101. Staff.
The use and care of engineer's surveying instruments, and plane surveying practice. Charge, $1.

111. Surveying II. 2(0-6); I and II. Prerequisite: Civ. Engr. 102. White, Morse.
Land surveying, the U. S. system of public land surveys, route surveying, the legal survey, the stadia survey, and calculations of areas and boundaries. Charge, $1.

121. Foundations. 2(2-0); II. Prerequisite or parallel: Ap. Mech. 202. Frazier.
Design and construction of foundations.

125. Civil Engineering Drawing I. 2(0-6); II. Prerequisite: Mach. Des. 111. White.
Stereotomy, shades and shadows, isometric and perspective drawing; copying working drawings of engineering structures.

145. Railway Engineering I. 2(2-0); II. Prerequisite: Civ. Engr. 156 and 157. Frazier.
Railway engineering based on Wellington's economic theory; study of track construction and maintenance; design of yards and terminals.

151, 155.* Surveying III. 3(2-3); I and II. Prerequisite: Civ. Engr. 111. White, Crawford, Schmidt.

Topographic, municipal, and underground surveying; the celestial sphere; elements of horizontal and vertical curves and earthwork.

Laboratory.—Topographic surveying and topographic mapping. Charge, $1.

156, 157. Surveying IV. 3(2-3); I and II. Prerequisite: Civ. Engr. 151 and 155. Furr.
Field engineering; various problems in curve selection and location; including pertinent curve, spiral and earthwork computations; railway track and cross-over exercises. Charge, $1.

161. Drainage and Irrigation I. 2(2-0); II. Prerequisite or parallel: Ap Mech. 230 and 235. Furr, White.
Design and construction of drainage and irrigation works.

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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.

170. Thesis. Credit to be arranged; I and II. Conrad.

180. Inspection Trip. R; I. Prerequisite: Senior classification. Conrad. A trip of four to six days to one or more industrial centers for the purpose of making inspections of power plants, mills, structures, waterworks, sewage disposal plants, to illustrate the principles and applications of interest to civil engineers. Approximate cost of trip, $50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Stresses in Framed Structures. 4(4-0); I, II, and SS. Prerequisite: Ap. Mech. 211. Conrad, Morse.
Computation of stresses in bridges and buildings.

205. Civil Engineering Drawing II. 2(0-6); I and SS. Prerequisite or parallel: Civ. Engr. 201. Conrad, Morse.
Graphic statics and design of simple roof trusses in timber and steel.

207. Advanced Bridge Stresses. 3(3-0); I. Prerequisite: Civ. Engr. 201. Conrad.
A study of deflections; stresses in continuous, movable, cantilever, suspension, and steel-arch bridges; and secondary stresses.

211, 216. Astronomy and Geodesy. 4(2-6); I. Prerequisite: Civ. Engr. 151 and 155 and Math. 115. Frazier.
The elements of practical astronomy; precise methods of surveying and leveling.

Laboratory.—Astronomical observations, principally for determining true meridian and latitude; base-line measurements and triangulation work.

220. Water Supply. 2(2-0); I and SS. Prerequisite: Ap. Mech. 230 and 235 and Bact. 125. Frazier.
Water supply from the standpoint of consumption, collection, storage, distribution, and purification.

225. Sewerage. 2(2-0); I and SS. Prerequisite: Ap. Mech. 230 and Bact. 125. Crawford.
A study of sewer systems and sewage treatment.

228. Sanitary Engineering Design. 2(0-6); II. Prerequisite: Civ. Engr. 220 and 225. Frazier.
Design of water purification plants, sewage treatment plants, water distribution systems, and sewage collecting systems. Estimates of cost and methods of financing.

231. Highway Engineering I. 2(2-0); I, II, and SS. Prerequisite: Civ. Engr. 111. Furr.
Fundamental principles, location, design, construction, and maintenance of roads and pavements.

246. Design of Framed Structures. 3(0-9); II and SS. Prerequisite: Civ. Engr. 201. Conrad.
The making of general drawings for a highway truss bridge, a railroad truss bridge, and a railroad deck-plate girder.

248. Economics of Design and Construction. 3(3-0); II. Prerequisite: Civ. Engr. 201 and 231. Conrad.
Primarily a study of methods, equipment, construction costs, and economy in design.

250, 255. Reinforced Concrete Design. 3(2-3); II and SS. Prerequisite: Ap. Mech. 211. Frazier, 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. 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. Prerequisite: Civ. Engr. 145. Frazier.
A study of the function of the railway system; its relation to industrial development, and its correlation with other methods of transportation.

270, 275. Highway Engineering II. 4(2-6); II. Prerequisite: Civ. Engr. 156, 157, and 231. Furr.
Highway laws, highway administration, and highway economics.

Laboratory.—A reconnoissance and survey for a highway a few miles long; making maps, profiles, and estimates from the survey. Charge, $2.

276. Highway Economics. 3(3-0); I. Prerequisite: Civ. Engr. 231. Furr.
Economic concepts, highway transport, design, and construction problems as affected by recent findings of research agencies.

FOR GRADUATE CREDIT

304. Research in Civil Engineering. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Conrad, Frazier, Furr.
Original investigation or advanced study in some field related to the practice of civil engineering.

Electrical Engineering

Professor Kloeffler
Professor Brenneman
Professor Kerchner
Associate Professor Hunt
Associate Professor Jorgenson
Assistant Professor Sitz
Assistant Professor Selvidge
Instructor ————
Graduate Assistant Collins
Graduate Assistant Bucholtz

Special laboratories are provided for the research conducted by the electrical engineering staff and for television and other investigations made by graduate students. One of the laboratories contains the television broadcasting station W9XAK of Kansas State College.

COURSES IN ELECTRICAL ENGINEERING

FOR UNDERGRADUATE CREDIT

102, 106. Electrical Engineering C. 3(2-2, 1); I, II, and SS. Prerequisite: Phys. 106. Jorgenson, Sitz.
The fundamental principles of direct-current and alternating-current circuits. For nonelectrical students.

Laboratory.—Experiments covering characteristics and applications of direct-current and alternating-current machinery. Charge, $1.50.

112. Electrical Machinery and Construction. 2(0-6); I and II. Hunt, Jorgenson.
An introductory course in applied electricity covering various methods of interior wiring, theory of simple electric circuits, and tests of dynamos. Charge, $3.

116. Illumination A. 2(2-0); II. Prerequisite: Phys. 106 or 103. Hunt.
Systems, calculations, and specifications of interior wiring; principles of illumination.

120. Principles of Electronics. 2(2-0); I and II. Prerequisite: Chem. 107 and 108, Math. 101, and Phys. 105. 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: Math. 114 and Phys. 106. Brenneman.
Principles of magnetic, electric, and electrostatic circuits.

207. Direct-current Machinery. 4(4-0); I, II, and SS. Prerequisite or concurrent: Elec. Engr. 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. Engr. 207. Sitz.
Experiments illustrating operating characteristics, losses, and efficiencies of direct-current motors and generators. Charge, $3.

209. Alternating-current Circuits. 4(4-0); I, II, and SS. Prerequisite: Math. 121 and Elec. Engr. 207. Kerchner, Hunt, Jorgenson.
A mathematical treatment of alternating-current phenomena in single and polyphase circuits.

210, 211. Alternating-current Machinery I. 5(3-4, 2); I, II, and SS. Prerequisite: Elec. Engr. 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. Engr. 210 and 211. Kerchner, Hunt, Sitz.
Continuation of Elec. Engr. 210, including synchronous motors, parallel operation of alternators, converters, induction and commutator alternating-current motors, rectifiers, and accessory apparatus.

Laboratory.—Continuation of Elec. Engr. 211. Experiments on machines listed in Elec. Engr. 212. Charge, $3.

227. Electrical Measurements Recitation. 2(2-0); I and II. Prerequisite: Math. 114, Phys. 106, and Elec. Engr. 120. Selvidge.
Methods for electric and magnetic measurements; resistance, quantity, current, electromotive force, capacity, inductance.

229. Electrical Measurements and Electronics Laboratory. 2(0-4, 2); I and II. Prerequisite: Math. 114, Phys. 106, and Elec. Engr. 120. Selvidge.
Characteristics of electron tubes; measurement of potential, resistance, inductance, capacity, etc. Charge, $3.

237, 238. Electrical Engineering M-I. 5(4-3); I and II. Prerequisite: Math. 114 and Phys. 106. Hunt, Sitz.
Theory of direct-current circuits and machines, magnetic circuits, and alternating-current circuits.

Laboratory.—Experiments on measurement of resistance and study of direct-current machine characteristics. Charge, $1.50.

242, 243. Electrical Engineering M-II. 4(3-2); I and II. Prerequisite: Elec. Engr. 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. Engr. 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. Engr. 209. Selvidge.

Transmission problems, networks, wave filters.

Laboratory.—Measurements as applied to wire communication networks. Charge, $1.50.

251, 253. Radio Communication I. 3(2-2, 1); I. Prerequisite: Elec. Engr. 120 and 209. Selvidge.

An introduction to radio theory and practice including a study of tuned circuits, electron tubes, and audio-frequency amplifiers.

Laboratory.—The application and operation of electron tubes in radio circuits; audio- and radio-frequency measurements. Charge $1.50.

255. Radio Communication II. 3(3-0); II. Prerequisite: Elec. Engr. 251 and 253. Selvidge.

Radio-frequency amplifiers and oscillators, modulation; application to transmitter circuits; antennas and wave propagation.

256. Industrial Electronics. 2(2-0); I. Prerequisite: Elec. Engr. 120 and 209.

Electronic devices as utilized in industry; control circuits employing amplifier, photo-electric, thyratron, glow, and other types of tubes.

260, 261. Illuminating Engineering. 3(2-2, 1); I. Prerequisite: Math. 114 and Phys. 106. Hunt.

Photometry, light standards, principles of illumination, and illumination design.

Laboratory.—Photometric measurements of light intensity, luminous flux, brightness, and illumination. Charge, $1.50.

262. Advanced Illuminating Engineering. 3(3-0); II. Prerequisite: Phys. 106 and Math. 116. Hunt.

The various theories on the property of light, the theoretical distribution curves from light sources of various shapes, psychological and physiological phases of lighting, daytime illumination in buildings, and spectrophotometry.

270. Electrical Machine Design. 1(0-3); I and II. Prerequisite: Elec. Engr. 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. Engr. 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. Engr. 209, 210, and 211, and Math. 201. Brenneman.

Two phases of electrical phenomena: (a) transients in time, and (b) transients in space.

290. Public Utility Management. 3(3-0); I and II. Prerequisite: Econ. 101. Kloeffler.

The problem of depreciation, finance, rates, and public regulation in gas, electric, and telephone properties.

FOR GRADUATE CREDIT

301. Advanced Electric Circuits I. 3(3-0); I. Prerequisite: Elec. Engr. 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. Engr. 301. Kerchner.

Long transmission lines in steady state with various terminal conditions; transmission charts; harmonics in circuits; general circuit constants; transmission problems involving synchronous machines.

313, 314. High-Frequency Measurements. 3(2-2, 1); II. Prerequisite: Elec. Engr. 209 and 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. Engr. 212. Staff.

336. Research in Electrical Engineering. Credit to be arranged: I, II, and SS. Prerequisite: Elec. Engr. 210. Staff.

Special investigations adapted to the needs of individual students. The laboratory work is correlated with the work of the Engineering Experiment Station and may be used as the basis of a master's thesis.

General Engineering

Dean Seaton
Assistant Dean Durland

101. Engineering Lectures. R(1-0); entire freshman year. Dean Seaton, other members of the engineering faculty, and visiting practicing engineers.

Designed to acquaint freshman engineers and architects with fundamental principles of their profession and to give a general survey of the field. Charge, 75 cents.

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

Presentation by students of abstracts and reviews of articles appearing in the journals of their respective societies or in the technical press of their profession, and reports of engineering projects, industrial experiences, and original investigations; as far as possible conducted by the student branches of the professional engineering societies. Occasionally two or more of these individual groups unite for lectures by practicing engineers and by members of the engineering and college faculties. Charge, 75 cents.

Machine Design

Professor Pearce
Professor Durland
Professor Smutz
Associate Professor Gingrich
Assistant Professor Branigan
Instructor Wood
Instructor Gralak
Instructor Sullivan
Graduate Assistant Pietsch

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, aërodynamic forces, and airplane structures.

COURSES IN DRAWING AND MACHINE DESIGN

FOR UNDERGRADUATE CREDIT

101. Engineering Drawing. 2(0-6); I, II, and SS. Staff.

The selection and use of drawing instruments; construction of geometrical figures; lettering; orthographic projections and sections; pictorial methods of representation.

106. Descriptive Geometry. 2(0-6); I, II, and SS. Prerequisite: Math. 102 or equivalent and Mach. Des. 101. Staff.

Problems involving the point, line, and plane; the intersection and development of the surfaces of geometric solids; practical applications of the principles involved; emphasis on developing the student's ability to visualize drawings in the third angle.

107. Descriptive Geometry A. 3(0-9); I. Prerequisite: Math. 102 or equivalent. Smutz, Gingrich.

This course is similar in content to 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 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.

119. Machine Drawing III. 2(0-6); I, II, and SS. Prerequisite: Mach. Des. 121 and Mech. Engr. 131. Staff.

Graphical solutions of problems in belting, cams, linkages, and gears; valve gears and valve diagrams; governors and governor diagrams.

121. Mechanism. 3(3-0); I, II, and SS. Prerequisite: Math. 101 and Mach. Des. 106. Staff.

A careful study of the fundamental elements of machinery with reference to the transmission of motion and force, and to their forms and arrangements in actual machines.

126. Thesis. Credit to be arranged; I and II. Pearce, Durland.
Excellent material for thesis study is furnished by projects in machine design or aërodynamics; the subject of the investigation is selected in consultation with the head of the department at the beginning of the senior year.

FOR GRADUATE AND UNDERGRADUATE CREDIT

204, 205. Machine Design I. 5(3-6); I and II. Prerequisite: Ap. Mech. 211, Mach. Des. 111, and Mech Engr. 204 or 212. Pearce, Durland.
The straining actions in machine elements; friction and lubrication; problems arising in the transmission of power and in the design of high-speed machinery; fastenings.

Laboratory.—Riveted joints designed in conformity to the A. S. M. E. Boiler Code; calculations for a number of simple machines and machine parts, paralleling the recitation class assignments.

210. Machine Design II. 2(0-6); I and II. Prerequisite: Mach. Des. 204 and 205. Pearce, Sullivan.
Complete design of a small power shear with a graphical analysis of the shaft; the rotative effect diagram and balancing of an engine.

215. Machine Vibration. 3(3-0); II. Prerequisite: Ap. Mech. 202 and Math. 121. Pearce, Durland.
A general consideration of free and forced vibration in machines for various degrees of freedom; critical speed; vibration isolation.

220. Kinematics and Kinetics. 2(2-0); II. Prerequisite: Mach. Des. 121 and Ap. Mech. 202. Pearce, Durland.
A study of the velocities and accelerations in mechanisms and machines, and of the forces resulting therefrom.

225. Graphics of Engineering Formulas. 2(2-0); II. Prerequisite: Math. 110. Pearce.
Simple empirical equations; diagramming of formulas; nomographic or alignment charts; special slide rules.

230. Patents and Inventions. 2(2-0); I. Prerequisite: Junior or senior standing. Pearce.
A brief consideration of the fundamental principles of United States patents and their relationship to the engineer; the inception and development of inventions.

250, 251. Aërodynamics. 4(3-3); I. Prerequisite: Ap. Mech. 202. Pearce, Durland.
A general introduction into aërodynamics, particularly as regards action of air foils, parasite drag, prediction of performance, stability and control.

Laboratory.—Determination of performance curves and the stability of an airplane; operation of demonstration wind tunnel.

255. Airplane Design. 2(0-6); II. Prerequisite: Mach. Des. 250 and 251, and Ap. Mech. 211 and 220. Pearce, Durland.
A general presentation of the problems involved in the design and stress analysis of an airplane structure, particularly as regards the requirements of the United States Department of Commerce.

FOR GRADUATE CREDIT

301. Advanced Machine Design. Credit to be arranged; I or II. Prerequisite: Consult instructors. Pearce, Durland.
At the option of the student this course may include a study of some advanced subject related to courses in this department.

310. Research in Design. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Pearce, Durland.
Original investigation in some advanced subject related to courses in this department. This work may furnish material for the master's thesis.

Mechanical Engineering

Professor Helander
Professor Mack
Professor Brainard
Assistant Professor Flinner
Assistant Professor Tripp
Instructor Pippin
Instructor Matting
Graduate Assistant Kane

The object of the instruction in this department is to give to the student the fundamental principles underlying the design, construction, selection, operation, and testing of steam boilers; steam engines and steam turbines; internal combustion engines; air compressors; air conditioning equipment; refrigerating machinery; condensers and evaporators. These subjects are developed by courses in engineering thermodynamics and heat power engineering, and are followed in the fourth year by courses in power-plant design, air conditioning, and in petroleum engineering. Courses in refrigeration and internal combustion engines are offered for electives.

In addition to the equipment installed especially for experimental purposes, all the heating, power, ventilating and pumping equipment of the College subserves the further purposes of experimental work.

COURSES IN MECHANICAL ENGINEERING

FOR UNDERGRADUATE CREDIT

120, 125. Steam and Gas Engineering C. 3(2-3); I and II. Prerequisite: Math. 114 and Phys. 105. Staff.

Steam boilers, steam engines, steam turbines, internal combustion engines, and auxiliaries.

Laboratory.—Power-plant instruments and testing of power-plant equipment. Charge, $1.50.

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. 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, 202. Engineering Thermodynamics A. 4(3-3); I and II. Prerequisite: Mach. Des. 121 and Math. 114. Staff.

Similar to Mech. Engr. 208, but designed for non-mechanical engineering students.

Laboratory.—Power-plant instruments and testing of power-plant equipment. Charge, $1.50.

204, 205. Heat Power Engineering A. 4(3-3); I and II. Prerequisite: Mech. Engr. 201A. Staff.

Power-plant equipment, fuels and combustion.

Laboratory.—Similar to Heat Power Laboratory II. Charge, $1.50.

208. Engineering Thermodynamics. 4(4-0); I and II. Prerequisite: Math. 115 and Mech. Engr. 131. Staff.

Laws of the conversion of heat energy into mechanical energy; properties of fluids; gases, vapors, and gas vapor mixtures; flow and non-flow processes; power generating cycles; air compression and refrigeration.

209. Heat Power Laboratory I. 1(0-3); I and II. Prerequisite: Mech. Engr. 131. Staff.

Power-plant instruments and testing of power-plant equipment. Charge, $1.50.

211. Heat Power Engineering B. 5(4-3); I. Prerequisite: Phys. 106 and Math. 115. Staff.

Same as Mech. Engr. 204, except that some material on Engineering Thermodynamics has been added.

Laboratory.—Power plant instruments, tests of lubricating oils, testing of power plant equipment. Charge, $1.50.

213. Heat Power Laboratory II. 1(0-3); I and II. Prerequisite: Mech. Engr. 208 and 209. Staff.

Continuation of Heat Power Lab. I. Charge, $1.50.

214. Heat Power Engineering. 4(3-3); I and II. Prerequisite: Mech. Engr. 208. Staff.

Application of thermodynamic principles to power generation, flow of fluids, turbines, engines, compressors, and blowers; also a study of prime movers, steam generating equipment, auxiliaries, fuels and combustion, and evaporators.

216. Power-plant Equipment. 3(2-3); I. Prerequisite: Mech. Engr. 251. Helander, Pippin.

Similar to Mech. Engr. 214, except that more attention is paid to design factors.

217. Power-plant Design. 3(1-6); II. Prerequisite: Mech. Engr. 214 or 216. Helander, Pippin.

Industrial and central station power generation practices, means for effecting economies in central station and industrial plants that use process steam; preliminary design of a power plant, selection of pressures, temperatures, and equipment, including an evaluation of economic factors; and a complete determination of the station heat balance.

219. Heat Power Laboratory III. 1(0-3); I and II. Prerequisite: Mech. Engr. 213 and 214 or 216. Helander, Pippin.

Performance tests of power generating equipment, internal combustion engines, steam engines, turbines, and auxiliaries. Students are required to organize and conduct tests and to submit complete reports. Charge, $1.50.

221. Refrigeration. 2(2-0); I. Prerequisite: Mech. Engr. 201A or 208. Mack, Pippin.

Thermodynamics of refrigeration; systems of refrigeration and their operation; application of refrigeration to ice making, cold storage, and the cooling of gases, liquids, and solids.

228. Air Conditioning. 3(2-3); I and II. Prerequisite: Mech. Engr. 201A or 208. Mack, Flinner.

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

229. Air-Conditioning Equipment Laboratory. 1(0-3); I and II. To be taken with or following Mech. Engr. 228. Flinner, Pippin. Charge, $1.

230. Advanced Thermodynamics. 2(2-0); I. Prerequisite: Mech. Engr. 208. Helander.

235. Steam Turbines. 2(2-0); II. Prerequisite: Mech. Engr. 214 or 216. Flinner.

240. Internal Combustion Engines. 2(2-0); II. Prerequisite: Mech. Engr. 201A or 208. Brainard, Flinner.

251. Heat Transfer and Fluid Flow. 4(3-3); II. Prerequisite: Mech. Engr. 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. Engr. 217. Helander.

An advanced course in the economic problems met with in the design of power plants and in the generation of power. Selection of equipment, choice of station heat balances, generation of by-product power in industries, and interconnections between utilities and industrial plants for the economical interchange of power.

270. Petroleum Production I. 3(3-0); I. Prerequisite: Senior standing in Department of Mechanical Engineering or permission of head of department. Brainard.

Properties of petroleum; exploration methods; field development; drilling; oil field hydrology; casing and well completion; and fishing tools and methods.

271. Petroleum Production II. 3(2-3); II. Prerequisite: Mech. Engr. 270. Brainard.

Prime movers and fuels; production methods; methods for flowing and pumping wells; refining; storage; transportation.

Laboratory.—Construction and study of oil field peg models; tests on oil bearing sands; field trips to study equipment and operations. Charge, $1.50.

FOR GRADUATE CREDIT

305. Research in Mechanical Engineering. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Helander, Mack.

The laboratory work is correlated with the work of the Engineering Experiment Station. 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 Stutzman
Instructor Grant
Instructor McCollum
Instructor Moore
Instructor Ladd
Graduate Research Assistant Frick

The work in the department is planned to meet the needs of two classes of students: (1) those who are preparing for the teaching field and need a general knowledge of the principles of industrial arts work in metal and wood, of the materials and equipment used, including their control and arrangement, and of methods of handling work and students in the laboratory, together with sufficient skill in the performance of the various tool operations to be able to instruct others; and (2) those in the courses in engineering who need to secure a general knowledge of machine operations and methods used in job shops and mass-production factories, and of the economical selection and control of the materials, machinery, buildings, and personnel used in the manufacturing industries.

COURSES IN SHOP PRACTICE

FOR UNDERGRADUATE CREDIT

101. Engineering Woodwork. 1(0-3); I and II. Moore.
Importance of the use of methods, machinery, and men in connection with an industrial woodworking plant; forest conditions, wastage, the structural growth of wood, and the kiln drying of lumber. Charge, $1.25.

118. Elementary Crafts for Teachers. 2(0-6); I and SS. Moore.
Exercises and projects suitable for pupils from the primary to eighth grade. Special instruction in methods of teaching, materials, and equipment. Charge, $2.50.

119. Reed Furniture Construction. 2(0-6); I and 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.

135. Wood Turning. 2(0-6); I and SS. Moore.
Practice in handling the lathe and turning tools. Charge, $2.50.

139. Woodwork IV. 2(0-6); II and SS. Prerequisite: Shop 131. Moore.
An opportunity to specialize in wood finishing, carpentry work, cabinet work, or some other work of special interest to the student. Charge, $2.50.

147. Farm Carpentry. 3(1-6); I, II, and SS. Wilson.
Rafter cutting and erection, studding and siding work, making window and door frames, hanging doors, and similar operations on full-size construction work; making out bill of material; care and upkeep of tools; designed for training of teachers who must solve problems in connection with carpentry work on the farm. Charge, $2.50.

150. Forging and Heat Treating. 1(0-2, 1)); I and II. Lynch.
(*a*) Forging of iron and steel; (*b*) production equipment as used in the commercial forge shop; (*c*) operation of gas, oil, and electric furnaces, and the heat treatment of steel. Charge, $2.50.

157, 158. Farm Blacksmithing I and II. 1(0-3) each; I and SS, and II and SS, respectively. Lynch.
In I, exercises closely related to work on the farm; designed to train teachers for work in rural communities. Charge, $2.50.
In II, more advanced instruction in the working of iron and steel, and in the annealing, hardening, and tempering of tools. Charge, $2.50.

161. Foundry Production. 1(0-3); I and II. Grant.
(*a*) Bench, floor, and pit molding, use of molding and core machines, operating nonferrous furnaces and cupola; (*b*) study of commercial foundry equipment and the operation and control of the foundry. Charge, $1.

165. Metals and Alloys. 2(2-0); I and II. Prerequisite: Chem. 107 and 108, or may be taken with Chem. 108. Sellers, Stutzman.
The manufacture and use of iron, steel, copper, aluminum, and their alloys.

170. Machine Tool Work I. 2(0-6); I, II, and SS. Jones, McCollum.
Practice in chipping, filing, shaper and planer work; drilling and turning on the lathe. Charge, $5.

171. Oxyacetylene Welding. 1(0-2, 1); I and II. Ladd.
The theory and practice of oxyacetylene welding, including a microscopic study of welds. Charge, $2.50.

172. Arc Welding. 1(0-2, 1); I and II. Ladd.
The theory and practice of arc welding, including a microscopic study of welds. Charge, $2.50.

173. Sheet Metal Work. 2(0-6); I, II, and SS. Prerequisite: Mach. Des. 101 or equivalent. Moore.
Covers developments, the use of templets, practice in soldering, brazing, folding, wiring, flanging, seaming, rolling, and the more common operations on sheet metal. Charge, $2.50.

175. Farm Shop Methods. 3(1-6); II and SS. Prerequisite: Shop 147 and 157. Wilson.
Babbitting, soldering, drilling and drill grinding, thread cutting with dies and taps, tool sharpening, belt lacing, repair of machinery, and other practical operations; designed to train teachers in farm-shop work. Charge, $2.50.

192, 193. Machine Tool Work II and III. 2(0-6) and 1(0-3), respectively; I, II, and SS. Prerequisite: Shop 170. Jones, McCollum.
In II, progressive problems in turning, calipering, boring, reaming, taper turning, threading on the lathe, in chucking, use of forming tools, gear cutting; study of cutting edges and tool adjustments best suited to the different metals, cutting speeds and feeds. Charge, $5.
In III, work on the turret lathe, boring mill, hand and automatic screw machines, and grinder; practical work with jigs and fixtures and a study of rapid production of duplicate parts. Charge, $2.50.

194. Inspection Trip. R; I. Prerequisite: Senior classification. Staff.
A trip of three to six days to industrial centers for inspection of establishments of special interest to industrial arts students.

195. Thesis. Credit to be arranged; I and II. Carlson, Sellers.

FOR GRADUATE AND UNDERGRADUATE CREDIT

246. Industrial Management. 3(3-0); I. Prerequisite: Shop 170 and Ap. Mech. 116, 121. Carlson.
Problems of the industrial executive, such as plant location, selection and arrangement of buildings and equipment, production planning and control,

simplification and standardization, time and motion study, job and methods standardization, control of inventory and costs.

255. Factory Design. 2(0-6); II. Prerequisite: Shop 246. Carlson.
Knowledge gained in shops and laboratories and in Shop 246 is used in the design of a factory.

261. Advanced Shop Practice. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.
Opportunity is offered to specialize to a limited degree along certain lines such as heat treatment of steel, oxyacetylene and arc welding, jig fixtures and die work, metallography, pattern making and any shop work that may be of special interest to the student. All assignments must be approved by the head of the Department of Shop Practice. Charge varies with subject matter.

262. Metallography I. 1(0-3); I and II. Prerequisite: Shop 165, or may be taken with Shop 165. Sellers, Stutzman.
The microscopic constituents of the different grades of iron and steel; changes in the structure and properties as produced by heat treatment, mechanical working, and composition. Charge, $2.50.

263. Physical Metallurgy. 2(2-0); II and SS. Prerequisite: Shop 262. Sellers, Stutzman.
An advanced study of the structure, properties, and uses of the more common metals and alloys involving heat and mechanical treatment and casting.

265. Metallography II. 2(0-6); I and II. Prerequisite: Shop 262. Sellers, Stutzman.
A continuation of Shop 262, nonferrous metals, with special attention to photomicrographic analysis. Charge, $5.

274. General Shop Organization. 3(1-6); II and SS. Prerequisite: Shop 147, 157, 161, 170, 171, 172, 173, and Elec. Engr. 112. Wilson.
A course covering the organization, methods of teaching, and equipment for the general shop. Charge, $2.50.

286. Shop Practice Teaching. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructor. Staff.
Actual laboratory teaching experience under the supervision of an instructor. Work covers the outlining, preparation, and presentation of assignments and the supervision of the work; procurement of materials and equipment, shop layouts and upkeep, and general considerations. Insofar as possible the course is adapted to the particular needs of the student. All assignments must be approved by the head of the Department of Shop Practice.

FOR GRADUATE CREDIT

301. Research in Shop Practice. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.
Investigations of interest to the individual student. May be used as the basis of the master's thesis, and is usually correlated with the work of the Engineering Experiment Station.

The Engineering Experiment Station

Roy Andrew Seaton, *Director*

The Engineering Experiment Station was established for the purpose of carrying on tests and research work of engineering and manufacturing value to the state of Kansas, and of collecting, preparing, and presenting technical information in a form readily available for the use of the industries and the people of the state. All the work of the Experiment Station is intended to be of direct importance to Kansas.

All the equipment of the engineering and scientific laboratories, the shops, and the College power plant are available for the work, while the personnel of the station consists of members of the teaching staff from the departments of the Division of Engineering and Architecture and from other scientific departments whose work is directly related to the work of this Division, and others employed especially for the work of the station.

Among the investigations now being carried on are: Atmospheric resistance of automobiles; *pisé de terre* construction; durability of concrete; school shops for vocational agriculture and industrial arts instruction; deterioration of concrete in silos; relation of potential gradient to meteorological elements; 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; low-cost residential construction; residential construction units; ductility of welded joints; cutting tool performance; binders for foundry cores; carburizing properties of gases; rubber tires for tractors and implements; farm fencing; catalytic oxidation of petroleum derivatives; reactions of petroleum below cracking temperatures; planning farm homes; soil and water conservation; uses of materials in farm shops; fluid flow friction factors; heat transfer in heat-exchange equipment; nursery thresher; Kansas coal; and sorghum grains.

The testing laboratories of this station have been made available by law† for the use of the State Highway Commission and the state highway engineer, and the road materials for use in state road construction are tested in these laboratories.

Some of the results of the investigations are published as bulletins of the Engineering Experiment Station, which are sent free to any citizen of the state upon request. Thirty-six such bulletins have been published. Besides issuing these bulletins, the station answers yearly many hundreds of requests for information upon matters coming within its field.

Requests for bulletins and general correspondence should be addressed to Engineering Experiment Station, Manhattan, Kan. Requests for information in specific matters should be addressed, as far as possible, to the heads of departments in whose fields the particular matters lie.

† Chapter 281, Laws of 1931.

The Division of General Science

Rodney Whittemore Babcock, *Dean*

In the land-grant colleges, of which this institution is one, the classical studies of the older type of college are replaced by work in the sciences and in professional and vocational subjects. Education should also include some preparation for the discharge of one's duties to the state and to the community. It is the province of the departments grouped in this Division of the College to give this basic, scientific, and cultural training.

CURRICULUM IN GENERAL SCIENCE

The curriculum in general science includes fundamental training in English, mathematics, science, history, economics, military science, and physical training, which constitute the central educational basis of the institution. Groups of electives meet the needs of several types of students, among whom are: (1) those who have not yet chosen their vocation, but who wish a well-balanced education; (2) those who expect to teach in the high schools of the state; (3) those who are fitting themselves for research work in the sciences; (4) those for whom a general education is required or desirable before studying a profession such as law or medicine.

CURRICULUM IN INDUSTRIAL JOURNALISM

The curriculum presents such subjects as will enable the writer to see his work in proper perspective, to obtain authoritative knowledge of some field of industrial activity, and to write acceptably. It offers fundamental studies of literary, social, and scientific character. The student must select subjects in agriculture, mechanic arts, applied science, or home economics, depending on the portion of the field of industrial journalism which he desires to enter. Theory and practice of journalism are presented in a series of courses extending through the sophomore, junior, and senior years, and students may take additional electives in journalism.

CURRICULUM IN INDUSTRIAL CHEMISTRY

Demand of students for a curriculum planned especially to give chemical training is such that a formulation has been made to meet the needs of those desiring to specialize in industrial chemistry. The facilities of the Department of Chemistry, reinforced by opportunities for practical work in connection with the research of the experiment stations, provide for this specialized training. A curriculum in chemical engineering is offered in the Division of Engineering and Architecture.

CURRICULUMS IN MUSIC

A four-year curriculum is offered in applied music, preparing the student with a major in voice, piano, violin, organ, or other instrument, and with a minor in another of these subjects. Students completing this curriculum are awarded the degree Bachelor of Music, and are eligible to receive a three-year special state certificate in music renewable for three-year terms if they have elected the required subjects in education.

A four-year curriculum in music education is also offered, with specialization in voice, instrument, or public-school band or orchestra. Students completing this curriculum are awarded the degree of Bachelor of Science in Music Educa-

tion, and are eligible to receive a special state certificate to teach music and permission to teach any nonmusic subject in which they have completed fifteen or more college hours; students completing this curriculum with sufficient extra hours so that not more than forty hours in music are submitted to the State Board of Education, are eligible to receive the state three-year renewable-for-life certificate.

CURRICULUMS IN PHYSICAL EDUCATION

The theoretical and practical instruction given in these curriculums prepares students for coaching athletic games. The curriculums are also planned to enable the student to elect work in some other subject which may be taught in connection with physical education.

CURRICULUMS IN BUSINESS ADMINISTRATION

The curriculums in business administration are designed to train men and women for citizenship and business. The curriculum in business administration, with special training in accounting, furnishes a course of study for those who wish preparation in this important activity of business and government. The basic subjects of the four-year curriculum in business administration are included, and a sequence of courses in accounting extends through the entire four years.

Curriculum in General Science

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	*3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Chemistry I, Chem. 101	5(3-6)	Chemistry II Rec., Chem. 103	3(3-0)
College Algebra,† Math. 104	3(3-0)	Chemistry II Lab., Chem. 104	2(0-6)
General Botany I, Bot. 101	3(1-6)	Plane Trigonometry, Math. 101	3(3-0)
Library Methods, Lib. Ec. 101	1(1-0)	General Botany II, Bot. 105	3(1-6)
Infantry I, Mil. Sc. 101A (men)	1(1-2)	Current History, Hist. 126	1(1-0)
Phys. Educ., M or W	R	Infantry II, Mil. Sc. 102A (men)	1(1-2)
		Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
English Literature, Engl. 172	3(3-0)	American Literature, Engl. 175	3(3-0)
English History, Hist. 121	3(3-0)	Modern Europe II, Hist. 223	3(3-0)
General Physics I, Phys. 102	4(3-3)	General Physics II, Phys. 103	4(3-3)
General Zoölogy, Zoöl. 105	5(3-6)	General Psychology, Educ. 184	3(3-0)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Elective‡	2(-)
Phys. Educ., M or W	R	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
		Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Hist. of Engl. Literature, Engl. 181,	3(3-0)	American History I, Hist. 201	3(3-0)
Amer. Govt., Hist. 151	3(3-0)	Economics I, Econ. 101	3(3-0)
Current History, Hist. 126	1(1-0)	Gen. Microbiology, Bact. 101	3(1-6)
Public Speaking, Pub. Spk. 107	2(2-0)	Elective‡	6(-)
Elective‡	6(-)		
Total	15	Total	15

SENIOR

First Semester		Second Semester	
Elective‡	15(-)	Elective‡	15(-)

Summary.—Men: Physical education, two years required; military science, 4 hours; other prescribed subjects, 76 hours; elective, 44 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Pre-Veterinary Adaptation of Curriculum in General Science

The following arrangement is prepared for students who wish to enter the Division of Veterinary Medicine. At least 32 hours must be completed, after which students are eligible for consideration by the Committee on Selection of Veterinary Students for admission to the freshman year of the Curriculum in Veterinary Medicine.

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Chemistry I; Chem. 101	5(3-6)	Chemistry II Rec., Chem. 103	3(3-0)
Extem. 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. 101A (men)	1(1-2)	Elective**	2(-)
Phys. Educ., M or W	R	Infantry II, Mil. Sc. 102A (men)	1(1-2)
		Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week.

† Students who offer but one unit of algebra for admission take a five-hour course in College Algebra, Math. 107. The additional hours are applied as electives.

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

** Electives should be chosen from Modern Languages, Descriptive Physics, Mathematics, or Economics I-II.

Curriculum in Industrial Chemistry

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Chemistry I, Chem. 101	5(3-6)	Chemistry II Rec., Chem. 103	3(3-0)
College Algebra, Math 104	3(3-0)	Chemistry II Lab., Chem. 104	2(0-6)
Plane Trigonometry, Math. 101	3(3-0)	Plane Anal. Geometry, Math. 110,	4(4-0)
Engr. Drawing, Mach. Des. 101	2(0-6)	Library Methods, Lib. Ec. 101	1(1-0)
Artillery I, Mil. Sc. 113A (men)	1(1-2)	Des. Geometry, Mach. Des. 106	2(0-6)
Phys. Educ., M or W	R	Artillery II, Mil. Sc. 114A (men)	1(1-2)
		Phys. Educ., M or W	R
Total	16 or 17	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
Inorg. Preparations, Chem. 202	2(0-6)	Quant. Analysis, Chem. 241	5(1-12)
Adv. Inorg. Chemistry, Chem. 207,	3(3-0)	Calculus II, Math. 115	4(4-0)
Calculus I, Math. 114	4(4-0)	Engr. Physics II, Phys. 106	5(4-3)
Engr. Physics I, Phys. 105	5(4-3)	Elective†	2(-)
Elective†	2(-)	Artillery IV, Mil. Sc. 116A (men)	1(1-2)
Artillery III, Mil. Sc. 115 A (men),	1(1-2)	Phys. Educ., M or W	R
Phys. Educ., M or W	R		
Total	16 or 17	Total	16 or 17

JUNIOR

First Semester		Second Semester	
German I, Mod. Lang. 101	3(3-0)	German II, Mod. Lang. 102	3(3-0)
Organic Chemistry I, Chem. 218	4(2-6)	Organic Chemistry II, Chem. 219,	4(2-6)
Physical Chemistry I, Chem. 206	5(3-6)	Physical Chemistry II, Chem. 272,	3(3-0)
Elective†	4(-)	Economics I, Econ. 101	3(3-0)
		Elective†	4(-)
Total	16	Total	17

SENIOR

First Semester		Second Semester	
Amer. Govt., Hist. 151	3(3-0)	Org. Chem. Tech., Chem. 212	3(3-0)
Inorg. Chem. Tech. Rec., Chem. 247,	3(3-0)	Prob. in Chemistry, Chem. 270	3(0-9)
Inorg. Chem. Tech. Lab., Chem. 248,	2(0-6)	Hist. of Chemistry, Chem. 208	1(1-0)
Scientific German, Mod. Lang. 137,	4(4-0)	Elective†	9(-)
Inspection Trip, Chem. 130	R		
Elective†	5(-)		
Total	17	Total	16

Summary.—Men: Physical education, two years required; military science, 4 hours; chemistry, 48 hours; engineering, 4 hours; other prescribed subjects, 51 hours; electives, 26 hours; total, 133 hours. Women: The same, except no military science; total, 129 hours.

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

Curriculum in Industrial Journalism

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
General Chemistry, Chem. 110	5(3-6)	General Geology, Geol. 103	3(3-0)
Modern Language I*	3(3-0)	Modern Language II*	3(3-0)
Library Methods, Lib. Ec. 101	1(1-0)	Journalistic Vocations, Ind. Jour. 140	2(2-0)
General Psychology, Educ. 184	3(3-0)	Option*	4(-)
Industrial Journalism Lecture	R	Industrial Journalism Lecture	R
Infantry I, Mil. Sc. 101A (men)	1(1-2)	Infantry II, Mil. Sc. 102A (men)	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
Elem. Journalism, Ind. Jour. 152	3(3-0)	Industrial Writing, Ind. Jour. 164,	3(3-0)
Current History, Hist. 126	1(1-0)	Economics I, Econ. 101	3(3-0)
Prin. of Typography, Ind. Jour. 101,	3(2-3)	Option*	3(-)
Biological Science	5(-)	English Literature, Engl. 172	3(3-0)
Modern Language III*	3(3-0)	Extem. Speech I, Pub. Spk. 106	2(2-0)
Industrial Journalism Lecture	R	Current History, Hist. 126	1(1-0)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Industrial Journalism Lecture	R
Phys. Educ., M or W	R	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
		Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Ind. Feature Writing, Ind. Jour. 167	2(2-0)	Jour. for Women, Ind. Jour. 172	2(2-0) *or*
Prin. of Adv., Ind. Jour. 178	4(4-0)	The Rural Press, Ind. Jour. 181	2(2-0) *or*
American Literature, Engl. 175	3(3-0)	Radio Writing, Ind. Jour. 162	2(2-0)
Option*	6(-)	Copy Reading, Ind. Jour. 254	2(0-6)
Industrial Journalism Lecture	R	Hist. of English Lit., Engl. 181	3(3-0)
		Elective and Option*	8(-)
		Industrial Journalism Lecture	R
Total	15	Total	15

SENIOR

First Semester		Second Semester	
Editorial Practice, Ind. Jour. 257	2(2-0)	History and Ethics of Journalism, Ind. Jour. 273	3(3-0)
Contem. Thought, Ind. Jour. 255	3(3-0)	American Government, Hist. 151	3(3-0)
Elective and Option*	10(-)	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, 29 hours; restricted options, 25 hours; modern language, 9 hours; other prescribed subjects, 42 hours; general electives, 15 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

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* The options and electives are chosen with the advice and approval of the dean. The options are in two general groups: (1) fifteen hours in courses related to an industry or to applied science, and (2) ten hours in courses in political or social science, history, government, economics, or sociology. The options taken in the freshman year, and a large part of those in the sophomore year, must be those related to an industry or applied science. In the tabulated presentation of electives for students in the Division of General Science, groups may be found that will be accepted as the required options and electives. These are printed following the tabulation of the curriculums. The fifteen-hour option related to an industry or to applied science must be selected from one of the following groups: Group 31 (applied science), group 32 (home economics), group 35 (agriculture), group 36 (drawing and art), group 37 (manual and industrial arts), group 38 (printing), and group 39 (radio). The ten-hour option in social science may be selected by any combination formed from the following groups: Group 15 (history, government, and law), group 16 (economics and sciology), and group 30 (social science).

Proficiency equivalent to nine hours of study in a modern language is required. Each unit of German, French, or Spanish offered for entrance reduces this requirement in that language by three hours, an equal amount of additional electives being chosen.

Electives are to be chosen in groups of usually not fewer than eight hours, unless they are selected in subjects which extend fields already entered through the required subjects or the options.

Curriculum in Music Education

Students wishing special training in Band or Orchestra make the following substitution:

Instrument, 16 hours, for Voice, 6 hours, Piano, 2 hours, and Voice or Instrument, 8 hours, and take Chorus R(1-0), throughout the senior year.

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Harmony I, Mus. 101	2(2-0)	Harmony II, Mus. 102	2(2-0)
Ear Tr. and St. Sing. I, Mus. 105,	2(1-3)	Ear Tr. and St. Sing. II, Mus. 106,	2(1-3)
Piano, Mus. 161	2(1-6)	Piano, Mus. 161	2(1-6)
Voice, Mus. 156	2(1-6)	Voice, Mus. 156	2(1-6)
Orch. Instruments I, Mus. 151A	½(1-)	Orch. Instruments II, Mus. 151B	½(1-)
Choral Ensemble, Mus. 194	½(0-2)	Choral Ensemble, Mus. 194	½(0-2)
General Psychology, Educ. 184	3(3-0)	Phys. or Biol. Science	3(-)
Infantry I, Mil. Sc. 101A (men)	1(1-2)	Infantry II, Mil. Sc. 102A (men)	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
Harmony III, Mus. 103	2(2-0)	Harmony IV, Mus. 104	2(2-0)
Ear Tr. and St. Sing. III, Mus. 107,	2(1-3)	Ear Tr. and St. Sing. IV, Mus. 108,	2(1-3)
Piano, Mus. 161	1(½-3)	Piano, Mus. 161	1(½-3)
Voice, Mus. 156	1(½-3)	Voice, Mus. 156	1(½-3)
Orch. Instr. III, Mus. 151C	½(1-)	Orch. Instr. IV, Mus. 151D	½(1-)
Choral Ensemble, Mus. 194	½(0-2)	Choral Ensemble, Mus. 194	½(0-2)
School Music I, Mus. 138	2(2-0)	School Music II, Mus. 139	2(2-0)
Choral Conducting, Mus. 133	1(1-0)	English Literature, Engl. 172	3(3-0)
Phys. or Biol. Science	5(-)	Nonmusic elective	3(-)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men)	1(1-2)
Phys. Educ., M or W	R	Phys Educ., M or W	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Counterpoint, Mus. 108A	2(2-0)	Musical Form and Analysis, Mus. 111	1(1-0)
Voice or Instrument	2(1-6)	Voice or Instrument	2(1-6)
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. 138	1(1-0)
Instrumental Conducting, Mus. 134,	1(1-0)	School Music III, Mus. 143	2(2-0)
Orch. Instr. V, Mus. 151E	½(1-)	Orch. Instr. VI, Mus. 151F	½(1-)
Choral Ensemble, Mus. 194	½(0-2)	Choral Ensemble, Mus. 194	½(0-2)
Educational Psychology, Educ. 109,	3(3-0)	Educ. Admin., Educ. 210	3(3-0)
Education elective	3(3-0)	American Literature, Engl. 175	3(3-0)
Total	15	Total	15

SENIOR

First Semester		Second Semester	
Voice or Instrument	2(1-6)	Voice or Instrument	2(1-6)
Orch. Instr. VII, Mus. 151G	½(1-)	Orch. Instr. VIII, Mus. 151H	½(1-)
Choral Ensemble, Mus. 194	½(0-2)	Choral Ensemble, Mus. 194	½(0-2)
Teach. Part. in Grade School, Educ. 129	3(3-0)	Education elective	3(3-0)
Instr. and Orches., Mus. 136	3(3-0)	Nonmusic elective	9(-)
English elective	3(3-0)		
Nonmusic elective	3(-)		
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; theoretical music, 39 hours; applied music, 24 hours; other prescribed subjects, 36 hours; restricted electives, 6 hours; nonmusic electives, 15 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Curriculum in Applied Music

Students majoring in piano or pipe organ are required to take Piano Ensemble, R (1-0), each semester.

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Music Major	4(1-12)	Music Major	4(1-12)
Ear Tr. and St. Sing. I, Mus. 105,	2(1-3)	Ear Tr. and St. Sing. II, Mus. 106,	2(1-3)
Harmony I, Mus. 101	2(2-0)	Harmony II, Mus. 102	2(2-0)
Modern Language	3(3-0)	Modern Language	3(3-0)
Orch. Instr. I, Mus. 151A	½(1-)	Orch. Instr. II, Mus. 151B	½(1-)
Ensemble, Mus. 183	½(0-2)	Ensemble, Mus. 183	½(0-2)
Infantry I, Mil. Sc. 101A (men)	1(1-2)	Infantry II, Mil. Sc. 102A (men)	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
Music Major	4(1-12)	Music Major	4(1-12)
Music Minor	2(1-6)	Music Minor	2(1-6)
Harmony III, Mus. 103	2(2-0)	Harmony IV, Mus. 104	2(2-0)
Orch. Instr. III, Mus. 151C	½(1-)	Orch. Instr. IV, Mus. 151D	½(1-)
Ensemble, Mus. 183	½(0-2)	Ensemble, Mus. 183	½(0-2)
Recital I, Mus. 181A	R	Recital II, Mus. 181B	R
Hist. and Ap. of Mus. I, Mus. 130,	2(2-0)	Hist. and Ap. of Mus. II, Mus. 131,	2(2-0)
Rad. Mus. Ap. Programs, Mus. 115,	1(1-0)	Pub. Spk. for Teachers, Pub. Spk. 138	1(1-0)
Modern Language	3(3-0)	Modern Language	3(3-0)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Music Major	4(1-12)	Music Major	4(1-12)
Music Minor	2(1-6)	Music Minor	2(1-6)
Counterpoint, Mus. 108A	2(2-0)	Musical Form and Analysis, Mus. 111	1(1-0)
Orch. Instr. V, Mus. 151E	½(1-)	Orch. Instr. VI, Mus. 151F	½(1-)
Ensemble, Mus. 183	½(0-2)	Ensemble, Mus. 183	½(0-2)
Recital III, Mus. 181C	R	Recital IV, Mus. 181D	R
Choral Conducting, Mus. 133	1(1-0)	General Psychology, Educ. 184	3(3-0)
Physics for Musicians I, Phys. 121,	5(4-3)	Nonmusic elective	4(-)
Total	15	Total	15

SENIOR

First Semester		Second Semester	
Music Major	4(1-12)	Music Major	4(1-12)
Ensemble, Mus. 183	½(0-2)	Orch. Instr. VIII, Mus. 151H	½(1-)
Orch. Instr. VII, Mus. 151G	½(1-)	Ensemble, Mus. 183	½(0-2)
Recital V, Mus. 181E	R	Recital VI, Mus. 181F	R
Methods and Materials for the Studio, Mus. 149	1(2-0)	Instr. and Orches., Mus. 136	3(3-0)
English Literature, Engl. 172	3(3-0)	Practice Teach. of Music, Mus. 187,	R(1-)
Nonmusic elective	6(-)	American Literature, Engl. 175	3(3-0)
		Nonmusic elective	4(-)
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; theoretical music, 25 hours; applied music, 48 hours; other prescribed subjects, 33 hours; nonmusic electives, 14 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

Curriculum in Physical Education for Men

FRESHMAN

First Semester		Second Semester	
Intro. to Phys. Ed., Phys. Ed. 107,	1(1-0)	Phys. Ed. Act. II, Phys. Ed. 138,	2(0-6)
Phys. Ed. Act. I, Phys. Ed. 137..	1(0-3)	Football, Phys. Ed. 126.....	2(1-3)
Basketball, Phys. Ed. 130A.....	2(1-3)	General Zoölogy, Zoöl. 105.....	5(3-6)
College Rhetoric I, Engl. 101.....	3(3-0)	College Rhetoric II, Engl. 104....	3(3-0)
Extem. 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. 102A.....	1(1-2)
Library Methods, Lib. Ec. 101....	1(1-0)	Phys. Educ., M.....	R
Infantry I, Mil. Sc. 101A.....	1(1-2)		
Phys. Educ., M.....	R		
Total	16	Total	16

SOPHOMORE

First Semester		Second Semester	
Human Anatomy, Zoöl. 123A.....	5(3-6)	Baseball, Phys. Ed. 133.....	2(1-3)
General Psychology, Educ. 184...	3(3-0)	Swimming M, Phys. Ed. 120.....	1(0-3)
Personal Hygiene, Phys. Ed. 119..	2(2-0)	Nat. and Fcn. of Play, Phys. Ed. 145	2(2-0)
Phys. Ed. Act. III, Phys. Ed. 139,	2(0-6)	Kinesiology M, Phys. Ed. 141B...	3(3-0)
Gen. Microbiology, Bact. 101.....	3(1-6)	Physiology, Zoöl. 130.....	4(3-3)
Infantry III, Mil. Sc. 103A.....	1(1-2)	History and Principles of Phys. Education, Phys. Ed. 192.....	3(3-0)
Phys. Educ., M.....	R	Infantry IV, Mil. Sc. 104A.....	1(1-2)
		Phys. Educ., M.....	R
Total	16	Total	16

JUNIOR

First Semester		Second Semester	
Community Hygiene, Phys. Ed. 147,	2(2-0)	First Aid and Mas., Phys. Ed. 113A,	3(3-0)
Org. and Admin. of Phys. Educ. M, Phys. Ed. 146.....	3(3-0)	Track and Field Sports, Phys. Ed. 140A	2(1-3)
Sociology, Econ. 151.....	3(3-0)	Educ. Admin., Educ. 210.....	3(3-0)
Phys. Ed. Act. IV, Phys. Ed. 140,	1(0-3)	Practice Teaching in Phys. Educ. II, Phys. Ed. 136B.....	2(0-6)
Psych. Child. and Adol., Ed. 250,	3(3-0)	Current History, Hist. 126.....	1(1-0)
Practice Teaching in Phys. Educ. I, Phys. Ed. 135.....	1(0-3)	Teaching Health, Phys. Ed. 149...	2(2-0)
Elective*	3(-)	Elective*	3(-)
Total	16	Total	16

SENIOR

First Semester		Second Semester	
Phys. Diagnosis and Prescrip., Phys. Ed. 124A.....	3(3-0)	Teach. Partic. in H. S., Educ. 163,	3(3-0)
Physiol. of Exercise, Phys. Ed. 123,	2(2-0)	Public-school Program in Phys. Educ., Phys. Ed. 142.....	2(2-0)
Educ. Psychology, Educ. 109.....	3(3-0)	Educ. Sociology, Educ. 239.....	3(3-0)
Practice Teaching in Phys. Educ. III, Phys. Ed. 136C.....	2(0-6)	Community Recreation, Phys. Ed. 203	2(2-0)
Elective*	5(-)	Elective*	5(-)
Total	15	Total	15

Summary.—Military science, 4 hours; physical education, 50 hours; professional education, 18 hours; other prescribed subjects, 38 hours; elective, 16 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)	Extem. 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 Welfare 101,	2(2-0)	Phys. Educ., W	R
Phys. Educ., W	R	Gen. Technic II, Phys. Ed. 157B	2(1-3)
Gen. Technic I, Phys. Ed. 157A	2(1-3)		
Total	15	Total	15

SOPHOMORE

First Semester		Second Semester	
Human Anatomy, Zoöl. 123A	5(3-6)	Kinesiology W, Phys. Ed. 184	2(2-0)
English Literature, Engl. 172	3(3-0)	Physiology, Zoöl. 130	4(3-3)
Sociology, Econ. 151	3(3-0)	History and Prin. of Phys. Educ., Phys. Ed. 192	3(3-0)
Playground Management and Games W, Phys. Ed. 182A	2(1-3)	American Literature, Engl. 175	3(3-0)
Phys. Educ., W	R	Phys. Educ., W	R
Gen. Technic III, Phys. Ed. 157C,	2(1-3)	Gen. Technic IV, Phys. Ed. 157D,	2(1-3)
		Elective†	1(-)
Total	15	Total	15

JUNIOR

First Semester		Second Semester	
Prin. Health Educ., Phys. Ed. 163,	3(3-0)	Teach. and Adapt. of Phys. Educ., Phys. Ed. 188	3(3-0)
Psych. of Child. and Adol., Educ. 250	3(3-0)	Phys. Educ., W	R
Phys. Educ., W	R	Gen. Technic VI, Phys. Ed. 157F	2(1-3)
Gen. Technic V, Phys. Ed. 157E	2(0-6)	Therap. and Mas., Phys. Ed. 172	2(0-6)
Health Exam. W, Phys. Ed. 171	2(0-6)	Embryology, Zoöl. 219	4(3-3)
Elective†	5(-)	Elective†	4(-)
Total	15	Total	15

SENIOR

First Semester		Second Semester	
Amer. Hist. Survey, Hist. 104	3(3-0)	Educ. Sociology, Educ. 239	3(3-0)
Educ. Psychology, Educ. 109	3(3-0)	Organization and Administration of Phys. Educ. W, Phys. Ed. 176,	2(2-0)
Ap. Nutr., Food and Nutr. 121	2(2-0)	Phys. Educ., W	R
Teach. Partic. in H. S., Educ. 163,	3(3-0)	Gen. Technic VIII, Phys. Ed. 157H,	2(1-3)
Phys. Educ., W	R	Educ. Admin., Educ. 210	3(3-0)
Gen. Technic VII, Phys. Ed. 157G,	2(1-3)	Adult Recreation, Phys. Ed. 183	2(2-0)
Elective†	2(-)	Elective†	3(-)
Total	15	Total	15

Summary.—Physical education, 40 hours; professional education, 18 hours; other prescribed subjects, 47 hours; general electives, 15 hours; total, 120 hours.

† 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)	American 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. 101A (men)	1(1-2)	Infantry II, Mil. Sc. 102A (men)	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
Coml. Correspondence, Engl. 122	3(3-0)	General Psychology, Educ. 184	3(3-0)
Economics I, Econ. 101	3(3-0)	English Literature, Engl. 172	3(3-0)
History, Elective	3(-)	Economics II, Econ. 104	3(3-0)
Elements of Statistics, Math. 126,	3(3-0)	Sociology, Econ. 151	3(3-0)
Valuation Accounting, Econ. 280	3(3-0)	Option*	3(-)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Public Speaking, Pub. Spk. 107	2(2-0)	Investments, Econ. 222	3(3-0)
Option*	3(-)	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(-)
Elective†	4(-)	Elective†	3(-)
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, 46 hours; other prescribed courses, 38 hours; option, special and general electives, 36 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

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* 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.

† Ten hours of special electives must be chosen from the following group: Economics 223, Credits and Collections; 230, Principles of Transportation; 234, Labor Economics; 242, Property Insurance; 244, Life Insurance; 248, Problems in Economics; 258, Social Pathology; 280, Valuation Accounting; 281, Advanced Accounting; 286, Tax Accounting; 287, Cost Accounting; 288, Advanced Cost Accounting; 289, Government Accounting; 290, Auditing; Education 265, Psychology of Advertising and Selling; 273, Psychology and Personnel Management; English 123, Written and Oral Salesmanship; 223, Advanced Problems in Commercial Correspondence; History and Government 260, Government Regulation of Business; Industrial Journalism 178, Principles of Advertising; and Mathematics 150, Mathematics of Finance.

Curriculum in Business Administration with Special Training in Accounting

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Phys. or Biol. Science*	3(-)	Phys. or Biol. Science*	5(-)
Accounting I, Econ. 133	3(2-3)	Accounting II, Econ. 134	3(2-3)
Current History, Hist. 126	1(1-0)	Current History, Hist. 126	1(1-0)
General Algebra, Math. 108	5(5-0)	American Ind. History, Hist. 105	3(3-0)
Infantry I, Mil. Sc. 101A (men)	1(1-2)	Infantry II, Mil. Sc. 102A (men)	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

SOPHOMORE

First Semester		Second Semester	
Economics I, Econ. 101	3(3-0)	Economics II, Econ. 104	3(3-0)
Coml. Correspondence, Engl. 122	3(3-0)	English Literature, Engl. 172	3(3-0)
General Psychology, Educ. 184	3(3-0)	Valuation Accounting, Econ. 280	3(3-0)
Cost Accounting, Econ. 287	3(3-0)	Math. of Finance, Math. 150	3(3-0)
Options*	3(-)	Options*	3(-)
Infantry III, Mil. Sc. 103A (men),	1(1-2)	Infantry IV, Mil. Sc. 104A (men),	1(1-2)
Phys. Educ., M or W	R	Phys. Educ., M or W	R
Total	15 or 16	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Elements of Statistics, Math. 126,	3(3-0)	Auditing, Econ. 290	2(2-0)
Money and Banking, Econ. 116	3(3-0)	Am. Govt., Hist. 151	3(3-0)
Business Org. and Fin., Econ. 215,	3(3-0)	Public Speaking, Pub. Spk. 107	2(2-0)
Adv. Accounting, Econ. 281	3(3-0)	Elective†	8(-)
Options*	3(-)		
Total	15	Total	15

SENIOR

First Semester		Second Semester	
Govt. Accounting, Econ. 289	2(2-0)	Business Law II, Hist. 164	3(3-0)
Public Finance, Econ. 214	3(3-0)	Bus. Admin. Seminar, Econ. 249	1(1-0)
Business Law I, Hist. 163	3(3-0)	Adv. Cost Accounting, Econ. 288	2(2-0)
Elective†	7(-)	Tax Accounting, Econ. 286	3(3-0)
		Elective†	6(-)
Total	15	Total	15

Summary.—Men: Physical education, two years required; military science, 4 hours; business administration courses, 55 hours; other prescribed courses, 35 hours; option, 9 hours; electives, 21 hours; total, 124 hours. Women: The same, except no military science; total, 120 hours.

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* 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.

† Attention is called to the list of special electives for the curriculum in business administration, *ante*.

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 upon. In a modern language a student must reach a point equivalent to that obtained by college courses aggregating nine hours. Any student desiring to major in a certain field should confer in the sophomore year with the head of the department in which most of the work is given.

1. English Language

Students majoring in English should elect English 219 and 220, and twelve to twenty additional hours of English language and literature, under the guidance of the head of the department. Twelve hours of a modern foreign language is strongly recommended.

Engineering English, Engl. 110	2(2-0)	Adv. Composition II, Engl. 220	3(3-0)
Coml. Correspondence, Engl. 122	3(3-0)	Adv. Prob. in Coml. Correspondence, Engl. 223	3(3-0)
Writ. and Oral Salesmanship, Engl. 123	3(3-0)	Short Story I, Engl. 228	3(3-0)
Agricultural English, Engl. 137	3(3-0)	Short Story II, Engl. 230	3(3-0)
Technical Writing, Engl. 207	2(2-0)	Oral English, Engl. 232	3(3-0)
Adv. Composition I, Engl. 219	3(3-0)	Advanced Grammar, Engl. 243	3(3-0)

2. English Literature

Chaucer, Engl. 260	3(3-0)	Milton and the Puritan Revolt, Engl. 262	3(3-0)
English Bible, Engl. 271	3(3-0)	American Survey, Engl. 265	2(2-0)
Shakespearean Drama I, Engl. 273,	3(3-0)	Shakespearean Drama II, Engl. 274,	3(3-0)
Wordsworth, Shelley, and Keats, Engl. 278	3(3-0)	English Essayists of the Eighteenth and Nineteenth Cent., Engl. 276,	3(3-0)
World Classics I, Engl. 280	3(3-0)	World Classics II, Engl. 281	3(3-0)
Contemporary Fiction, Engl. 283	3(3-0)	Contemporary Drama, Engl. 284	3(3-0)
Novel I, Engl. 286	3(3-0)	Novel II, Engl. 287	3(3-0)
English Survey I, Engl. 288	2(2-0)	English Survey II, Engl. 290	2(2-0)
American Literature, Engl. 175	3(3-0)	Browning and Tennyson, Engl. 293,	3(3-0)
Literature of the Middle West, Engl. 268	3(3-0)	Contemporary Poetry, Engl. 297	3(3-0)

3. German

German I, Mod. Lang. 101	3(3-0)	Scientific German, Mod. Lang. 137,	4(4-0)
German II, Mod. Lang. 102	3(3-0)	Schiller, Mod. Lang. 209	3(3-0)
German III, Mod. Lang. 111	3(3-0)	Goethe, Mod. Lang. 213	3(3-0)
German IV, Mod. Lang. 112	3(3-0)	19th Cent. German Drama, Mod. Lang. 215	3(3-0)

4. French and Spanish

Students who wish to major in Romance Languages should take such of the following courses as they have not already pursued: In French, courses 151, 152, 161, 162, and 261; in Spanish, courses 176, 177, 180, 181, 275, and 280. In each group the courses should be taken approximately in the order here shown and always in conformity with requirements as to prerequisites.

French I, Mod. Lang. 151	3(3-0)	Spanish I, Mod. Lang. 176	3(3-0)
French II, Mod. Lang. 152	3(3-0)	Spanish II, Mod. Lang. 177	3(3-0)
French III, Mod. Lang. 161	3(3-0)	Spanish III, Mod. Lang. 180	3(3-0)
French IV, Mod. Lang. 162	3(3-0)	Spanish IV, Mod. Lang. 181	3(3-0)
French Drama I, Mod. Lang. 257,	3(3-0)	Spanish Novel, Mod. Lang. 275	3(3-0)
French Drama II, Mod. Lang. 258,	3(3-0)	Spanish Drama, Mod. Lang. 280	3(3-0)
French Comp. and Conv., Mod. Lang. 261	3(3-0)	Spanish Comp. and Conv., Mod. Lang. 194	3(3-0)

5. Mathematics

Students continuing work in mathematics beyond trigonometry are advised to take courses in the following order: Math. 110, 114, 115, 201, 210, 213, and 216, and in any event strictly in accordance with the stated prerequisites.

Plane Anal. Geometry, Math. 110,	4(4-0)	Theory of Statistics, Math. 203	3(3-0)
Calculus I, Math. 114	4(4-0)	Advanced Calculus I, Math. 210	3(3-0)
Calculus II, Math. 115	4(4-0)	Theory of Equations, Math. 216	3(3-0)
Differential Equations, Math. 201,	3(3-0)	Modern Plane Geometry, Math. 225,	3(3-0)
Advanced Calculus II, Math. 213	3(3-0)	Vector Analysis, Math. 230	3(3-0)
Higher Algebra, Math. 202	3(3-0)	Fourier Series, Math. 223	3(3-0)

6. Inorganic and Physical Chemistry

Students desiring extensive training in chemistry are advised to take the curriculum in industrial chemistry, supplementing the required work by electives chosen with the advice of the head of the department. Those who wish to prepare for teaching chemistry in high schools, in addition to Chem. 101, 103, and 104, should elect Chem. 218 and 219, and Chem. 207, 241, and 206. Math. 110, 114, and 115 are very desirable, and Phys. 102 and 103, or 105 and 106, are essential.

Adv. Inorg. Chemistry, Chem. 207,	3(3-0)	Ind. Electrochem, Chem. 205.....	2(2-0)
Inorg. Chem. Tech., Chem. 203...	5(3-6)	Physical Chem. II, Chem. 272....	3(3-0)
Org. Chem. Tech., Chem. 212.....	3(3-0)	Colloid Chem., Chem. 213.....	2(2-0)
Physical Chemistry I, Chem. 206..	5(3-6)	Chemical Thermodyn., Chem. 215,	3(3-0)
Surf. Tension and Rel. Phenomena, Chem. 209	2(2-0)	Theoret. Electrochem., Chem. 216,	3(3-0)
		Electrochemistry Lab., Chem. 217,	2(0-6)
		Selected Topics in Inorg. Chemistry, Chem. 271.....	2(2-0)

7. Organic and Physiological Chemistry

Preparation for work in biological chemistry or nutrition should include courses Chem. 101, 103, 104, 121, 241, 206, 231, 237, and 239; Phys. 102 and 103; Zoöl. 105 and 235; and Bact. 101.

Organic Chemistry I, Chem. 218...	4(2-6)	Organic Chemistry II, Chem. 219..	4(2-6)
		Stereoisomeric and Tautomeric Compounds, Chem. 225.....	2(2-0)
Organic Preparations, Chem. 223..	5(0-15)	Carbocyclic and Heterocyclic Compounds, Chem. 226.....	2(2-0)
Physiological Chem., Chem. 231...	5(3-6)	Qual. Org. Analysis, Chem. 221...	3(1-6)
Pathological Chem., Chem. 235...	2(2-0)	Laboratory Technique in Animal Nutrition, Chem. 239.....	2(0-6)
Biochemical Analysis, Chem. 237..	2(0-6)		

8. Analytical Chemistry

After completing Chem. 241 or 250 and 251, the student may take one or more courses in several different fields of analysis, such as soils, fertilizers, gases, feeds, foods, dairy products, etc.

Adv. Qual. Analysis, Chem. 240...	3(1-6)	Quan. Analysis, Chem. 241.....	5(1-12)
Quan. Analysis A, Chem. 250.....	3(1-6)	Quan. Analysis B, Chem. 251.....	3(1-6)

9. Physics

Students who expect to teach physics in high schools should complete a course in college physics and at least ten hours additional as advised by the head of the department. Students who wish to major in physics may, with the advice of the major instructor, choose from Phys. 227, 228, 238, 239, 240, 243, 244, 253, 254, and 270. Math. 110, 114, and 115 are desirable or necessary for the advanced courses. Phys. 136, 141, 146, and 151 are available for commerce or journalism students.

Household Physics, Phys. 109.....	4(3-3)	Heat, Phys. 238.....	3(3-0)
Descriptive Physics, Phys. 136....	3(3-0)	Heat Laboratory, Phys. 239.....	1(0-3)
Descriptive Astronomy, Phys. 141,	3(3-0)	Sound, Phys. 240.....	3(3-0)
Meteorology, Phys. 146.....	3(3-0)	Light, Phys. 243.....	3(3-0)
Photography, Phys. 151.....	2(1-3)	Light Laboratory, Phys. 244.....	1(0-3)
Lab. Tech. and App., Phys. 201...	2(0-6)	Elec. and Magnetism, Phys. 253...	2(2-0)
Applied X-rays, Phys. 205.....	3(2-3)	Elec. and Magnetism Lab., Phys. 254	1(0-3)
Astronomy, Phys. 210.....	3(3-0)	Elec. Oscill. and Waves, Phys. 265,	3(3-0)
Geophysics I, Phys. 217.....	3(3-0)	Elec. Oscill. and Waves Lab., Phys. 266	2(0-6)
Geophysics II, Phys. 218.....	3(1-6)	Electron Optics, Phys. 268.....	2(2-0)
Applied Spectroscopy, Phys. 220..	3(2-3)	Atomic Physics, Phys. 270.....	3(3-0)
Mechanics, Phys. 227.....	3(3-0)	Problems in Physics, Phys. 297....	Cr. Ar.
Mechanics Laboratory, Phys. 228..	1(0-3)		

10. Microbiology

Bact. 101 may be followed in order by 202, 204, 206, 229, 222, and 225.

Gen. Microbiology, Bact. 101.....	3(1-6)	Dairy Bacteriology, Bact. 211.....	3(1-6)
Path. Bacteriology I, Bact. 111....	4(2-6)	Poultry Sanitation, Bact. 218.....	3(2-3)
Path. Bacteriology II, Bact. 116...	4(2-6)	Physiol. of Microorg., Bact. 222...	3(3-0)
Soil Microbiol., Bact. 202.....	3(3-0)	Bact. Technic, Bact. 225.....	3(0-9)
Soil Microbiol. Lab., Bact. 204....	2(0-6)	Adv. Serology, Bact. 229.....	5(3-6)
Hyg. Bacteriology, Bact. 206.....	4(2-6)		

11. Botany

Bot. 101 and 105 are prerequisites to all other courses, excepting 110. Students specializing in plant diseases should take, in order, Bot. 205, 202, and 232; those in plant physiology, Bot. 208, 210, and 232; those in taxonomy and ecology, Bot. 225, 228 or 234 and 232. For general training, all are available if the prerequisites have been taken.

General Botany I, Bot. 101	3(1-6)	Plant Histology, Bot. 216	3(1-6)
General Botany II, Bot. 105	3(1-6)	Tax. Bot. of Flowering Plants, Bot. 225	3(1-6)
Nat. and Dev. of Plants, Bot. 110,	3(3-0)	Plant Ecology, Bot. 228	2(2-0)
Fruit Crop Diseases, Bot. 202	2(1-3)	Problems in Botany, Bot. 232	Cr. Ar.
Plant Pathology I, Bot. 205	3(1-6)	Field Crop Diseases, Bot. 241	3(1-6)
Morph. of the Fungi, Bot. 206	3(1-6)	Literature of Botany, Bot. 266	2(2-0)
Plant Physiology I, Bot. 208	3(3-0)	Plant Cytology, Bot. 268	3(1-6)
Plant Physiology II, Bot. 210	3(1-6)		

12. Zoölogy

A student who wishes to major in zoölogy should, in connection with the required work in this field or after completing it, elect from the courses listed below subjects varying with his special interest, such as parasitology, embryology, genetics, etc. Consult the head of the department.

Human Physiology, Zoöl. 235	4(3-3)	Comp. Anat. of Vertebs., Zoöl. 246,	4(2-6)
Cytology, Zoöl. 214	4(2-6)	Evol. and Heredity, Zoöl. 217	3(2-3) or 4(2-6)
Parasitology, Zoöl. 208	3(2-3)	Embryology, Zoöl. 219	4(3-3)
Comp. and Human Neur., Zoöl. 250,	3(2-3)	Adv. Embryology, Zoöl. 220	4(2-6)
Taxonomy of Parasites, Zoöl. 240	2(1-3)	Human Parasitology, Zoöl. 218	3(3-0)
Field Zoölogy, Zoöl. 205	3(1-6)	Zoölogical Technic, Zoöl. 206	1 or 2(-)
Heredity and Eugenics, Zoöl. 216	2(2-0)	Zoöl. and Ent. Seminar, Zoöl. 225,	1(1-0)
Problems in Zoölogy, Zoöl. 203	Cr. Ar.	Genetics Seminar, Zoöl. 207	1(1-0)

13. Geology

The basic courses are Geol. 103, 203, and 209. Students who expect to major in geology should take these three courses as early in their collegiate careers as possible.

Engineering Geology, Geol. 102	4(3-3)	General Geology, Geol. 103	3(3-0)
Economic Geology, Geol. 207	4(3-3)	Historical Geology, Geol. 203	4(3-3)
Crystal. and Mineralogy, Geol. 209,	4(2-6)	Physiographic Geol., Geol. 110	3(3-0)
Invert. Paleontology, Geol. 220	4(3-3)	Structural Geology, Geol. 215	4(3-3)
Prin. of Geography, Geol. 240	3(3-0)	Vert. Paleontology, Geol. 255	3(3-0)
Optical Mineralogy, Geol. 234	4(2-6)	Field Meth. in Geology, Geol. 230,	3(1-6)

14. Entomology

Students majoring in entomology, with due regard for prerequisites, should take Ent. 203, 211, 212, 231, 216, 217, 218, 226, 206, 221, and 238, and preferably in this order.

Gen. Entomology, Ent. 101	3(3-0)	Prin. of Taxonomy, Ent. 216	1(1-0)
Gen. Econ. Entomology, Ent. 203,	3(2-3)	Taxonomy of Insects I, Ent. 217	2(0-6)
Extl. Insect Morphology, Ent. 211,	3(1-6)	Taxonomy of Insects II, Ent. 218	3(0-9)
Intl. Insect Morphology, Ent. 212,	3(0-9)	Adv. Gen. Entomology, Ent. 221	3(3-0)
Ent. and Zoöl. Literature, Ent. 231,	2(2-0)	Staple Crop Entomology, Ent. 206,	3(2-3)
Medical Entomology, Ent. 226	3(2-3)	Problems in Entomology, Ent. 238,	Cr. Ar.
Advanced Apiculture I, Ent. 229	3(2-3)	General Apiculture, Ent. 208	3(2-3)
Advanced Apiculture II, Ent. 230,	3(2-3)	Insect Physiology, Ent. 240	3(3-0)

15. History, Government, and Law

To prepare for teaching history in high school the student should have at least fifteen hours of college history following two years of history in high school or its equivalent in college. The advice of the head of the department should be followed in each case.

Ancient Civilizations, Hist. 101	3(3-0)	Medieval Europe, Hist. 102	3(3-0)
English History, Hist. 121	3(3-0)	Current History, Hist. 126	1(1-0)
American History I, Hist. 201	3(3-0)	Am. Indust. History, Hist. 105	3(3-0)
American History II, Hist. 202	3(3-0)	American History III, Hist. 203	3(3-0)
American Agr'l History, Hist. 204	3(3-0)	Latin America, Hist. 208	3(3-0)
Modern Europe I, Hist. 115	3(3-0)	Modern Europe II, Hist. 223	3(3-0)
Far East, Hist. 236	3(3-0)	20th Century Europe, Hist. 234	3(3-0)
Hist. of Com. and Ind., Hist. 110,	3(3-0)	British Empire, Hist. 226	2(2-0)
Am. Political Parties, Hist. 206	2(2-0)	History of the Home, Hist. 225	3(3-0)
Immig. and Intern'l Rel., Hist. 228,	2(2-0)	International Law, Hist. 256	2(2-0)
Am. Government, Hist. 151	3(3-0)	Gov't and Business, Hist. 260	2(2-0)
Am. Nat'l Government, Hist. 152	3(3-0)	Am. State Government, Hist. 153	3(3-0)
Comp. Government, Hist. 252	2(2-0)	History of Religions, Hist. 231	2(2-0)
Farm Law, Hist. 175	2(2-0)	Business Law II, Hist. 164	3(3-0)
Business Law I, Hist. 163	3(3-0)	International Law, Hist. 256	2(2-0)
Land Law, Hist. 276	2(2-0)		

16. Economics and Sociology

Some of the subjects in this list are required in the several curriculums of the institution, and the others are available as electives if prerequisites have been satisfied.

Economics I, Econ. 101	3(3-0)	Labor Economics, Econ. 234	3(3-0)
Economics II, Econ. 104	3(3-0)	Property Insurance, Econ. 242	2(2-0)
Money and Banking, Econ. 116	3(3-0)	Life Insurance, Econ. 244	2(2-0)
Business Management, Econ. 126	2(2-0)	Marketing, Econ. 246	3(3-0)
Economic Systems, Econ. 210	2(2-0)	Problems in Economics, Econ. 248,	Cr. Ar.
Public Finance, Econ. 214	3(3-0)	Sociology, Econ. 151	3(3-0)
Bus. Org. and Finance, 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 Collections, 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 Transportation, Econ. 230,	3(3-0)	Problems in Sociology, Econ. 279	Cr. Ar.

17. Accounting

Accounting I, Econ. 133	3(2-3)	Tax Accounting, Econ. 286	3(3-0)
Accounting II, Econ. 134	3(2-3)	Cost Accounting, Econ. 287	3(3-0)
Valuation Accounting, Econ. 280	3(3-0)	Adv. Cost Accounting, Econ. 288	2(2-0)
Advanced Accounting, Econ. 281	3(3-0)	Government Accounting, Econ. 289,	2(2-0)
Institutional Accounting, Econ. 284,	2(2-0)	Auditing, Econ. 290	2(2-0)

18. Education and Psychology

Students desiring to qualify for the state teacher's certificate based on graduation from a four-year curriculum should take Educ. 184 and Educ. 109, 163, and 210. Advice should be obtained from the head of the Department of Education in respect to additional courses necessary. See, also, "Education" in this catalogue for information concerning certificates.

Gen. Psychology, Educ. 184	3(3-0)	Principles of Secondary Education, Educ. 236	3(3-0)
Educational Psychology, Educ. 109,	3(3-0)	Educ. Sociology, Educ. 239	3(3-0)
Methods of Teaching, Educ. 111	3(3-0)	Psychology of Childhood and Adolescence, Educ. 250	3(3-0)
Meth. of Teaching Home Economics, Educ. 132	3(3-0)	Abnormal Psychology, Educ. 254	3(3-0)
Meth. of Teach. Agric., Educ. 136,	3(3-0)	Adv. Gen. Psychology, Educ. 257	3(3-0)
Teach. Participation in High School, Educ. 163	1(1-0) to 4(4-0)	Experimental Psychology, 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)	Psyc. of Excep. Children, Educ. 266,	3(3-0)
Educ. Measurements, Educ. 212	3(3-0)	Animal Psychology, Educ. 269	3(3-0)
Statis. Meth. Applied to Education, Educ. 223	3(3-0)	Social Psychology, Educ. 270	3(3-0)
		Psychology of Art, Educ. 276	3(3-0)

20. Industrial Journalism

While those who wish to give much attention to journalism will choose the curriculum in industrial journalism, many in other curriculums desire some training in this field. Selection from the following list may be made insofar as the prerequisites permit.

Jour. Vocations, Ind. Jour. 140	2(2-0)	News Bureau Methods, Ind. Jour. 183	2(2-0)
Elem. Journalism, Ind. Jour. 152	3(3-0)	Contem. Thought, Ind. Jour. 255	3(3-0)
Radio Writing, Ind. Jour. 162	2(2-0)	Materials of Jour., Ind. Jour. 265,	2(2-0)
Industrial Writing, Ind. Jour. 164	3(3-0)	Magazine Features, Ind. Jour. 270,	2(2-0)
Ind. Feat. Writing, Ind. Jour. 167	2(2-0)	Jour. Surveys, Ind. Jour. 278	2(0-6)
Jour. for Women, Ind. Jour. 172	2(2-0)	Current Periodicals, Ind. Jour. 287,	3(3-0)
Prin. of Advertising, Ind. Jour. 178,	4(4-0)		
Rural Press, Ind. Jour. 181	2(2-0)		

23. Music

Students in the various curriculums are permitted to study theoretical or applied music, but the acceptability for elective credit of work in voice or instrumental music is contingent upon the attainment of an effective degree of proficiency.

APPLIED MUSIC

Instrument, Mus. 153	0-4 hours	Double Bass, Mus. 167	0-4 hours
Voice, Mus. 156	0-4 hours	Organ, Mus. 172	0-4 hours
Violin, Mus. 158	0-4 hours	Choral Ensemble, Mus. 194	½(0-2)
Piano, Mus. 161	0-4 hours	Orchestra, Mus. 195	½(0-2)
Violoncello, Mus. 163	0-4 hours	Band, Mus. 198	½(0-2)

THEORETICAL MUSIC

Harmony I, Mus. 101	2(2-0)	Harmony II, Mus. 102	2(2-0)
Harmony III, Mus. 103	2(2-0)	Harmony IV, Mus. 104	2(2-0)
Counterpoint, Mus. 108A	2(2-0)	Mus. Form and Analysis, Mus. 111,	1(1-0)
Hist. and Apprec. of Music I, Mus. 130	2(2-0)	Hist. and Apprec. of Music II, Mus. 131	2(2-0)
School Music I, Mus. 138	2(2-0)	School Music II, Mus. 139	2(2-0)
Inst. and Orchest., Mus. 136	3(3-0)	School Music III, Mus. 143	2(2-0)

25. Military Science and Tactics

Men who have completed the basic course in infantry may elect the advanced course if approved by the dean and the head of the Department of Military Science and Tactics.

Infantry V, Mil. Sc. 109	3(2-3)	Infantry VII, Mil. Sc. 111	3(2-3)
Infantry VI, Mil. Sc. 110	3(2-3)	Infantry VIII, Mil. Sc. 112	3(2-3)

26. Physical Education and Athletics

In connection with the required work or after its completion, students may elect courses in physical education. The courses listed below, and others on the advice of the head of the department, are available.

FOR MEN

Intro. to Phys. Ed., Phys. Ed. 107,	1(1-0)	Track and Field Spts., Phys. Ed. 140A	2(1-3)
First Aid and Massage, Phys. Ed. 113A	3(3-0)	Kinesiology, Phys. Ed. 141B	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)	Nat. and Fen. of Play, Phys. Ed. 145	2(2-0)
Physiol. of Exercise, Phys. Ed. 123,	2(2-0)	Community Hygiene, Phys. Ed. 147,	2(2-0)
Phys. Diag. and Pres., Phys. Ed. 124A	3(3-0)	Teaching Health, Phys. Ed. 149	2(2-0)
Football, Phys. Ed. 126	2(1-3)	Community Recreation, Phys. Ed. 203	2(2-0)
Baseball, Phys. Ed. 133	2(1-3)		
Phys. Ed. Act. I, Phys. Ed. 137	1(0-3)		
Phys. Ed. Act. II, Phys. Ed. 138	2(0-6)		
Phys. Ed. Act. III, Phys. Ed. 139,	2(0-6)		
Phys. Ed. Act. IV, Phys. Ed. 140,	1(0-3)		

FOR WOMEN

The following courses are available after completing the two years of required work:

Fundamental Rhythms, Phys. Ed. 155	1(0-3)	Gen. Tech. VII, Phys. Ed. 157G	2(1-3)
Gen. Tech. I, Phys. Ed. 157A	2(1-3)	Gen. Tech. VIII, Phys. Ed. 157H,	2(1-3)
Gen. Tech. II, Phys. Ed. 157B	2(1-3)	Prin. Health Educ., Phys. Ed. 163,	3(3-0)
Gen. Tech. III, Phys. Ed. 157C	2(1-3)	Playgr. Man. and Games, Phys. Ed. 182A	2(1-3)
Gen. Tech. IV, Phys. Ed. 157D	2(1-3)	Adult Recreation, Phys. Ed. 183	2(2-0)
Gen. Tech. V, Phys. Ed. 157E	2(0-6)	Teach. and Adapt. of Phys. Ed., Phys. Ed. 188	3(3-0)
Gen. Tech. VI, Phys. Ed. 157F	2(1-3)	Hist. and Prin. of Phys. Ed., Phys. Ed. 192	3(3-0)

27. Public Speaking

Courses covering various aspects of public speech are open after completing any prerequisites. The head of the department should be consulted for advice as to the individual needs.

Extem. Speech I, Pub. Spk. 106	2(2-0)	Extem. Speech II, Pub. Spk. 108	2(2-0)
Oral Interpretation, Pub. Spk. 101,	2(2-0)	Dramatic Reading, Pub. Spk. 102	2(2-0)
Parl. Proced., Pub. Spk. 126	1(1-0)	Dramatic Produc. II, Pub. Spk. 135,	2(2-0)
Dramatic Produc. I, Pub. Spk. 130,	2(2-0)	Advanced Debate, Pub. Spk. 222	2(2-0)
Argum. and Debate, Pub. Spk. 121,	2(2-0)	Public Program, Pub. Spk. 225	2(2-0)

30. Social Science

(Political and Social History, Government, Economics, and Sociology.)

In the curriculum in industrial journalism students are required to elect ten hours in a social science option. The following list includes some subjects, and many more are offered by the several departments. See groups 15 and 16.

American History I, Hist. 201	3(3-0)	American History II, Hist. 202	3(3-0)
Am. Pol. Parties, Hist. 206	2(2-0)	American History III, Hist. 203	3(3-0)
Am. Natl. Government, Hist. 152	3(3-0)	Am. State Government, Hist. 153	3(3-0)
Latin America, Hist. 208	3(3-0)	Modern Europe I, Hist. 115	3(3-0)
Money and Banking, Econ. 116	3(3-0)	Modern Europe II, Hist. 223	3(3-0)
Business Finance, Econ. 217	3(3-0)	English History, Hist. 121	3(3-0)
Markt. of Farm Prod., Econ. 202,	3(3-0)	Economics I, Econ. 101	3(3-0)
Agric. Land Probs., Econ. 218	3(3-0)	Public Finance, Econ. 214	3(3-0)
Labor Economics, Econ. 234	3(3-0)	Sociology, Econ. 151	3(3-0)

31. Applied Science

Students in the curriculum of industrial journalism who do not wish to elect subjects directly related to a single industry are permitted to elect sciences that support industries and subjects that involve applications of the sciences, insofar as they have satisfied requirements as to prerequisites.

Seed Iden. and Weed Cont., Agron. 105	2(1-3)
Soils, Agron. 130	4(3-3)
General Microbiology, Bact. 101	3(1-6)
Hygienic Bacteriology, Bact. 206	4(2-6)
General Botany I, Bot. 101	3(1-6)
General Botany II, Bot. 105	3(1-6)
Nature and Dev. of Plants, Bot. 110	3(3-0)
Fruit Crop Diseases, Bot. 202	2(1-3)
Plant Pathology I, Bot. 205	2(1-3)
Plant Ecology, Bot. 228	2(2-0)
Field Crop Diseases, Bot. 241	3(1-6)
Gen. Org. Chemistry, Chem. 122	5(3-6)
Dairy Chemistry, Chem. 254	3(1-6)
Gen. Entomology, Ent. 101	3(3-0)
Hort. Entomology, Ent. 201	2(2-0)
Gen. Economic Ent., Ent. 203	3(2-3)
Staple Crop Ent., Ent. 206	3(2-3)
General Apiculture, Ent. 208	3(2-3)
Human Nutrition, Food and Nutr. 112	3(3-0)
Ap. Nutrition, Food and Nutr. 121,	2(2-0)
General Geology, Geol. 103	3(3-0)
Physiographic Geol., Geol. 110	3(3-0)
Principles of Geography, Geol. 140,	3(3-0)
Historical Geology, Geol. 203	4(3-3)
Economic Geology, Geol. 207	4(3-3)
Crystal. and Mineralogy, Geol. 209,	4(2-6)
Sedimentary Petrology, Geol. 236	5(3-6)
Vertebrate Paleontology, Geol. 255,	3(3-0)
Micropaleontology, Geol. 256	3(1-6)
El. of Horticulture, Hort. 107	3(2-3)
Small Fruits, Hort. 110	2(2-0)
Farm Forestry, Hort. 114	3(2-3)
Landscape Gardening I, Hort. 125,	3(3-0)
Household Physics, Phys. 109	4(3-3)
Descriptive Physics, Phys. 136	3(3-0)
Descriptive Astronomy, Phys. 141,	3(3-0)
Meteorology, Phys. 146	3(3-0)
Photography, Phys. 151	2(1-3)
General Zoölogy, Zoöl. 105	5(3-6)
Parasitology, Zoöl. 208	3(2-3)
Embryology, Zoöl. 219	4(3-3)
Endocrinology, Zoöl. 247	3(3-0)

32. Home Economics

This group is suggested for women in the curriculum in industrial journalism. It states the fundamental subjects in the three lines, food, clothing, and applied art. The required option related to an industry may be satisfied by fifteen hours in one or more of these lines. Additional subjects in each line are described in the department sections of the catalogue. Prerequisites count on the group requirement.

Elementary Design I, Art 101A	2(0-6)
Principles of Art I, Art 124	3(3-0)
Principles of Art II, Art 125	3(3-0)
Costume Design I, Art 130	2(0-6)
Child Guidance, Child Welf. 201	3(1-6)
The Family, Child Welf. 216	2(2-0)
Clothing for the Ind., Clo. and Text. 103	4(1-9)
Foods I, Food and Nutr. 102	5(3-6)
Applied Nutrition, Food and Nutr. 121	2(2-0)
The House, Household Econ. 107,	3(2-3)
Family Finance, Household Econ. 263	2(2-0)
Econ. of Household, Household Econ. 265	2(2-0)
Consumer Buying, Household Econ. 270	2(2-0)

35. Agriculture

This group, compiled for the use of young men who elect the agriculture option in connection with their work in industrial journalism, gives the basic subjects in some agricultural lines. Subjects for which these are prerequisite are also acceptable. See the expositions of the work of the several departments in the Division of Agriculture.

Farm Crops, Agron. 101	4(2-6)
Soils, Agron. 130	4(3-3)
El. of An. Husb., An. Husb. 125	3(2-4)
Prin. of Feeding, An. Husb. 152	3(3-0)
Genetics, An. Husb. 221	3(3-0)
General Botany I, Bot. 101	3(1-6)
General Botany II, Bot. 105	3(1-6)
Plant Pathology I, Bot. 205	3(1-6)
Field Crop Diseases, Bot. 241	3(1-6)
Gen. Org. Chemistry, Chem. 122	5(3-6)
El. of Dairying, Dairy Husb. 101,	3(2-3)
Dairy Cattle Judging, Dairy Husb. 104	1(0-3)
El. of Horticulture, Hort. 107	3(2-3)
Farm Poultry Prod., Poult. Husb. 101	2(1-3)

36. Drawing and Art

Students in industrial journalism, with due regard for prerequisites, may elect fifteen hours from this group in order to fulfill the requirement in respect to subjects related to an industry.

Freehand Drawing I, Arch. 112	2(0-6)	Design in Crafts, Art 102	2(0-6)
Freehand Drawing II, Arch. 113	2(0-6)	Intermediate Design, Art 103	2(0-6)
Pen. Rend. and Sketch., Arch. 116,	2(0-6)	Advanced Design, Art 105	2(0-6)
Still-Life Drawing, Arch. 117	2(0-6)	Art of Southwest Indians, Art 111	1(1-0)
Water Color I, Arch. 118	2(0-6)	Interior Decoration I, Art. 113	2(0-6)
Water Color II, Arch. 119	2(0-6)	Interior Decoration II, Art 115	2(0-6)
Life Drawing I, Arch. 121	2(0-6)	Interior Decoration III, Art 117	2(0-6)
Life Drawing II, Arch. 123	2(0-6)	Drawing I, Art 120	2(0-6)
Domestic Architecture, Arch. 124	2(2-0)	Principles of Art I, Art 124	3(3-0)
Apprec. of Arch., Arch. 125	3(3-0)	Principles of Art II, Art 126	3(3-0)
Clay Modeling, Arch. 133	2(0-6)	Lettering, Art 127	2(0-6)
Pen and Ink Drawing, Arch. 134	2(0-6)	Costume Design I, Art 130	2(0-6)
Block Prints, Arch. 137	2(0-6)	Costume Design II, Art 134	2(0-6)
Commercial Illus. I, Arch. 165	2(0-6)	Costume Design III, Art 138	2(0-6)
Commercial Illus. II, Arch. 170	2(0-6)	Costume Illustration, Art 139	2(0-6)
Hist. Paint. and Sculp., Arch. 179,	3(3-0)	Problems in Design, Art 220	2(0-6)
Adv. Freehand Drawing, Arch. 201,	2-5 hrs.	Problems in Interior Decoration, Art 232	2(0-6)
Etching, Arch. 217	2(0-6)	Historic Textiles Design, Art 233	2(0-6)
Oil Painting, Arch. 230	2-5 hrs.	Problems in Costume Design, Art 235	2(0-6)
Elementary Design I, Art 101A	2(0-6)		
Elementary Design II, Art 101B	2(0-6)		

37. Manual and Industrial Arts

Students preparing to teach industrial arts will require credit in at least fifteen hours in that line. Fifteen hours may also be chosen from the group by students in industrial journalism in satisfaction of the option related to an industry. Prerequisites must be observed.

Farm Buildings, Agric. Engr. 101	3(2-3)	Woodwork IV, Shop 140	2(0-6)
Farm Machinery, Agric. Engr. 108,	3(2-3)	Farm Carpentry I, Shop 147	3(1-6)
Gas Eng. and Tract., Agric. Engr. 130	3(2-3)	Forging, Shop 150	1(0-3)
Surveying I, Civ. Engr. 102	2(0-6)	Farm Blacksmithing I, Shop 157	1(0-3)
Engr. Drawing, Mach. Des. 101	2(0-6)	Farm Blacksmithing II, Shop 158,	1(0-3)
Des. Geom., Mach Des. 106	2(0-6)	Foundry Production, Shop 161	1(0-3)
Mach. Drawing I, Mach. Des. 111,	2(0-6)	Metallurgy, Shop 165	2(2-0)
Engr. Woodwork, Shop 101	1(0-3)	Metallography I, Shop 167	1(0-3)
Ele. Crafts for Teachers, Shop 117,	2(0-6)	Machine Tool Work I, Shop 170	2(0-6)
Reed Furn. Const., Shop 119	2(0-6)	Sheet Metal Work, Shop 173	2(0-6)
Woodwork I, Shop 120	2(0-6)	Farm Shop Methods, Shop 175	3(1-6)
Woodwork II, Shop 125	2(0-6)	Machine Tool Work II, Shop 192	2(0-6)
Woodwork III, Shop 130	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.

38. Printing

Students in industrial journalism may elect fifteen hours from this group in order to fulfill the requirement in respect to subjects related to an industry, or they may elect courses in this group to satisfy elective requirements, choosing not fewer than eight hours.

Ad Comp. I, Ind. Jour. 108	2(0-6)	Job Comp. II, Ind. Jour. 118	2(0-6)
Ad Comp. II, Ind. Jour. 111	2(0-6)	Job Comp. III, Ind. Jour. 120	2(0-6)
Ad Comp. III, Ind. Jour. 112	2(0-6)	Press Work I, Ind. Jour. 122	2(0-6)
Job Comp. I, Ind. Jour. 114	2(0-6)	Press Work II, Ind. Jour. 126	2(0-6)

39. Radio Broadcasting

Students considering an option in radio broadcasting must consult the head of the Department of Public Speaking and arrange for a microphone test, before enrolling in any of the broadcasting courses.

Radio Writing, Ind. Jour. 162	2(2-0)	Hist. and Apprec. of Mus. II, Mus. 131	2(2-0)
Radio Advertising, Ind. Jour. 179	3(3-0)	Radio Program Partic., Pub. Spk. 168	1(0-3)
Broadcasting Station Practice, Ind. Jour. 180	1(0-3)	Phonetics, Pub. Spk. 201	4(3-3)
Elements of Broadcasting, Pub. Spk. 161	3(2-3)	Radio Continuity, Pub. Spk. 230	2(2-0)
Broadcast Musical Programs, Mus. 119	2(3-0)	Radio Program Production, Pub. Spk. 231	2(1-3)
Hist. and Apprec. of Mus. I, Mus. 130	2(2-0)	Problems in Broadcasting, Pub. Spk. 232	Cr. Ar.

40. Milling Industry

Students in general science or industrial chemistry may elect work in milling industry for which they have taken the prerequisites.

Milling Practice I, Mill. Ind. 109..	3(1-6)
Wheat and Flour Testing, Mill. Ind. 205	3(0-9)
Advanced Wheat and Flour Testing, Mill. Ind. 210	1 to 5 hrs.
Farm Crops, Agron. 101	4(2-6)
Grain Marketing, Econ. 203	3(3-0)
Quantitative Analysis A, Chem. 250,	3(1-6)
Elem. Org. Chemistry, Chem. 123..	3(2-3)
Milling Technology I, Mill. Ind. 201	2(0-6)
Probs. in Milling, Mill. Ind. 214..	Cr. Ar.
El. of Milling, Mill. Ind. 101	2(1-3)
Flow Sheets, Mill. Ind. 103	2(0-6,
Milling Practice II, Mill. Ind. 111,	3(1-6)
Mill. Qual. of Wheat, Mill. Ind. 212	3(3-0)
Exper. Baking, Mill. Ind. 206	3(1-6)
Grain Grad. and Judging, Agron. 108	2(0-6)
Quant. Analysis B, Chem. 251	3(1-6)
Chem. of Proteins, Chem. 236A	3(2-3)
Milling Technology II, Mill. Ind. 202	2(0-6)
Colloid Chemistry, Chem. 213	2(2-0)

42. Personnel Management

Students who desire specific training for personnel and executive work should elect Educ. 273 and Econ. 126, 234, and 267, along with such other courses from the following group as may seem desirable.

Economics II, Econ. 104	3(3-0)
Business Management, Econ. 126..	2(2-0)
Principles of Accounting, Econ. 136,	3(3-0)
Business Organization and Finance, Econ. 215	3(3-0)
Labor Economics, Econ. 234	3(3-0)
Social Pathology, Econ. 258	3(3-0)
Com. Org. and Lead., Econ. 267..	3(3-0)
Advanced Sociology, Econ. 273	3(3-0)
Vocational Guidance, Educ. 230A..	3(3-0)
Stat. Meth. App. to Educ., Educ. 233	3(3-0)
Vocational Education, Educ. 241..	3(3-0)
Mental Tests, Educ. 260	3(3-0)
Technic of Mental Testing, Educ. 261	3(1-6)
Psych. of Adv. and Selling, Educ. 265	3(3-0)
Social Psychology, Educ. 270	3(3-0)
Psych. of Personnel Mgmt., Educ. 273	3(3-0)

44. Social Welfare Work

Economics I, Econ. 101	3(3-0)
Economics II, Econ. 104	3(3-0)
Sociology, Econ. 151	3(3-0)
Rural Sociology, Econ. 156	3(3-0)
Labor Economics, Econ. 234	3(3-0)
Social Pathology, Econ. 258	3(3-0)
Com. Org. and Lead., Econ. 267..	3(3-0)
Advanced Sociology, Econ. 273	3(3-0)
General Psychology, Educ. 184	3(3-0)
Psychology of Childhood and Adolescence, Educ. 250	3(3-0)
Abnormal Psychology, Educ. 254..	3(3-0)
Social Psychology, Educ. 270	3(3-0)
Psych. of Pers. Mgmt., Educ. 273,	3(3-0)
Personal Health, Child Welf. 101..	2(2-0)
Child Guidance I, Child Welf. 201,	3(1-6)
Child Guidance II, Child Welf. 206,	3(3-0)
Family Health, Child Welf. 211	3(3-0)
The Family, Child Welf. 216	2(2-0)
Clo. for the Ind., Clo. and Text. 103,	4(1-9)
Clo. Selection, Clo. and Text. 110,	2(2-0)
Foods I, Food and Nutr. 102	5(3-6)
The House, Household Econ. 107..	3(2-3)
Home Mgmt., Household Econ. 116,	3(1-6)
Heredity and Eugenics, Zoöl. 216..	2(2-0)

Bacteriology

Professor Bushnell
Professor Gainey
Assistant Professor Foltz
Assistant Professor Nelson
Instructor Twiehaus
Instructor McCalla
Instructor Fierke
Graduate Assistant Tanner
Graduate Assistant Boyle

Only the simplest forms of life, consisting almost invariably of one-celled organisms, are studied. It is now possible to study these microscopical forms with ease and accuracy, thus paving the way for a more complete study and better understanding of cells in the aggregate. Emphasis is given to applications in agriculture, general science, home economics, and medicine.

COURSES IN BACTERIOLOGY

FOR UNDERGRADUATE CREDIT

101. General Microbiology. 3(1-6)*; I, II, and SS. Prerequisite: Chem. 110, or 103 and 104. Staff.

Morphological and biological characters, classification and distribution of bacteria, factors necessary for the development of bacteria, culture media, cul-

tural features, staining values, and fundamental principles of applied bacteriology.

Laboratory.—The student prepares culture media and becomes familiar with principles of sterilization and incubation, and with general laboratory technic. Deposit, $8.

111, 116. Pathogenic Bacteriology I and II. 4(2-6) each; II and I, respectively. Designed for students in veterinary medicine. Prerequisite: Chem. 122. Bushnell, Foltz, Twiehaus.

Fundamental principles of bacteriology as applied to veterinary medicine. Deposit, $8 for each course.

125. Water and Sewage Bacteriology. 2(0-6); I. Prerequisite: Chem 108. Gainey.

Bacteriological aspects of 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 microörganisms.

204. Soil Microbiology Laboratory. 2(0-6); II. Prerequisite: Bact. 202 or concurrent registration. Gainey.

Plot experiments and field work illustrative of theories developed in course 202. Deposit, $8.

206. Hygienic Bacteriology. 4(2-6); I. Prerequisite: Bact. 101. Offered in 1939-'40 and in alternate years thereafter. Bushnell, 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.

Anatomy of fowls; poultry sanitation and hygiene; infectious and noninfectious diseases of fowls; parasites; minor surgery.

218. Poultry Sanitation. 3(2-3); II. Prerequisite: Bact. 101 or 111. Twiehaus.

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

222. Physiology of Microörganisms. 3(3-0); II. Prerequisite: Bact. 101 or 111 and Chem. 122. Offered in 1940-'41 and in alternate years thereafter. Nelson.

Chemistry and physics of microbial processes.

225. Bacteriological Technic. 3(0-9); I. Prerequisite: Bact. 101 or 111. Offered in 1940-'41 and in alternate years thereafter. Gainey.

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

229. Advanced Serology. 5(3-6); II. Prerequisite: Bact. 206. Offered in 1939-'40 and in alternate years thereafter. Bushnell, Foltz.

Theories of immunity and immunization; preparation, purification, and standardization of the various biological products used in human and veterinary medicine. Laboratory arranged according to the material available. Deposit, $8.

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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, 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.

235. Bacteriology of Butter Cultures. 1(0-3); I. Prerequisite: Bact. 211. Nelson.
Bacteriological and chemical aspects of butter cultures.

270. Problems in Bacteriology. Credit to be arranged; I, II, and SS. Prerequisite: Bact. 101, 111, or 116. Staff.
Special problems assigned, credit depending upon the amount and quality of work done. Deposit, $3 per credit hour.

275. Bacteriology Seminar. 1(1-0); I and II. Prerequisite: Consult professor in charge. Bushnell.
Papers and discussions on various phases of current research work in bacteriology, serology, and related subjects. Advanced students in this department may be assigned to this subject for credit; others interested may visit the meetings at any time by making proper arrangements.

FOR GRADUATE CREDIT

301. Research in Bacteriology. Credit to be arranged; I, II, and SS. Prerequisite: at least two courses in this department. Staff.
Properly qualified students admitted to this course upon approval of the department head; opportunity to do experiment station and research work during vacation periods; problems for students working toward an advanced degree; upon completion, results presented in form of a thesis which, when accepted, fulfills part of the requirements for the master's degree or doctor's degree. Deposit, $3 per credit hour.

Botany and Plant Pathology

Professor Melchers
Professor Miller
Professor Davis
Professor Haymaker
Professor Gates
Associate Professor Elmer
Assistant Professor Newcomb
Instructor Kingsley
Instructor Bates
Instructor Frazier
Instructor Creager
Assistant McCracken
Graduate Assistant Koepper
Graduate Research Assistant Gries

Instruction in this department has a three-fold purpose: Training in botany for the general broadening of the student's knowledge; training in the knowledge of plants that will serve as a foundation for the student's further college courses in agricultural subjects; instruction and direction for students who desire to investigate problems in plant life that affect agriculture. Investigations may be undertaken in any of the major fields of botany.

COURSES IN BOTANY

FOR UNDERGRADUATE CREDIT

101, 105. General Botany I and II. 3(1-6), each; I and SS, and II and SS, respectively. Staff.
I: The principal life processes of plants, such as photosynthesis, digestion, respiration, transpiration, and growth; the responses of plants to environmental conditions and physical stimuli; and the anatomy of the plant.
II: The significance of plant morphology to the allied branches of botany, plant physiology, taxonomy, and ecology; the economic importance of the fungi and other pathogenic plants; the evolution of plants, as developed by morphological criteria.

Laboratory.—I: A series of typical experiments followed out in the laboratory and in the greenhouse. Charge, $3.50.
II: Study of the morphology of the typical representatives of the great groups of the plant kingdom, ecological factors which affect plants, and plant identification under both winter and summer conditions by use of an identification key. Charge, $3.50.

110. Nature and Development of Plants. 3(3-0); II and SS. Haymaker.
A general survey of the plant kingdom emphasizing structure, life processes, identification, classification, evolutionary development, geographical distribution, and economic importance.

126. Medical Botany. 2(1-3); I. Prerequisite: high-school botany or its equivalent. Gates.
The principal stock-poisoning plants of the range; habitat, poisonous properties, and methods of control and elimination of native poisonous plants. Charge, $2.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Fruit Crop Diseases. 2(1-3); I. Prerequisite: Bot. 205. Offered in 1939-'40 and in alternate years thereafter. Haymaker.
Diseases of major and minor fruit crops; cause, effect on host, control. Charge, $2.

205. Plant Pathology I. 3(2-3); I and SS. Prerequisite: Bot. 101 and 105. Melchers, Haymaker, Elmer.
Characteristics of important diseases of crops and the organisms causing them. Charge, $2.

206. Morphology of the Fungi. 3(1-6); I. Prerequisite: Bot. 105. Offered in 1938-'39 and in alternate years thereafter. Creager.
Structure of slime molds, moldlike bacteria, and fungi studied to determine taxonomic relationships.

208. Plant Physiology I. 3(3-0); I. Prerequisite: Bot. 101 and 105 and Chem. 103 and 104 or 110. Miller.
A detailed study of the plant cell, solutions and membranes in relation to the cell, root systems, intake of water, intake of solutes, elements used, and loss of water.

210. Plant Physiology II. 3(1-6); II. Prerequisite: Bot. 208. Offered in 1940-'41 and in alternate years thereafter. Miller.
Methods used in obtaining experimental data in regard to the more common functions of plants. Charge, $5.

211. Plant Physiology III. 3(3-0); II. Prerequisite: Bot. 208. Miller.
A continuation of Bot. 208, including a detailed study of photosynthesis, nitrogen metabolism, fat metabolism, digestion, translocation, respiration, and growth.

212. Problems in Botanical Instruction. 3(2-3); SS. Prerequisite: ten hours in botany or in courses of botanical nature. Haymaker.
Advanced work in the morphology, anatomy, physiology, taxonomy, and diseases of plants; technic in presenting botany to high-school and college students. Charge, $2.

217. Botanical Microtechnic. 3(1-6); II. Prerequisite: Bot. 101 or 105. Offered in 1939-'40 and in alternate years thereafter. Bates.
Principles and methods of preparing plant materials for histological or cytological study. Charge, $3.

218. Field Botany. 3(2-3); SS. Prerequisite: Bot. 101 and 105. 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.
Development of the systems of classification; identification of plants in the field and in the laboratory; consideration of orders and families of plants. Charge, $2.

228. Plant Ecology. 2(2-0); II. Prerequisite: Bot. 101 and 105. Gates.
Structure and dynamics of vegetation. Field trips.

232. Problems in Botany. Credit to be arranged; I, II, and SS. Prerequisite: Bot. 101 and 105, and approval of the head of the department. Staff.
Some special field of work not definitely represented by one of the undergraduate elective courses. Charge, $2.

241. Field Crop Diseases. 3(1-6); II. Prerequisite: Bot. 205. Offered in 1939-'40 and in alternate years thereafter. Melchers.
Diseases of cereal and forage crops; cause, effect on host, control. Breeding for disease resistance. Charge, $2.

251. Anatomy of Higher Plants. 3(1-6); II. Prerequisite: Bot. 101 and 105. Offered in 1940-'41 and in alternate years thereafter. Newcomb.
Structure and development of the various tissues and organs of seed plants. Charge, $3.

266. Literature of Botany. 2(2-0); I. Prerequisite: Bot. 205. Offered in 1940-'41 and in alternate years thereafter. Davis.
Current botanical publications, together with the classics of botanical literature; historical development of botany.

268. Plant Cytology. 3(1-6); I. Prerequisite: Bot. 101 or Zoöl. 105. Offered in 1939-'40 and in alternate years thereafter. Newcomb.
Structure, development, and functions of the plant cell, with special reference to chromosome behavior and its bearing on genetic results. Charge, $3.

270. Recent Advances in Cytogenetics. 3(2-3); II. Prerequisite: Agron. 208 or Bot. 268 or Zoöl. 214. Offered in 1939-'40 and in alternate years thereafter. McCracken.
Chromosome structure, mechanics, and behavior; their significance for problems of genetics, evolution, and the origin of species. Charge, $3.

FOR GRADUATE CREDIT

301. Plant Pathology III. 3(1-6); I. Prerequisite: Bot. 205. Offered in 1940-'41 and in alternate years thereafter. Elmer.
A course in phytopathological technic. Charge, $5.

310. Research in Botany. Credit to be arranged; I, II, and SS. Prerequisite: consult instructor. Staff.
Individual research problems are assigned in the fields of plant pathology, plant physiology, taxonomy, ecology, cytology, anatomy, and mycology.

Chemistry

Professor King
Professor Hughes
Professor Brubaker
Professor Colver
Professor Faith
Professor Keith
Professor Perkins
Associate Professor Van Winkle
Associate Professor Barham
Assistant Professor Hall
Assistant Professor Harriss
Assistant Professor Whitnah
Assistant Professor Lash
Assistant Professor Marlow
Assistant Professor Smits
Assistant Professor Shenk
Assistant Professor Conrad
Assistant Professor Greene
Assistant Professor Andrews

Instructor McDowell
Instructor Reed
Instructor Caldwell
Instructor Hostetter
Instructor Dorf
Instructor Beers
Instructor Olsen
Instructor Fisher
Instructor Hedrick
Instructor Neal
Instructor Shrenk
Graduate Assistant Devor
Graduate Assistant Grubb
Graduate Assistant Bryan
Graduate Assistant Proudfit
Graduate Assistant Long

COURSES IN CHEMISTRY

FOR UNDERGRADUATE CREDIT

101. Chemistry I. 5(3-6); I, II, and SS. Not open to students who have credit in Chem. 107, 108, or 110.
Beginning of the study of general chemistry. Deposit, $10.

103. Chemistry II Recitation. 3(3-0); I, II, and SS. Not open to students who have credit in Chem. 108 or 110. Prerequisite: Chem. 101. Staff.
Completion of the study of general chemistry.

104. Chemistry II Laboratory. 2(0-6); I, II, and SS. Not open to students who have credit in Chem. 108 or 110. Prerequisite: Chem. 103 or concurrent registration. Staff.
General principles of qualitative analysis. Deposit, $10.

107, 108. Chemistry E-I and E-II. 4(3-3) each; I, II, and SS each. Not open to students who have credit in Chem. 101 or 103 and 104, respectively. Staff.
Similar content to Chem. 101, 103, and 104; with special emphasis on applications to engineering. Deposit, $7.50 for each course.

110. General Chemistry. 5(3-6); I and II. Not open to students having credit in any college courses in inorganic chemistry. Staff.
A general treatment of some of the principal laws and theories of chemistry; the important metallic and nonmetallic substances. Deposit, $10.

122. General Organic Chemistry. 5(3-6); I, II, and SS. Prerequisite: Chem. 110. Staff.
General study of some of the more important classes of organic compounds. Deposit, $10.

124. Organic Chemistry (Agr.). 3(2-3); I, II, and SS. Prerequisite: Chem. 103. Staff.
Fundamentals of organic chemistry, particularly fats, proteins, and carbohydrates. Deposit, $7.50.

130. Inspection Trip. R. 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

202. Inorganic Preparations. Credit to be arranged; one credit for each three hours of laboratory; I, II, and SS. Prerequisite: Chem. 104. Brubaker.
Preparation and purification of some typical inorganic compounds, of those of more complex composition, and compounds of the rarer elements. Deposit, $10.

205. Industrial Electrochemistry. 2(2-0); II. Prerequisite: Chem. 104 or 110 and Phys. 103 or 106. Faith.

206. Physical Chemistry I. 5(3-6); I. Prerequisite: Chem. 220 and 241, and Math. 115. Students from other divisions may enroll without Math. 115. King, Hall, Shenk.
Relations with matter in the gaseous, liquid, and solid states; elementary principles of thermodynamics, solution phenomena, colloids, surface chemistry, and thermochemistry. Deposit, $10.

207. Advanced Inorganic Chemistry. 3(3-0); I. Prerequisite: Chem. 104. Keith.
Facts of chemistry and their present theoretical interpretations; properties of the elements as a basis for methods of classification; the rarer elements and compounds. Students electing this course are advised to take Chem. 202.

208. History of Chemistry. 1(1-0); II. Prerequisite: Chem. 206. Olsen.
Development of the principal laws and theories of chemistry; failures and triumphs of the founders of chemical science.

209. Surface Tension and Related Phenomena. 2(2-0); I and II. Prerequisite: Chem. 206. King.
Methods of measuring surface tension; surface energetics, relation of surface tension to adsorption; and colloidal formation.

211. Paint Oils and Pigments. 2(2-0); I. Prerequisite: Chem. 104 and 122. King.
Extraction, purification, and properties of the oils commonly used in paints; manufacture and properties of paint pigments; the products employed as protective coverings for both wood and metal.

212. Organic Chemical Technology. 3(3-0); II. Prerequisite: Chem. 206 and 219. Faith.
Organic process industries, including oil refining, synthetic organic chemicals, cellulose, fats, and oils.

213. Colloid Chemistry. 2(2-0); II. Prerequisite: Chem. 206. Fisher.
Suspensoids and emulsoids, optical and electrical properties of colloids, Brownian movement, action of electrolytes on colloids, adsorption and surface phenomena, and short review of the method for the preparation of colloids.

214. Organic Chemical Technology Laboratory. 2(0-6); II. Prerequisite: Chem. 212 or concurrent registration. Faith.
Investigation of the important unit processes. Deposit, $10.

215. Chemical Thermodynamics. 3(3-0); II. Prerequisite: Chem. 206 and Math. 115. Keith.
Principles of thermodynamics particularly applicable to chemistry, such as the first and second laws of thermodynamics and their application.

216. Theoretical Electrochemistry. 3(3-0); I. Prerequisite: Chem. 206 and 272. Keith.
The theory of electrolytic cells, the electrochemical series of metals, electrodes, potentials, polarization, overvoltage, and deposition of metals by electrolysis.

217. Electrochemistry Laboratory. 2(0-6); II. Prerequisite: Chem. 216 or concurrent registration. Hall.
Experiments in electrometric titrations, storage battery efficiency, polarization, overvoltage, electrode potentials, and related subjects. Deposit, $10.

218, 219. Organic Chemistry I and II. 4(2-6) each; I and II, respectively. Prerequisite: Chem. 104. Colver, Neal. Deposit, $10 for each course.

220. Organic Chemistry. 5(3-6); I, II, and SS. Prerequisite: Chem. 104. Colver.
Topics selected from the content of Chem. 218 and 219. Deposit, $10.

221. Qualitative Organic Analysis. 3(1-6); I. Prerequisite: Chem. 219. Colver. Deposit, $10.

223. Organic Preparations. 1(0-3) to 5(0-15); I. Prerequisite: Chem. 219. Colver. Deposit, $10.

225. Stereoisomeric and Tautomeric Compounds. 2(2-0); II. Prerequisite: Chem. 219. Colver.

226. Carbocyclic and Heterocyclic Compounds. 2(2-0); II. Prerequisite: Chem. 219. Colver.

228. Special Reactions of Organic Compounds. 2(2-0); I. Prerequisite: Chem. 219. Colver.

230. Principles of Animal Nutrition. 3(3-0); II. Prerequisite: Chem. 122. Hughes.

231. Physiological Chemistry. 5(3-6); I, II, and SS. Prerequisite: Chem. 122. Hughes, Marlow, Devor. Deposit, $10.

232. Vitamins. 2(2-0); I or II. Prerequisite: Chem. 231. Hughes.
Chemistry and functions of vitamins and related compounds.

233. Biochemical Preparations. 2(0-6) to 5(0-15); II. Prerequisite: Chem. 219 and 231. Marlow. Deposit, $10.

235. Pathological Chemistry. 2(2-0). Prerequisite: Chem. 231. Hughes.

236A. Chemistry of Proteins. 3(2-3); I. Prerequisite: Chem. 122. Conrad. Deposit, $7.50.

237. Biochemical Analysis. 2(0-6); I and II. Prerequisite: Chem. 231 and 241. Marlow. Deposit, $10.

238A. Catalysis in Organic Chemistry. 3(3-0); I. Prerequisite: Chem. 206 and 219. Barham.

239. Laboratory Technic in Animal Nutrition. 2(0-6); I and II. Prerequisite: an acceptable course in nutrition or Chem. 231. Hughes.
Preparation of diet and the care of experimental animals used in the study of various nutritional problems. Deposit, $10.

240. Advanced Qualitative Analysis. 3(1-6); I and II. Prerequisite: Chem. 104. Van Winkle. Deposit, $10.

241. Quantitative Analysis. 5(1-12); II and SS. Prerequisite: Chem. 104. Brubaker.
Practically the same as Chem. 250 and 251. Deposit, $10.

242. Fire Assaying. 2(0-6); I. Prerequisite: Chem. 241. Faith.
Assays of ores containing such metals as copper, zinc, lead, bismuth, tin, silver, and gold. Deposit, $10.

243. Gas Analysis. 1(0-3); I. Prerequisite: Chem. 241. Hedrick.
Analysis of air, flue and furnace gases, and illuminating gas. Deposit, $7.50.

244. Industrial Stoichiometry. 2(2-0); I. Prerequisite: Chem. 241. Faith.
Problems involving heat, material, and economic balances.

245. Chemical Microscopy. 1(0-3); I, II, and SS. Prerequisite: Chem. 122 and 250. Brubaker.
Use of the microscope in chemical analysis, both qualitative and quantitative, applied both to inorganic substances and to vegetable and animal products. Deposit, $7.50.

246. Instrumental Methods in Chemical Analysis. 3(3-0). Prerequisite: Chem. 206. Shenk.
Application of the spectrograph, spectrophotometer, colorimeter, nephelometer, refractometer, X-ray equipment and other instruments in the chemical analysis of gases, liquids, and solids.

247. Inorganic Chemical Technology Recitation. 3(3-0); I. Prerequisite: Chem. 206. Faith, Greene.
Applications of physical chemistry, unit operations, and economics to the inorganic chemical industry.

248. Inorganic Chemical Technology Laboratory. 2(0-6); I. Prerequisite: Chem. 241. Faith, Greene.
Gas, oil, water, and fuel analysis; manufacturing problems. Deposit, $10.

249. Intermediary Metabolism. 2(2-0); I. Prerequisite: Chem. 231. Marlow.
Chemistry of the metabolism of various classes of nutrients.

250, 251. Quantitative Analysis A and B. 3(1-6) each; I and II, respectively, and SS. Prerequisite: Chem. 104. Brubaker.

A: General procedure of gravimetric analysis. Deposit, $10.
B: General procedure in volumetric analysis. Deposit, $10.

252A. Chemistry of Soils and Fertilizers. 2(0-6); I. Prerequisite: Chem. 250. Perkins. Deposit, $10.

253A. Chemistry of Crops. 2(0-6); II. Prerequisite: Chem. 122 and 250. Perkins. Deposit, $10.

254. Dairy Chemistry. 3(1-6); I. Prerequisite: Chem. 122 and 250. Whitnah. Deposit, $10.

255. Advanced Soil Chemistry. 3(1-6); I and II. Prerequisite: Chem. 206 and an acceptable course in soils. Perkins.
Chemical phenomena of soils, ionic exchange, electrodialysis, solutions, and colloidal phenomena. Deposit, $10.

256. Insecticides and Fungicides. 2(2-0). Prerequisite: Chem. 122 and 250. Smits.

257. Food Analysis. 3(0-9); II and SS. Prerequisite: Chem. 220 and 241 or 251. Brubaker.
Quantitative methods employed in the analysis of foodstuffs, practice in testing for adulterants, preservatives, and coloring materials. Deposit, $10.

260. Advanced Quantitative Analysis. 1 to 5 hours. Prerequisite: Chem. 241 or 250 and 251. Brubaker. Deposit, $10.

265. Chemistry of Carbohydrates. 2(2-0); I or II. Prerequisite: Chem. 122. Whitnah.

268. Problems in Chemical Engineering. Credit to be arranged; I and II. Faith, Greene, Hedrick.
An introduction to chemical engineering research. Deposit, $10.

270. Problems in Chemistry. Credit to be arranged; I, II, and SS. Staff.
Individual problems to fulfill the thesis requirements of students in agricultural chemistry, chemistry, and curriculum in industrial chemistry. Deposit, $10.

271. Selected Topics in Inorganic Chemistry. 2(2-0); II. Prerequisite: Chem. 206. Lash.
Thermal analysis, temperature measurements, atomic hydrogen, hydrides, halogens, solutions, ammonia systems, and crystal chemistry.

272. Physical Chemistry II. 3(3-0); II. Prerequisite: Chem. 206. King.
Homogeneous and heterogeneous equilibria, chemical kinetics, electrical conductance, electromotive force, chemical thermodynamics, photochemistry, and atomic and molecular structure.

273. Chemical Engineering Calculations. 3(3-0); I. Prerequisite: Chem. 272. Faith.
Stoichiometry and thermodynamics applied to chemical engineering.

274. Chemical Engineering Analysis. 3(3-0); I or II. Prerequisite: Chem. 272. Greene.
Graphical methods and dimensional analysis applied to chemical engineering problems.

275. Chemistry Seminar. Twice a month the officers of the department, with the more advanced students and such others as wish to, meet for papers and discussions upon topics representing the progress of chemical science, chiefly as found in the current journals. The preparation of subjects for presentation at these meetings may be a part of the credit work of advanced students.

276. Chemical Literature. 2(2-0); I or II. Prerequisite: Chem. 219. Reed.

278. Elements of Chemical Engineering I. 4(3-3); II. Prerequisite: Chem. 206 and Math. 115. Hedrick.
Fundamentals of chemical engineering operations, with emphasis on flow of fluids and flow of heat; application of these principles to equipment design. Deposit, $10.

279. Elements of Chemical Engineering II. 4(3-3); I. Prerequisite: Chem. 278. Greene, Hedrick.
A study of unit operations, including filtration, evaporation, humidification and drying, absorption, distillation, and crystallization. Deposit, $10.

280. Chemical Engineering Materials. 2(2-0); II. Prerequisite: Chem. 103 and 104. Faith.
Manufacture, use, and properties of metallic and nonmetallic materials of construction.

284. Organic Unit Processes. 2(2-0); I. Prerequisite: Chem. 212 and 272. Faith.
Unit processes in organic synthesis, especially nitration, sulfonation, oxidation, hydrogenation, esterification, and hydrolysis.

285, 286. Petroleum Refining Engineering I and II. 3(3-0) each; I and II, respectively. Prerequisite: for I, Chem. 279 or concurrent registration; for II, Chem. 285. Hedrick.
I: Properties of hydrocarbon mixtures, cracking, polymerization, hydrogenation, separation by distillation.
II: Design and operation of plants, refinery economics, natural gasoline plants.

287. Corrosion. 3(3-0); I and II. Prerequisite: Chem. 122 and 206 or concurrent registration. Van Winkle.
Theories and various factors involved in the corrosion of iron, steel, and nonferrous metals; methods of testing for and preventing corrosion.

288, 289. Advanced Physical Chemistry I and II. 3(3-0) each; I and II, respectively. Prerequisite: Chem. 272, or permission of the instructor. Andrews.
Extension of certain topics of physical chemistry such as thermodynamics, chemical kinetics, photochemistry, atomic and molecular structure.

290. Biochemistry of Internal Secretions. 2(2-0); I or II. Prerequisite: Chem. 231. Marlow.
Chemistry of the glands of internal secretions.

291. Distillation. 3(3-0); I or II. Prerequisite: Chem. 279. Greene.
Advanced study of distillation.

292. Absorption and Extraction. 3(3-0); I or II. Prerequisite: Chem. 279. Hedrick.
Advanced study of absorption and extraction.

293. Chemical Engineering Plant Design. 4(3-3); II. Prerequisite: Chem. 279. Greene.

Unit operations, thermodynamics, reaction kinetics and economic balance, solution of the annual A. I. Ch. E. contest problem. Deposit, $7.50.

299. Chemical Toxicology. 3(2-3); I, II, and SS. Prerequisite: Chem 122, 219, or 220. Smits.

Occurrence, chemical properties, and detection of the more common poisons. Deposit, $7.50.

FOR GRADUATE CREDIT

301. Research in Chemistry. Credit to be arranged. Research work in the laboratories in connection with the agricultural and engineering experiment stations, the State Food Laboratory, and the laboratories for analysis of feeds and fertilizers. Students working out theses in the Department of Chemistry are assigned to this course. Work is offered in:

Agricultural Chemistry. King, Perkins.

Industrial Chemistry and Chemical Engineering. Faith, Van Winkle, Greene, Hedrick.

Analytical Chemistry. Brubaker, Perkins.

Organic Chemistry. Colver, Barham, Whitnah.

Biochemistry. Hughes, Whitnah, Marlow.

General and Physical Chemistry. King, Hall, Keith, Lash.

305. Animal Nutrition Seminar. 1(1-0); I and II. Prerequisite: consult instructor. Hughes, McCampbell, Burt, Kramer, Payne.

Experiments in nutrition, methods employed, and validity of conclusions drawn.

Economics and Sociology

Professor Grimes
Professor Howe
Professor Hill
Associate Professor Stewart
Associate Professor Holtz
Associate Professor Hodges
Associate Professor Thompson
Associate Professor Montgomery
Assistant Professor Nelson
Assistant Professor Parsons
Assistant Professor Eggert
Assistant Professor Pine
Instructor Ward
Instructor Doll
Instructor Miller
Instructor Wilson
Instructor Letbetter
Instructor Fitch
Instructor Leland
Instructor Long
Assistant Doran
Assistant Reed

The work in economics and sociology is offered in the divisions of General Science and Agriculture. The more general courses are listed here. Those having a direct bearing on agriculture are listed in the agricultural section of the catalogue.

CERTIFICATE OF CERTIFIED PUBLIC ACCOUNTANT

By act of the Kansas legislature passed March 24, 1915, provision is made for the examination for the certificate of Certified Public Accountant. Applicants must be citizens of the United States or must have declared their intention to become citizens. They must be at least twenty-one years of age; must have good moral character; must have a high-school education or the equivalent thereof; must have four years of experience and study in accountancy, at least three of which must have been in the office of a public accountant or on their own account; and must pass an examination in auditing, accounting, and business law given by the State Board of Examiners.

Examination questions are prepared and graded by the American Institute of Accountants and examinations are held in May and November of each year.

COURSES IN ECONOMICS

FOR UNDERGRADUATE CREDIT

(For Econ. 106, see agricultural section.)

101. Economics I. 3(3-0); I, II, and SS. Staff.
Introductory study of the principles of economics.

104. Economics II. 3(3-0); I, II, and SS. Prerequisite: Econ. 101. Nelson.
Continuation of Econ. 101.

116. Money and Banking. 3(3-0); I, II, and SS. Prerequisite: Econ. 101. Thompson.
Nature, history, and functions of money; banking in its modern and historic forms.

126. Business Management. 2(2-0); I, II, and SS. Not open to students in curriculums in business administration. Prerequisite: Econ. 101. Thompson.
Analysis of management factors such as personnel, finance, accounting, production, and marketing.

FOR GRADUATE AND UNDERGRADUATE CREDIT

(For Econ. 202, 203, 206A, 212, 218, 220, 225, 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; the administration of public funds.

215. Business Organization and Finance. 3(3-0); I and II. Prerequisite: Econ. 104 and 134. Thompson.
Organization and classification of business enterprises, their financial structure, and internal management.

222. Investments. 3(3-0); II and SS. Prerequisite: Econ. 116 and 134 or 136. Stewart.
Types of investment securities; investment risks and values; investment banks; investment policies.

223. Credits and Collections. 2(2-0); II. Prerequisite: Econ. 101. Thompson.

224. International Trade. 2(2-0); II. Prerequisite: Econ. 101. Nelson.

230. Principles of Transportation. 3(3-0); II. Prerequisite: Econ. 101. Ward.
Development of transportation; principles involved; public regulation.

234. Labor Economics. 3(3-0); I and II. Prerequisite: Econ. 101 or 151. Holtz.
Status and trends in industrial relations.

242. Property Insurance. 2(2-0); I and SS. Prerequisite: Econ. 101. Stewart.
Fire, marine, automobile, title, and credit insurance and corporate bonding; also other forms of property insurance.

244. Life Insurance. 2(2-0); II and SS. Prerequisite: Econ. 101. Stewart.
Nature and uses of life insurance, kinds of policies, determination of premiums, reserves, surrender values, dividends.

246. Marketing. 3(3-0); I and SS. Prerequisite: Econ. 101. Ward.
Marketing functions, services, and agencies.

248. Problems in Economics. Credit to be arranged. Prerequisite: Econ. 101. Staff.

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: such courses as the problem undertaken may require. Staff.
Graduate students may elect for original investigation any acceptable problem in the general field of economics.

305. Advanced Economics. 3(3-0); I. Prerequisite: Econ. 101. Nelson.
Advanced study of economic theory.

310. History of Economic Thought. 3(3-0); II. Prerequisite: Econ. 101. Grimes.
Development of economics and relation of economic doctrines to conditions existing when they were formulated.

COURSES IN SOCIOLOGY

FOR UNDERGRADUATE CREDIT

(For Econ. 156, see agricultural section.)

151. Sociology. 3(3-0); I, II, and SS. Prerequisite: sophomore standing. Hill, Ward.
Fundamental principles of social life as related to other scientific principles.

FOR GRADUATE AND UNDERGRADUATE CREDIT

(For Econ. 256, see agricultural section.)

258. Social Pathology. 3(3-0); I, II, and SS. Prerequisite: Econ. 151. Hill, Ward.
Problems of society such as 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 the urban and rural fields; the principles involved and the technic of organization.

273. Advanced Sociology. 3(3-0); II. Prerequisite: Econ. 151. Hill.
A continuation of Econ. 151.

277. History of Social Thought. 3(3-0); I. Prerequisite: Econ. 151. Holtz.
Development of social thought from ancient civilization to the present.

279. Problems in Sociology. Credit to be arranged; I, II, and SS. Prerequisite: Econ. 151. Hill.
Selected literature and investigation of social problems.

FOR GRADUATE CREDIT

(For Econ. 350, see agricultural section.)

351. Research in Sociology. Credit to be arranged; I, II, and SS. Prerequisite: such courses as the problem undertaken may require. Hill.

Graduate students may elect for original investigation any acceptable problem in the field of sociology.

COURSES IN ACCOUNTING

FOR UNDERGRADUATE CREDIT

(For Econ. 112, see agricultural section.)

133, 134. Accounting I and II. 3(2-3) each; I, II, and SS. Prerequisite: For Econ. 134, Econ. 133. Stewart, Letbetter.

I: Principles and structure of accounts designed to give power to analyze commercial accounts and statements; problems and practice sets used as an application of principles to practice.

II: Partnership and corporation accounting and problems; valuation of balance-sheet items, with special reference to depreciation, inventories, and intangibles.

136. Principles of Accounting. 3(3-0); I and II. Not open to students in curriculums in business administration. Stewart, Letbetter.

Principles of accounting; use of accounting records and statements.

FOR GRADUATE AND UNDERGRADUATE CREDIT

280. Valuation Accounting. 3(3-0); I, II, and SS. Prerequisite: Econ. 134. Stewart.

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

281. Advanced Accounting. 3(3-0); I and SS. Prerequisite: Econ. 134. Stewart.

Application of accounting principles to such types of business enterprise as partnerships, corporations with subsidiaries and branches, companies in financial difficulties, and estates and trusts.

284. Institutional Accounting. 2(2-0); II. 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.

286. Tax Accounting. 3(3-0); II. Prerequisite: Econ. 280 or concurrent registration. Stewart, Letbetter.

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

287. Cost Accounting. 3(3-0); I and SS. Prerequisite: Econ. 134. Stewart, Letbetter.

Allocating production and distribution costs for the purpose of determining financial results and guiding the management of the business enterprise.

288. Advanced Cost Accounting. 2(2-0); II. Prerequisite: Econ. 287.

Offered in 1939-'40 and in alternate years thereafter. Stewart, Letbetter.

289. Governmental Accounting. 2(2-0); I. Prerequisite: Econ. 280 or 287. Stewart.

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

290. Auditing. 2(2-0); II. Prerequisite: Econ. 280 and permission of instructor. Offered in 1940-'41 and in alternate years thereafter. Letbetter.

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

Education

Professor Holton
Professor Peterson
Professor Williams
Professor Strickland
Professor Rust
Professor Davidson
Professor Alm
Associate Professor Langford
Associate Professor Hall
Associate Professor Baxter
Assistant Professor Moggie
Instructor Wyckoff
Instructor H. H. Brown
Instructor Cowan
Assistant Swoyer
Assistant Bare
Assistant Shields
Assistant H. M. Brown

The courses in this department have been organized with the following objectives: (1) to meet the requirements of the Kansas State Board of Education in education and psychology for state certificates for teachers; (2) to give general information in the fields of psychology and public education; (3) to meet the requirements of a major for the degree of Master of Science. In the graduate work the main emphasis is on rural and vocational education.

The State Board of Education has set up the following standards or their equivalents for certification of 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 in the Department of Education: Rural Life and Education, Extra-curricular Activities, Educational Measurements, Curriculum, Statistical Methods Applied to Education, Vocational Guidance, 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, and Psychology of Exceptional Children.
   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 less than fifty hours in technical or practical agriculture.
      (2) Not less than twenty-one hours of science related to agriculture.
      (3) Eighteen hours in the Department of Education; three each in General Psychology, Educational Psychology, Vocational Education, Methods of Teaching Agriculture, Teaching Participation in Agriculture, and Educational Administration or Principles of Secondary Education.
      (4) Seventeen hours in mechanical lines related to farm-shop problems.
   b. Valid for three years and may be renewed for life.
   c. The State Board for Vocational Education issues certificates of approval for one year only, to teachers of Vocational Agriculture and reserves the right to require individual teachers to return to summer school for further preparation when the need becomes apparent.

3. Certificate for Teachers of Vocational Home-making.
   a. Complete four years of college work with degree, including the following:
      (1) Thirty-four hours in technical home economics, three in Child Welfare, and three in Practice Work in Household Management.

(2) Eighteen hours in the Department of Education; three each in General Psychology, Educational Psychology, Vocational Education, Methods of Teaching Home Economics, Teaching Participation in Home Economics, and Educational Administration or Principles of Secondary Education.

b. Valid for three years and may be renewed for life.

4. To comply with the regulations of the State Board of Education regarding teachers' certificates based on four years of college work, the student must complete at least twenty-four of the last thirty semester hours or fifty of the last sixty semester hours, in residence at the college granting the degree.

COURSES IN EDUCATION

FOR UNDERGRADUATE CREDIT

109. Educational Psychology. 3(3-0); I, II, and SS. Prerequisite: Educ. 184 and junior or senior standing. Moggie.

The native equipment of human beings, individual differences, the psychology of learning, motivation, and the psychology of the school subjects.

111. Methods of Teaching. 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Open to freshmen and sophomores only. Moggie.

Problems of general method in classroom procedure in grades and junior high school.

129. Teaching Participation in Grade School. 1 to 4 hours. I, II, and SS. Prerequisite: Educ. 184, 111, and 107; open only to students in the curriculums in music. Hartman.

The work in this course is done in an elementary school of Manhattan. Appointment must be made at the time of registration for the semester during which it is done.

132. Methods of Teaching Home Economics. 3(3-0); I. II, and SS. Prerequisite: Food and Nutr. 102 and 107, Clo. and Text. 103, and Educ. 184. Rust, Baxter.

The principles of teaching applied to the selection and development of home-economics subject matter in lessons for all types of pupils, and to the conduct of laboratory and classroom exercises.

136. Methods of Teaching Agriculture. 3(3-0); I, II, and SS. Prerequisite: Educ. 184. Davidson.

Planning lessons, organizing materials, and conducting class, laboratory, and field instructional work in vocational agriculture. Individual and class projects are studied, as well as coördinating farm mechanics work.

160. Teaching Participation in Home Economics. 3 hours. I, II, and SS. Prerequisite: Food and Nutr. 102 and 107, Clo. and Text. 103, and Educ. 132 or concurrent registration. Rust, Baxter.

Supervised teaching carried on in the home economics classes of the Manhattan high school.

161. Teaching Participation in Agriculture. 3 hours. I and II. Prerequisite: Educ. 109 and 136. Davidson.

Three weeks of observation and practice teaching in vocational agriculture classes in Manhattan high school and other high schools by arrangement; group study of classroom problems; lesson plans and presentation criticized by the College instructor and the vocational teacher in the practice department.

163. Teaching Participation in High School. 1 to 4 hours. I, II, and SS. Prerequisite: Educ. 109 and senior standing. Strickland, Washburn, Saum.

Work is done in classes in the Manhattan high school, and special appointment must be made at the time of registration for the semester in which it is done. The work may be elected in biology, English, mathematics, modern languages, physical science, social science, art, physical education, and industrial arts.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Extracurricular Activities. 3(3-0); II and SS. Prerequisite: Educ. 210. Moggie.

Extracurricular activities of the junior and senior high schools; educational objectives of these activities; methods and means employed in their accomplishment.

206. Philosophy of Education. 3(3-0); SS. Prerequisite: Educ. 109. Holton.

Controlling and unifying philosophy of the American public school system and its European background.

210. Educational Administration. 3(3-0); I, II, and SS. Prerequisite: for undergraduate credit, senior standing; for graduate credit, Educ. 109 and 184. Strickland.

Organization of state, county, city, and rural school systems in Kansas; Kansas school laws.

212. Educational Measurements. 3(3-0); I, II, and SS. Prerequisite: Educ. 109 and 184. Strickland.

Scientific measurement of achievement as distinguished from intelligence testing.

219. Curriculum. 3(3-0); SS. Prerequisite: six hours in education and junior standing. Holton.

Requirements of modern life upon schools and their objectives; examination of the entire school curriculum.

223. Statistical Methods Applied to Education. 3(3-0); I, II, and SS. Prerequisite: junior standing. Not open to students who have credit in Math. 203. Moggie.

Statistical interpretation of data from educational and biological experience and research; graphical representation and interpretation; experimental and research methods.

230. Principles of Guidance. 3(3-0); I, II, and SS. Prerequisite: Educ. 210 or 236. Williams.

Methods and practices in pupil guidance for vocations and career planning; analysis of desirable trades, professions, and business callings; guidance problems in the public schools.

232. Teaching Subjects Related to Home Economics. 1 to 3 hours; I, II, and SS. Prerequisite: Educ. 132 and 184. Rust.

Objectives and principles in teaching subjects related to home economics; planning of courses of study which are based upon the problem methods of teaching. (Designed for teachers of vocational homemaking in the Smith-Hughes high-school courses.)

234. Methods in Adult Homemaking Classes. 1 to 3 hours; SS. Prerequisite: Educ. 132 and 184 or equivalent. Wyckoff.

The principles of teaching applied to adult classes and a demonstration class in one or more phases of homemaking.

236. Principles of Secondary Education. 3(3-0); I, II, and SS. Prerequisite: Educ. 184 and junior or senior standing. Williams.

Historical study of secondary education; objectives of junior and senior high-school organization, administration, and supervision; methods of organizing and conducting secondary education; field problems in junior and senior high school. A limited amount of field work required.

239. Educational Sociology. 3(3-0); I, II, and SS. Prerequisite; Educ. 184 and junior or senior standing. Holton.

The group activities of the school in relation to personality traits; psychology of personality; the school's responsibility in the development of socialized personality traits.

241. Vocational Education. 3(3-0); I, II, and SS. Prerequisite: Educ. 210 and 236 and junior or senior standing. Williams.
Provisions for vocational education in Kansas and other states and countries; principles underlying such education; relation of vocational education to the community, county, state, and nation.

244. History of Education. 3(3-0); I, II, and SS. Williams.
The history of education in the United States, with a consideration of the more important present-day problems in the organization, administration, and adjustment of public education in the light of historical development.

249. Problems in Extension Education. Credit to be arranged. Prerequisite: Econ. 151 or CS 3, and Educ. 184 or CP 8, or EXT 5. Gemmell, Fleenor.*

Problems in extension met by director, supervisor, county agricultural agent, county home demonstration agent, 4-H club leader, or specialist.

FOR GRADUATE CREDIT

306. Advanced Educational Administration. 3(3-0); SS. Prerequisite: Educ. 210 or equivalent. Strickland.
Constitutional and legal basis of public-school administration. Intended primarily for school executives.

309. Problems in Educational Psychology. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109 and 184. Moggie.
A study of problems, recent experimentations, and applications of the principles of educational psychology.

311. Problems in Educational Measurement. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109 and 212. Strickland.
Problems in refining educational measurement and using its results.

312. Problems in Teaching Methods. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109. Strickland.
Individual problems in development and definition of effective teaching procedure.

313. Research in Organization and Presentation of Home Economics. Credit to be arranged; I, II, and SS. Prerequisite: graduate standing. Justin, Rust.
Individual research problems in phases of organization and administration for home economics. May be chosen as the basis for thesis for the master's degree. The nature of the problem will depend upon the student's major interest.

314. Problems in Organization and Presentation of Home Economics. Credit to be arranged; I, II, and SS. Prerequisite: graduate standing. Justin, Rust.
This course permits opportunity for study of problems of organization and administration in this field.

315. Supervision in Home Economics. 2(2-0); II and SS. 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.

316. Seminar in Home Economics Education.† 3(3-0); II and SS. Prerequisite: Educ. 160 and experience in teaching home economics. Rust and visiting instructors.
Recent trends in home economics education.

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* From the staff of the Department of Home Study.

† Effective May 31, 1939.

317. Problems in Educational Administration. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 210 and one year of teaching experience. Strickland.

Critical study of a financial or administrative school problem. Primarily for school executives.

322. Problems in Statistical Methods Applied to Education. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 223 or equivalent, eight hours of college mathematics, and full graduate standing. Moggie.

Solution of some statistical problem in research or thesis preparation; theory of statistics from a more advanced point of view; regression curves and various methods of correlation; literature of statistics.

325. Research in Education. Credit to be arranged; I and II. Staff.

Individual research problems in the general field of education and in the fields of psychology, mental testing, administration, and vocational education.

333. Problems in Educational Sociology. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 109 and 184 and graduate standing. Holton.

Research problems in the social organization of the school and the social inheritance of school population, with special reference to the development of desirable personality traits.

337. Problems in Vocational Education. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 241 and 210 or 236. Williams.

Solution of some vocational educational problem in research or in thesis preparation. Problems in administration, supervision, or curriculum building in the varied vocational fields to meet community needs.

338. Problems in Vocational Guidance. Credit to be arranged; I, II, and SS. Prerequisite: Educ. 230A. Williams.

Research problems in phases of guidance which affect better coördination and supervision of the work of junior and senior high schools, and development of part-time and adult education progress.

COURSES IN PSYCHOLOGY

FOR UNDERGRADUATE CREDIT

184. General Psychology. 3(3-0); I, II, and SS. Peterson, Alm, Langford. 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.

A genetic study of the trends in the development of structures, capacities, interests, and personality traits, that facilitate understanding and control of the behavior of childhood and adolescence.

254. Abnormal Psychology. 3(3-0); I and II. Prerequisite: Educ. 184. Alm.

Maladjustment of personality, behavioral disorders, psychoneuroses, 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; a survey of the experimental literature; objective studies of the thought processes.

260. Mental Tests. 3(3-0); I and II. Prerequisite: Educ. 184. Peterson.

Selection of the best tests for particular purposes at various age and school levels; methods of conducting and scoring tests and of utilizing test results.

261. 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.

FOR GRADUATE CREDIT

370. Problems in Psychology. Credit to be arranged; I, II, and SS. Prerequisite: consult instructor. Peterson, Alm, Langford.
Individual problems and reports in the field of psychology. Enrollment by recommendation of the instructor not later than midsemester.

373. Psychology of Teaching and Learning. 3(3-0); I and SS. Prerequisite: Educ. 184. Peterson.
Analysis of the various forms of learning and of the conditions favorable to the rapid development and effective functioning of knowledge, skills, attitudes, and purposes.

376. Research in Psychology. Credit to be arranged; I, II, and SS. Staff.
Individual research problems in the field of psychology.

COURSES FOR FOUR-WEEK SUMMER SCHOOL

FOR GRADUATE AND UNDERGRADUATE CREDIT

283. Administration and Supervision of Secondary Schools. 2(10-0); four-week SS. Prerequisite: Educ. 210. Williams.
Problems of organization, administration, and supervision covering the complete program of an administrative head of a school system in a small city. (Designed for principals of rural high schools and superintendents of small city systems.)

285. The Project Method in Agricultural Education. 2(10-0); four-week SS. Prerequisite: Educ. 161. Davidson, Hall.

Intensive treatment of values, analysis, accounting, supervision, types, results, records, reports of projects; conducted on the problem basis.

287. Organization and Conduct of Group Activities. 2(10-0); four-week SS. Prerequisite: Educ. 241. Davidson, Hall.

Fundamentals and principles on which productive class projects should be organized. Research and field work in class project study.

289. Administration and Supervision of Vocational Education. 2(10-0); four-week SS. Prerequisite: Educ. 210. Williams.

Objectives, curriculum organization and content, administrative and supervisory problems from the viewpoint of the city superintendent—leadership needs which must be met in a school system offering vocational education. The problem basis of treatment is used.

291. Community Problems in Vocational Agriculture. 2(10-0); four-week SS. Williams, Davidson.

Methods, organization, and conduct of club work, junior project work, class projects, and community projects in general—a course conducted on the problem basis and designed specifically for teachers, supervisors, and directors of agricultural work.

293. Problems in Evening School Classes. 2(10-0); four-week SS. Open to college graduates who have taught one year of vocational agriculture. Davidson, Hall.

Problems of organization, curriculum, and methods of teaching evening schools and classes sponsored by the national vocational education act. Designed for teachers in service.

295. Organization Problems in Teaching Farm Mechanics. 2(10-0); four-week SS. Prerequisite: Educ. 161. Davidson, Hall.

Analysis of the farm mechanics course of study; needs and interests of boys, learning difficulties, skills, and technical knowledge required. Correlation with agriculture. Application of laws of learning to the teaching process. Determination of objectives.

FOR GRADUATE CREDIT

339. Problems in Part-time Classes.* 2(10-0); four-week SS. Prerequisite: graduate standing and one year's experience teaching vocational agriculture. Davidson, Brown.

Organization, curriculum, and methods of teaching part-time classes, sponsored by national vocational education act. Designed for teachers in service.

340. Statistical Methods in Agricultural Education.* 2(10-0); four-week SS. Prerequisite: graduate standing. Moggie.

Fundamental statistical technics and interpretation of results. Problems encountered in the organization, use, and expression of agricultural data.

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* Effective June 1, 1938.

English

Professor Davis
Professor Conover
Professor Rockey
Professor Matthews
Professor Rice
Professor Faulkner
Associate Professor Sturmer
Associate Professor Elcock
Associate Professor Breeden
Associate Professor Callahan
Assistant Professor Garvey
Assistant Professor Parker
Assistant Professor Aberle
Assistant Professor Scott
Instructor Laman
Instructor Peery
Instructor Baker
Instructor Bogue

COURSES IN ENGLISH LANGUAGE

FOR UNDERGRADUATE CREDIT

101. College Rhetoric I. 3(3-0); I, II, and SS. Prerequisite: three units of high-school English. Staff.

104. College Rhetoric II. 3(3-0); I, II, and SS. Prerequisite: Engl. 101. Staff.

110. Engineering English. 2(2-0); I and II. Prerequisite: Engl. 104 and junior standing. Rockey, Matthews, Faulkner.
Technical descriptions, expositions of ideas, mechanisms, and processes; preparation of engineering talks, business letters, technical manuscripts, and records; brief review of composition.

122. Commercial Correspondence. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Faulkner, Callahan.
Writing of adjustment, credit, collection, and sales letters; principles of effective commercial writing.

123. Written and Oral Salesmanship. 3(3-0); I and II. Prerequisite: Engl. 104. Faulkner.
Writing of follow-up systems of sales letters; composition and display of circular material and catalogues; principles of advertising and psychology of selling; sales talks; actual sales practice with commercial concerns.

125. Business English and Salesmanship. 3(3-0); II. Prerequisite: Engl. 104. Callahan.
Principles of business letter writing and salesmanship in the field of engineering; writing of business letters; preparation of oral and written sales material.

137. Agricultural English. 3(3-0); I. Prerequisite: Engl. 104. Davis, Matthews, Faulkner.
Review of the composition essentials; business correspondence; bulletin writing; organization of short business talks; principles of farm advertising; problems that confront the county agent, the high-school teacher of agriculture, and the farm manager.

140. Literature from the Readers. 3(3-0); SS. Staff.
Planned to meet the needs of teachers of rural and grade schools.

FOR GRADUATE AND UNDERGRADUATE CREDIT

207. Technical Writing. 2(2-0); II. Prerequisite: Engl. 113 or 122. Staff.

215. Technical Reports. 1(1-0); I and II. Prerequisite: Engl. 104. Davis.
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, 230. Short Story I and II. 3(3-0) each; I and II, respectively. Prerequisite: for I, Engl. 172; for II, Engl. 228. Rice.
I: The world's best short stories; practice in writing sketches and short stories.
II: 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. Rockey, Matthews, Faulkner.
Oral composition as applied to conversation and informal discussions; correction of errors in grammar, pronunciation, and idiom in everyday speech; a brief history of English sounds. Investigations in phonology for graduate students.

243. Advanced Grammar. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Elcock, Aberle.
English etymology, inflections, syntax, and modern English and American usage. For graduate credit, reports on problems in modern English grammar.

245. History of the English Language. 1(1-0). Prerequisite: for undergraduates, permission of the instructor; for graduates, Engl. 181. Nock.
Nature of language and its development; English language and its use in the United States.

COURSES IN ENGLISH LITERATURE

FOR UNDERGRADUATE CREDIT

172. English Literature. 3(3-0); I, II, and SS. Prerequisite: Engl. 104. Staff.

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. Conover, Davis, Matthews.
A reading course in English and American literature, designed for students in agriculture, engineering, and other technical curriculums.

260. Chaucer. 3(3-0); I. Prerequisite: Engl. 172. Elcock.

262. Milton and the Puritan Revolt. 3(3-0); II. Prerequisite: Engl. 172. Elcock.

265. American Survey. 2(2-0); II. Prerequisite: Engl. 172 and 175. Davis, Breeden.

268. Literature of the Middle West. 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, 274. Shakespearean Drama I and II. 3(3-0) each; I and II, respectively. Prerequisite for each: Engl. 172. Davis, Conover, Sturmer.

I: The life and times of Shakespeare; five of Shakespeare's tragedies: Macbeth or Othello, Hamlet, King Lear, Coriolanus, and Romeo and Juliet.

II: Five of Shakespeare's comedies: The Winter's Tale, As You Like It, Twelfth Night, Cymbeline, and The Tempest; collateral reading of earlier, contemporary, and Shakespearean comedy; present-day criticism of Shakespeare.

276. English Essayists. 3(3-0); II. Prerequisite: Engl. 172. Davis, Conover.

Among the authors discussed are Swift, Addison, Steele, Johnson, Burke, Lamb, Hazlitt, DeQuincey, Wilson, Newman, Ruskin, Spencer, Huxley, Pater, and Wilde.

278. Wordsworth, Shelley, and Keats. 3(3-0); I. Prerequisite: Engl. 172. Rockey.

280, 281. World Classics I and II. 3(3-0) each; I and II, respectively. Prerequisite for each: Engl. 172. Faulkner.

I: The literary masterpieces (in translation) of early times, particularly Greek and Latin classics.

II: The literary masterpieces (in translation) of Western Europe, particularly Italian, Spanish, French, and German writings.

283. Contemporary Fiction. 3(3-0); I and SS. Prerequisite: Engl. 172. Conover, Scott.

The more important British and American fiction since Hardy.

284. Contemporary Drama. 3(3-0); II. Prerequisite: Engl. 172. Conover.

Development of the drama since Ibsen; types of modern drama; works of important English, Irish, and American dramatists.

286, 287. Novel I and II. 3(3-0); I and II, respectively. Prerequisite: Engl. 172. Breeden.

288, 290. English Survey I and II. 2(2-0) each; I and II, respectively. Prerequisite: Engl. 172. Davis, Conover, Matthews.

I: History of English literature from Anglo-Saxon times down to the close of the Elizabethan period.

II: The rise of Puritanism and its influence on English literature; the classical movement; romanticism and its development.

293. Browning and Tennyson. 3(3-0); II. Prerequisite: Engl. 172. Rockey.

297. Contemporary Poetry. 3(3-0); II and SS. Prerequisite: Engl. 172. Davis, Conover.

FOR GRADUATE CREDIT

305. Research in English. Credit to be arranged; I, II, and SS. Prerequisite: consult head of department and instructors concerned.

Students undertake original investigation in English literature or applied English. The final results may be used to fulfill the thesis requirements for the master's degree.

Entomology

Professor Dean
Professor Smith
Professor Parker
Associate Professor Painter
Assistant Professor Bryson
Assistant Professor Wilbur
Assistant Lamerson
Graduate Assistant Dillon

COURSES IN ENTOMOLOGY

FOR UNDERGRADUATE CREDIT

101. General Entomology. 3(3-0) or 4(3-3); I and II. Smith.
A popular, general course dealing with insects and related arthropods in their relations to plants and animals, including man. Students expecting to use this course as a preerquisite to other courses in entomology should register for the laboratory, which is the same as for Ent. 203. Charge, $1.

117. Milling Entomology. 2(2-0); I. Dean.
Insect pests of flour mills, elevators, granaries, warehouses, and bakeries, and standard methods of dealing with them; inspection trips to flour mills and warehouses.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Horticultural Entomology. 2(2-0); I. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Parker.
The most important injurious insects of the vegetable garden, shade trees, flowering and greenhouse plants, deciduous and citrus orchards; methods of control.

203. General Economic Entomology. 3(2-3); I and II. Prerequisite: Zoöl. 105 or Bot. 101 and 105; when taken for graduate credit, Zoöl. 105. Staff.
Elementary anatomy and physiology of insects and the general principles upon which the control of these economic forms is based. Charge, $1.50.

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, 50 cents.

208. General Apiculture. 3(2-3); I and II. Prerequisite: Ent. 101 (4 hours) or 203. Parker.
Structure, life history, general behavior, activities, and products of the honeybee; practice bee keeping; bee diseases and their eradication and control; relation of bees to agriculture and horticulture. Charge, $1.

211. External Insect Morphology. 3(1-6); I. Prerequisite: Ent. 203. Wilbur.
External anatomy of representative insects belonging to a number of orders; structure of the exoskeleton; a basis for taxonomy and hexapod morphology. Charge, $1.50.

212. Internal Insect Morphology. 3(0-9); II. Prerequisite: Ent. 211. Painter.
Internal anatomy of representative insects; plan and structure of the internal systems. Charge, $1.

216. Principles of Taxonomy. 1(1-0); II. Prerequisite: Ent. 203 and 211. Painter.

217. Taxonomy of Insects I. 2(0-6); II. Prerequisite: Ent. 203, 211, and 216 or concurrent registration. Painter.
Determination of major orders of insects; taxonomic literature; use of catalogues. Charge, $1.50.

218. Taxonomy of Insects II. 3(0-9); II. Prerequisite: Ent. 217. Painter.
Intensive study of a selected group of insects. Charge, $1.50.

221. Advanced General Entomology. 3(3-0); II. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Wilbur.
Broad biological aspects of the subject; understanding of the relation of insects to the complex environmental factors; the various subdivisions of entomology.

226. Medical Entomology. 3(2-3); I. Prerequisite: Ent. 101 (4 hours) or 203, and Zoöl. 105. Smith.
Insects and other arthropods as parasites and disseminators of disease; life cycles, biology, and control of insect parasites. Charge, $1.50.

229. Advanced Apiculture I. 3(2-3); I and II. Prerequisite: Ent. 208. Parker. Charge, $1.

230. Advanced Apiculture II. 3(2-3); I and II. Prerequisite: Ent. 229. Parker. 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: Ent. 101 (4 hours) or 203 (3 hours), and An. Husb. 221. Painter.
Resistance of varieties of crop plants to insect attack and their utilization in insect control; insect habits and physiology in relation to the cause of resistance and methods of breeding resistant varieties of crops.

236. Zoölogy and Entomology Seminar. 1(2-0); I and II. Prerequisite: consult seminar committee.
Presentation of original investigations, reviews of papers appearing in current journals, summaries of recent advances in various fields and discussion of various aspects of the fundamental problems of modern biology.

238. Problems in Entomology. Credit to be arranged; I, II, and SS. Prerequisite: consult instructors. Staff.
Students may pursue a special problem in one of the following subjects: insect life history, insect control, insect classification, apiculture, insects injurious to stored grain and milled products, and household insects.

240. Insect Physiology. 3(3-0); II. Prerequisite: Ent. 211 and Chem. 122, 218, or 219. Parker.

FOR GRADUATE CREDIT

316. Research in Entomology. Credit to be arranged; I, II, and SS. Prerequisite: (1) for research in taxonomy and morphology, Ent. 203, 211, 217, and Zoöl. 214; (2) for research in economic entomology, Ent. 203, 206, and 217; (3) for research in apiculture, Ent. 208, 229, and 230. Staff.
Advanced students may undertake original investigation in taxonomy, morphology, or economic entomology. The results may be used to fulfill the thesis requirement for the master's or doctor's degree.

Geology

Professor Sperry
Instructor Byrne

Instructor Chelikowsky
Graduate Assistant Harned

The courses offered in geology are designed to meet the needs of three groups of students: the technical student in agriculture, civil engineering, or chemistry, who must know something of the relationship of geology to his particular field; the general student who desires some knowledge of the world about him; and the student who wishes to major in geology.

COURSES IN GEOLOGY

FOR UNDERGRADUATE CREDIT

102. Engineering Geology. 4(3-3); I and II. Prerequisite: Chem. 110 or equivalent. Sperry, Chelikowsky.
General principles of geology and their application to engineering problems. Charge, $1.50.

103. General Geology. 3(3-0); I, II, and SS. 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.
An introductory course in college geography, emphasizing the relationships between human activities and environment. Charge, $1.50.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. Historical Geology. 4(3-3); I and II. Prerequisite: Geol. 102 or 103. Sperry, Byrne.
Physical and biological events through which the earth has gone. Charge, $1.50.

207. Economic Geology. 4(3-3); II. Prerequisite: Geol. 203 and Chem. 110. Sperry.
Origin and mode of occurrence of nonmetallic minerals, including coal and petroleum, and of metallic mineral deposits. Charge, $1.50.

209. Crystallography and Mineralogy. 4(2-6); I. Prerequisite: Chem. 110. Sperry, Chelikowsky. Charge, $1.50.

210. Field Geology. SS. Credit to depend upon the amount of work done. Opportunity is offered students to do field work in the Rocky Mountains. Students interested should consult Mr. Sperry.

215. Structural Geology. 4(3-3); II. Prerequisite: Geol. 203 and 209. Sperry, Chelikowsky.
Mechanics of the earth's crust. Interrelation of structures found in the earth. Charge, $1.50.

220. Invertebrate Paleontology. 4(3-3); I. Prerequisite: Geol. 203. Byrne.
Evolution and geologic history of the invertebrate animals. Charge, $1.50.

230. Field Methods in Geology. 3(1-6); I. Prerequisite: Geol. 203. Byrne.
Construction of geologic maps, including a complete map of the Manhattan area; application of field methods to the problems of geology. Charge, $1.50.

235. Optical Mineralogy. 4(2-6); I. Prerequisite: Geol. 209. Sperry, Chelikowsky.
Use of the polarizing microscope in identifying crystal fragments, powders, sediments, and thin sections; optical methods of microscopic research. Charge, $1.50.

236. Sedimentary Petrology. 5(3-6); I. Prerequisite: Geol. 203 and 209. Sperry.
Mineralogy and origin of soils and other sediments, their transportation, deposition, and transformation. Charge, $1.50.

241. Geologic Literature. 3(3-0); I. Prerequisite: Geol. 203 and 209. Staff.
Current geologic literature and history of geology. Charge, $1.50.

255. Vertebrate Paleontology. 3(3-0); II. Prerequisite: Geol. 203 or ten hours of zoölogy. Byrne.
Evolution, geologic history, and classification of the vertebrates. Charge, $1.50.

256. Micropaleontology. 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. Staff.
An individual problem in a particular phase of geology investigated under the guidance of an instructor.

FOR GRADUATE CREDIT

301. Research in Geology. Credit to be arranged; I, II, and SS. Staff.
Students with adequate preparation may undertake original investigations in geology.

History and Government

Professor Price
Professor Iles
Professor James
Professor Correll
Professor Shannon
Professor Parrish
Professor Sageser
Associate Professor Williams
Assistant Professor Alsop

COURSES IN HISTORY

FOR UNDERGRADUATE CREDIT

101. Ancient Civilizations. 3(3-0); I and SS. Parrish.
Early western culture and civilization, from its beginning to the decline of the Roman empire.

102. Medieval Europe. 3(3-0); II and SS. Parrish.
General history of Europe from the decline of the Roman empire to the discovery of the new world.

104. American History Survey. 3(3-0); I and SS. Not open to students who have credit in Hist. 105, 201, or 202. Price.
American history and institutions, combining constitutional, political, diplomatic, economic, and social phases of the growth of our republic, with background and interpretation. Charge, $1.

105. American Industrial History. 3(3-0); I, II, and SS. Not open to students who have credit in Hist. 104, 201, 202, or 203. Staff.
History of American agriculture, manufactures, and commerce with related activities from their colonial beginnings to the present; European developments, as a side light on American history; growth of our national industrial organization and its present-day aspects.

110. History of Commerce and Industry. 3(3-0); I. Shannon.
Evolution of industry and commerce from primitive beginnings to present-day organization. Economic survey of world history, with special stress on the modern period.

115. Modern Europe I. 3(3-0); I. Alsop.
Development of Europe from 1500 to 1815, with special study of the Commercial Revolution; the Reformation; political democracy; French Revolution; and the Napoleonic era.

121. English History. 3(3-0); I, II, and SS. James.
Political history of England; constitutional growth, and development of the British Commonwealth.

126. Current History. 1(1-0); I, II, and SS. May not be taken more than four semesters for credit. Staff.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. American History I. 3(3-0); I, II, and SS. Not open to students who have credit in Hist. 104. Prerequisite: when taken for graduate credit, six hours of college history. Price.
Beginning of American nationality and democracy through the War of 1812, including our industrial, constitutional, and political development with the European background. Charge, $1.

202. American History II. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. Price.
Western expansion and sectionalism; industrial conditions, political and constitutional issues, and leaders from 1812 to 1876. Charge, $1.

203. American History III. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. Price, Iles, Shannon.
Industrial conditions in America as affected by the Civil War; political and governmental activities of the period since 1865 in the light of industrial conditions and developments.

204. American Agricultural History. 3(3-0); I. Prerequisite: when taken for graduate credit, six hours of college history. Shannon.
European background and Indian beginnings; development during the colonial period; the westward movement into the prairie regions of the Mississippi valley with the distinctive American developments in methods, livestock, and farm machinery.

206. American Political Parties. 2(2-0); I. Prerequisite: when taken for graduate credit, six hours of college history. Iles.
Origin, development, leaders, and functions of political parties in America; issues and results of presidential elections; growth of nationality and development of self-government with special reference to present tendencies.

208. Latin America. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, six hours of college history. James.
Spanish expansion movement into the New World; development of Hispanic institutions therein; movement for independence and problems of the republican period.

223. Modern Europe II. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, Hist. 115 or 121. Parrish.
General history of Europe from 1815 to the present, with emphasis upon the social and political developments, including international relations.

225. History of the Home. 3(3-0); II. Prerequisite: when taken for graduate credit, six hours of college history. Alsop.
History of marriage and the family from primitive times to the present; marriage customs, position of women, child training; the modern home and recent changes and tendencies.

226. British Empire. 2(2-0); II and SS. Prerequisite: when taken for graduate credit, six hours of college history. James.

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

228. Immigration and International Relations. 2(2-0); I and SS. Prerequisite: when taken for graduate credit, six hours of college history. Price, James.

Causes and effects of the coming of the foreigner; changes as to the character of the immigrants; conditions in Europe and in America that affect the number and quality of immigrants; survey of our diplomatic history.

231. History of Religions. 2(2-0); I and SS. Prerequisite: when taken for graduate credit, six hours of college history. Parrish.

Historical survey of the world's living religions; relation of each religion to its natural and cultural environment; dominating religious conceptions, leaders, and historic developments which characterize each.

234. Twentieth Century Europe. 3(3-0); I, II, and SS. Prerequisite: when taken for graduate credit, Hist. 223 or equivalent. Correll.

236. Far East. 3(3-0); II and SS. Prerequisite: when taken for graduate credit, six hours of college history. Parrish.

Chinese culture and civilization from the beginning to the present day; achievements in the classical period; contacts with outsiders since 1840; new role of China and Japan in world commerce, trade, and politics.

250. Seminar in History and Government. 2 to 5 hours; I, II, and SS. Prerequisite: six hours of college history of a type that will serve as proper background for the subject to be studied. Staff.

Special fields connected with the history of agriculture, industry, commerce, though other fields may be studied at the discretion of the department.

290. Historical Method and Bibliography. 2(2-0); I and SS. Prerequisite: when taken for graduate credit, six hours of college history. Shannon, Sageser.

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

FOR GRADUATE CREDIT

301. Research in History. Credit to be arranged; I, II, and SS. Prerequisite: Hist. 290 or concurrent registration, and permission of instructor. Staff.

Research problems in European or American history, including international relations. Conclusions will generally take the form of a thesis.

COURSES IN GOVERNMENT

FOR UNDERGRADUATE CREDIT

151. American Government. 3(3-0); I, II, and SS. Iles.

State and national government with emphasis on constitutional principles and on functional activity.

152. American National Government. 3(3-0); I. Not open to students who have credit in Hist. 151. Iles.

Mechanism, functions, and control of the government of the United States. With Hist. 153, this course affords a comprehensive study of American national, state, and local government.

153. American State Government. 3(3-0); II. Not open to students who have credit in Hist. 151. Iles.

State and local government, with special attention to functions and problems.

163, 164. Business Law I and II. 3(3-0) each; I and II. Williams.
I: Contracts, agency, and sales.
II: Negotiable instruments, partnership, and corporations.

167. Law for Engineers. 2(2-0); I and II. Williams.
Case study of such rules of law as will prove most useful to engineers and architects; law of contracts.

175. Farm Law. 2(2-0); I. Offered in 1939-'40 and in alternate years thereafter. Not open to students who have credit in Hist. 276. Williams.
Law, particularly real property, deeds, mortgages, relation of landlord and tenant, developed through study of Kansas cases.

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. Comparative Government. 2(2-0); I or II, and SS. Prerequisite: Hist. 151 or equivalent. Iles, Williams.
Principal democracies, including comparisons with the government of the United States; principal dictatorships of Europe.

256. International Law. 2(2-0); I. James.
Nature and scope of international law; factors contributing to its growth; tendencies in the development of the law today.

260. Government and Business. 2(2-0); II. Prerequisite: when taken for graduate credit, Hist. 151, 163, 167, 175, or 276. Williams.
Constitutional limitations upon the powers of government; laws affecting economic interests such as trade regulations, taxation, labor legislation; legislation for the benefit of debtors, and emergency legislation.

276. Land Law. 2(2-0); I. Planned to supplement Econ. 218. Offered in 1940-'41 and in alternate years thereafter. Not open to students who have credit in Hist. 175. Williams.
Interests and rights in land; methods by which such interests and rights are acquired and protected; relation of landlord and tenant and that of mortgagor and mortgagee, developed by study of Kansas cases.

FOR GRADUATE CREDIT

351. Research in Government. Credit to be arranged; I, II, and SS. Prerequisite: consult instructor. Staff.
Research problems in national or local government, American or European; studies in comparative government or international law. The conclusions generally take the form of a thesis.

Industrial Journalism and Printing

Professor Rogers
Professor Keith
Associate Professor Amos
Associate Professor Hostetter
Associate Professor Lashbrook
Assistant Professor Krieghbaum

Courses in industrial journalism train students to do occasional writing for newspapers and periodicals. The curriculum in industrial journalism prepares for positions on farm journals, newspapers, and publications where articles on agricultural and industrial subjects are in demand.

The *Kansas Industrialist* and *The Kansas State Collegian* are published under the supervision of the department.

Printing has been taught in the College continuously since 1873, the longest period of instruction in any American college.

All students enrolled in the curriculum in industrial journalism and all other students who take courses designated "Journalism fee charged," pay a charge of $1.50 a semester. Only one journalism fee is charged a student in a given semester.

COURSES IN PRINTING

FOR UNDERGRADUATE CREDIT

101. Principles of Typography. 3(2-3); I and II. Prerequisite: Ind. Jour. 140 or sophomore classification. Amos.
History and art of printing; practice in setting straight matter; typography of advertisements and head display; principles of effective makeup. Journalism fee charged.

102. Printing Practice. 2(0-6); SS. Amos.

108, 111, 112. Ad Composition I, II, and III. 2(0-6) each; I, and II each. Prerequisite: for I, Ind. Jour. 101; for II, Ind. Jour. 108; for III, Ind. Jour. 111. Amos.
I: Principles of display and design as applied to advertisements. Journalism fee charged.
II and III: Ind. Jour. 108 continued; more complicated work studied. Journalism fee charged.

114, 118, 120. Job Composition I, II, and III. 2(0-6) each; I and II each. Prerequisite: for I, Ind. Jour. 101; for II, Ind. Jour. 114; for III, Ind. Jour. 118. Amos.
I: Differences in requirements for job composition and ad composition. Journalism fee charged.
II and III: Color work, tabular forms, and other job work. Journalism fee charged.

122, 126. Press Work I and II. 2(0-6) each; I and II each. Prerequisite: for I, Ind. Jour. 108 or 114; for II, Ind. Jour. 122. Amos.
I: Practical platen presswork under ordinary printing-office conditions Journalism fee charged.
II: I continued; mixing inks; color work. Journalism fee charged.

COURSES IN INDUSTRIAL JOURNALISM

FOR UNDERGRADUATE CREDIT

140. Journalistic Vocations. 2(2-0); II. Rogers.
Orientation of the student in the profession and business of journalism. Journalism fee charged.

152. Elementary Journalism. 3(3-0); I, II, and SS. Prerequisite: Ind. Jour. 140 or sophomore classification. Hostetter, Lashbrook.
Methods of obtaining news of various types, the writing of the lead, and the general styles of the news story. Journalism fee charged.

153. Kansas State Collegian Journalism. 1(0-3); I, II, and SS. Prerequisite: permission of instructor. Lashbrook.
Gathering and writing of news, or advertising practice, on *The Kansas State Collegian* under the supervision of the instructor.

160. Agricultural Journalism. 3(2-3); I and II. Lashbrook.
Principles of news writing as applied to agriculture. Journalism fee charged.

162. Radio Writing. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 152. Rogers, Keith.
Preparation and broadcasting of radio news.

164. Industrial Writing. 3(3-0); I and II. Prerequisite: Ind. Jour. 152. Hostetter, Lashbrook.
Principles of journalism in the treatment of industrial subjects. Journalism fee charged.

167. Industrial Feature Writing. 2(2-0); I, II, and SS. Prerequisite: Ind. Jour. 164. Krieghbaum.
Feature articles; underlying principles applied to writing on agricultural and other industrial subjects. Journalism fee charged.

172. Journalism for Women. 2(2-0); II. Prerequisite: Ind. Jour. 167. Hostetter.
A course for women students in news and feature writing for women's pages and women's magazines and consideration of specialized fields for the woman writer. Journalism fee charged.

178. Principles of Advertising. 4(4-0); I and II. Prerequisite: for students in curriculum in industrial journalism, Ind. Jour. 164; for business administration students, Engl. 123. Keith.
Study of goods to be advertised, analysis of the market, psychology of advertising, preparation of advertising copy, and other important matters. Journalism fee charged.

179. Radio Advertising. 3(3-0); I, II, and SS. Prerequisite: for students in curriculum in industrial journalism, Ind. Jour. 178; for other students, Pub. Spk. 161. Keith, Summers.
Broadcasting station management, principles and practice in radio advertising.

180. Broadcasting Station Practice. 1(0-3); I, II, and SS. Prerequisite: Ind. Jour. 162. Rogers.
News gathering, writing, and broadcasting over radio station KSAC.

181. Rural Press. 2(2-0); I and II. Prerequisite: Ind. Jour. 152. Lashbrook.
Community newspapers; emphasis on presentation of agriculture and rural life. Journalism fee charged.

183. News Bureau Methods. 2(2-0); I. Prerequisite: Ind. Jour. 152. Lashbrook. Journalism fee charged.

199. Industrial Journalism Lecture. R; I and II.
Addresses by practicing newspaper workers and members of the department. Required of all students in the curriculum in industrial journalism. Journalism fee charged.

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. Language of Journalism.* 2(2-0); II. Prerequisite: Ind. Jour. 164 or permission of instructor. Nock.
Nature and development of the English language, uses of language, words and meaning, jargon. Journalism fee charged.

254. Copy Reading. 2(0-6); II. Prerequisite: Ind. Jour. 164. Hostetter. Krieghbaum. Journalism fee charged.

255. Contemporary Thought. 3(3-0); I. Prerequisite: for students in curriculum in industrial journalism, Ind. Jour. 254; for others, Econ. 101. Rogers.
Correlation and unification of various subjects previously pursued in college; contemporary development and contemporary figures in science, the arts, and philosophy.

257. Editorial Practice. 2(2-0); I. Prerequisite: Ind. Jour. 254. Hostetter.
Writing of editorials suitable for farm papers, trade papers, and newspapers; shaping of editorial policies. Journalism fee charged.

265. Materials of Journalism. 2(2-0); I. Prerequisite: Ind. Jour. 254. Rogers.
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.

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* Effective January 30, 1939.

270. Magazine Features. 2(2-0); I, II, and SS. Prerequisite: for students in curriculum in industrial journalism, Ind. Jour. 167; for others, Engl. 104. Rogers.
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); II. Prerequisite: Ind. Jour. 255. Rogers, Hostetter.

278. Journalism Surveys. 2(0-6); II. Prerequisite: Ind. Jour. 254. Rogers, Hostetter.
Careful investigation of the periodical reading matter of communities; tabulation of information obtained; relation of the reading matter to the industrial, economic, social, and moral life of the communities.

282. Column Conducting. 2(2-0); II. Prerequisite: Engl. 104. Davis.

285. Contemporary Affairs.* 2(2-0); II. Prerequisite: Ind. Jour. 164 or permission of instructor. Concurrent registration with Hist. 126 not permitted. Kreighbaum.
Contemporary news events and their background. Journalism fee charged.

287. Current Periodicals. 3(3-0); II. Prerequisite: Engl. 104. Hostetter.

288. Trade and Technical Writing. 2(2-0); II. Prerequisite: Ind. Jour. 178.
Theory and practice writing which pertains to the special interests of industry, trade, and business.

289. Newspaper Management. 2(2-0); II. Prerequisite: Ind. Jour. 178.
Relation of departments of a newspaper to one another, costs, statistics, advertising news, and business methods in publishing.

295. Problems in Industrial Journalism. Credit to be arranged; I, II, and SS. Prerequisite: permission of instructor. Staff.
Investigation of special problems in industrial journalism.

FOR GRADUATE CREDIT

351. Research in Industrial Journalism. Credit to be arranged; I and II. Rogers.
Several courses embodying creative literary work or detailed research in specialized journalism are arranged to meet the specific needs and desires of the individual graduate students.

Library Economics

Associate Librarian Derby — Reference Librarian Davis

In order that the Library may perform its functions efficiently instruction must be given regarding its use. A course is offered which familiarizes the student with scientific methods in the use of books and acquaints him with the best general reference books, as well as with standard works. Placed at the beginning of his College course, it increases his efficiency in study throughout the entire course.

COURSES IN LIBRARY ECONOMICS

FOR UNDERGRADUATE CREDIT

101. Library Methods. 1(1-0); I and II. Derby, Davis.

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* Effective January 30, 1939.

Mathematics

Professor Stratton
Professor Remick
Professor White
Associate Professor Hyde
Associate Professor Lewis
Associate Professor Lyons
Assistant Professor Janes
Assistant Professor Mossman
Assistant Professor Holroyd
Assistant Professor Daugherty
Assistant Professor Munro
Assistant Professor Sigley
Instructor Rawhouser
Instructor Shobe
Instructor Hadley

COURSES IN MATHEMATICS

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, 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 Math. 104 or 107. Staff.

112. Elementary Analysis I. 5(5-0); I. Prerequisite: Plane geometry and one and one-half units of algebra. Babcock.
Functional relations, particularly the power function and periodic functions; the circle, ellipse, and hyperbola; binomial theorem and progressions.

113. Elementary Analysis II. 5(5-0); I. Prerequisite: Math. 112. Babcock.
Logarithmic and exponential functions; solution of triangles; simple harmonic motion; complex numbers; and the conic sections.

114. Calculus I. 4(4-0); I, II, and SS. Prerequisite: Math. 110. Staff.

115. Calculus II. 4(4-0); I, II, and SS. Prerequisite: Math. 114. Staff.

116. Calculus IIA. 5(5-0); I and II. Prerequisite: Math. 114. Staff.
Similar to Math. 115, with the addition of elements of differential equations occurring in engineering.

121. Differential Equations for Engineers. 2(2-0); I, II, and SS. Prerequisite. Math. 115. Stratton, Remick, White.

126. Elements of Statistics. 3(3-0); I and II. Not open to students who have credit in Educ. 223. White.

150. Mathematics of Finance. 3(3-0); II. Prerequisite: Econ. 133 and Math. 104 or 107. Janes.
Interest, annuities, sinking funds, amortization, valuation of bonds, depreciation, building and loan, and life insurance.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Differential Equations. 3(3-0); I. Prerequisite: Math. 115. Stratton, Remick, White.

202. Higher Algebra. 3(3-0); I, II, and SS. Prerequisite: Math. 115. Stratton, Munro, Sigley.
Material selected from Bocher's Higher Algebra.

203. Theory of Statistics. 3(3-0); II. Prerequisite: Math. 126 or permission of instructor. White.
Random sampling, frequency curves, correlation theory, curve fitting, significant differences, and analysis of variance; practice with data from biology, economics and agronomy.

207. Solid Analytic Geometry. 3(3-0); II. Prerequisite: Math. 115. Stratton.
Coördinates of points in space and their transformation involving discussion of lines and planes; quadric surfaces, their classification and principal properties.

210. Advanced Calculus I. 3(3-0); I. Prerequisite: Math. 115. White.
Special topics in integral calculus, including various methods of integrating elementary forms, definite integrals with attention to gamma and beta functions, and applications to lengths and areas.

213. Advanced Calculus II. 3(3-0); II. Prerequisite: Math. 210. White.
Continuation of Math. 210.

216. Theory of Equations. 3(3-0); I. Prerequisite: Math. 115. Stratton, Sigley.

221. History of Mathematics. 3(3-0); I, II, and SS. Prerequisite: Math. 110. Staff.

223. Fourier's Series. 3(3-0); II. Prerequisite: Math. 201. White.

225. Modern Plane Geometry. 3(3-0); II. Prerequisite: Math. 110. Stratton.
Properties of a triangle and its circles, harmonic ranges and pencils, inversion, poles and polars.

230. Vector Analysis. 3(3-0); I or II. Prerequisite: Math. 115. Babcock.
Methods of vector algebra and geometry, with applications, and the elements of tensors.

231. Survey of Applied Mathematics I. 3(3-0); I. Prerequisite: Math. 115. Babcock.
An introduction to such subjects as determinants and matrices; infinite series; Fourier series; multiple, line, and improper integrals; and elliptic integrals.

232. Survey of Applied Mathematics II. 3(3-0); II. Prerequisite: Math. 115. Babcock.
A continuation of Math. 231, including ordinary and partial differential equations; vector analysis; probability; curve fitting.

FOR GRADUATE CREDIT

301. Theory of Functions of a Complex Variable. 3(3-0); II. Prerequisite: Math. 201. Stratton, Munro.

306. Theoretical Mechanics. 3(3-0); I. Prerequisite: Math. 115. Stratton.

312. Higher Geometry. 3(3-0); II. Prerequisite: Math. 225. Stratton.
Linear dependence, homogeneous coördinates, cross ratio, properties of conics, elements of projective geometry.

316. Advanced Differential Equations. 3(3-0); I. Prerequisite: Math. 201. Munro.
Special topics, such as the equations of Legendre, Bessel, and Ricatti, with applications.

326. Calculus of Variations. 3(3-0); I. Prerequisite: Math. 201. Remick.
Some of the standard problems of maxima and minima wherein a definite integral affords the fundamental form of expression.

331. Research in Mathematics. Credit to be arranged; I and II. Required of all candidates for the master's degree whose major work is in the Department of Mathematics. Staff.

Military Science and Tactics

Professor Kingman, Colonel, Inf., U. S. A.
Associate Professor Dempewolf, Major, Inf., U. S. A.
Associate Professor Campbell, Major, Inf., U. S. A.
Associate Professor Brown, Major, Inf., U. S. A.
Associate Professor Crews, Major, CAC., U. S. A.
Associate Professor Holmes, Major, Inf., U. S. A.
Assistant Professor Aldrich, Captain, CAC., U. S. A.
Assistant Professor Frank, Captain, CAC., U. S. A.
Assistant Williams, Staff Sergeant, D. E. M. L., U. S. A.
Assistant Larson, Staff Sergeant, D. E. M. L., U. S. A.
Assistant Wilson, Staff Sergeant, D. E. M. L., U. S. A.
Assistant McDonald, Sergeant, D. E. M. L., U. S. A.
Military Property Custodian Peters, 1st Lieut., Inf.-Reserve

This College is one of the beneficiaries of the act of Congress of July 2, 1862, known as the Land-grant College Act. Military tactics is required in the College curriculums. All male students who are citizens of the United States, and not physically disqualified, are required to take military training three hours a week for two years. Students entering with 25 hours of advanced credit are excused from the second year of military training; those entering with 59 hours of advanced credit are excused from all military requirements.

Requests for excuse from military science, or for postponement, are acted upon by the president of the College. Such requests are presented through the student's dean, and the president obtains the advice of the professor of military science and tactics, who investigates each case on its merits and makes his recommendation to the president. Requests based on physical condition must be accompanied by a recommendation made by the College physician. Students excused from military science for any reason are assigned an equivalent amount of some other College work instead. Students permitted to postpone military science are not thereby excused, but must take it later.

Students enrolled in military courses who were members of junior units, R. O. T. C., at military academies or high schools, or those receiving military training while enrolled in government-aided schools (section 55c, National Defense Act, and section 1225, Revised Statutes) may apply for advanced-credit exemption on the basis of one semester for each year of training at a high school or government-aided school; provided there is stationed at these schools an officer of the Army detailed as professor of military science and tactics; and provided further that no credit will be given beyond the basic course, which comprises the first four semesters of the College curriculums (freshman and sophomore years).

An infantry unit and a coast artillery unit of the Reserve Officers' Training Corps have been established in this College.

A laboratory fee of 75 cents per semester is required of all students assigned to military training.

PERTINENT REGULATIONS OF THE R. O. T. C.

1. Basic Course. (freshmen, sophomores). Each student 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. Tan shoes of smooth leather must be worn with the uniform by all basic R. O. T. C. students.

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 military department in good condition.

In case any article of clothing is lost or because of carelessness or improper use becomes unfit for reissue or requires repairs, the student to whom it was issued must pay the cost of replacement or of repairs. In any instance, the extent and cause of the damage will be determined by the professor of military science and tactics or by a member of the regular military faculty designated by him.

No course in military science will be regarded as completed by any student who is indebted to the College for loss of, or damage to, government property.

2. Advanced Course. The student who continues in the R. O. T. C. after completing the Basic Course will receive the following:

a. A special uniform allowance.

b. Commutation of subsistence at the rate of 25 cents per day, provided he agrees to complete the Advanced Course, including a course in camp training. The camp training referred to is without expense to the student. Clothing and subsistence will be furnished and he will be paid at the rate of 70 cents per day, and five cents per mile to and from camp for travel expenses.

After graduation he will be eligible for appointment by the President of the United States as a reserve officer of the Army of the United States, and if so appointed he may, under certain conditions, be appointed and commissioned a second lieutenant in the regular army.

The corps of cadets at present is organized as one regiment with a military band.

Students who are regularly enrolled in the Advanced Course of the Senior Division receive three elective hours toward graduation for each semester of Advanced Military Training.

COURSES IN MILITARY SCIENCE AND TACTICS

FOR UNDERGRADUATE CREDIT

Senior Division, R. O. T. C.

BASIC COURSE, INFANTRY

(For students not in the Division of Engineering and Architecture or in the curriculums in Industrial Chemistry and Milling Industry.)

101A. Infantry I. 1(1-2); I. Staff.

(*a*) *Practical*: Leadership, weapons, infantry drill, ceremonies, rifle marksmanship.

(*b*) *Theoretical:* National Defense Act and R. O. T. C., obligations of citizenship, military history and policy, military discipline, courtesies and customs of the service, military sanitation and first aid, military organization, organization of the infantry, weapons, rifle marksmanship.

102A. Infantry II. 1(1-2); II. Prerequisite: Mil. Sc. 101A. Staff. Continuation of Mil. Sc. 101A.

103A. Infantry III. 1(1-2); I. Prerequisite: Mil. Sc. 102A. Brown.

(*a*) *Practical:* Leadership, infantry drill, ceremonies, automatic rifle, combat training.

(*b*) *Theoretical:* Leadership, automatic rifle, characteristics of infantry weapons, combat training.

104A. Infantry IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 103A. Brown. Continuation of Mil. Sc. 103A.

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. 104A. Campbell.

(*a*) *Practical:* Leadership, infantry drill, ceremonies, combat training.

(*b*) *Theoretical:* Aerial photograph reading, combat training, defense against chemical warfare, administration I, administration II, care and operation of motor vehicles.

110. Infantry VI. 3(2-3); II. Prerequisite: Mil. Sc. 109. Campbell. Continuation of Mil. Sc. 109.

111. Infantry VII. 3(2-3); I. Prerequisite: Mil. Sc. 110. Dempewolf.

(*a*) *Practical:* Leadership, infantry drill, ceremonies.

(*b*) *Theoretical:* Military history and policy, military law, company administration and supply.

112. Infantry VIII. 3(2-3); II. Prerequisite: Mil. Sc. 111. Dempewolf.
Continuation of Mil. Sc. 111.

Note.—Advanced-course students are required to attend one camp. This comes normally at the end of the junior year, and is held usually at Fort Leavenworth, Kan.

BASIC COURSE, COAST ARTILLERY

(For students in the Division of Engineering and Architecture and in the curriculums in Industrial Chemistry and Milling Industry.)

113A. Artillery I. 1(1-2); I. Aldrich, Frank.

(*a*) *Practical:* Military sanitation, first aid, map reading, rifle marksmanship, leadership, Coast Artillery weapons and materiel.

(*b*) *Theoretical:* National Defense Act and the R. O. T. C., obligations of citizenship, military history and policy, organizatino of the Army, military discipline, courtesies and customs, map reading.

114A. Artillery II. 1(1-2); II. Prerequisite: Mil. Sc. 113A or 101A. Crews, Aldrich, Frank.
Continuation of Mil. Sc. 113A.

115A. Artillery III. (1-2); I and II. Prerequisite: Mil. Sc. 114A or 102A.

(*a*) *Practical:* Leadership; Coast Artillery weapons and materiel; fire control and position finding for seacoast artillery; basic gunnery, fire control and position finding for anti-aircraft artillery; rigging.

(*b*) *Theoretical:* Leadership; Coast Artillery weapons and materiel; fire control and position finding for seacoast artillery; characteristics of naval targets.

116A. Artillery IV. 1(1-2); I and II. Prerequisite: Mil. Sc. 115A. Crews, Aldrich.
Continuation of Mil. Sc. 115A.

ADVANCED COURSE, COAST ARTILLERY

(For students 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. 116A. Frank.

(*a*) *Practical:* Leadership, fire control and position finding for seacoast artillery, orientation, applied gunnery for seacoast artillery.

(*b*) *Theoretical:* Leadership, administration, aerial photograph reading, defense against chemical warfare; basic gunnery, fire control and position finding for anti-aircraft artillery; signal communication, orientation, applied gunnery for seacoast artillery.

118. Artillery VI. 3(2-3); II. Prerequisite: Mil. Sc. 117. Frank.
Continuation of Mil. Sc. 117.

119. Artillery VII. 3(2-3); I. Prerequisite: Mil. Sc. 118. Crews.

(*a*) *Practical:* Leadership, orientation, field fortifications for sea coast artillery, technic and elementary tactics for seacoast artillery.

(*b*) *Theoretical:* Leadership, military law, orientation, field fortifications for seacoast artillery, technic and elementary tactics for seacoast artillery.

120. Artillery VIII. 3(2-3); II. Prerequisite: Mil. Sc. 119. Crews.
Continuation of Mil. Sc. 119.

Note—Advanced-course students are required to attend one camp. This comes normally at the end of the junior year, and is held usually at Fort Sheridan, Ill.

Modern Languages

Professor Moore
Professor Limper
Associate Professor Crittenden
Associate Professor Pettis
Instructor Townsend
Instructor Pyle

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.

COURSES IN GERMAN

FOR UNDERGRADUATE CREDIT

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

111. German III. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 102 or equivalent. Moore, Limper.

112. German IV. 3(3-0); I, II, and SS. Prerequisite: Mod. Lang. 111 or equivalent. Moore, Limper.

137. Scientific German. 4(4-0); I. Prerequisite: Mod. Lang. 102 or equivalent. Moore.

138. Advanced Scientific German. 2(2-0); II. Prerequisite: Mod. Lang. 137. Moore.

FOR GRADUATE AND UNDERGRADUATE CREDIT

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

213. Goethe. 3(3-0); I or II. Prerequisite: Mod. Lang. 112 or equivalent. Moore.

215. Nineteenth Century German Drama. 3(3-0); I or II. Prerequisite: Eighteen hours of college German or equivalent. Moore.
Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann, and others.

COURSES IN FRENCH

FOR UNDERGRADUATE CREDIT

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

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

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

163. French Composition and Conversation. 3(3-0); I or II. Prerequisite: Mod. Lang. 162. Pettis.

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. French Novel. 3(3-0); II. Prerequisite: Mod. Lang. 162 or equivalent. Limper.

257. French Drama I. 3(3-0); I or II. Prerequisite: Fifteen hours of college French or equivalent. Pettis.
Classic French drama, including Corneille, Molière, Racine, Marivaux, and others.

258. French Drama II. 3(3-0); I or II. Prerequisite: Fifteen hours of college French or equivalent. Pettis.
Modern French drama, including Brieux, Hervieu, Maeterlinck, Rostand, and others.

COURSES IN SPANISH

FOR UNDERGRADUATE CREDIT

176, 177. Spanish I and II. 3(3-0) each; I, II, and SS. Prerequisite: For II, Mod. Lang. 176 or equivalent. Moore, Crittenden, Townsend.

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

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

194. Spanish Composition and Conversation. 3(3-0); II. Prerequisite: Mod. Lang. 181. Townsend.

FOR GRADUATE AND UNDERGRADUATE CREDIT

275. Spanish Novel. 3(3-0); I. Prerequisite: Mod. Lang. 181. Townsend.

280. Spanish Drama. 3(3-0); II. Prerequisite: Mod. Lang. 181. Crittenden.

Music

Professor Lindquist
Associate Professor Sayre
Associate Professor Downey
Assistant Professor Hartman
Assistant Professor Painter
Assistant Professor Jefferson
Assistant Professor Martin
Assistant Professor Stratton
Assistant Professor Pelton
Assistant Professor Jesson
Assistant Professor Grossmann
Instructor Moon
Instructor Engle

Instruction in voice, piano, organ, violin, violoncello, double-bass, and other instruments, is given in private lessons. All theoretical subjects are taught in classes.

PRELIMINARY MUSICAL TRAINING

Applicants for freshman standing in the four-year music curriculums must pass an examination over certain requirements, which are as follows:

CURRICULUM IN APPLIED MUSIC

Voice majors: A voice of superior quality, ability to sing in time and in tune, and a practical knowledge of music notation.

Piano and Organ majors: A considerable degree of proficiency in the fundamentals of piano technic and in the playing of the easier classics.

Other Instrumental majors: A practicable knowledge of the fundamental 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, 102. Harmony I and II. 2(3-0) each; I, II, and SS. Prerequisite: Mus. 118 or equivalent. Stratton, Jesson.

I: Major and minor scales; intervals; primary triads and their inversions; dominant seventh and its inversions; harmonizing melodies and basses.

II: Subordinate triads and their sevenths in progressions and inversions; elementary modulation; original exercises.

103, 104. Harmony III and IV. 2(3-0) each; I and II, respectively, and SS. Prerequisite: Mus. 102. Stratton, Jesson.

III: Modulation completed; altered and mixed chords; embellishments.

IV: Works of the masters; writing of original exercises and small compositions.

105, 106, 107, 108. Ear Training and Sight Singing I, II, III, and IV. 2(1-3) each; I, II, I and II, respectively. Prerequisite: Mus. 118 or equivalent. Hartman.

Reading and hearing of intervals, chords, and rhythmical forms.

108A. Counterpoint. 2(2-0); I, II, and SS. Prerequisite: Mus. 104. Stratton.

Melody writing; association of melodies in simple counterpoint, leading to the writing of original two-and three-part inventions.

111. Musical Form and Analysis. 1(1-0); I, II, and SS. Prerequisite: Mus. 108A. Jesson.

Forms used in composition; the music of Bach, Haydn, Mozart, Beethoven, Schumann, Chopin, Brahms, Wagner, and others.

115. Radio Music Appreciation Programs. 1(1-1); I, II, and SS. Prerequisite: Mus. 130 or concurrent registration. Grossmann.

Program building, and practical experience in planning and presentation of music appreciation programs.

118. Music Fundamentals. 2(3-0); I, II, and SS. Not open to students in music curriculums. Sayre.

Elementary instruction in the theory of music.

119. Broadcast Musical Programs. 2(3-0); I, II, and SS. Prerequisite: Pub. Spk. 161 or equivalent. Stratton.

Planning and arranging broadcasts of musical programs; copyright law as applied to musical broadcast; theme, transitional, background, and incidental music; microphone technic applied to music.

130, 131. History and Appreciation of Music I and II. 2(3-0) each; I and II, respectively, and SS. Lindquist.

The three periods in the history of music, the style of music peculiar to each, and musical contact with the great composers.

133. Choral Conducting. 1(2-0); I, II, and SS. Prerequisite: Mus. 118 or equivalent. Lindquist.

134. Instrumental Conducting. 1(2-0); I, II, and SS. Prerequisite: Mus. 104 and 133. Downey.

136. Instrumentation and Orchestration. 3(3-0); I, II, and SS. Prerequisite: Mus. 108A. Downey.

Instruments of the band and orchestra studied with relation to tone color, range, and function; simple and familiar compositions scored for ensemble, including full orchestra.

138, 139. School Music I and II. 2(2-0) each; I and II, respectively, and SS. Prerequisite: Mus. 105 and 106. Hartman.

I: Methods and materials for teaching music in kindergarten and the primary grades.

II: Methods and materials for teaching music in the elementary grades.

143. School Music III. 2(2-0); I, II, and SS. Prerequisite: Mus. 138 and 139. Hartman.

Methods and teaching materials suitable for junior and senior high school.

149. Methods and Materials for the Studio. 1(2-0); I and II. Staff.

Methods of teaching fundamental technic; selection of teaching materials, and the outlining of courses of study. For students in the curriculum in Applied Music; taught in separate divisions for voice, piano, organ, violin, etc.

151A to 151H. Orchestral Instruments I to VIII. ½(1-0) each; I, II, and SS. Downey, Martin.

Methods of tone production of the most important instruments of the orchestra. Fee, $2.

COURSES IN APPLIED MUSIC

When Mus. 153, 156, 158, 161, 163, 167, or 172 are elected by students outside the music curriculums, a maximum of two hours per semester is allowed.

153. Instrument. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Downey, Martin. For fees, see table following Mus. 198.

156. Voice. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Lindquist, Sayre, Grossmann. For fees, see table following Mus. 198.

158. Violin. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Martin. For fees, see table following Mus. 198.

161. Piano. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Staff. For fees, see table following Mus. 198.

163. Violoncello. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Downey. For fees, see table following Mus. 198.

167. Double-bass. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Downey. For fees, see table following Mus. 198.

172. Organ. 0 to 4 hours a semester, maximum of 32 hours allowed; I, II, and SS. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Jesson. For fees, see table following Mus. 198.

174. Vocal Ensemble. No credit (0-2); I, II, and SS. Elective for students of superior vocal talent. Lindquist, Sayre, Grossmann. Fee, $2.

176. Piano Ensemble. R(1-0); I and II. Required of students majoring in piano or organ. Painter. Fee, $2.

178. Instrumental Ensemble. 1(0-3); I, II, and SS. Elective for selected students. Downey, Martin. Fee, $2.

181A to 181F. Recital I to VI. R(-); I (181 A, C, and E) and II (181 B, D, and F). Required of all students taking work in the curriculum in Applied Music. A joint solo recital appearance in Recital IV, and an individual solo recital in Recital VI.

183. Ensemble. ½(0-2) each semester. For the curriculums in Applied Music and Music Education, and elective in other curriculums. Staff.

Required ensemble work may be taken in Choral Ensemble (Mus. 194); Orchestra (Mus. 195); or Band (Mus. 198).

187. Practice Teaching of Music. R(1-0); II. Staff.

Practice teaching in private classes for students in the curriculum in Applied Music.

194 Choral Ensemble. ½(0-2) each semester. Weekly rehearsals, all special rehearsals, and public performances. Prerequisite: A voice of good quality, a knowledge of musical notation, and the ability to sing in time and in tune. Lindquist, Sayre, Grossmann.

Membership in both the College Chorus and the Men's Glee Club or the College Chorus and the Women's Glee Club.

MUSICAL ORGANIZATIONS

191. Chorus. Weekly rehearsals. I and II. Prerequisite: Ability to read musical notation and to sing in time and in tune. Membership is open to the entire student body, and to others who may qualify. Approval of the head of the Department of Music must be obtained. Lindquist.

Men's Glee Club. Membership, by competitive tryouts, is open to the entire student body. Lindquist.

Women's Glee Club. Membership, by competitive tryouts, is open to the entire student body. Sayre, Grossmann.

195. Orchestra. ½(0-2); I and II. Weekly rehearsals. Membership, by competitive tryouts, is open to the entire student body. Downey.

198. Band. ½(0-2); I and II. Weekly rehearsals. Membership, by competitive tryouts, is open to the entire student body. Downey, Martin. Fee, 50 cents; deposit, $2.

FEES IN MUSIC

Course				
Two lessons each week for a semester:				
Voice	$36	$30*	$24*	$14†
Piano	36	30*	24*	14†
Organ	36	30*	24*	14†
Violin	36	30*	24*	14†
Violoncello	36	30*	24*	14†
Other orchestral instruments	30	30*	24*	14†
One lesson each week for a semester:				
Voice	$20	$17*	$14*	$9†
Piano	20	17*	14*	9†
Organ	20	17*	14*	9†
Violin	20	17*	14*	9†
Violoncello	20	17*	14*	9†
Other orchestral instruments	17	17*	14*	9†

Piano rent, one hour daily—$4 a semester.
Piano rent, two hours daily—$6 a semester.
Organ rent, one hour weekly—$3 a semester.

Physical Education and Athletics

Professor Ahearn
Professor Saum
Professor Washburn
Professor Fry
Associate Professor Williamson
Assistant Professor Root
Assistant Professor Geyer
Assistant Profesor Maytum
Assistant Professor Haylett
Assistant Professor Moll
Instructor Patterson
Instructor Young
Instructor Thompson
Instructor Lyman
Instructor Cochrane
Assistant Myers
Assistant Partner

Men taking physical education Courses 103, 104, 105, and 106 must furnish their own uniforms consisting of white sleeveless shirt, short white trunks, and rubber-soled shoes. Men majoring in physical education must purchase a special uniform for their gynasium class work, which costs approximately $9.

Equipment is furnished to acceptable candidates for varsity and freshman athletic teams, who are held responsible for it. Failure to return or replace equipment subjects the offender to a fine or other disciplinary action.

All freshmen and sophomores must enroll for physical education unless excused for disability on recommendation of the College physician. Students entering with 15, 25, 44, or 59 hours of advanced credit are excused from one, two, three, or four semesters, respectively, of physical education, no substitution being required.

Each student receives a physical examination before undertaking the work of the department.

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* Fees for children.

† Student assistant fees.

The College is a member of the Big Six Athletic Conference. The Athletic Council, consisting of eight faculty members, has supervision and control of college sports. Each candidate for an athletic team receives thorough examination before he competes, and careful medical supervision throughout the year.

There is an extensive intramural program of thirteen sports for men and nine for women. Awards in the form of emblems, sweaters, placques, and medals are made to students on the basis of participation.

COURSES IN PHYSICAL EDUCATION

FOR UNDERGRADUATE CREDIT—MEN

A deposit of $3 is required of each student enrolled in any course designated "Deposit." Only one deposit is required from any student in one semester.

103, 104, 105, 106. Physical Education M. R(0-2); I, II, and SS. Staff.
Personal hygiene and social problems; marching, calisthenics, apparatus, and games.

The following activities are offered throughout the year: Swimming: Beginning, advanced, and Red Cross life-saving (beginning swimming is a prerequisite for advanced swimming and for Red Cross life-saving. Students must pass a preliminary test before entering the Red Cross life-saving class unless they have passed the test given in the advanced swimming class); boxing; wrestling; and corrective gymnastics. Basketball, softball, tennis, touch football, volleyball, handball, golf, and tumbling are offered in season. Deposit.

107. Introduction to Physical Education. 1(1-0); I. Washburn.
An introductory survey of the field and study of the principles of health and physical education.

113A. First Aid and Massage. 3(3-0); II and SS. Prerequisite: Zoöl. 123A. Moll.

119. Personal Hygiene. 2(2-0); I and SS. Moll.

120. Swimming M. 1(0-3); I and SS. Moll.
Instruction and practice in breast, back, and crawl strokes; diving, treading water, and floating. Deposit.

123. Physiology of Exercise. 2(2-0); I. Prerequisite: Zoöl. 123A and 130. Washburn.
Effects of exercise on the tissues, systems, and organs of the body.

124A. Physical Diagnosis and Prescription. 3(3-0); I. Prerequisite: Phys. Ed. 107, 137, 138, and 141B. Washburn.
Normal and physical diagnosis; individual corrective exercise.

126. Football. 2(1-3); II and SS. Fry.
Study of rules, theory and practice; methods of coaching. Deposit.

130A. Basketball. 2(1-3); I and SS. Root.
Study of rules, theory and practice; methods of coaching. Deposit.

133. Baseball. 2(1-3); II and SS. Ahearn.
Study of rules, theory and practice; methods of coaching. Deposit.

135, 136B. Practice Teaching in Physical Education I and II. 1(0-3) and 2(0-6), respectively, I and II each. Prerequisite: junior standing. Washburn.
Under immediate supervision of the teachers, students assist in the physical education classes, and officiate in intramural games. Deposit.

136C. Practice Teaching in Physical Education III. 2(0-6); I and II. Washburn.
Continuation of Phys. Ed. 135 and 136B. Deposit.

137. Physical Education Activities I. 1(0-3); I. Thompson.
Theory and practice of soccer, volleyball, and gymnasium games. Deposit.

138. Physical Education Activities II. 2(0-6); II. Thompson.
Theory and practice of calisthenics, the gymnastic lesson, and tumbling. Deposit.

139. Physical Education Activities III. 2(0-6); I. Thompson.
Graded exercises on gymnasium apparatus, gymnastic dancing, pyramids. Deposit.

140. Physical Education Activities IV. 1(0-3); I. Patterson.
Theory and practice of wrestling and boxing. Deposit.

140A. Track and Field Sports. 2(1-3); II. Haylett.
Study of rules, theory and practice; methods of coaching. Deposit.

141B. Kinesiology M. 3(3-0); II. Prerequisite: Zoöl. 123 A. Thompson.
Elemental body movements analyzed; principles involved applied to teaching of physical education.

142. Public-School Program in Physical Education. 2(2-0); II. Prerequisite: senior standing. Washburn.
Educational, health, and recreative significance and content of the school program; types of activity to be emphasized in grades and in high school.

145. Nature and Function of Play. 2(2-0); II. Prerequisite: Educ. 184. Washburn.
Theoretical explanation of play; age and sex characteristics influencing play; value of play to individual and community.

146. Organization and Administration of Physical Education M. 3(3-0); I. Prerequisite: junior standing. Washburn.

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. 123A and 130. Moll.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. Community Recreation. 2(2-0); II and SS. Prerequisite: Phys. Educ. 145. Washburn.

FOR GRADUATE CREDIT—MEN

301. Problems in Physical Education. Credit to be arranged. Prerequisite: variable, depending upon problem chosen. Washburn.

FOR UNDERGRADUATE CREDIT—WOMEN

A deposit of $2.50 is required of each student enrolled in any course designated "Deposit." Only one deposit is required from any student in one semester.

151A, 152A, 153, 154. Physical Education W. R(0-3) each; I, II, and SS. Staff.
Modern dancing, swimming, and individual gymnastics offered throughout the year; folk and tap dancing, recreational sports, Danish gymnastics, hockey, soccer, fieldball, tennis, basketball, archery, baseball, and golf in season. Deposit. A refund of 50 cents, each semester, is made upon return of key.
Recreational swimming is offered on Tuesdays and Thursdays at 4 o'clock for those who have registered in the College and paid the necessary fees. Swimming fee, $1 each semester.

Major Courses

The following courses may be elected by those who wish a minor in Home Economics: Art. 101A, Elementary Design I; Art 130, Costume Design I; Food and Nutr. 102, Foods I; Clo. and Text. 103, Clothing for the Individual.

155. Fundamental Rhythm. 1(0-3); I. Young.
Body rhythm, fundamentals of music, and percussion accompaniment for rhythmic activities. Deposit.

157A. General Technic I. 2(1-3); I. Maytum, Lyman.
Theory and practice of self-testing activities. Deposit.

157B. General Technic II. 2(1-3); II. Maytum, Lyman.
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(0-6); I. Prerequisite: Phys. Ed. 155 and one-half semester each of folk dancing and tap dancing. Maytum, Lyman.
Method of teaching child rhythms and folk dancing. Deposit.

157F. General Technic VI. 2(1-3); II. Prerequisite: knowledge of Danish gymnastics, tennis, and golf. Geyer.
Methods of teaching Danish gymnastics, tennis, and golf. Deposit.

157G. General Technic VII. 2(1-3); I. Prerequisite: a semester each of beginning dancing and intermediate dancing. Young.
Methods of teaching modern dance. Deposit.

157H. General Technic VIII. 2(1-3); II. Prerequisite: a semester each of beginning and intermediate swimming; one-half semester of archery. Saum.
Methods of teaching swimming and archery. Deposit.

158. First-aid. 1(1-0); SS.
The prevention of accidents and the treatment of injuries in an emergency.

163. Principles of Health Education W. 3(3-0); I and SS. Prerequisite: Child Welf. 101. Geyer.
General program of health work; daily health inspection; health examinations; and evaluation of health education material for grades and high schools.

164. Clog and Character Dancing W. 1(0-3); SS.

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. Geyer.
Methods of teaching games in public schools suitable for recess, noon, and after-school periods. Deposit.

171. Health Examinations W. 2(0-6); I. Prerequisite: Phys. Ed. 184 and Zoöl. 123A and 130. Maytum, Lyman.
Methods of giving health examinations, analysis of normal body mechanics, postural deviations; first-aid emergency treatment.

172. Therapeutics and Massage. 2(0-6); II. Prerequisite: Phys. Ed. 171 and 184 and Zoöl. 123A. Maytum, Lyman.
Postural defects studied and exercises given for correction of each; general and local massage practiced for cases which can be treated by the Department of Physical Education. Deposit.

176. Organization and Administration of Physical Education W. 2(2-0); II. Prerequisite: Phys. Ed. 157A to 157G, 182A, and 188. Saum.
Administrative policies of physical education departments: the staff, activities, basic principles. Construction, equipment, and care of plant.

178. Folk Dancing. 1(0-3); SS.
Singing games, rhythms, and folk dancing for elementary and secondary schools. Deposit.

182A. Playground Management and Games W. 2(1-3); I. Geyer.
Organization and administration of playground activities and equipment; history of the playground movement; types of games suitable for different age periods. Practice teaching in elementary schools. Deposit.

183. Adult Recreation W. 2(2-0); II. Prerequisite: Phys. Ed. 182A. Maytum, Lyman.
Principles and methods of organizing communities for leisure time activities.

184. Kinesiology W. 2(2-0); II. Prerequisite: Zoöl. 123. Geyer.
Mechanics of movement; elemental body movements analyzed and principles involved applied to the teaching of physical education.

187A. Technic of Basketball, Baseball, and Volleyball. 1(0-3); SS.
Rules, duties of officials, organization of squads and teams, equipment. Methods of coaching and conducting of tournaments. Deposit.

188. Teaching and Adaptation of Physical Education. 3(3-0); I. Prerequisite: Phys. Ed. 157A to 157F, 161, and 182A. Maytum, Lyman.
Problems of physical education and general principles of leadership; adaptation of material to meet needs of various groups and to meet aims and ideals of physical education.

FOR UNDERGRADUATE CREDIT—MEN AND WOMEN

192. History and Principles of Physical Education. 3(3-0); II. Prerequisite: sophomore standing. Maytum.
Physical education from ancient to modern times; aims and ideals of physical education and its relations to general education.

Physics

Professor Cardwell
Professor Raburn
Professor Floyd
Associate Professor Brackett
Associate Professor Lyon
Associate Professor Chapin
Associate Professor McMillen
Assistant Professor Hartel
Assistant Professor Maxwell
Assistant Professor Avery
Assistant Professor Hudiburg
Instructor Hilt
Assistant Lee

Courses in the Department of Physics are designed to meet the needs of three kinds of students: (1) the general student who desires some knowledge of physics; (2) the technical student in engineering, home economics or chemistry who must be well grounded in basic principles; (3) the student who wishes to major in physics, looking forward to a career in teaching, industrial physics, industrial research, or graduate work.

Persons classified under the third of the above groups should, at the earliest possible date, consult with the head of the department.

COURSES IN PHYSICS

FOR UNDERGRADUATE CREDIT

102, 103. General Physics I and II. 4(3-3) each; I, II, and SS each. Prerequisite: for I, Math. 101; for II, Phys. 102. Not open for full credit to students who have credit in Phys. 109. Staff.
I: Mechanics, heat, and sound.
II: Magnetism, electricity, and light. Charge, $3 for each course.

105, 106. Engineering Physics I and II. 5(4-3) each; I, II, and SS each. Prerequisite: for I, Math. 101; for Phys. 105. Not open for full credit to students who have credit in Phys. 109, 102, or 103. Staff.
I: Mechanics, heat, and sound for technical students.
II: Magnetism, electricity, and light for technical students. Charge, $3 for each course.

109. Household Physics. 4(3-3); I, II, and SS. Avery, Hudiburg, Hilt.
Lectures and demonstrations in which the laws and principles involved in household appliances are explained and illustrated. Charge, $3.

121. Physics for Musicians I. 5(4-3); I. Prerequisite: Mus. 101 and 102. Floyd, Chapin.
Selected topics applied to the physics of music and musical instruments. Charge, $3.

122. Physics for Musicians II. 3(3-0); II. Prerequisite: Phys. 121, 102, or 105. Floyd, Chapin.
Sound from the musician's point of view.

125. Architectural Acoustics. 2(2-0); II. Prerequisite: Phys. 103 or 105. Floyd, Chapin.
Prediction of acoustic properties of buildings in advance of construction and the correction of acoustic defects.

134. Agricultural Physics. 3(3-0); II. Brackett.
Fundamental principles as related to agriculture. Required of students in agriculture who enter without high-school physics.

136. Descriptive Physics. 3(3-0); I, II, and SS. Not for credit if following Phys. 102, 103, 105, or 106. Brackett, Maxwell.
Non-mathematical explanations and experimental demonstrations of selected principles in physics.

141. Descriptive Astronomy. 3(3-0); II. Babcock, 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. Charge, $3.

160. Introduction to Modern Physics. 2(2-0); I, II, and SS. Prerequisite: a course in physics and in chemistry. Cardwell, Brackett, Lyon.
A non-mathematical introduction to contemporary problems and theories.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Laboratory Technic and Apparatus Design. 1(0-3) or 2(0-6); I, II, and SS. Prerequisite: Phys. 103 or 106. Hudiburg.
A course in 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, Hilt.
Radiology, theory of short waves and of the equipment used in production. Laboratory work involving the use and operation of X-ray equipment and making exposures and development of X-ray plates and films. Charge, $3.

210. Astronomy. 3(3-0); I or II. Prerequisite: Phys. 103 or 106, 141, and Math. 115. 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: Phys. 103 or 106 and Chem. 103 and 104 or Chem. 110. McMillen.
Spectrographic methods for detecting, qualitatively and quantitatively, the chemical constituents of minerals, metals, and biological specimens. Charge, $3.

227. Mechanics. 3(3-0); I. Prerequisite: Phys. 102 or 105 and Math. 115. Cardwell, McMillen.
Theoretical mechanics by methods of the calculus with an introduction to generalized coördinates.

228. Mechanics Laboratory. 1(0-3) or 2(0-6); I. Prerequisite or concurrent: Phys. 227. Cardwell, McMillen. Charge, $3.

238. Heat. 3(3-0); I. Prerequisite: Phys. 103 or 106 and Math. 115. Cardwell, Chapin.

239. Heat Laboratory. 1(0-3); I. Prerequisite or concurrent: Phys. 238. Chapin. Charge, $3.

240. Sound. 3(3-0); I and SS. Prerequisite: Phys. 102 or 105 and Math. 115. Floyd, Chapin.

243. Light. 3(3-0); II. Prerequisite: Phys. 103 or 106 and Math. 114. Cardwell, Chapin.

244. Light Laboratory. 1(0-3); II. Prerequisite or concurrent: Phys. 243. Cardwell, Chapin. Charge, $3.

253. Electricity and Magnetism. 2(2-0); I or II. Prerequisite: Phys. 103 or 106 and Math. 115. Lyon.
Electricity and magnetism by methods of the calculus.

254. Electricity and Magnetism Laboratory. 1(0-3) or 2(0-6); I or II. Prerequisite or concurrent: Phys. 253. Lyon. Charge, $3.

265. Electric Oscillations and Waves. 3(3-0); II. Prerequisite: Phys. 253. Lyon.
Radiation field theory and radio circuits.

266. Electric Oscillations and Waves Laboratory. 2(0-6); II. Prerequisite or concurrent: Phys. 265. Lyon. Charge, $3.

268. Electron Optics. 2(2-0); II. Prerequisite: Phys. 103 or 106 and Math. 115. McMillen.
Theory of the bending and focusing of electron beams by electric and magnetic fields.

270. Atomic Physics. 3(3-0; I or II. Prerequisite: Phys. 103 or 100 and Math. 115. Cardwell, Lyon, McMillen.
Contemporary theories and problems.

297. Problems in Physics. Credit to be arranged; I, II, and SS. Prerequisite: consent of instructor. Staff.

299. Colloquium in Physics. R; I and II. Required of graduate majors and senior undergraduate majors. Staff.

FOR GRADUATE CREDIT

302. Introduction to Theoretical Physics I. 3(3-0). Prerequisite: Phys. 227 and Math. 201. Cardwell, McMillen.

303. Introduction to Theoretical Physics II. 3(3-0). Prerequisite: Phys. 302. Cardwell, McMillen.
A continuation of Physics 302.

305. Quantum and Wave Mechanics. 3(3-0). Prerequisite: Phys. 103 or 106 and Math. 201. McMillen.

310. General Thermodynamics. 3(3-0); Prerequisite: Phys. 238 and Math. 201. Cardwell, Chapin.

313. Kinetic Theory of Gases. 3(3-0). Prerequisite: Phys. 238 and Math. 201. Floyd, Raburn.

315. Vector Mechanics. 3(3-0). Prerequisite: Math. 230. Babcock.

390. Research in Physics. Credit to be arranged; I, II, and SS. Prerequisite: consent of instructor. Staff.

Public Speaking

Professor Hill
Professor Summers
Associate Professor Heberer
Associate Professor Given
Assistant Professor Troutman
Instructor Webster

FOR UNDERGRADUATE CREDIT

101. Oral Interpretation. 2(2-0); I, II, and SS. Hill, Given.
Attainment of some proficiency in the art of reading aloud. Charge, $1.

102. Dramatic Reading. 2(2-0); II. Prerequisite: Pub. Spk. 101 or permission of the instructor. Given, Troutman.
Advanced study and application of the principles of oral interpretation to platform reading.

106. Extempore Speech I. 2(2-0); I, II, and SS. Staff.
Preparation and delivery of short addresses based on prepared outlines. Charge, $1.

107. Public Speaking. 2(2-0); I, II, and SS. Prerequisite: Junior standing. Staff.
Practical public speaking of the extempore type. Charge, $1.

108. Extempore Speech II. 2(2-0); I, II, and SS. Prerequisite: Pub. Spk. 106 or 107. Staff.
Pub. Spk. 106 continued, with special attention to illustrative material.

110. Elements of Phonetics. 2(2-0); I. Given. Charge, $1.

121. Argumentation and Debate. 2(2-0); II. Prerequisite: Pub. Spk. 106 or 107 or permission of instructor. Summers.

123, 124. Intercollegiate Debate I and II. 2(2-0) each. Prerequisite: for I, Pub. Spk. 121; for II, Pub. Spk. 123 and permission of instructor. Summers.
Open only to members of the intercollegiate debate squads.

126. Parliamentary Procedure. 1(1-0); II. Summers.

130, 135. Dramatic Production I and II. 2(2-0) each; I, I, II, and SS; II, II and SS. Prerequisite: for II, Pub. Spk. 130 or permission of the instructor. Heberer, Troutman.
I: Theory of and practice in the fundamentals of acting.
II: Fundamentals of stage-craft.

138. Public Speaking for Teachers. 1(1-0); II and SS. Hill, Troutman.

142. Oratorical Contest. 2(-); I and II. Hill.

150, 152. Development of the Theater I and II. 2(2-0) each; I and II, respectively. Heberer, Troutman.
I: The theater to the end of the nineteenth century.
II: The modern and the contemporary theater.

161. Elements of Broadcasting. 3(2-3); I and II. Prerequisite: Pub. Spk. 106 or 107. Summers. Charge, $2.

168. Radio Program Participation. 1(0-3); I and II. Prerequisite: Pub. Spk. 161. May not be taken for more than four semesters for credit. Summers.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Advanced Phonetics. 4(3-3); II. Prerequisite: Pub. Spk. 101, 106, 107, and 110. Given.

222. Advanced Debate. 2(2-0); I. Prerequisite: Pub. Spk. 121 or permission of the instructor. Summers.
Advanced study of and participation in the methods of persuasion in public discussion.

225. Public Program. 2(2-0); II and SS. Prerequisite: Pub. Spk. 106 or 107 or permission of the instructor. Hill, Troutman.
Planning, building, and presenting non-radio public programs.

230. Radio Continuity. 2(2-0); I and II. Prerequisite: Pub. Spk. 161 and permission of the instructor. Summers.
Planning and construction of radio programs.

231. Radio Program Production. 2(1-3); I and II. Prerequisite: Pub. Spk. 161 and permission of the instructor. Summers.
Production and direction of radio programs.

232. Problems in Broadcasting. Credit to be arranged; I and II. Prerequisite: Pub. Spk. 161 and permission of the instructor. Summers.
Individual problems in the general field of radio broadcasting.

FOR GRADUATE CREDIT

301. Research in Speech. Credit to be arranged; I, II, and SS. Prerequisite: consult instructor. Hill, Summers, Given.

305. Clinical Problems of Defective Speaking. 4(2-6); II. Prerequisite: Pub. Spk. 101, 106, 107, 108, and 201. Hill, Given.

Student Health

Professor Husband

101. Preventive Medicine and Public Health. 2(2-0); I and II. Prerequisite: sophomore standing. Husband.
Communicable diseases and their control; factors involved in healthful living.

Zoölogy

Professor Nabours
Professor Ackert
Professor Harman
Associate Professor Herrick
Associate Professor Wimmer
Assistant Professor Harbaugh
Assistant Professor Goodrich
Instructor Ameel
Instructor Edgar
Assistant Stebbins
Graduate Assistant Alsop
Graduate Assistant Fent
Graduate Research Assistant Case
Graduate Research Assistant Finerty
Graduate Research Assistant Frick

The courses have been planned to give a fundamental knowledge of the structures, functions, and relations of animals; information concerning the manner in which animals respond to the conditions of the environment; an appreciation of their human values; and a consideration of the problems of heredity and evolution.

COURSES IN ZOOLOGY

FOR UNDERGRADUATE CREDIT

105. General Zoölogy. 5(3-6); I, II, and SS. Staff. Charge, $3.

123A. Human Anatomy. 5(3-6); I. Prerequisite: Zoöl. 105. Wimmer.
General anatomy studied by means of dissectable models, skeletons, and charts. Charge, $3.

130. Physiology. 4(3-3); I, II, and SS. Prerequisite: Zoöl. 105 and Chem. 101 or 110. Wimmer.
See Zoöl. 238. Charge, $3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. Problems in Zoölogy. Credit to be arranged; I, II, and SS. Staff.
Problems in heredity, parasitology, physiology, cytology, embryology, protozoölogy, ecology, ornithology, endocrinology, and neurology. Charge, $2 per hour.

205. Field Zoölogy. 2(1-3) or 3(1-6); I, II, and SS. Prerequisite: Zoöl. 105. Harbaugh.
Habitat, distribution, and relationship of animals. Charge, $3.

206. Zoölogical Technic. 1(0-3) or 2(0-6); II. Prerequisite: Zoöl. 105. Edgar.
Methods and processes in preparation of microscopical slides; principles of photomicrography. Charge, $3.

208. Animal Parasitology. 3(2-3); I. Prerequisite: Zoöl. 105. Ackert.
Biology, pathology, and prophylaxis of the principal external and internal parasites of the domestic animals. Charge, $2.

209. Principles of Parasitology. 2(2-0); I. Prerequisite: Zoöl. 105. Ackert.
Principles, origin, history, and philosophy of animal parasitism.

212. Invertebrate Zoölogy. 4(2-6); I. Prerequisite: Zoöl. 105. Goodrich. Charge, $3.

214. Cytology. 4(2-6); I. Prerequisite: Zoöl. 105. Harman.
Cells, chromosomes, and heredity. Charge, $3.

216. Heredity and Eugenics. 2(2-0); I. Prerequisite: Zoöl. 105. Nabours.
Human inheritance and the interactions of nature and heredity.

217. Evolution and Heredity. 3(2-3) or 4(2-6); II. Prerequisite: Zoöl. 105. Nabours.
Development of the idea of evolution; evidence and principal theories of the causes of evolution; problems of variation, heredity, and experimental evolution.

218. Human Parasitology. 3(3-0); II. Prerequisite: Zoöl. 105. Ackert.

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.

225. Zoölogy and Entomology Seminar. 1(1-0); I and II. Prerequisite: Zoöl. 105.

227. Genetics Seminar. 1(1-0); I and II. Prerequisite: Zoöl. 105. Nabours, Warren, Parker, Ibsen.

237. Advanced Physiology. 3(3-0); I and SS. Prerequisite: Chem. 122 and Zoöl. 105. For graduate students and upperclassmen with the consent of the instructor. At least one hour of Zoöl. 238 must accompany this course. Wimmer.

238. Advanced Physiology Laboratory. 1(0-3) or 2(0-6); I and SS. To be taken concurrently with Zoöl. 237; or with consent of the instructor, one credit hour may be taken concurrently with Zoöl. 130, or by students who have credit in Zoöl. 130. Wimmer. Charge, $3 for one credit hour and $1 for the additional credit hour.

240. Taxonomy of Parasites. 2(1-3); 11 and SS. Prerequisite: Zoöl. 208 or 218. Ackert. Charge, $2.

244. Ornithology. 3(2-3); II, or 2(1-3); SS. Prerequisite: Zoöl. 105. Goodrich. Charge, $2.

246. Comparative Anatomy of Vertebrates. 4(2-6); II. Prerequisite: Zoöl. 105. Herrick. Charge, $3.

247. Endocrinology. 3(3-0); I and SS. Prerequisite: Zoöl. 130 and 219 or 246 and permission of instructor. Herrick.

248. Applied Zoölogy. 3(3-0); I and SS. Prerequisite: Zoöl. 105. Herrick, Harbaugh.
Valuable and destructive animals in relation to mankind.

250. Comparative and Human Neurology. 3(2-3); I. Prerequisite: Zoöl. 105. Herrick. Charge, $2.

FOR GRADUATE CREDIT

301. Research in Zoölogy. Credit to be arranged; I, II, and SS. Prerequisite: consult instructor. Staff.
Research problems in the fields of heredity and experimental evolution, parasitology, cytology, embryology, ecology, physiology, neurology, endocrinology, and protozoölogy.

The Division of Home Economics

Margaret M. Justin, *Dean*

The aim of a collegiate course in home economics is not merely to increase the student's stock of information, but to stimulate interest in continued study or research, to train in accuracy in detail, to teach discrimination with regard to criteria by which to interpret results, and to cultivate an attitude of economic and social responsibility.

The curriculums as outlined below are arranged to meet the needs of those who wish to teach, those who wish to enter graduate courses leading to technical or professional work, and those who wish to apply their knowledge to various problems of home life, or to industry and social service. The training includes the laws of health; an understanding of the sanitary requirements of the home; the study of values of the various articles used in the home; the wise expenditure of money, time, and energy; the scientific principles underlying the selection and preparation of food; the care of children; and the ability to secure efficient service from others. Life in the residence hall, in which the student participates in the numerous duties pertaining to the routine of living, is a sustaining influence in the mastery of instruction offered in the classroom and laboratory, and is desirable for all students not participating otherwise in group life.

The three four-year curriculums in this Division lead to the degree of Bachelor of Science in Home Economics, and a five-and-one-half-year curriculum leads to the degree of Bachelor of Science in Home Economics and Nursing.

CURRICULUM IN HOME ECONOMICS

Since scientific training is fundamental in the administration of the home, courses in the sciences are given as a foundation for the special training in home economics. English, history, economics, and psychology receive due attention. The time of the student is about equally divided among the purely technical subjects, the fundamental sciences, and studies of general interest. In the junior and senior years opportunity for choice of electives makes it possible for students to specialize in some chosen line. There is provision for both options and electives to be chosen in groups approved by the faculty or by the students' dean. This choice of electives will be made during the first semester of the sophomore year.

This curriculum is recommended to those who desire general training in home economics or who have not yet determined the special fields in which they wish to major. It is the curriculum to be chosen by those who wish to teach home economics or to engage in home demonstration work.

CURRICULUM IN HOME ECONOMICS AND ART

The courses in this curriculum give background for professional work in art and for teaching art.

CURRICULUM IN HOME ECONOMICS AND INSTITUTIONAL MANAGEMENT AND DIETETICS

This curriculum is designed to meet the needs of the student who wishes to become a dietitian or director of food services in a college residence hall, cafeteria, tearoom, or hotel. It meets the requirements set by the American Dietetic Association for entrance to accredited hospitals and at the same time provides practical training for the management of the food unit of various

types of institutions. As a part of the training, residence in the college residence hall for one semester is required. Usually after graduation the student serves an apprenticeship in a recommended establishment.

CURRICULUM IN HOME ECONOMICS AND NURSING

The five-and-one-half-year curriculum is offered in affiliation with the University of Kansas hospitals. A student wishing to take the degree of Bachelor of Science and the full professional training in nursing can complete this work in five and one-half years. The first three years are spent in the College. The last two and one-half years are spent in the school of nursing of the hospitals, where theoretical and practical training in nursing is given. Upon completion of the hospital training, the student presents her application for graduation to the registrar of Kansas State College.

The student is approved for the curriculum by the dean of the Division of Home Economics. At some time during her freshman year she must be approved by the superintendent of the school of nursing. Further information may be obtained from the dean of the Division of Home Economics.

Options for Students in the Curriculum in Home Economics

In order that the student's interest and efforts be directed toward the exploration and mastery of some field, instead of being scattered in a casual manner, options of 15 hours, one of which must be filled to meet the requirements of graduation, have been established in the fields of Social Science, Modern Language, Mathematics, Music, Physical Education, Journalism, Physical or Biological Science, and Art. The student selects courses in one of these eight fields with the advice and approval of the dean.

Option I—Social Science: Economics, Sociology, American History, European History, American Government, Economics of the Household, Consumer Buying, and Family Finance. If desired, this option may be adapted to include 12 hours of social science and 3 hours of English.

Option II—Modern Language: German, French, or Spanish. If the student has had one year of language in high school she will be held for 12 additional hours of the same language; if she has had two years of language in high school, she will be held for nine additional hours of the same language. Three of the hours thus released may be used to secure an additional three hours in English.

Option III—Mathematics: Plane Trigonometry, College Algebra, Plane Analytical Geometry, and Calculus I. If she has had only one year of algebra in high school, the student must take the five-hour course, College Algebra A.

Option IV—Music: Piano, Voice, and Orchestral Instruments, two hours each. Other subjects in the Department of Music are Harmony I and II, School Music III, History and Appreciation of Music, and Choral Conducting. Ear Training and Sight Singing I and II may be chosen instead of Harmony I and II. In addition to the above, the student should be enrolled in Choral Ensemble for two or more semesters.

Option V—Physical Education: The student has the required physical education courses in the first two years as a background for the option in this field. Prerequisites for the courses in General Technic included in the option are as follows:

Option	Prerequisite
General Technic IV	Basketball and Baseball
General Technic V	Folk Dancing and Tap Dancing

Other subjects are Principles of Health Education W, Playground Management and Games W, History and Principles of Physical Education, and Teaching and Adaptation of Physical Education.

Option VI—Journalism: Elementary Journalism, Journalism for Women, and Industrial Feature writing are basic courses. In addition, selection may be made from: Industrial Writing, Magazine Features, Principles of Advertising, Radio Writing.

Option VII—Physical or Biological Science: Physics, Chemistry, and Geology, or Botany, Zoölogy, Bacteriology, and Entomology.

Option VIII—Art: Advanced courses in the various fields of Art, such as Design, Interior Decoration, and Costume Design.

A similar procedure is followed in choosing options in the other curriculums in this Division.

CERTIFICATE FOR TEACHING HOME ECONOMICS

The student who, in addition to securing the degree of Bachelor of Science, is desirous of qualifying for the three-year Kansas state teacher's certificate, renewable for life and valid in any high school or other public school in the state, should elect certain courses in the Department of Education and other technical courses which are essential for vocational home economics and desirable for all teaching of home economics. These courses are as follows:

Educational Subjects		Technical Subjects	
Educ. Psychology, Educ. 109	3(3-0)	Child Guidance I, Child Welf. 201,	3(1-6)
Prin. of Secondary Educ., Educ. 236,	3(3-0)	Home Mgmt., Hshld. Econ. 116	3(1-6)
Vocational Educ., Educ. 241	3(3-0)	Adv. Clothing, Clo. and Text. 123	4(1-9)
Methods of Teach. Home Economics, Educ. 132	3(3-0)		
Teach. Particip. in Home Economics, Educ. 160	3(-)		

The State Board for Vocational Education issues certificates of approval for one year only to teachers of Vocational Homemaking, and reserves the right to require individual teachers to return to summer school for further preparation when the need becomes apparent.

HOME ECONOMICS IN THE SUMMER SCHOOL

In addition to the regular instruction in home economics the Division offers numerous courses in the Summer School. These courses apply directly on the curriculum in home economics, or on graduate credit.

Full information concerning the courses offered is contained in the Summer School number of the Kansas State College *Bulletin,* which may be obtained upon application to the vice-president of the College.

Curriculum in Home Economics

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	*3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Chemistry, Chem. 110	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Elementary Design I, Art 101A	2(0-6)	Costume Design I, Art 130	2(0-6)
Foods I, Food and Nutr. 102	5(3-6)*or*	Gen. Psychology, Educ. 184	3(3-0)*and*
Gen. Psychology, Educ. 184	3(3-0)*and*	Personal Health, Child Welf. 101	2(2-0)*or*
Personal Health, Child Welf. 101	2(2-0)	Foods I, Food and Nutr. 102	5(3-6)
H. E. Lectures, Gen. H. E. 130	R(1-0)	H. E. Lectures, Gen. H. E. 130	R
Phys. Educ. W. Phys. Ed. 151A	R(0-3)	Phys. Educ. W, Phys. Ed. 152A	R(0-3)
Total	15	Total	15

SOPHOMORE

First Semester		Second Semester	
English Literature, Engl. 172	3(3-0)	American Literature, Engl. 175	3(3-0)
General Zoölogy, Zoöl. 105	5(3-6)	Embryology, Zoöl. 219	4(3-3)*or*
Elementary Design II, Art 101B	2(0-6)	Physiology, Zoöl. 130	4(3-3)
Foods II, Food and Nutr. 107	3(1-6)*or*	Clothing for the Individual, Clo. and Text. 103	4(1-9)*or*
Clothing for the Individual, Clo. and Text. 103	4(1-9)	Foods II, Food and Nutr. 107	3(1-6)
Economics I, Econ. 101	3(3-0)	Current History, Hist. 126	1(1-0)
H. E. Lectures, Gen. H. E. 130	R	Household Physics,** Phys. 109	4(3-3)
Phys. Educ. W, Phys. Ed. 153	R(0-3)	H. E. Lectures, Gen. H. E. 130	R
Home Projects, Gen. H. E. 140	R	Phys. Educ. W, Phys. Ed. 154	R(0-3)
Total	16 or 17	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Human Nutr., Food and Nutr. 112,	3(3-0)	Textiles, Clo. and Text. 116	3(2-3)
The House, Household Econ. 107	3(2-3)	General Microb., Bact. 101	3(1-6)
Interior Decoration I, Art 113	2(0-6)	Option	3(-)
Option†	6(-)	Elective	6(-)
Elective‡	2(-)	H. E. Lectures, Gen. H. E. 130	R
H. E. Lectures, Gen. H. E. 130	R		
Home Projects, Gen. H. E. 140	R		
Total	16	Total	15

SENIOR

First Semester		Second Semester	
Dietetics, Food and Nutr. 202	4(3-3)	Family Health, Child Welf. 211	3(3-0)
The Family, Child Welf. 216	2(2-0)	Option	3(-)
Option	3(-)	Elective	9(-)
Elective	7(-)	H. E. Lectures, Gen. H. E. 130	R(1-0)
H. E. Lectures, Gen. H. E. 130	R		
Total	16	Total	15

Number of hours required for graduation, 124.

* The number before the parentheses indicates the number of hours of credit; the first number within the parentheses indicates the number of hours of recitation each week; the second shows the number of hours to be spent in laboratory work each week; and the third, where there is one, indicates the number of hours of outside work in connection with the laboratory each week.

** General Physics may be substituted if a student plans to pursue research later.

† See options list on preceding page.

‡ Electives are chosen with the approval of the dean during the sophomore year. They give opportunity for special training in the various fields. If the teaching of Home Economics is elected, certain educational and technical subjects are required as given under "Certificate for Teaching Home Economics."

Curriculum in Home Economics with Special Training in Art

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Chemistry, Chem. 110	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Elementary Design I, Art 101A	2(0-6)	Costume Design I, Art 130	2(0-6)
Foods I, Food and Nutr. 102	5(3-6) *or*	Gen. Psychology, Educ. 184	3(3-0) *and*
Gen. Psychology, Educ. 184	3(3-0) *and*	Personal Health, Child Welf. 101	2(2-0) *or*
Personal Health, Child Welf. 101	2(2-0)	Foods I, Food and Nutr. 102	5(3-6)
H. E. Lectures, Gen. H. E. 130	R(1-0)	H. E. Lectures, Gen. H. E. 130	R
Phys. Educ. W, Phys. Ed. 151A	R(0-3)	Phys. Educ. W, Phys. Ed. 152A	R(0-3)
Total	15	Total	15

SOPHOMORE

First Semester		Second Semester	
English Literature, Engl. 172	3(3-0)	American Literature, Engl. 175	3(3-0)
General Zoölogy,* Zoöl. 105	5(3-6)	Intermediate Design, Art. 103	2(0-6)
Elementary Design II, Art 101B	2(0-6)	Drawing, Art 120	2(0-6)
Clothing for the Individual, Clo. and Text. 103	4(1-9) *or*	Foods II, Food and Nutr. 107	3(1-6) *or*
Foods II, Food and Nutr. 107	3(1-6)	Clothing for the Individual, Clo. and Text. 103	4(1-9)
Ancient Civilizations, Hist. 101	3(3-0)	Extem. Speech I, Pub. Spk. 106	2(2-0)
H. E. Lectures, Gen. H. E. 130	R	Medieval Europe, Hist. 102	3(3-0)
Phys. Educ. W, Phys. Ed. 153	R(0-3)	H. E. Lectures, Gen. H. E. 130	R
Home Projects, Gen. H. E. 140	R	Phys. Educ. W, Phys. Ed. 154	R(0-3)
Total	16 or 17	Total	15 or 16

JUNIOR

First Semester		Second Semester	
Human Nutr., Food and Nutr. 112,	3(3-0) *or*	Costume Design III, Art 138	2(0-6)
Applied Nutr., Food and Nutr. 121,	2(2-0)	Interior Decoration I, Art 113	2(0-6)
Advanced Design, Art 105	2(0-6)	Design in the Crafts, Art 102	2(0-6)
Costume Design II, Art 134	2(0-6)	Art of the S. W. Indians, Art 240,	1(1-0)
Lettering, Art 127	2(0-6)	Option†	6(-)
Textiles, Clo. and Text. 116	3(2-3)	Elective	2(-)
The House, Household Econ. 107	3(2-3)	H. E. Lectures, Gen. H. E. 130	R
Elective**	1 or 2(-)		
H. E. Lectures, Gen. H. E. 130	R		
Home Projects, Gen. H. E. 140	R		
Total	16	Total	15

SENIOR

First Semester		Second Semester	
Child Guidance I. Child Welf. 201,	3(1-6)	Principles of Art II, Art 202	3(3-0)
Principles of Art I, Art 201	3(3-0)	Interior Decoration III, Art 117	2(0-6)
Interior Decoration II, Art 115	2(0-6)	Option	3(-)
Option	3(-)	Elective	7(-)
Elective	5(-)	H. E. Lectures, Gen. H. E. 130	R(1-0)
H. E. Lectures, Gen. H. E. 130	R		
Total	16	Total	15

Number of hours required for graduation, 124.

* General Botany I and II may be taken as an option for General Zoölogy and the necessary adjustment made in providing the required number of hours each semester and in lessening the electives one hour if the option is desired.

** See footnote regarding electives under curriculum in Home Economics.

† See list of options.

Curriculum in Home Economics with Special Training in Institutional Management and Dietetics

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Chemistry, Chem. 110	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Elementary Design I, Art 101A	2(0-6)	Costume Design I, Art 130	2(0-6)
Foods I, Food and Nutr. 102	5(3-6)*or*	Gen. Psychology, Educ. 184	3(3-0)*and*
Gen. Psychology, Educ. 184	3(3-0)*and*	Personal Health, Child Welf. 101	2(2-0)*or*
Personal Health, Child. Welf. 101	2(2-0)	Foods I, Food and Nutr. 102	5(3-6)
H. E. Lectures, Gen. H. E. 130	R(1-0)	H. E. Lectures, Gen. H. E. 130	R
Phys. Educ. W, Phys. Ed. 151A	R(0-3)	Phys. Educ. W, Phys. Ed. 152A	R(0-3)
Total	15	Total	15

SOPHOMORE

First Semester		Second Semester	
English Literature, Engl. 172	3(3-0)	American Literature, Engl. 175	3(3-0)
General Zoölogy, Zoöl. 105	5(3-6)	Physiology, Zoöl. 130	4(3-3)
Current History, Hist. 126	1(1-0)	Foods II, Food and Nutr. 107	3(1-6)
Clothing for the Individual, Clo. and Text. 103	4(1-9)*or*	Household Physics,* Phys. 109	4(3-3)*or*
Household Physics,* Phys. 109	4(3-3)	Clothing for the Individual, Clo. and Text. 103	4(1-9)
Economics I, Econ. 101	3(3-0)	Interior Decoration I, Art 113	2(0-6)
H. E. Lectures, Gen. H. E. 130	R	H. E. Lectures, Gen. H. E. 130	R
Phys. Educ. W, Phys. Ed. 153	R(0-3)	Phys. Educ. W, Phys. Ed. 154	R(0-3)
Home Projects, Gen. H. E. 140	R		
Total	16	Total	16

JUNIOR

First Semester		Second Semester	
Human Nutr., Food and Nutr. 112,	3(3-0)	Physiol. Chemistry, Chem. 231	5(3-6)
Sociology, Econ. 151	3(3-0)	Inst. Mgmt. I, Inst. Mgmt. 202	4(1-9)
General Micro., Bact. 101	3(1-6)	Inst. Food Buying, Inst. Mgmt. 215,	2(2-0)
Meats HE, An Husb. 176	1(0-3)	Inst. Furnishings and Equipment, Inst. Mgmt. 230	2(2-0)
Elective†	6(-)	Elective†	3(-)
H. E. Lectures, Gen. H. E. 130	R	H. E. Lectures, Gen. H. E. 130	R
Home Projects, Gen. H. E. 140	R		
Total	16	Total	16

SENIOR

First Semester		Second Semester	
Dietetics, Food and Nutr. 202	4(3-3)	Child Guidance I, Child Welf. 201,	3(1-6)
Meth. of Teaching H. E., Educ. 132	3(3-0)	Dietetics for Abn. Conditions, Food and Nutr. 205	2(1-3)
Exper. Cookery, Food and Nutr. 255	2(0-6)	Tea Room Mgmt., Inst. Mgmt. 225,	3(0-9)*or*
Inst. Mgmt. II, Inst. Mgmt. 204,	3(3-0)	Field Work in Nutr., Food and Nutr. 215	3(2-3)
Elective†	2(-)	Food Econ. and Nutr. Seminar, Food and Nutr. 251	2(2-0)
H. E. Lectures, Gen. H. E. 130	R	Inst. Accounting, Econ. 284	2(2-0)
		Elective†	4(-)
		H. E. Lectures, Gen. H. E. 130	R
Total	14	Total	16

Number of hours required for graduation, 124.

* See footnote regarding Household Physics under curriculum in Home Economics.
† See footnote regarding electives under curriculum in Home Economics.

Curriculum in Home Economics and Nursing

FRESHMAN

First Semester		Second Semester	
College Rhetoric I, Engl. 101	3(3-0)	College Rhetoric II, Engl. 104	3(3-0)
Gen. Chemistry, Chem. 110	5(3-6)	Gen. Organic Chemistry, Chem. 122,	5(3-6)
Foods I, Food and Nutr. 102	5(3-6)	Gen. Psychology, Educ. 184	3(3-0)
Option*	3(-)	Personal Health, Child Welf. 101	2(2-0)
H. E. Lectures, Gen. H. E. 130	R(1-0)	Option*	3(-)
Phys. Educ. W, Phys. Ed. 151A	R(0-3)	H. E. Lectures, Gen. H. E. 130	R
		Phys. Educ. W, Phys. Ed. 152A	R(0-3)
Total	16	Total	16

SOPHOMORE

First Semester		Second Semester	
English Literature, Engl. 172	3(3-0)	American Literature, Engl. 175	3(3-0)
General Zoölogy, Zoöl. 105	5(3-6)	Physiology, Zoöl. 130	4(3-3)
Foods II, Food and Nutr. 107	3(1-6)	Gen. Microbiology, Bact. 101	3(1-6)
Current History, Hist. 126	1(1-0)	Abn. Psychology, Educ. 254	3(3-0)
Option*	3(-)	Economics I, Econ. 101	3(3-0)
H. E. Lectures, Gen. H. E. 130	R	H. E. Lectures, Gen. H. E. 130	R
Phys. Educ. W, Phys. Ed. 153	R(0-3)	Phys. Educ. W, Phys. Ed. 154	R(0-3)
Home Projects, Gen. H. E. 140	R		
Total	15	Total	16

JUNIOR

First Semester		Second Semester	
Human Anatomy, Zoöl. 123A	5(3-6)	Child Guidance I, Child Welf. 201,	3(1-6)
Physiol. Chemistry, Chem. 231	5(3-6)	Extem. Speech I, Pub. Spk. 106	2(2-0)
Dietetics, Food and Nutr. 202	4(3-3)	The Family, Child Welf. 216	2(2-0)
H. E. Lectures, Gen. H. E. 130	R	Sociology, Econ. 151	3(3-0)
Elective**	1(-)	Elective**	5(-)
		H. E. Lectures, Gen. H. E. 130	R(1-0)
Total	15	Total	15

SENIOR

(Replaced by two and one-half years at University of Kansas Hospitals)

(Equivalent to 31 college hours)

Theoretical and practical work during the time includes:

First Year	Second Year
History and Ethics of Nursing.	Surgery and Surgical Nursing and Bandaging.
Hospital Economics.	Obstetrics and Gynecology.
Nursing Methods.	Pediatrics.
Medical Nursing.	Diseases of Eye, Ear, Nose and Throat.
Communicable Diseases.	Nervous and Mental Diseases.
Special Therapeutics and Massage.	Materia Medica.
	Problems in Nursing.

Number of hours required for graduation, 124.

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* See list of options.

** See footnote regarding electives under curriculum in Home Economics.

Groups of Electives for Students in the Division of Home Economics

The groups given below are selected with a view to training students for the vocations in which home economics may be directly applied.

A sufficient number of hours may be chosen from any group to fill the elective requirement, or a smaller number of hours may be taken from a group and, for the remaining elective hours, advanced courses of related subject matter may be chosen.

Music may be added to any group, in a minimum of six hours.

Child Care and Training

Sociology, Econ. 151	3(3-0)
Social Pathology, Econ. 258	3(3-0)
The Family, Child Wel. 216	2(2-0)
Field Work in Nutr., Food and Nutr. 215	3(2-3)
Heredity and Eugenics, Zoöl. 216	2(2-0)
Child Guidance I, Child Welf. 201,	3(1-6)
Seminar in Child Welfare and Euthenics, Child Welf. 226	1 or 2
The Tech. of Mental Tests, Educ. 261	3(1-6)
History of the Home, Hist. 225	3(3-0)
Psyc. of Childhood and Adolescence, Educ. 250	3(3-0)
Child Guidance II, Child Welf. 206,	3(3-0)
Problems in Child Welfare and Euthenics, Child Welf. 221	1 to 5
Nutr. of Dev., Food and Nutr. 210,	2(2-0)
Family Health, Child Welf. 211	3(3-0)
Psyc. of Excep. Children, Educ. 266,	3(3-0)

Costume Design

Hist. of Costume, Clo. and Text. 225	2(2-0)
Adv. Clothing, Clo. and Text. 123,	4(1-9)
Historic Textile Design, Art 233	2(2-0)
Clothing Econ., Clo. and Text. 201,	3(3-0)
Costume Illustration, Art 139	2(0-6)
Problems in Costume Design, Art 235	2(0-6)
Oral English, Engl. 232	3(3-0)
Journalistic Vocations, Ind. Jour. 140	2(2-0)
Elem. Journalism, Ind. Jour. 152	3(3-0)
Industrial Writing, Ind. Jour. 161,	2(2-0)
Ind. Feature Writing, Ind. Jour. 167,	2(2-0)
Radio Writing, Ind. Jour. 162	2(2-0)
Sociology, Econ. 151	3(3-0)
Modern Europe I, Hist. 115	3(3-0)

Interior Decoration

Domestic Architecture, Arch. 124	2(2-0)
The Family, Child Welf. 216	2(2-0)
Historic Textile Design, Art 233	2(2-0)
Landscape Gardening I, Hort. 125,	3(3-0)
Problems in Design, Art 217	2(0-6)
Problems in Interior Dec., Art 232,	4(0-12)
Oral English, Engl. 232	3(3-0)
Journalistic Vocations, Ind. Jour. 140	2(2-0)
Elem. Journalism, Ind. Jour. 152	3(3-0)
Industrial Writing, Ind. Jour. 161,	2(2-0)
Ind. Feature Writing, Ind. Jour. 167	2(2-0)
Radio Writing, Ind. Jour. 162	2(2-0)
Sociology, Econ. 151	3(3-0)
Modern Europe I, Hist. 115	3(3-0)

Home Service and Food Demonstration Work

Extem. Speech I, Pub. Spk. 106	2(2-0)
Radio Spk. and Announcing, Pub. Spk. 160	2(1-3)
Radio Program Partic., Pub. Spk. 168	1(1-1)
Oral English, Engl. 232	3(3-0)
Magazine Features, Ind Jour. 270,	2(2-0)
Journalism for Women, Ind. Jour. 172	2(2-0)
Field Work in Nutr., Food and Nutr. 215	3(2-3)
Inst. Mgmt. I, Inst. Mgmt. 202	4(1-9)
Meth. of Teaching H. E., Educ. 132,	3(3-0)
The House, Hshld. Econ. 107	3(2-3)
Elem. Journalism, Ind Jour. 152	3(3-0)
Industrial Writing, Ind. Jour. 161,	2(2-0)
Sociology, Econ. 151	3(3-0)
Meats, H. E., An. Husb. 176	1(0-3)
Exp. Cookery, Food and Nutr. 255,	2(0-6)
Problems in Foods, Food and Nutr. 245	1(-)
Home Mgmt., Hshld. Econ. 116	3(1-6)
Consumer Buying, Hshld. Econ. 270,	2(2-0)
Hshld. Equipment I, Hshld. Econ. 203	2(0-6)
Hshld. Equipment II, Hshld. Econ. 205	2(0-6)

Research in Nutrition

Pathogenic Bact. I, Bact. 111	4(2-6)	Quant. Anal. B, Chem. 251	3(1-6)
Pathogenic Bact. II, Bact. 116	4(2-6)	Plane Trig., Math. 101	3(3-0)
Bact. Technic, Bact. 225	3(0-9)	Col. Alg., Math. 104	3(3-0)
Chem. I, Chem. 101	5(3-6)	Plane Analytical Geom., Math. 110,	4(4-0)
Org. Chem. I, Chem. 218	4(2-6)	Calculus I, Math. 114	4(4-0)
Org. Chem. II, Chem. 219	4(2-6)	Calculus II, Math. 115	4(4-0)
Physiol. Chem., Chem. 231	5(3-6)	German I, Mod. Lang. 101	3(3-0)
Biochem. Analysis, Chem. 237	2(0-6)	German II, Mod. Lang. 102	3(3-0)
Quant. Anal. A, Chem. 250	3(1-6)	Scientific German, Mod. Lang. 137,	4(4-0)

Biological Technician

Hygienic Bact., Bact. 206	4(2-6)	Quant. Anal. A, Chem. 250	3(1-6)
Advanced Serology, Bact. 229	5(3-6)	Quant. Anal. B, Chem. 251	3(1-6)
Physiol. of Microörganisms, Bact. 222	3(3-0)	Physiol., Zoöl. 130	4(3-3) *or*
Bact. Tech., Bact. 225	3(0-9)	Embryol., Zoöl. 219	4(3-3)
Physiol. Chem., Chem. 231	5(3-6)	Human Parasitol., Zoöl. 218	3(3-0)
Biochem. Prep., Chem. 234	2 to 5	Comparative Anatomy of Vert., Zoöl. 246	4(2-6)
Pathological Chem., Chem. 235	2(2-0)	Special Histology, Path. 252	3(1-6)
Biochem. Analysis, Chem. 237	2(0-6)		

Homemaking

Child Guidance I, Child Welf. 201,	3(1-6)	Child Guidance II, Child Welf. 206,	3(3-0)
The Family, Child Welf. 216	2(2-0)	Principles of Art I, Art 124	3(3-0)
Sociology, Econ. 151	3(3-0)	Adv. Clothing, Clo. and Text. 123,	4(1-9)
Com. Organization, Econ. 267	3(3-0)	Meats HE, An. Husb. 176	1(0-3)
Problems in Foods, Food and Nutr. 310	1 to 3	Hist. of Engl. Literature, Engl. 181,	3(3-0)
Home Mgmt., Household Econ. 116,	3(1-6)	Psyc. of Childhood and Adolescence, Educ. 250	3(3-0)
World Classics I, Engl. 280	3(3-0)	Econ. Prob. of the Family, Hshld. Econ. 265	2(2-0)
Nutr. of Dev., Food and Nutr. 210,	2(2-0)		
Family Health, Child Welf. 211	3(3-0)		

Social and Welfare Work

Child Guidance I, Child Welf. 201,	3(1-6)	Child Guidance II, Child Welf. 206,	3(3-0)
Sociology, Econ. 151	3(3-0)	Labor Problems, Econ. 233	2(2-0)
Com. Organization, Econ. 267	3(3-0)	Rural Sociology, Econ. 156	3(3-0)
Field Work in Nutrition, Food and Nutr. 215	3(2-3)	Social Pathology, Econ. 258	3(3-0)
Family Health, Child Welf. 211	3(3-0)	Modern Europe II, Hist. 223	3(3-0)
Econ. Prob. of the Family, Hshld. Econ. 265	2(2-0)	Immi. and Int. Rel., Hist. 228	2(2-0)
		Probs. in Child Welfare and Euthenics, Child Welf. 221	1 to 5

Textiles

College Algebra, Math. 104	3(3-0)	Physical Chemistry I, Chem. 206,	5(3-6)
General Physics I, Phys. 102	4(3-3)	Qual. Organ. Analysis, Chem. 224	2(0-6)
General Physics II, Phys. 103	4(3-3)	Probs. in Clo. and Text, Clo. and Text. 215	1 to 3
Plane Trigonometry, Math. 101	3(3-0)	Human Physiology, Zoöl. 235	4(3-3)
Clothing Econ., Clo. and Text. 201,	3(3-0)	Statis. Meth. Ap. to Educ., Educ. 223	3(3-0)
Experi. Textiles, Clo. and Text. 312,	2 to 5	Bact. Problems, Bact. 270	1 to 4
Plane Analytical Geom., Math. 110,	4(4-0)	Adv. Textiles, Clo. and Text. 205,	3(1-6)
Calculus I, Math. 114	4(4-0)		
Calculus II, Math. 115	4(4-0)		

Teaching Home Economics

See "Certificate for Teaching Home Economics."

Art

Professor Barfoot
Associate Professor Everhardy
Assistant Professor Harris
Assistant Professor Morris
Assistant Professor Darst
Instructor Stalder
Instructor Holland
Instructor Kedzie

The curriculum in art is designed to provide a background for homemaking or other professional work. Depending upon their interests, the students may specialize in design, interior decoration, costume design, or teaching of art.

COURSES IN ART

FOR UNDERGRADUATE CREDIT

101A. Elementary Design I. 2(0-6)*; I, II, and SS. Staff.
A fundamental course in color and form and the application of their principles to daily living. Charge, $1; deposit, 25 cents.†

101B. Elementary Design II. 2(0-6); I, II, and SS. Prerequisite: Art 101A. Staff.
A continuation of Art 101A, incorporating a unit in history and appreciation of art. Charge, $1; deposit, 25 cents.

102. Design in the Crafts. 2(0-6); I, II, and SS. Prerequisite: Art 101A. Staff.
An application of design principles to various technical processes, as book binding, block printing, carving, decorative stitchery, leatherwork, modeling, metalwork, and weaving. Projects selected from this group will make up a semester's work. Charge, $1.50; deposit, 25 cents.

103. Intermediate Design. 2(0-6); I, II, and SS. Prerequisite: Art 101B. Staff.
A continuation of Art 101B, with special emphasis on color possibilities and different design media. Charge, $1; deposit, 25 cents.

105. Advanced Design. 2(0-6); I and II. Prerequisite: Art 103. Barfoot, Everhardy, Morris.
A continuation of Art 103, with emphasis on art structure. Charge, $1; deposit, 25 cents.

113. Interior Decoration I. 2(0-6); I, II, and SS. Prerequisite: Art 101B. Staff.
The decoration and furnishing of the modern dwelling. Charge, $1; deposit, 25 cents.

115. Interior Decoration II. 2(0-6); I. Prerequisite: Art 113. Staff.
A continuation of Art 113, with attention paid especially to the interplay between modern culture and art expression as shown in interior decoration. Charge, $1; deposit, 25 cents.

117. Interior Decoration III. 2(0-6); II. Prerequisite: Art 115. Harris, Morris, Darst.
A continuation of Art 115, including a study of house types, furniture, and fabric styles. Charge, $1; deposit, 25 cents.

120. Drawing. 2(0-6); I and II. Prerequisite: Art 101B. Staff.
Representative sketching, decorative illustrating, and creative designing in which a variety of media and technique is employed. Charge, $2; deposit, 25 cents.

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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 required each week. I, II, and SS indicate that the course is given the first semester, second semester, and summer school, respectively.

† Only one key deposit is made in a given semester, regardless of the number of art courses taken.

127. Lettering. 2(0-6); I, II, and SS. Prerequisite: Art 101B. Harris, Morris, Darst.
Creative design in the field of lettering in relation to historic and natural forms. Charge, $1; deposit, 25 cents.

130. Costume Design I. 2(0-6); I, II, and SS. Prerequisite: Art 101A. Staff.
Line, form, color, texture in costume design and selection as related to the requirements of the individual. This course is a design basis for garment selection and construction. Charge, $1; deposit, 25 cents.

134. Costume Design II. 2(0-6); I and II. Prerequisite: Art 130. Staff.
A continuation of Art 130, with review and application of the principles of art in modern costume in relation to the human figure as the structural basis for costume. Charge, $1; deposit, 25 cents.

138. Costume Design III. 2(0-6); I and II. Prerequisite: Art 134. Staff.
A continuation of Art 134, dealing with the relation between the historic background and fabric and costume design. Charge, $1; deposit, 25 cents.

139. Costume Illustration. 2(0-6); I or II. Prerequisite: Art 101B and 130. Staff.
Costume figures for fashion illustration rendered in various media suitable for reproduction. Charge, $2; deposit 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Principles of Art I. 3(3-0); I. Prerequisite: Art 101B. Barfoot, Harris, Morris.
The culture of various peoples and their homes as shown by their use of color, line, and form in architecture, sculpture, and painting.

202. Principles of Art II. 3(3-0); II. Prerequisite: Art 201. Barfoot, Harris, Morris.
A continuation of Art 201, dealing particularly with home crafts and minor arts.

217. Problems in Design. Credit to be arranged; I and II. Prerequisite: Eight hours in art or permission of instructor. Staff.
Problems in design planned to meet the particular needs of the student. Charge, $1; deposit, 25 cents.

230. Problems in Teaching Art. Credit to be arranged; I, II, or SS. Prerequisite: Art 101B and Educ. 132 or its equivalent. Barfoot, Everhardy.
For the high-school teacher who is correlating art with home economics, particularly for the teacher of art connected with vocational training. Lectures and class discussions of methods, consideration of suitable laboratory equipment, use of illustrative material, and preparation of courses of study. Charge, $1; deposit, 25 cents.

232. Problems in Interior Decoration. Credit to be arranged; I and II. Prerequisite: Art 117 or permission of instructor. Harris, Morris, Darst.
Problems planned with the student to meet her particular needs. Charge, $1; deposit, 25 cents.

233. Historic Textile Design. 2(2-0); I, II, or SS. Prerequisite: Art 101B and Clo. and Text. 116. Staff.
Design employed in fabrics in each of the great art periods.

235. Problems in Costume Design. Credit to be arranged; I and II. Prerequisite: Eight hours in art or permission of instructor. Staff.
Problems planned with the student to meet her particular needs. Charge, $1; deposit, 25 cents.

240. Art of the Southwest Indians. 1(1-0); I, II, and SS. Prerequisite: Art 101A. Everhardy.

Discussions of the origin and development of the decorative arts and ceremonials of the Southwest area from prehistoric times to the present. Deposit, 25 cents.

FOR GRADUATE CREDIT

302. Advanced Costume Design. Credit to be arranged. I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which may form the basis for the master's thesis. Charge to be arranged with instructor.

304. Advanced Interior Decoration. Credit to be arranged. I, II, and SS. Prerequisite: Consult instructors. Staff.

Individual research problems which may form the basis for the master's thesis. Charge to be arranged with instructor.

Child Welfare and Euthenics

Professor ————
Associate Professor Kell
Assistant Professor Williams
Assistant Professor Raffington
Instructor Dales
Instructor Lister
Graduate Assistant Keim
Graduate Assistant Burton
Graduate Assistant Aschmann

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.

COURSES IN CHILD WELFARE AND EUTHENICS

FOR UNDERGRADUATE CREDIT

101. Personal Health. 2(2-0); I, II, and SS. Williams, Raffington. Charge, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Child Guidance I. 3(1-6); I, II, and SS. Prerequisite: Educ. 184 and Child Welf. 101 or its equivalent. Staff.

Laboratory.—Directed observation and assisting in the nursery school. Charge, $1. Additional charge for lunches, $2.

206. Child Guidance II. 3(3-0); II. Prerequisite: Child Welf. 201. Kell.

211. Family Health. 3(3-0); I, II, and SS. Prerequisite: Junior standing and Educ. 184; Zoöl. 105 or 130; Child Welf. 101 or its equivalent. Williams. Charge, 50 cents.

216. The Family. 2(2-0) I, II, and SS. Prerequisite: Educ. 184 and junior standing. Charge, 50 cents.

221. Problems in Child Welfare and Euthenics. Credit to be arranged; I, II, and SS. Prerequisite: Child Welf. 201; consult instructors. Staff.

226. Seminar in Child Welfare and Euthenics. 1 to 2 hours; II. Prerequisite: Child Welf. 201. Kell.

231. Parent Guidance. 3(3-0); II. Prerequisite or concurrent: Child Welf. 206 and 216. Kell. Charge, $1.

FOR GRADUATE CREDIT

301. Research in Child Welfare and Euthenics. Credit to be arranged: I, II, and SS. Prerequisite: Consult instructors. Kell, Williams.

Clothing and Textiles

Professor Latzke
Associate Professor Cowles
Associate Professor Hess
Assistant Professor Cormany
Assistant Professor Fletcher
Instructor Howe
Instructor Manchester
Instructor Stotts

The department offers courses designed to furnish essential knowledge for the selection of clothing and household fabrics. Design principles and the technique of garment construction are presented. Advanced courses are offered for students who wish to prepare for vocational, professional, and business positions such as college teachers, research workers, textile chemists, clothing consultants, purchasing agents for institutions and department stores, and extension workers.

COURSES IN CLOTHING AND TEXTILES

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 high school work to enter Clo. and Text. 103. Charge, $1; deposit, 25 cents.

103. Clothing for the Individual. 4(1-9); I, II, and SS. Prerequisite: One semester of clothing in high school or its equivalent and Art. 130. Staff.
Application of design principles to dress; budgeting and buying procedures.
Laboratory.—Development of foundation pattern; flat pattern designing; construction of wool or silk garment. Charge, $2.50; deposit, 25 cents.

110. Clothing Selection. 2(2-0); I and II. Latzke, Cowles.
Selection of clothing with self-analysis as a basis; budgeting, buying procedures. Designed for students not majoring in home economics, or those not planning to take Clo. and Text. 103.

112. Textile Selection and Care. 2(2-0); I or II and SS. Hess, Cormany.
Factors which influence service qualities of common textile fabrics. Designed for students not required to take Clo. and Text. 116.

116. Textiles. 3(2-3); I, II, and SS. Prerequisite: Chem. 122; Phys. 101 recommended. Hess, Fletcher.
Fundamentals of textiles as related to the problems of the consumer.
Laboratory.—Fabrics for specific uses; identification of fibers; simple fabric analysis; the effect on fabrics of various methods of cleaning. Charge, $2; deposit, 25 cents.

123. Advanced Clothing. 4(1-9); I, II, and SS. Prerequisite: Clo. and Text. 103. Open to juniors and seniors. Cowles, Cormany, Latzke.
Social significance of fashion.
Laboratory.—Designs draped in cotton and then in silk or wool. Charge, $3; deposit, 25 cents.

FOR GRADUATE AND UNDERGRADUATE CREDIT

201. Clothing Economics. 3(3-0); I or II, and SS. Prerequisite: Clo. and Text. 103 and 116 and Econ. 101. Latzke.
The organization of textile industries and markets; consumer problems in relation to market conditions; standardization of clothing and textiles.

205. Advanced Textiles. 3(1-6); I or II, and SS. Prerequisite: Clo. and Text. 116. Hess, Fletcher.
Physical, chemical, and optical testing of textiles.
Laboratory.—Emphasis placed on research technique. Charge, $3; deposit, 25 cents.

215. Problems in Clothing and Textiles. Credit to be arranged; I, II, and SS. Prerequisite: Senior or graduate standing; consult instructors. Staff.
An assigned problem in clothing or textiles. Charge to be arranged with instructor.

225. History of Costume. 2(2-0); II. Prerequisite: Hist. 101 or equivalent. Cowles.

FOR GRADUATE CREDIT

301. Research in Clothing and Textiles. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing; consult instructors. Latzke, Hess, Fletcher.
Individual research in clothing or in textiles which may form the basis for the master's thesis. Charge to be arranged with instructor.

304. Clothing and Textiles Seminar. 1(1-0); II, and SS. Prerequisite: Graduate standing. Staff.
Assigned readings and discussion of current developments in the field.

312. Experimental Textiles. 2 to 5 hours; I, II, and SS. Prerequisite: Clo. and Text. 205. Hess, Fletcher. Charge to be arranged with instructor.

Food Economics and Nutrition

Professor Pittman
Professor Kramer
Associate Professor Vail
Assistant Professor McMillan
Assistant Professor Browning
Assistant Professor Nutter
Instructor Kunerth
Instructor Meyer
Instructor Mullen
Instructor Forney
Instructor Meiller
Instructor Stewart
Instructor Saffry
Technician Cedarquist

Selection, preservation, preparation, and service of food suited to individual requirements involve the application of principles of chemistry, physics, bacteriology, physiology, economics, and art. Courses in these subjects are required and some are prerequisite to courses offered in this department.
Training is provided for teachers of foods, dietitians, and commercial, extension, and research workers.

COURSES IN FOOD ECONOMICS AND NUTRITION

FOR UNDERGRADUATE CREDIT

102. Foods I. 5(3-6); I, II, and SS. Staff.
Elementary nutrition and food economics. Practice in food preparation and meal service. Charge, $5; deposit, $1.

107. Foods II. 3(1-6); I and II. Prerequisite. Chem. 122 and Food and Nutr. 102 or equivalent. Staff.
Chemical and physical properties of food related to preparation and preservation. Charge, $4; deposit, $1.

112. Human Nutrition. 3(3 0); I and II. Prerequisite: Food and Nutr. 107 and Zoöl. 219 or 130.‡ Kramer, Kunerth, Nutter.
Chemistry of food and nutrition, emphasizing food nutrients, digestion, and metabolism.

121. Applied Nutrition. 2(2-0); I and II. Prerequisite: Chem. 122 or permission of instructor. Pittman, Forney.
Practical nutrition, including food requirements, food selection and food habits. For men and women students not majoring in home economics.

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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.

176. Meats HE. 1(0-3); I and II.
See Department of Animal Husbandry, Division of Agriculture, An. Husb. 176.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Dietetics. 4(3-3); I, II, and SS. Prerequisite: Food and Nutr. 112. Pittman, Meiller, Mullen.
Food requirements in health during infancy, childhood, adolescence, adult life, and old age. Principles of human nutrition applied to adequate diets at different cost levels.

Laboratory.—Calorie, protein, mineral, and vitamin values; shares; diets for infants, children, and adults. Charge, $4.50; deposit, $1.

205. Dietetics for Abnormal Conditions. 2(1-3); I and II. Prerequisite: Food and Nutr. 202. Kramer, Meiller.
Dietetic requirements in pathological and abnormal conditions. (For students who expect to qualify as professional dietitians.)

Laboratory.—Demonstration of special foods used in such conditions, preparation of trays, computation of dietaries, consideration of costs. Charge, $1; deposit, $1.

210. Nutrition of Development. 2(2-0); II. Prerequisite: Food and Nutr. 202. Pittman.
Nutrition in pregnancy and lactation. Food requirements of fetus, infant, pre-school child, and school child through adolescence.

215. Field Work in Nutrition. 3(2-3); I and II. Prerequisite: Food and Nutr. 202. Browning, Mullen.
Survey of field of child nutrition, field work with school children, special work with malnourished and normal individuals. Charge to be arranged with instructor.

245. Problems in Foods. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.
Problems dealing with preparation, preservation, and storage of food. Charge to be arranged with instructor.

248. Problems in Food Economics and Nutrition. Credit to be arranged. I, II, and SS. Prerequisite: Senior or graduate standing. Staff.
Problems dealing with the nutritive value of foods; feeding experiments; dietary studies, practice in methods commonly used in simpler experiments in nutrition. Charge to be arranged with instructor.

251. Food Economics and Nutrition Seminar. 1 to 2 hours a semester; maximum, 4 credits; I, II, and SS. Prerequisite: Food and Nutr. 112, Kramer, Pittman, Kunerth.
Individual reports and discussion of topics in fields of food economics and nutrition. Special attention to recent literature. Charge, $1.

255. Experimental Cookery. 2(1-3); I and II. Prerequisite or concurrent: Food and Nutr. 202. Vail, McMillan, Browning.
Food preparation from experimental standpoint. Charge, $1 to $3; deposit, $1.

FOR GRADUATE CREDIT

305. Research in Food Economics and Nutrition. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.
Individual research problems which may form the basis for the master's thesis. Charge to be arranged with instructor.

306. Animal Nutrition Seminar. 1(1-0) per year; I and II. Prerequisite: Senior or graduate standing. Pittman, Kramer.
Reports of experiments in nutrition, discussion of methods, and validity of conclusions.

General Home Economics

Dean Justin
Assistant Dean McMillan
Assistant Professor Raffington
Assistant Barnes
Assistant Bare

COURSES IN GENERAL HOME ECONOMICS

FOR UNDERGRADUATE CREDIT

130. Home Economics Lectures. R(meetings by appointment). Staff, department heads of the Division, professors of subject-matter departments, students, and invited speakers. Charge, 75 cents.

Freshmen meet weekly during the fall semester. The purpose of these meetings is: (1) the orientation of the student to her college environment; (2) the development of the ability to study; (3) guidance in choice of one of the several fields of home economics for her profession.

Seniors meet weekly during the spring semester. The opportunities and responsibilities of the home economist are presented, and means for professional growth and personal advancement of the trained woman are stressed.

All students in the division meet in a general seminar four times a semester, usually the third Thursday of each month. Discussion of general questions in the field of home economics and of home economics student affairs. Programs presented by speakers from outside, faculty members, and students. As far as possible, the course serves as an introduction to the professional aspect of home economics. The Home Economics Club is used as a means of expression and experience. In the fall (for the freshmen) and in the spring (for the seniors) this general meeting will take the place of the meetings of their respective groups.

135. Guidance of Freshmen. 1(1-0); I. Prerequisite: Junior or senior standing or special permission from the dean. Application for enrollment in this class must be made the preceding spring semester. Dean's staff, Division of Home Economics, and others.

Instruction in counseling techniques employed in freshman orientation in the Division of Home Economics.

140. Home Projects. R(meetings by appointment). Each student must complete a minimum of two home projects at least one semester before graduation, except that students in Home Economics and Nursing and those transferring from other colleges and divisions during their junior or senior years need to complete only one. Bare.

COURSES IN HOME ECONOMICS EDUCATION*

Professor Rust — Assistant Professor Baxter

FOR UNDERGRADUATE CREDIT

132. Methods of Teaching Home Economics. 3(3-0); I, II, and SS. Rust, Baxter.

See Department of Education, Division of General Science.

160. Teaching Participation in Home Economics. 3(-); I, II, and SS. By appointment. Rust, Baxter.

See Department of Education, Division of General Science.

FOR GRADUATE AND UNDERGRADUATE CREDIT

232. Teaching Subjects Related to Home Economics. 1 to 3 hours; I, II, and SS. Prerequisite: Educ. 184 and 132. Rust.

See Department of Education, Division of General Science.

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* The six courses named here are given by the Department of Education for the Division of Home Economics. Professor Rust and Assistant Professor Baxter are appointed coöperatively by that department and the Division of Home Economics.

FOR GRADUATE CREDIT

313. Research in Organization and Presentation of Home Economics. Credit to be arranged; I, II, and SS. Prerequisite: Graduate standing and confirmation of Division of Home Economics. Justin, Rust.
See Department of Education, Division of General Science.

314. Problems in Organization and Presentation of Home Economics. Credit to be arranged; I, II, and SS. Prerequisite: Senior or graduate standing. Justin, Rust.
See Department of Education, Division of General Science.

315. Supervision in Home Economics. 2 hours; I, II, and SS. Prerequisite: Educ. 160 and experience in teaching home economics. Rust.
See Department of Education, Division of General Science.

316.* Seminar in Home Economics Education. 3(3-0); II, SS. Prerequisite: Educ. 160 and experience in teaching Home Economics. Rust and visiting instructors.
See Department of Education, Division of General Science.

Household Economics

Professor Lindquist
Associate Profesor Gunselman
Assistant Professor Agan
Instructor McKinney
Graduate Assistant Ellithorpe
Graduate Assistant Walbert
Graduate Research Assistant Sloan

Through the courses in this department an opportunity is offered for studying the effect of social and economic forces on the home and its management. The phases presented for study include housing, home management, equipment, and economic problems of the household. Graduate students preparing to become directors of home management houses, specialists and advisers in home management, teachers, homemakers, or research workers in this field find suitable courses in this department.

COURSES IN HOUSEHOLD ECONOMICS

FOR UNDERGRADUATE CREDIT

107. The House. 3(2-3); I, II, and SS. Prerequisite: Food and Nutr. 102; Phys. 109 recommended. Agan, McKinney, Ellithorpe.
Criteria for judging the adequacy of certain types of dwellings in meeting the housing needs of the family; management of time, effort, and income as affected by the house chosen; selection of household furnishings and equipment.

Laboratory.—Selection, care, and operation of certain equipment for the home. Charge, $1.

116. Home Management. 3(1-6); I, II, and SS. Prerequisite: Senior standing. Lindquist, McKinney, Walbert.
Application of basic courses in home economics to the management of a home.

Laboratory.—Residence is required in the home-management houses for a period of six weeks.

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. Household Equipment I. 2(0-6); I, II, and SS. Prerequisite: Phys, 109. Agan.
Selection, care, construction, operation, use, and repair of various pieces of equipment used in the home. Charge, $2.50.

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* Effective May 31, 1939.

205. Household Equipment II. 2(0-6); II. Prerequisite: Hshld. Econ. 203. Agan.
Selection, care, construction, operation, and methods of testing mechanical, electrical, and heating equipment. Charge, $2.50.

238. Problems in Household Equipment. Credit to be arranged; I, II, and SS. Prerequisite: Hshld. Econ. 203. Agan.
Special problems in selection, care, operation, or testing of household equipment. Charge to be arranged with instructor.

243. Problems in Household Economics. Credit to be arranged; I, II, and SS. Prerequisite: Consult instructors. Staff.
Special problems for individual investigation in standards of living and family expenditures; housing; organization and methods of housework; use of family resources.

263. Family Finance. 2(2-0); I, II, and SS. Prerequisite: Econ. 101. Gunselman, McKinney.
Economic problems involved in the efficient management of the family's financial resources.

265. Economic Problems of the Family. 2(2-0); II, and SS. Prerequisite: Econ. 101. Lindquist, Gunselman.
Problems of household production and of earning and spending the money income; factors determining the purchasing power of the "dollar of the home."

270. Consumer Buying. 2(2-0); 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.

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.

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* Effective May 31, 1939.

Institutional Management

Professor West
Assistant Professor Wood
Instructor James
Instructor Fowler
Instructor Morrison
Assistant Price
Graduate Assistant Hadden
Graduate Assistant Osbourn

Courses in this department provide training for cafeteria, tearoom, and lunchroom managers, dietitians, and directors of residence halls.

COURSES IN INSTITUTIONAL MANAGEMENT

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Institutional Management I. 4(1-9); I, II, and SS. Prerequisite: Food and Nutr. 107. Morrison.
Food problems of institutions, including preparation and serving of food in large quantities, menu planning, and food costs.

Laboratory.—Carried on in College cafeteria where food is prepared and served in large quantities. Charge, $2.50.

204. Institutional Management II . 3(3-0); I, II, and SS. Prerequisite (or concurrent for graduate students): Inst. Mgmt. 202. 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 parallel: Inst. Mgmt. 204; consult instructor. Staff.
Individual investigation of problems in institutional management. Conferences and reports at appointed hours.

215. Institutional Food Buying. 2(2-0); I and II. Prerequisite: Inst Mgmt. 202. James.
Producing areas; distribution of food products; methods of purchasing food in large quantities.

218. School Lunchroom Management. 2(1-3); II and SS. Prerequisite: Food and Nutr. 107. Fowler.
Organization, administration, equipment, food buying, food costs, and menu planning for the school lunch; banquet service for secondary schools.

225. Tearoom Management. 3(0-9); I and II. Prerequisite or concurrent: Inst. Mgmt. 204 and 215. Fowler.
Practical experience in planning, preparing, and serving food for the public. The College tearoom serves as a laboratory for this course. Charge, $2.50.

230. Institutional Furnishings and Equipment. 2(2-0); I and II. Prerequisite: Food and Nutr. 107. Fowler.
Selection, arrangement, installation, and care of the different types of equipment for the house and food departments of institutions.

235. Institutional Housekeeping. 2(1-3); II. Prerequisite or concurrent: Inst. Mgmt. 204. Wood.
Problems involved in the management and care of the house departments of various types of institutions. Charge, $1.

FOR GRADUATE CREDIT

301. Research in Institutional Management. Credit to be arranged: I, II, and SS. Prerequisite: Consult instructor. Staff.

Bureau of Research in Home Economics

The Bureau of Research in Home Economics conducts investigations in the scientific, economic, and social problems of the home. The purpose of this research is to discover new facts and new methods in the application of scientific knowledge bearing upon the welfare of the members of the family and the conditions under which they live.

The fields of research included in the bureau are: Child welfare, clothing and textiles, food economics, household administration, institutional management, human nutrition, dietetics, and public health.

The laboratories of the Division of Home Economics include equipment suitable for work on certain of the problems. Opportunities for surveys and investigations of conditions in the state are found through the coöperation of various educational and social agencies.

The results of all investigations are published from time to time and are available on request to all citizens of the state.

The personnel of the bureau staff includes members of the teaching faculty in home economics. Several of the departments in other Divisions of the College advise or collaborate with officers of the Bureau on problems of related interest.

Among the investigations in progress are the following:

*A study of calcium and phosphorus in various forms of milk and cheese.
*Effect upon the animal body of varying the amount of vitamin in the diet.
*Vitamin content of foods relating to human nutrition:
  a. Fruits.
  b. Vegetables.
  c. Cereals.
  d. Eggs.
  e. Dairy products.
  f. Meat.
Utilization by human subjects of the nitrogen and phosphorus of different cuts of meat.
Factors affecting the quality of cakes.
*Composition of cooked meats.
Dietary studies—group, individual.
*Nutritional status of college women as related to dietary habits.
*A study of the factors affecting service qualities of certain textile fabrics.
*A study of service qualities of fabrics with regard to adequate labeling.
*A study of the coefficient of protection of clothing and household fabrics.
*A study of the silk fiber, weighted and unweighted, as affected by:
  a. Light.
  b. Light and moisture.
  c. Light and perspiration.
Coefficient of absorption of textile materials.
Comparative study of certain body measurements:
  a. With those of selected commercial patterns.
  b. With those of certain commercially made garments.
Methods in parent education.
Behavior records for nursery school.
The difference in individuals in maintaining physical equilibrium under varying conditions.
Studies of factors affecting the expenditures for family living.

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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*

Professional men, such as veterinarians, are placed in a more or less public relation to the communities they serve. They must have a broad groundwork in culture and ethical training, which will win them the confidence and respect of their communities. Success is measured in something more than dollars and cents, and the man whose view of life is no broader than his profession adds but little to the world and its happiness. The training given by the College in veterinary science seeks to emphasize the value of the man as a man, as much as his value as a specialist.

VETERINARY ENROLLMENT LIMITED

By authority of the State Board of Regents, enrollment in the curriculum in Veterinary Medicine is limited to a total of 200 students. Persons wishing to enter this curriculum should apply several weeks in advance of the opening of the college year. Admission to each of the four years is based on the applicant's scholarship record and other evidence of his fitness. When all other factors are equal, first preference is given to applicants who are residents of Kansas, and second preference to applicants who are residents of those states having no standard college of veterinary medicine. In general, no requests for admission will be approved after August 15. Application blanks may be obtained from the dean of the Division of Veterinary Medicine.

Applicants must offer: (1) the high-school units required for admission to the pre-veterinary adaptation of the 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. While the instruction in this curriculum is largely technical, enough subjects of a general character are included to give a sound education and a broad outlook. Better to fit the veterinarian to deal wisely with the livestock problems which he has to meet, he is required to take the work in livestock feeding, breeding, and judging, in milk inspection, and in zoölogy, in addition to his purely professional work.

Work must be taken as prescribed, except that certain courses may be selected from the list of extracurricular electives if the student has the prerequisites.

Curriculum in Veterinary Medicine

FRESHMAN

First Semester		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(2-4)	Path. Bact. I, Bact. 111	4(2-6)
Gen. Org. Chemistry, Chem. 122	5(3-6)	Infantry IV, Mil. Sc. 104A	1(1-2)
Medical Botany, Bot. 126	2(1-3)	Phys. Educ. M, Phys. Ed. 106	R(0-2)
Infantry III, Mil. Sc. 103A	1(1-2)		
Phys. Educ. M, Phys. Ed. 105	R(0-2)		
Total	16	Total	16

* 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.

SOPHOMORE

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. 227	4(3-3)
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. II, Dairy Husb. 119,	2(1-3)
Total	16	Total	16

JUNIOR

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)
Total	18	Total	18

SENIOR

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)		
Total	18	Total	18

Number of hours required for graduation, 136

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)

Anatomy and Physiology

Professor Burt
Professor McLeod
Professor Leasure
Instructor Link
Instructor Wagers

The classroom instruction consists of lectures, quizzes, and recitations, and special dissection of the part under discussion; also a study of dissected specimens, various models, and the Azoux model of the horse. Mounted skeletons and limbs and loose bones are abundant in the museum. The horse is taken as a type, and the other domestic animals are compared with the horse. As often as necessary parts of other animals are dissected to show the differences.

The equipment for instruction in physiology is ample to give the student a thoroughly comprehensive course in laboratory study.

COURSES IN ANATOMY

FOR UNDERGRADUATE CREDIT

104. Anatomy I. 4(3-3)*; I. McLeod, Wagers.
A detailed study of the bones of the horse, and a comparative study of the bones of other animals and of man. Deposit, $3.

110. Anatomy II. 8(4-12); II. Prerequisite: Anat. 104. Burt, McLeod, Wagers.
Dissection of the trunk and limbs of the horse; study of the muscles, viscera, and joints, and of the blood and nerve supply of the same. Deposit, $8.

112. Anatomy III. 4(1-9); I. Prerequisite: Anat. 104. Burt, Wagers.
Dissection and study of all structures of the head of the horse with exception of the bones; the comparative anatomy of other domestic animals. Deposit, $8.

101. V. M. Senior Seminar. 2(1-3); II. Prerequisite: Senior standing. Staff.
Given coöperatively by the several departments of the Division; largely a review of the courses in the professional curriculum, and a study of recent developments in veterinary medicine; special emphasis on preparation for federal and state examinations. Deposit, $3.

FOR GRADUATE AND UNDERGRADUATE CREDIT

202. Special Anatomy. 2 to 4 hours; II. Prerequisite: Anat. 104 or 110 or 112 or 131 or equivalent. Burt, McLeod.
Study of any part of the horse (as the digestive system, the genital system), ox, sheep, pig, dog, cat, or poultry; adapted to the work in which the student is specializing. Deposit, $5.

206. Applied Anatomy. 1(0-3); I. Prerequisite: Anat. 112. Burt, McLeod, Wagers.
Dissection of certain areas embraced in performing the various surgical operations, and study of all the structures in each area and their relation to one another as they would present themselves during an operation. Deposit, $2.

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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 betweeen the two subjects and of the physiologic relations existing among the various organs of the body. Charge, $1.

COURSES IN PHYSIOLOGY

FOR GRADUATE AND UNDERGRADUATE CREDIT

215. Problems in Physiology. Credit to be arranged; I and II. Prerequisite: Anat. 131 or 222 or 227 or its equivalent. Leasure, Link.

Individual investigational problems in the physiology of digestion, reproduction, endocrine glands, etc. Charge, $1.50 per semester hour.

222. Comparative Physiology I. 4(3-3); I. Prerequisite: For veterinary students, Anat. 104 and 110 and Chem. 122; for others, 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.

227. Comparative Physiology II. 4(3-3); II. Prerequisite: Same as for Anat. 222. Leasure, Link.

The urine and urinary system, nutrition, animal heat, muscular and nervous systems, locomotion, generation and development, growth and decay. Deposit, $5.

FOR GRADUATE CREDIT

301. Animal Nutrition Seminar. 1(1-0); I and II. Prerequisite: Consult Burt.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of validity of conclusions drawn.

Pathology

Professor Roderick
Professor Kitselman
Associate Professor Farley
Associate Professor Morrill
Assistant Professor Thompson
Assistant Professor Whitlock
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: Zoölogy 105. Whitlock.

Form, structure, organization, and activities of the cell and its parts. Deposit, $1.

104. Histology I. 3(1-6); II. Prerequisite: Pathology 103. Whitlock.

Origin, development, structure, and appearance of the various cells and tissues of the animal body. Particular attention is paid to the relationships between structure and function and to the fundamental similarities and differences of cells and tissues. Deposit, $3.

106. Histology II. 3(1-6); I. Prerequisite: Pathology 104. Whitlock.
Origin, development, structure, and microscopic appearance of the various organs and systems of the animal body. Particular emphasis is laid on the correlation of tissue distribution and regional function. Deposit, $3.

101. V. M. Senior Seminar. See "Courses in Anatomy."

FOR GRADUATE AND UNDERGRADUATE CREDIT

252. Special Histology. 3(0-9); I, II, and SS. Prerequisite: Anat. 131 or equivalent. Whitlock.
Fundamental histological technics studied by means of problems. Deposit, $3.

COURSES IN PATHOLOGY

FOR GRADUATE AND UNDERGRADUATE CREDIT

203. Pathology I. 5(3-6); II. Prerequisite: Anat. 222, Bact. 116, Chem. 122, and Path. 106. Roderick, Morrill.
General pathology, treating of the history of pathology, predisposition, immunity, congenital and inherited disease, etiology, course and termination of disease. Deposit, $3.

208. Pathology II. 4(3-3); I. Prerequisite: Path. 203 and Anat. 227. Roderick, Morrill.
Special pathology, study of specific pathological processes occurring in the various organs of the body. Deposit, $3.

211. Pathology III. 3(2-3); II. Prerequisite: Path. 208. Roderick, Morrill.
Special pathology; continuation of Pathology II. Deposit, $3.

214. Pathology IV. 3(2-3); I. Prerequisite: Path. 211. Roderick.
Pathology of the infectious diseases and laboratory diagnosis. Deposit, $2.50.

217. Meat Hygiene. 3(3-0); I. Prerequisite: Path. 211. Kitselman.
Kinds and classes of stock, transportation of animals, inspection before and after slaughter, disposition of the condemned carcasses from economic and hygienic standpoints, different methods of preservation, adulterations, and sanitary laws and regulations dealing with healthful meat production.

222, 223. Pathological Technic and Diagnosis I and II. 2 to 5 hours each; I and II each. Prerequisite: For I, Path. 203; for II, Path. 211 and 222. Roderick, Morrill.
Pathological technic; collecting, fixing, hardening, embedding in celloidin and paraffin, also freezing and sectioning of tissues; methods of preserving gross specimens; practice in post-mortem and laboratory diagnosis. Deposit, $3 to $7.50 for each course.

225, 226. Clinical Pathology I and II. R(0-12); I and II. Credit in Clinics III and IV. Open only to senior students in veterinary medicine, and to graduate students. Prerequisite: Surg. 138 and 141. Staff.
The unification and practical application of the various laboratory test procedures to clinical diagnosis. Pathological examinations will include autopsies, biopsies, and hematological, bacteriological, serological, chemical pathological, and parasitological diagnosis. If the student is simultaneously enrolled in Clinics III and IV, the grade reported for these courses will include the grade for the courses in Clinical Pathology I and II.

228, 231. Vaccine Manufacture I and II. 2 to 5 hours each; I and II each. Prerequisite: Bact. 116. Farley.
I: Theory and practice of immunization as applied to blackleg and hog cholera.

Laboratory.—Isolation and identification of the blackleg organism and of related anaërobes, and practical production of blackleg immunizing agents and antihog-cholera serum and virus. Deposit, $3 to $7.50 for each course.

II: Preparation and standardization of various veterinary biological products, such as tuberculin, bacterial vaccines, and bacterins.

Laboratory.—Production of some of the products mentioned and special work on blackleg immunizing agents and antihog-cholera serum and virus. Deposit, $3.

250. Applied Veterinary Parasitology. 2(1-3); II. Limited to veterinary students. Prerequisite: Zoöl. 208. Whitlock.

Identification and diagnosis of parasites and parasitoses in living and dead animals; important parasitic diseases of 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, Morrill.

Individual research problem in pathology of the nervous system, eye, and ear; investigational work on disease caused by a filterable virus. This work may form the basis for a master's thesis. Deposit, $1.50 to $15.

310. Animal Nutrition Seminar. 1(1-0); I and II. Prerequisite: Consult Roderick.

Study and criticism of experimental work in animal nutrition, of the methods employed, and of validity of conclusions drawn.

Surgery and Medicine

Professor Frick
Professor Frank
Professor Dykstra
Instructor Roberts
Instructor Moore

The veterinary hospital is equipped with every modern appliance for surgical operations and diagnosis of animal diseases. The hospital has capacity for more than fifty horses or cattle, and in addition it can accommodate fifty small animals, such as sheep, swine, cats, dogs, etc. Members of the clinical staff, accompanied by students, make trips into the surrounding country to treat patients. In this way the students come in contact every year with the diseases of animals and their treatment.

COURSES IN SURGERY

FOR UNDERGRADUATE CREDIT

102. Surgery I. 5(5-0); I. Prerequisite: Junior or senior standing in veterinary medicine. Frank.

Lectures, recitations, and demonstrations on the fundamental principles of surgery, methods of restraint, asepsis and antisepsis, anaesthesia, division of tissues, union of tissues, control of hemorrhage, neoplasms, and animal dentistry.

107. Surgery II. 5(5-0); II. Prerequisite: Surg. 102. Frank.

Lectures, recitations, and demonstrations on the surgical diseases of domesticated animals; horseshoeing is included.

112. Surgical Exercises. 1(0-3); I. Prerequisite: Surg. 107. Staff.

Major surgical operations on anaesthetized domesticated animals and on cadavers. Charge, $5.

101. V. M. Senior Seminar. See "Courses in Anatomy."

FOR GRADUATE CREDIT

301. Research in Surgery. Credit to be arranged; I and II. Prerequisite: Anat. 104, 110, and 112 and Surg. 102, 107, and 163. Dykstra, Frank.

The purpose of this course is to attempt to solve many of the surgical problems confronting the average veterinary practitioner. Offered especially for graduates in veterinary medicine.

COURSES IN OBSTETRICS

FOR UNDERGRADUATE CREDIT

130. Obstetrics and Breeding Diseases. 5(5-0); II Prerequisite: Senior standing in veterinary medicine. Roberts.

Physiology of reproduction, principles of normal and abnormal parturition, special attention given to handling of reduced fertility.

COURSES IN CLINICS

FOR UNDERGRADUATE CREDIT

138, 141. Clinics I and II. 2(0-6) each; I and II, respectively. Prerequisite: Junior or senior standing in veterinary medicine. Staff.

All species of domestic animals are treated at a free clinic. Students assist in the restraint of animals, in bandaging, in compounding prescriptions, and in preparing antiseptics and other medical agents. Deposit, $5 for each course.

144, 147. Clinics III and IV. 4(0-12) each; I and II, respectively. Prerequisite: Junior or senior classification in veterinary medicine. Staff.

Diagnosis and treatment of hospital patients, including keeping clinical records, administering medicines, changing dressings on surgical wounds, X-ray technique, etc.; assisting clinicians in out-clinic work. Deposit, $5 for each course.

150. Extra Clinics. 1(0-3); I, II, and SS. Prerequisite: Surg. 141 or 147. Staff.

A course in clinics intended for those undergraduate students desiring clinical training in addition to that offered in the curriculum in veterinary medicine. Deposit, $2.50.

COURSES IN MATERIA MEDICA

FOR UNDERGRADUATE CREDIT

158. Materia Medica. 4(3-3); I. Prerequisite: Junior standing in veterinary medicine. 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

Harry Umberger, *Dean and Director*

The Division of College Extension offers the benefits of the College to farm people throughout Kansas. It is active in every county in the state. By means of institutes, training schools, publications, correspondence courses, and radio programs, information on agriculture, home economics, and rural engineering is made readily available to everyone.

In the beginning, this work was informal. Members of the College staff answered inquiries by mail and occasionally met with small groups at various places in the state. The exchange of information thus made possible proved valuable both to the citizens of the state and to the College investigators. In 1914, with the passage of the Smith-Lever Act, this type of work became a coöperative undertaking of the federal and state governments, through the United States Department of Agriculture and the agricultural colleges.

There now are six major departments in this Division, each with its own head and staff. Coöperatively employed extension agents are located in 103 counties of the state. The extension organization, which reaches more than 800,000 Kansas people each year, still serves its original function of a two-way communication system between the College and the general public. Extension workers take to the people of the state information developed by the experiment stations, by the United States Department of Agriculture, and by the experience of the best farmers and homemakers. They bring to the state and federal research workers information concerning problems that are of immediate general interest. Their goal is to assist in making agriculture more prosperous and rural living more satisfying.

Extension Schools

In Agriculture and Home Economics

L. C. Williams in Charge

W. G. Amstein, Horticulture
Lloyd M. Copenhafer, Landscape Gardening
Lloyd F. Smith, Farm Forestry
C. G. Elling, Animal Husbandry
J. J. Moxley, Animal Husbandry
J. W. Lumb, Veterinary Medicine
E. G. Kelly, Entomology
M. A. Seaton, Poultry Husbandry
E. R. Halbrook, Poultry Husbandry
John O. Miller, Plant Pathology
James W. Linn, Dairy Husbandry
D. M. Seath, Dairy Husbandry
L. E. Willoughby, Crops
E. A. Cleavinger, Crops
L. L. Compton, Crops
John G. Bell, Crops
Vance M. Rucker, Marketing
J. Warren Mather, Marketing
Charles E. Dominy, Marketing
———————, Farm Management
L. M. Schruben, Farm Management
C. R. Jaccard, Agricultural Economics
G. B. Railsback, Fieldman, Farm Management Association
J. H. Coolidge, Fieldman, Farm Management Association
W. J. Conover, Fieldman, Farm Management Association
W. H. Meissinger, Fieldman, Farm Management Association

This department includes those members of the extension staff who conduct and supervise programs in agricultural education throughout the state. The programs are developed in coöperation with the residents of the counties through their designated leaders. The department also has charge of the program and arrangements for Farm and Home Week, annual state-wide farmers' meetings, and the scheduling of judges for county and local fairs.

FARM AND HOME INSTITUTES

A farm and home institute is an association of farmers and farm 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 days' duration conducted for the purpose of giving practical instruction in agriculture, rural engineering, and home economics. Most of these schools are organized on a project basis, and they are an important feature in the yearly program of work conducted by each specialist. Results of demonstrations and experiments are given at these meetings and suggestions are made for their practical application under local conditions.

Extension schools are classified according to the subject matter presented. Each year schools are held in horticulture, animal husbandry, veterinary medicine, entomology, poultry husbandry, dairying, agronomy, marketing, farm management, plant pathology, and farm forestry. In addition to these specialized meetings, schools of a more general character are held, and these are designed to present the extension program best suited to the communities of the county. Home economics and 4-H club work have an important place on the program of these schools.

EXTENSION PROJECTS

The specialists of the Division work in extension schools and institutes during the winter months only, and a portion of this time is devoted to cooperative demonstration work in agriculture and home economics. During the remainder of the year, they conduct special extension programs in soil

management and crop production, plant pathology, horticulture, animal husbandry, dairying, veterinary medicine, poultry husbandry, entomology, farm management, marketing, and farm forestry. This phase of the work of the extension specialist is being supplemented by coöperative demonstration work. In much of the coöperative work each specialist has from 10 to 100 or more coöperators in each county. These men and women work under the direction of the specialist and the county agent. They keep records of the work and demonstration meetings are held at their farms.

The extension specialist takes to the farm and farm homes the results of the research work of the Agricultural Experiment Station and the United States Department of Agriculture in a practical, effective, and usable form. He brings back reports of the progress of demonstration work in the field. He seldom makes a trip without coming in contact with agricultural problems requiring the attention of research workers.

COUNTY AND LOCAL FAIRS

The agricultural specialists devote some time each year to judging livestock and agricultural products at county and local fairs. An excellent opportunity for lectures and demonstration work is furnished and each specialist endeavors to make his judging work as instructive as possible.

FARM AND HOME WEEK

The purpose of Farm and Home Week is to interest the farmers of the state in methods of production and management that will increase farm profits, to demonstrate to farm women methods of home management that will add to the comfort and enjoyment of farm life, and to encourage farm folks in social organization that will enrich the social life of the rural community.

All meetings, lectures, and demonstrations during Farm and Home Week are free of charge. The United States Department of Agriculture, the Agricultural Experiment Station, the Extension Service, agricultural specialists, and leading farmers bring to those in attendance the latest results of investigations in agriculture, home economics, and rural engineering. Problems concerning crops and soils, dairying, beef cattle, horses, hogs, sheep, poultry, horticulture, community service, beekeeping, and diseases of animals are discussed by some of the leading agricultural authorities in America. In addition to these lectures and demonstrations there are other interesting features.

County Agent Work*

F. O. Blecha, District Agent
J. V. Hepler, District Agent
A. F. Turner, District Agent (Organization)
E. H. Teagarden, District Agent
Harry C. Baird, N. W. District Supervisor
Otis B. Glover, E. District Supervisor
————, S. W. District Supervisor
M. L. Robinson, District Supervisor (Wheat)

The county agent constitutes a direct and continuous contact of the College and the United States Department of Agriculture with the rural population of the state. The program of county-agent work is as broad as the interests of rural life. It includes the farm as a business, the farm home, the farm youth, and the rural community. The program for the farm as a business involves those things that may be done by the individual farmer and those that require extensive coöperation among farmers. On the one hand it includes organization and management, and production problems such as soil management, erosion control, cropping systems, crop pests, adapted crop varieties, and livestock management. On the other hand it includes coöperative financing, coöperative marketing of farm products, and agricultural adjustment procedure.

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* To find an alphabetical list of county agricultural agents, see Index.

The first county agent in Kansas was employed by the Leavenworth county farm bureau, August 1, 1912. At first county agents were financed by membership dues, private subscription, and a small state appropriation. In 1914 Congress enacted the Smith-Lever law and in 1915 the Kansas legislature passed the farm-bureau law. These statutes remain the basis of county-agent work. Additional federal funds have been made available in recent years under several other statutes such as the Capper-Ketcham, Clark-McNary, and Bankhead-Jones acts.

On October 1, 1938, there were 103 county agents and thirty-two assistant county agents. Six of the assistant county agents are coöperating with soil conservation associations, twelve serve as testers for dairy herd improvement associations, and fourteen are securing training in various counties under the leadership of county agricultural agents.

Home Economics*

Georgiana H. Smurthwaite, State Home Demonstration Leader

DISTRICT HOME DEMONSTRATION AGENT LEADERS

Ellen M. Batchelor
Maude E. Deely
Rachel Markwell
Vernetta Fairbairn

SPECIALISTS IN HOME ECONOMICS

M. Christine Wiggins, Clothing and Textiles
Lora V. Hilyard, Clothing and Textiles
Gertrude Allen, Foods and Nutrition
Mary Fletcher, Foods and Nutrition
Rachel Martens, Home Furnishings
Mae Farris, Home Furnishings
W. Pearl Martin, Home Health and Sanitation
Eunice Pardee, Home Management
Ellen Lindstrom, Home Management
Doris Compton, Recreation

Extension work in Home Economics is carried on in counties through organized groups and through extension schools, particularly those of the more general type. Organized programs are pursued throughout the year in connection with county farm bureaus. Material furnished by the specialists and by home demonstration agents is used by local leaders in their respective communities.

Home demonstration work was made possible in August, 1917, when Congress provided funds for the employment of emergency home demonstration agents. The work was instituted under the auspices of city or county organizations, but after a short time the placing of home demonstration agents was deferred until the counties were properly organized for this specific purpose. Since August, 1918, the organization of an ideal farm bureau, providing membership for women as well as for men, has been required; and since July 1, 1921, a county desiring a home demonstration agent has had to provide a well-equipped office with adequate stenographic help, transportation facilities, and a county appropriation of not less than $2,400 toward the salaries and expenses of the agricultural agent and the home demonstration agent.

The program of work for the home demonstration agent is based on the interest and the needs of the communities in the county. It is evolved through community and committee meetings and includes the development of activities pertaining to the farm, the home, and the community. Such programs of work become a part of the state program. On October 1, 1938, forty counties had home demonstration agents.

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* To find an alphabetical list of home demonstration agents, see Index.

Boys' and Girls' 4-H Club Work

M. H. Coe, State Club Leader
Mabel R. Smith, Assistant State Club Leader
J. Harold Johnson, Assistant State Club Leader
Mary Elsie Border, Assistant State Club Leader
Roger E. Regnier, Assistant State Club Leader
Dorothy Bacon, Assistant State Club Leader
Albert A. Pease, County Club Agent, Rice County
Wayne Ewing, County Club Agent, Sedgwick County
Claude L. King, County Club Agent, Shawnee County
I. H. Davies, County Club Agent, Wyandotte County
Richard King, County Club Agent, Crawford County
John B. Hanna, County Club Agent, Butler County

The 4-H club work is conducted by the College in coöperation with the counties, the county farm bureaus, and the United States Department of Agriculture. Community 4-H clubs are open to all young people between the ages of ten and twenty years, inclusive. They work under the direction of the county agents with the help of local voluntary 4-H leaders. Local organizations also give important assistance. County 4-H councils assist the county agents in the supervision and promotion of the 4-H program. 4-H members receive visits from their county agents and from their local leaders; written material is prepared by specialists and sent out by the state club leader to give members definite information and suggestions regarding farm and home practices recommended by the College.

The origin of the 4-H club work is obscure. Shortly after 1900, farmers' institutes, farm leaders, and educators, in various parts of the country, made efforts to bring about a more definite connection between real life and school life. They assisted boys and girls to conduct, at home, various educational demonstrations or contests, centering around improved agricultural practices.

It became evident that the educational development of the boys and girls was of greater importance than the spread of improved farm and home practices. Hence the 4-H club program was broadened to include not only projects of a farm and home nature, but also many activities such as health, music, conservation of wild life and natural resources, recreation, parliamentary practices, and art. The present 4-H club program is designed to develop wholesome citizenship and leadership among rural young people and to provide them with the opportunity to participate with their parents and friends in the adoption and spread of better farm and home practices. Coöperation with the group is promoted, leadership is encouraged, exhibitions and contests are conducted, accurate records and reports are required, and achievements are suitably recognized. Wholesome recreation is promoted and county and statewide round-ups, camps, and conferences are arranged.

Rural Engineering

Walter G. Ward, Extension Architect, in Charge
Eugene D. Warner, Extension Architect
Hal F. Eier, Extension Agricultural Engineer
Harold E. Stover, Extension Agricultural Engineer
John M. Ferguson, Extension Agricultural Engineer

The function of this department is to assist in the application of engineering principles to various phases of agriculture. In the beginning, in 1910. it dealt chiefly with drainage and irrigation. Other subjects have been added, including the control of soil erosion, farm buildings, conveniences for the farm home, and farm machinery. Annually thousands of direct inquiries on these subjects are answered by mail.

Much of the work is conducted in coöperation with the county farm bureaus. All counties in the state are coöperating with the department in demonstration work involving drainage, irrigation, or the control of erosion. Standardized plans for hundreds of farm buildings are furnished each year. One-day builders' schools are held in various counties to supply information on

the planning, construction, and maintenance of farm buildings. Advice is given on the selection, installation, and operation of systems of water supply, sewage disposal, lighting, and heating for the rural home. The choice, use, adjustment, and repair of farm machinery are discussed with distributors and farmers in one-day and two-day schools.

Home Study

George Gemmell, Head of Department
Beatty H. Fleenor, Education
Ada Billings, History and Government
Jesse M. Schall, English
Floyd Pattison, Industrial Subjects
Chester B. Billings, Agriculture

The Department of Home Study is a member of the National University Extension Association comprising forty-eight leading universities in America with whom extension credits are interchangeable. The members of the department devote their entire time to the work of teaching by correspondence. They keep in close touch with the various departments of the College, and all credit courses which are offered by correspondence must first meet the requirements of the regular College departments handling the courses in residence.

There are many people in Kansas and elsewhere who cannot attend classes on the College campus, but who can use the facilities of the College to great advantage. The Department of Home Study is designed through correspondence courses to enable the College to go to those who cannot come to it. The gross time required to complete correspondence courses is practically the same as would be necessary for the same courses in residence.

FOR WHOM INTENDED

Though credit courses offered by the Department of Home Study are limited, it is the purpose of the department to add courses whenever a demand for them becomes evident. The following groups in particular should profit by the courses offered:

1. Those who have completed a common-school course but who are unable to attend high school.
2. High-school graduates unable to attend college.
3. Students who have fallen behind in their work and wish to use their spare time catching up.
4. Students whose attendance at high school or college has been interrupted.
5. The strong, aggressive student who does not wish to halt his progress for vacation and other interruptions.
6. High-school and grade classes in practical courses that need supplementing and enrichment.
7. Teachers who wish further training or who need help in planning and conducting their work.
8. Professional and business men who wish to keep growing along some line of interest, industrial or avocational.
9. Clubs and other organizations that wish to make systematic studies.
10. Men and women who wish effective help in meeting the demands of their vocations for technical and scientific knowledge and training.

HOW THE WORK IS CONDUCTED

In correspondence courses the work usually takes the form of assigned readings, studies, problems, and investigations, together with a list of questions and directions for a written report. The correspondence lesson is usually much longer than the common lesson in resident class work, eight such lessons being the equivalent of one semester hour of college credit. When necessary, the lessons are supplemented by lectures prepared by the instructor containing outlines and explanations, additional subject matter, and such special directions as seem desirable.

As soon as an enrollment card and fee are received at the Department of Home Study, the first assignments are sent out. As reports are received, additional assignments are mailed. The plan keeps work always at hand for the student and makes it possible for the instructor to keep in close touch with the student's progress and to offer suggestions to guide the student in his work. The student should make careful study of the corrections, comments, and suggestions upon receiving a returned paper before going further with succeeding lessons.

The progress made by the student depends entirely upon his ability, preparedness, and application. In general, an hour a day spent in systematic study should enable the average student to complete an assignment a week. Students may work more rapidly if their opportunities permit. Lessons will be received as rapidly as is consistent with good work, provided not more than eight assignments are sent in one week. Under no circumstances will hastily prepared manuscripts, showing superficial knowledge, be accepted.

The questions accompanying each assignment are intended to help the student to a better understanding of the subject. After careful study of the assignment, the student is required to write his manuscript, answering the questions carefully and concisely. The manuscript is then mailed to the Department of Home Study, where all lesson papers are read carefully, criticized, marked, and returned to the student with such comments, suggestions, advice, and additional references as may be deemed necessary. Each student is invited to ask questions, relate his personal experience, and in every way possible get into close contact with his instructors.

No effort is spared by the department to bring about the nearest possible approach to personal acquaintanceship between each instructor and his students. To this end the student is required to fill out and mail to the department with his first lesson a personal acquaintance blank giving full information about himself, his aims, ambitions, and previous experience and education, as well as the conditions of his daily work that necessarily affect his responses to the lessons. This information enables the instructor to enter at once into cordial, sympathetic, and helpful relations with the student.

EXAMINATION

At the close of each course, before a grade is issued, a final examination is necessary. The final examination may be taken in the office of the Department of Home Study at the College, or other arrangements may be made by the student to take it locally under the city or county superintendent of schools or the principal of the local high school. In the latter case, the examination questions and instructions for conducting the examination are mailed from the department to the examiner, and the student's paper is sent in by him.

FEES

For residents of Kansas there is an initial enrollment fee of $10 for a course of three semester hours of credit or less, with $3 additional for each added hour of work; for nonresidents of the state an initial enrollment fee of $15 for a course of three semester hours of credit or less and $4 for each additional hour of work.

For courses of secondary school (high school) grade there is an initial enrollment fee for residents of the state of $6 for the first half-unit course and $5 for each additional half-unit course; for nonresidents of the state an initial enrollment fee of $9 for the first half-unit course, with a fee of $7 for each additional half-unit.

Each student pays the postage on his lessons, manuscripts, and communications sent to the department. The department pays the postage for the return of all such papers to students.

REGULATIONS

1. Enrollments for correspondence study will be received at any time during the year, and students may continue their work throughout the entire year.
2. Correspondence students are expected to complete any course for which they are enrolled within twelve months from date of enrollment.
3. Not more than two courses are advised at any one time. It is recommended that a student carry but one subject at a time, particularly where only part of the time is given to the work.
4. Each subject listed under the various departments constitutes what is known as a correspondence "course."
5. Students enrolling for correspondence courses must meet the prerequisites the same as if undertaking the work in residence.
6. A student may not be enrolled for correspondence work while in attendance at any institution of learning without special permission from the dean or proper authorities in the institution of which he is a student.
7. No correspondence student will be permitted to complete a three-hour course in less than three weeks, a two-hour course in less than two weeks, or a one-hour course in less than one week.
8. Where there is evidence that any correspondence student has copied any part of the lessons from the papers of another student who has previously taken the course, such student will be automatically and permanently dropped from the course and a failing grade will be sent to the registrar's office with notation of the cause.
9. Credit for correspondence courses is determined by a final examination prepared by the Department of Home Study.

STUDY-CENTER EXTENSION CLASSES

Study-center classes conducted by regular instructors from the College may be organized if the demand is sufficient. Regulations concerning such classes are obtainable from the Department of Home Study.

HIGH-SCHOOL COURSES

(College Entrance Credit Work)

In offering the following work for high-school credit, there is no intention of competing with high schools of the state. It is not the purpose of those who have planned the work to present a full four-year high-school course. Students who can attend high school should do so, for in such attendance they will have the benefits to be derived from association with fellow students as well as many other advantages which will be helpful to immature students of high-school age.

These courses are offered as an aid to those who may be temporarily out of high school, who may not find the work which they desire offered locally, or who wish to work for high-school credit during vacation periods It is not to be expected that a student can progress as rapidly by correspondence-study methods as he can by devoting his full time to his work when attending high school. Any student who completes a half year of high-school work in a year by correspondence may feel that he has done exceedingly well.

The high-school courses will be especially advantageous to prospective college students who have entrance deficiencies and to school teachers who may not have had the opportunity to do this type of work. No effort has been spared to make the work as nearly as possible parallel with the course offered by the accredited high schools of the state. The same textbooks have been used wherever feasible, and the credits issued by this department are recognized by the colleges and State Board of Education.

List of High-school Courses

Course No.		*Number of assignments*	*Unit H. S. credit*
	AGRICULTURE		
PCA 1.	Elementary Agriculture I	20	½
PCA 2.	Elementary Agriculture II	20	½
	DRAWING		
PCD 3.	Shop Mechanical Drawing I	20	½
PCD 4.	Shop Mechanical Drawing II	20	½
	ENGLISH		
PCE 1C.	Grammar and Composition (first year)	20	½
PCE 2L.	Literature (first year)	20	½
PCE 3C.	Composition (second year)	20	½
PCE 4L.	Literature (second year)	20	½
PCE 5C.	Composition (third year)	20	½
PCE 6L.	Literature (third year)	20	½
	HISTORY AND CIVICS		
PCH 1.	Ancient History I	20	½
PCH 2.	Ancient History II	20	½
PCH 3.	Modern History I	20	½
PCH 4.	Modern History II	20	½
PCH 5.	American History I	20	½
PCH 6.	American History II	20	½
PCH 7.	Community Civics	20	½
PCH 8.	Constitution of United States	20	½
PCH 9.	World History I	20	½
PCH 10.	World History II	20	½
	MATHEMATICS		
PCM 1.	Algebra I	20	½
PCM 2.	Algebra II	20	½
PCM 3.	Algebra III	20	½
PCM 4.	Plane Geometry I	20	½
PCM 5.	Plane Geometry II	20	½
PCM 6.	Solid Geometry	20	½
PCM 7.	Bookkeeping	20	½
	SCIENCE		
PCS 1.	Physical Geography	20	½
PCS 2.	Botany	20	½
PCS 4.	Physiology	20	½
PCS 5.	General Science	20	½
PCC 1.	Commercial Geography	20	½
PCC 2.	Elementary Economics	20	½
PCC 3.	Elementary Sociology	20	½
PCC 4.	Elementary Psychology	20	½

COLLEGE COURSES

Numerous college courses paralleling resident courses and carrying the same credit are offered through the Department of Home Study. These will be found especially advantageous for college students who desire to make up deficiencies or to gain credits during the vacation season; for teachers who wish to further their professional training; and for men and women who wish to promote their cultural, technical, or vocational interests. The prerequisites are the same as for corresponding courses in resident instruction.

The following course is available through resident enrollment for graduate and undergraduate credit. Graduates may be enrolled for from one to six hours of research or problem work *in absentia,* on the recommendation of a member of the graduate faculty and with the approval of the dean of the Division of Graduate Study.

Educ. 249. Problems in Extension Education. Credit to be arranged. Prerequisite: Econ. 151 or CS 3, and Educ. 184 or CP 8 or EXT 5. Dr. Gemmell and Dr. Fleenor.

Problems in extension met by director, supervisor, county agricultural agent, county home demonstration agent, 4-H club leader, or specialist.

List of College Courses

DIVISION OF AGRICULTURE

Course No.		*Assignments*	*Semester hours of credit*
	AGRONOMY		
CA 3.	Farm Crops	16	2
	ANIMAL HUSBANDRY		
CL 2.	History of Breeds	16	2
	HORTICULTURE		
CH 1.	Elements of Horticulture	16	2
CH 2.	Vegetable Gardening	16	2
CH 3.	Floriculture	16	2
CH 5.	Landscape Gardening	8	1
CH 6.	Small Fruits	16	2
	POULTRY HUSBANDRY		
CPP 1.	Farm Poultry Production	8	1

DIVISION OF ENGINEERING

	MACHINE DESIGN		
CE 2.	Engineering Drawing	16	2
CE 6.	Machine Drawing I	16	2
CE 4.	Mechanism	24	3
CE 11.	Descriptive Geometry	16	2
	CIVIL ENGINEERING		
CE 1.	Highway Engineering I	16	2
	SHOP PRACTICE		
CE 7.	Metallurgy	16	2
	AGRICULTURAL ENGINEERING		
CE 3.	Gas Engines and Tractors	16	2
	MECHANICAL ENGINEERING		
CE 9.	Steam Turbines	16	2

DIVISION OF GENERAL SCIENCE

	ECONOMICS AND SOCIOLOGY		
CEc 1.	Economics	24	3
CS 2.	Rural Sociology	24	3
CS 3.	Sociology	24	3
CS 4.	Community Leadership	16	2
	EDUCATION (PROFESSIONAL)		
CP 2.	Educational Psychology	24	3
CP 3.	Educational Sociology	24	3
CP 4.	History of Education	24	3
CP 5.	School Management	24	3
CP 6G.	Methods of Teaching in Elementary Graded Schools and Rural Schools	24	3
CP 6H.	Methods of Teaching in the High School	24	3
CP 7.	Educational Administration	24	3
CP 8.	Psychology	24	3
CP 14.	Vocational Education	24	3
CP 17.	Introduction to Philosophy	24	3
	ENGLISH		
CCE 1.	College Rhetoric I	24	3
CCE 2.	College Rhetoric II	24	3
CCE 3.	Commercial Correspondence	24	3
CCE 4.	The Short Story	24	3
CCE 6.	English Literature	24	3
CCE 7.	American Literature	24	3
	JOURNALISM		
CCJ 1.	Agricultural Journalism	24	3

Course No.		*Assignments*	*Semester hours of credit*
	GEOLOGY		
CG 1.	Geology	24	3
	HISTORY AND CIVICS		
CHC 1.	Community Civics	16	2
CHC 2.	Modern Europe I	24	3
CHC 3.	Modern Europe II	24	3
CHC 4.	English History	24	3
CHC 5.	Medieval History	24	3
CHC 6.	Ancient Civilizations	24	3
CHC 7.	History of Latin America	24	3
	MATHEMATICS		
CM 6.	Solid Geometry	16	2
CM 7.	Plane Trigonometry	25	3
CM 8.	College Algebra	24	3
CM 9.	College Algebra A	40	5
	DIVISION OF COLLEGE EXTENSION		
EXT 5.	Extension Education	24	3

Prerequisite: Educ. 184 and junior standing. Dr. Fleenor. Origin and development of extension work, its aim and purposes, and its relation to other general educational activities; organization and administration of extension work under the Smith-Lever law and the part taken by colleges and the Department of Agriculture; psychological and sociological bases and various methods employed in extension teaching; achievements and future problems of extension work.

Degrees Conferred

In the Year 1938

Seventy-fifth Annual Commencement

May 30, 1938

DEGREES CONFERRED

Honorary Degrees

DOCTOR OF ENGINEERING

William Lester Enfield, B. S., Kansas State College, 1909; Cleveland Ohio.

DOCTOR OF LAWS

William Marion Jardine, B. S., Utah State Agricultural College, 1904; University of Wichita, Wichita, Kan.

DOCTOR OF SCIENCE

Juliet Lita Bane, B. S., University of Illinois, 1912; A. M., University of Chicago, 1919; University of Illinois, Urbana, Ill.
Ula May Dow, B. S., Kansas State College, 1905; A. M., Columbia University, 1913; Simmons College, Boston, Mass.
David Grandison Fairchild, B. S., Kansas State College, 1888; M. S., ibid., 1891; Coconut Grove, Fla.
William Arthur Hagan, D. V. M., Kansas State College, 1915; M. S., Cornell University, 1917; Cornell University, Ithaca, N. Y.
Merritt Finley Miller, B. S. A., Ohio State University, 1900; M. S., Cornell University, 1901; University of Missouri, Columbia, Mo.

Professional Degrees in Engineering

ELECTRICAL ENGINEER

Charles Louis Jobe, B. S., Kansas State College, 1923; Oklahoma City, Okla.
Gilbert Haven Sechrist, B. S., Kansas State College, 1916; Laramie, Wyo.
Clarence LeRoy Zimmerman, B. S., Kansas State College, 1921; Chicago, Ill.

Division of Graduate Study

DOCTOR OF PHILOSOPHY

Abram Eldred Hostetter, B. S., McPherson College, 1925; M. S., Kansas State College, 1932; Manhattan.
George Nathan Reed, B. S., Oklahoma Agricultural and Mechanical College, 1922; M. S., University of Oklahoma, 1924; Manhattan.

MASTER OF SCIENCE

Kling LeRoy Anderson, B. S., University of California, 1936; Turlock, Calif.
§Buell Wesley Beadle, B. S., Kansas State College, 1935; Talmage.
§Glenn Hanse Beck, B. S., University of Idaho, 1936; Aberdeen, Idaho.
Arnold Ervine Chase, B. S., Kansas State College, 1930; Washington, D. C.
Chen Chih-Ying (Jean Chen), B. A., Hwa Nan College, 1933; Cik Coi Yuan, Futsing, Fukien, China.
Donald Risdon Cornelius, B. S., Kansas State College, 1935; Wheaton.
§Chevalier Francis Crandell, B. S., Kansas State College, 1935; Falls City, Neb.
Frederic Tyson Dines, B. S., Colorado State College, 1936; Manhattan.
Glenn Sylvester Fox, B. S., Kansas State College, 1933; Manhattan.
Margaret Rose Goodyear, B. S., Kansas State College, 1931; Wichita.
Edison Greer, B. S., Kansas State Teachers College, Emporia, 1936; Council Grove.
Elmer George Heyne, B. S., University of Nebraska, 1935; Wisner, Neb.
§LeRoy William Horne, B. S., Kansas State College, 1936; Alma.
Mable Joan Jones, B. S., West Texas State Teachers College, 1935; Quail, Tex.
Althea Leonore Keller, B. S., Kansas State College, 1935; Enterprise.
Everette Jesse Kreizinger, B. S., University of Nebraska, 1932; Bellwood, Neb.
Roger Paul Link, D. V. M., Iowa State College, 1934; Manhattan.
Sarah Jo Lister, A. B., University of Kansas, 1937; Wamego.
Charles Howard Lockhart, B. S., Kansas State College, 1934; Junction City.
Russell Lloyd Mellies, B. S., Kansas State College, 1936; Wellington.

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§ Requirements for degree completed and diploma presented January 29, 1938.

Rudolph Dixon Michael, B. S., Virginia Polytechnic Institute, 1926; Blacksburg, Va.
Leonard Fred Miller, B. S., Kansas State College, 1936; Agra.
§Lois Marie Oberhelman, B. S., Kansas State College, 1926; Barnes.
Charles Alfred Patterson, B. S., Kansas State College, 1938; Kansas City.
§Oliver Pearson, B. A., Bethany College, 1925; Lindsborg.
Wilfred Harold Pine, B. S., Kansas State College, 1934; Lawrence.
Helen Marjorie Reed, B. S., Kansas State College, 1934; Circleville.
Mott Luther Robinson, B. S., Kansas State College, 1923; Manhattan.
Dale Servetus Romine, B. S., Kansas State College, 1934; Oswego.
*Ella Schalansky, A. B., Municipal University of Omaha, 1933; Bunker Hill.
Lydia Andres Skeen, B. S., Kansas State College, 1931; Linn.
Charles Philip Walters, B. S., Kansas State College, 1936; Manhattan.

Division of Agriculture

BACHELOR OF SCIENCE IN AGRICULTURE

Walter Abmeyer, Grantville
William Redmond Allen, Cummings
Jay Donald Andrews, Bloom
Ernest Raymond Ausherman, North Topeka
Walter Worth Babbit, Willis
*Joe Wendell Baker, Ozawkie
Dale Rainier Bathurst, Abilene
Dorman Carroll Becker, Durham
Frank Gearhart Bieberly, Dodge City
Leonard Willam Bird, Hill City
Francis Leroy Blaesi, Abilene
Blaine Barton Brandenburg, Riley
Frank Louis Brooks, Jr., Scott City
Jewell Colbert Campbell, Rossville
Robert Junior Cassidy, Marion
Earl Stephen Chicken, Manhattan
Charles Burton Crook, Ogden
Wilbur Russell Crowley, Burden
Verner Ephaim Danielson, Lindsborg
Eugene Price Davies, Winchester
Herbert Smith Davies, Manhattan
Elmer A. Dawdy, Washington
Clarence Wendell Dickhut, Scott City
Vernon Lloyd Doran, Macksville
Marshall Wayne Dutton, Harlan
Roland Baker Elling, Manhattan
Forrest Raymond Fansher, Hutchinson
Kenneth Adrian Fisher, Newton
Donald Eugene Flenthrope, St. George
Wayne Henry Freeman, Kirwin
Daniel Ross Haney, Manhattan
Alfred Eugene Harris, Grinnell
Ralph Jay Hathaway, Chase
William Andrew Hemphill, Chanute
Roger Lyman Hendershot, Hutchinson
Paul Wilson Hensleigh, Winchester
§Kenneth Verle Hill, Bloom
John Harvey Hyde, Augusta
*Raymond Whitfield Isle, Independence
Zara Walter Johnson, Beeler
Frank Boone Kessler, Newton
Richard Franklin King, Jr., Manhattan
Robert Edgar Kitch, Winfield
§Dwight David Klinger, Ashland
Milton Clarence Kohrs, Elmo
Alvin George Law, Hill City
§William Laurance McKnight, Oxford
Vernon Franklin Maresch, Nekoma
Floyd J. Maynard, Kansas City, Mo.
William Lorenzo Moore, Manhattan
Frederick Harold Muret, Winfield
Lester Duane Murphy, Sublette
Howard Cecil Myers, Abilene
Hugh Garry Myers, Barnard
Joseph Pleasant Neill, Miltonvale
Allen Nottorf, Abilene
Robert Fred Nuttelman, Great Bend
Charles Patrick Olomon, Jr., Garden City
Charles Herman Olson, Dwight
Gustaf Clark Overley, Belle Plaine
Earl Foster Parsons, Max, Neb.
Rollin Chester Parsons, Manhattan
§Charles Alfred Patterson, Kansas City
Richard Donald Patton, Newton
Charles William Pence, North Topeka
§Harold Allen Perkins, Kansas City
Edward Wilson Pitman, Scott City
Waldo Weaver Poovey, Oxford
Addison Doyle Reed, Manhattan
Clyde Cadwell Reed, Kanopolis
John William Reynolds, Winfield
Leroy Edward Schafer, Valley Center
§Deane Robert Seaton, Abilene
Robert Fred Sloan, Leavenworth
Robert J. Steele, Manhattan
Elmore Gregory Stout, Cottonwood Falls
Lewis Sweat, Cedar
Gilbert Leroy Terman, Columbia City, Ind.
Wayne Tjaden, Wichita
Carl Saylor Warner, Whiting
Ralph Dale Warner, Arlington
Marion Chalmer West, Blue Mound
Loren Edgar Whipps, Belleville
Irving Bennett Wilcox, Manhattan
§Charles Peairs Wilson, Anness
Richard Gordon Wiltse, Altoona
George Henry Works, Humboldt
James Leroy Young, Cheney

BACHELOR OF SCIENCE IN MILLING INDUSTRY

Robert John Anderson, Lyons
§Wilbur Golden Brainerd, Whitewater
John Hayes Collett, Pratt
Paul William Hodler, Beloit
Jack Haynes Koster, Salina
Roy Albion Robinson, Jr., Larned
Joseph Leo Wetta, Colwich

Division of Engineering

BACHELOR OF SCIENCE IN AGRICULTURAL ENGINEERING

Walter Enos Boyer, Kinsley
Walter Monroe Carleton, Coldwater
Merwin Blake Cook, Monument
§Carl Czaplinski, Lawrence
Daniel Philip Heigele, Wilsey
James William Martin, Manhattan
Elbert Lindon Mundhenke, Lewis
William Henry Walker, Junction City

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* *In absentia.*

§ Requirements for degree completed and diploma presented January 29, 1938.

BACHELOR OF SCIENCE IN ARCHITECTURE

Glenn Edwin Benedick, Manhattan
Earl Cox, Downs
Paul McConnell Dean, Manhattan
Reinhold Paul Henry Fensch, Lincoln
John Worth Hines, Manhattan
Laurence Calvin Horton, Wichita
Jack Morris Lawson, Wichita
Joseph Buel Reynolds, Chetopa
Joseph Duane Ward, Peabody
Jean Washburn, Manhattan
Perry F. Wendell, Manhattan

BACHELOR OF SCIENCE IN ARCHITECTURAL ENGINEERING

Glenn Edwin Benedick, Manhattan
§Stanley Edward Goodwin, Hiawatha
Ray Merle Harmon, Jr., Wichita
James Trevor Lewis, Emporia

BACHELOR OF SCIENCE IN LANDSCAPE ARCHITECTURE

§John Wayne Tonkin, Topeka

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Harold George Deters, Cawker City
Robert Roy Freeman, Manhattan
George Clifford Henderson, Herington
Aimison Jonnard, Manhattan
Roy Scott Martin, Pratt
James Carlile Osten, Herington
John Gilbert Powers, Casper, Wyo.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Perry Charles Arnold, Winfield
Ted Collings Barnes, Manhattan
Ross Henry Bird, Elk City
Delber Lloyd Blackwell, Rozel
Sanford David Blattner, Rozel
Ralph Edward Breeden, Latham
Max Theodore Bruner, Burns
Harold F. Claassen, Newton
Morris Jackson Coolbaugh, Stockton
§Thomas Cantwell Cory, Parsons
Russell Louis Culp, Kansas City
Myron Winterstein DeGeer, Lake City
Edwin Dale Ebright, Lyons
Max Eugene Foote, Ottawa
Harold Kenneth Howell, Quinter
John Jay Jewett, Halstead
Chester Herman Johnson, Manhattan
William Robert Jones, Wichita
Clifford Ray Krabbenhoft, Emporia
§Aaron Joseph Lane, Manhattan
*Lyman Max Lyon, Sabetha
Cecil Earl McClaren, Mullinville
§Loren Wilson McDaniel, Garden City
Harris Leo Mackey, Caldwell
Carl William Morgan, Long Island
Wilson Muhlheim, Ellis
Martin Oren Pattison, Manhattan
Raymond R. Sollenberger, Manhattan
Kay Vern Spear, Leoti
Robert Jacob Spiegel, Topeka
§James Madsen Towner, Dwight
Loyal Van Doren, Hays
Evan Watts, Havensville
Leonard Eugene Weckerling, Manhattan
Charles Poe Weeks, Wichita
James Richard Westmacott, Chase
Thaine Daniels Williams, Pawnee Rock

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

John Bernard Alfers, Denton
Neils Kay Anderson, Leavenworth
§John Alden Angold, Bethel
*David Ford Biven, Kansas City
Charles Graham Blakely, III, Topeka
*Norman Garver Branson, Belleville
William Henry Carr, Jr., Kansas City
Floyd Harvey Clark, Florence
Nelson Earl Davidson, Yates Center
§Harold Thomas Engleman, Indianapolis, Ind.
James Hugo Giovagnoli, Girard
Lawrence Isador Haller, Alma
Bryant Glenn Harris, Topeka
§John Russel Harrison, Sterling
Karl Miller Hemker, Great Bend
James Leonard Hollis, Holton
Edward Groh Johnson, McPherson
Raymond Carroll Kent, Manhattan
Chung Keun Lee, Seoul, Korea
§John Knepper Leidy, Wichita
§John Frederick Levin, Jr., Atchison
Louis Barber McManis, Kingman
William Allen Mayfield, Soldier
Carl Miller, Charley, Ky.
Harry Clifford Morton, Winfield
Lorin Edward Oberhelman, Silver Lake
Carl Meredith Osborne, Council Grove
Russell Eugene Phillips, Wichita
Charles Eugene Roper, Atchison
Leland Jay Rose, Council Grove
Forrest Hamer Roulund, Melvern
*Elmer Ellison Scott, Kansas City
Thomas Richard Shaw, Kansas City
Edwin Joseph Shellenberger, Ransom
Keith Carter Walton, Peck
Arthur Eugene Watson, Hutchinson
Wallis Christian Wetlaufer, Montello, Wis.
§Thomas Charles Wherry, Sabetha
§David George William Willich, Hamlin
Jack Frederick Wynne, Salina

---

* *In absentia.*

§ Requirements for degree completed and diploma presented January 29, 1938.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

John Dean Armstrong, Hutchinson
Clarence Arthur Balwanz, El Dorado
Charles Tulloch Carter, Topeka
Hyle Keith Claflin, Kansas City, Mo.
John Lewis Deffenbaugh, Moline, Ill.
Newton A. Eaton, Jr., Chanute
Walter Edo Folkerts, Timken
Charles William Frick, Jr., Kansas City
Floyd Wilson Fulton, Kansas City, Mo.
Maynard Melvon Furney, Manhattan
Louis McDonald Gasche, Hartford
John Robert Harclerode, Sycamore
§Lester Lee Hermon, Jetmore
Milford Felix Itz, Osage City
*Robert Compton Johnston, Manhattan
Mac Kappelman, Athol
Harold Roy Martin, Salina
Jaccard Matchette, Kansas City, Mo.
Clayton Matney, Garden City
Wilbur Charles Page, Hesston
Lawrence Almon Platt, Junction City
Claude Floyd Ross, Dover
Walter Scott Schultz, Augusta
Dean Shepherd, White City
Charles Leon Simmons, Strong City
George William Smith, Sugar Creek, Mo.
Beverly Earl Steadman, Junction City
Elden Russell Stensaas, Concordia
Ray Harold Tackett, Parsons
Ross Bingham Vandever, Fredonia
*Donald Edward Wick, Hunter

Division of General Science

BACHELOR OF SCIENCE

Woodrow L. Ainsworth, Wichita
Annette Alsop, Manhattan
Dorothy Jane Bell, Manhattan
Lois Virginia Black, Attica
Esther Irene Chitwood, Meriden
Edward Alphonse DeClerck, Carmen, Okla.
Ben Diamond, New York, N. Y.
Elizabeth Virginia Dukelow, Hutchinson
Betty Frances Frederick, Hutchinson
Caroline Ruth French, Lyndon
Chester Martin Gull, El Dorado
Herbert Frank Haas, Manhattan
§Charles Hal Harned, Manhattan
Janie Mae Hood, Washington
Leora Belle Hubbell, Fredonia
Florence Esther Jensen, Manhattan
Shirley Aileen Johnson, Winfield
Isobel Margaret Kittell, McPherson
Rhoda Evelyn Lebow, Salina
Frederick Lee McDonald, Horton
Vergil Miller McIntosh, Manhattan
Wayne Wesley McIntosh, Manhattan
Louis Fullington Meek, Idana
Lois Alma Michelstetter, Hutchinson
Hans David Oliver Miller, Manhattan
John Junior Minnis, Manhattan
Tom Allen Montgomery, Hill City
Ruth Eleanor Newell, Junction City
Charlotte Clair Norlin, McCracken
Kenneth Sidney Norton, Oberlin
Marie Louise Ostendorf, Blue Island, Ill.
Sara June Owens, Neodesha
Eldon Edwin Reichle, Riley
Opal Bernice Ruddick, Manhattan
Roger Turner Shepherd, Manhattan
§Eleanore Evelyn Spencer, Whiting
Frances Evelyn Spurlock, Louisburg
Vernon McKee Stevens, Abilene
Eleanor Tibbetts, Westmoreland
Joseph Benjamin Tuck, Morrisville, Mo.
Elinor Lucile Uhl, Smith Center
Evelyn Maxine Walker, El Dorado
Mary Ann Wall, Mahaska
Irene Margaret Wassmer, Garnett
Solon Luther Willsey, Anthony
Harry Lester Wimmer, Robinson

BACHELOR OF SCIENCE IN COMMERCE

Gerald Ellsworth Abbey, Russell
Herbert Harner Blevins, Clay Center
§Alvin Herbert Block, Bavaria
James Henry Cannon, Salina
Ralph Elias Cole, Alton
Marjorie Ellen Cooper, Stafford
William Hammond Cost, Jr., Salina
Maurice Russell Coulson, Wichita
William Bradford Danford, Hutchinson
Margaret Sarah Daum, Manhattan
James Paul Dillingham, Alma
William Roy Dillingham, Jr., Salina
Don Alva Duckwall, Abilene
Lloyd Samuel Eberhart, Topeka
Paul Arnold Ehrsam, Enterprise
Lester Lloyd Fankhouser, Haviland
Charles Frederick Frey, Topeka
H. Selby Funk, Arkansas City
Evan Dalton Godfrey, Joplin, Mo.
Mary Louise Gudgell, Edmond
Lenore Marie Hatter, Abilene
Dean Howig, Topeka
Paul Emlyn Huff, Salina
George McCloud Hutcherson, Manhattan
Kenneth Emil Johnson, Newton
Harold Buhrer Keller, Enterprise
Homer Wilbur Kerley, Lawrence
Dorothea Klinger, Ashland
Harold G. Lortscher, Sabetha
Clara Wilhelmina Niemoller, Wakefield
David DeYoe Olive, Leavenworth
*Eugene Edmond Perkins, Independence
Velma Irene Peterson, Manhattan
Hardy Wilson Pitts, Amarillo, Tex.
Hugh Patrick Quinn, Salina
Kenneth Edwin Rall, Wichita
George Carlson Rankin, Gardner
Max Calvin Rankin, Highland
John Gilbert Reel, Manhattan
John Jacob Rhodes, Topeka
Imogene Theresa Ruch, Kansas City
Carl Robert Sandstrom, Herington
Frank Lee Schneider, Wichita
Phyllis Marian Shuler, Hutchinson
Clarence McPherson Skaggs, Dodge City
James Cornelius Slattery, Wright
Roy Ivan Smith, Lincoln
§Herbert August Sperling, Inman
Mary Marjorie Stephenson, Little River
Ernest William Whitney, Kansas City
§Harry Albert Woodbury, Abilene

---

* *In absentia.*

§ Requirements for degree completed and diploma presented January 29, 1938.

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

Murray Dean Dougan, North Kansas City, Mo.
Richard Harry Hageman, Hollenberg
John Donald Peterson, Enterprise
Ralph Thornton Rankin, Manhattan
Dan Arnold Richert, Newton
Ervin Walter Segebrecht, Kansas City
John Lawrence Taylor, Kansas City
Gilbert John Wagner, La Crosse
Harold Clifford Walters, Wetmore
§Charles Jesse West, Fort Scott
Joseph Arthur Weybrew, Wamego

BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Julia McNeill Absher, Fort Riley
Gerald Iden Biggs, Potwin
Mildred May Buckwalter, Manhattan
Elizabeth Achten Campbell, Wetmore
Janet Courtright, El Dorado
Wayne Vorine Dexter, Waterville
George Thaine Engle, Abilene
June Fleming, Council Grove
Ruth Genevieve Freed, Scandia
Sylvester Thaine Freeman, Severy
Dorothy Belle Gudgell, Edmond
*Marjorie Eleanor Holman, Santa Ana, Calif.
Dorothy Judy, Kansas City
William Mosier Kelley, El Dorado
Juanita Joan Looney, Winfield
*James William Lutz, Sharon Springs
Allan William McGhee, Centralia
Thomas Cruise Palmer, Kansas City
William Raymond Peterson, Manhattan
Howard Daniel Pierce, Kansas City
Jackson Chilcott Remmele, Manhattan
James Newell Seaton, Manhattan
Dorothy May Shrack, Pratt
Harriette Caroline Simpson, Fort Lewis, Wash.
Charlesanna Dorothea Stewart, Hutchinson
Darrella Lynette Stewart, Hutchinson
*Byron Gilman Swain, McPherson
Robert Edward Tate, Downs
Gertrude Lola Tobias, Lyons

BACHELOR OF SCIENCE IN MUSIC EDUCATION

Matthew Thornton Betton, Bethel
Donald Leroy Engle, Manhattan
Sadie Alma Graham, Republic
Elizabeth Christine Lechner, Salina
Lloyd Murle Mordy, Delia

BACHELOR OF MUSIC

Donald Leroy Engle, Manhattan
Wilma Kathryn Price, Manhattan

BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

Dorothy Anne Alspaugh, Wichita
Allen Warwick Burns, Kansas City
Virginia Aline Case, Nickerson
John Carl Crawley, Elkhart
Dale Leroy Duncan, St. Francis
Mabel Lenora Foy, Hutchinson
Maxine Gibbs, Quinter
George William Hawks, Holton
Kathryn Patricia Scheier, Everest
Charles Raymond Socolofsky, Tampa
John Amos Stephens, Wichita
Winifred Lois Whipple, Omaha, Neb.

Division of Home Economics

BACHELOR OF SCIENCE IN HOME ECONOMICS

Lillian Emma Adams, Leavenworth
Esther Verneada Allen, Wellington
Hazel LaVergne Angus, Sterling
Georgiana Martha Avery, Coldwater
Nora Alice Babb, Broughton
Guenndolyn Alberta Beeler, Kansas City
Alma Lois Bennett, Sterling
Florence Elaine Bergmann, Axtell
Mary Louise Black, Independence
Zeurita Elaine Bonar, Washington
Doris Boyle, Spivey
§Ruth Geraldine Burcham, Kansas City
Stephanna Burson, Manhattan
Beatrice Allene Burton, Kansas City, Mo.
Iona Marie Clennin, Tulia, Tex.
Barbara Ellen Costin, Wichita
Audrey Louvina Cramer, Webber
Verda Mae Dale, Coldwater
Eleanor Dales, Eureka
Frances Louise Davis, Fort Scott
Erma Charlyene Deck, Circleville
Esther Marie Dilsaver, Athol
§Charlotte Gail Diver, Chanute
Blanche Pauline Drysdale, Severy
Helen Lucille Dunbar, Arkansas City
Janet Elizabeth Dunn, Oxford
Isabel Gifford Fell, Fellsburg
Mary Elizabeth Fink, Osborne
Ermina Jane Fisher, Holton
Hazel Thelma Frager, Wamego
Bettie Jane Freeland, Wichita
Nancy Genevieve French, Emlenton, Pa.
Beulah Blaser Germann, Fairview
Sallie Burnette Gilbreath, Hereford, Tex.
Rosethel Grimes, Manhattan
§Grace Mary Gustafson, Manhattan
Waneta Beulah Guthrie, Fort Scott
Jacqueline Hanly, Manhattan
§Thelma Alta Harman, Indianapolis, Ind.
Frances M. Heaton, Partridge
Ruth Mae Hofsess, Partridge
Wilma Draper Hollis, Westmoreland
Norma Holshouser, Dwight
Betty Ruth Houser, Grainfield
Agnes Irene Jenkins, Jewell
Mary Christine Jorgenson, Manhattan
Alma Belle Karns, Bucklin
Mary Margaret Keller, Clyde
Irene Vivian Kenady, Nevada, Mo.
Delpha Alberta Klint, Clifton
Helen Margaret Koestel, Partridge
Dorothy Maxine Kubin, McPherson

---

* *In absentia.*

§ Requirements for degree completed and diploma presented January 29, 1938.

BACHELOR OF SCIENCE IN HOME ECONOMICS—*Continued*

Virginia Kathryn Laskie, Bucyrus
Helen Louise Liflibridge, Hutchinson
Violet Eleanor Linville, Chase
Eleanor Emma Long, Stockton
Mary Mabel McCoy, Iola
Mary Doris McVey, Hill City
Abby Lindsey Marlatt, Manhattan
Wilma Nina Marsh, Columbus
Sara Lee Alice Mastin, Stotesbury, Mo.
Marion Louise Meyer, Salina
Olive Agnese Miller, Mahaska
*Alice Carol Mitchelson, Baxter Springs
Mary Margaret Montgomery, Sedalia, Mo.
Ilene Anna Morgan, Manhattan
Olga Adelle Morgenson, Vesper
Esther Mae Musil, Blue Rapids
Celeste Wilhilmenia Nelson, Topeka
Dorothy Leona Nichol, Concordia
Joeuetta Orlena Owens, Manhattan
Lora Neudeck Patterson, Kansas City
Arlene Marie Perkins, Kansas City
Lois Maureen Peterson, Garrison
Mildred Florence Peterson, Kingman
Elma Helen Regier, Newton
Anna Reimer, Buhler
Christine Eleanor Robinson, Nash, Okla.
Mina Louise Ross, Wamego
Mary Gertrude Sardou, Topeka
Julia Rebecca Sawtell, Topeka
Edna Margaret Schroeder, Lorraine
Hazel Marie Scott, Manhattan
Huldah Vernice Shipman, Kansas City
Patricia Walsh Shoaf, Topeka
§Elsie Belle Sloan, Manhattan
Alice Pearl Sloop, Nortonville
Eleanor Stahlman, Potwin
Jeannette Elizabeth Stearns, Wichita
Alice Mary Stockwell, Manhattan
Evelyn Emma Stout, Lone Elm
Katherine Elizabeth Taylor, Osborne
Lila Elaine Taylor, Enterprise
Virginia Mae Teichgraeber, McPherson
Leona Zoe Tibbetts, Wheaton
Wilma Maurine Tonn, Haven
Pauline Ernestine Umberger, Manhattan
Vida Schmidler Warner, Arlington
Lucy Eliza Whiteman, Sedgwick
Wilma Grace Wilkins, Milford
Eleine Mae Wilson, Towanda
Evelyn Ruth Wilson, Towanda
Margaret Alleyne Wilson, Valley Center
Victoria Helen Jennie Wilson, Manhattan
Virginia Iyone Winkler, Randolph
Edith Mabelle Woods, Kensington
Rose Woods, Kansas City, Mo.
Laura May Young, Cheney

BACHELOR OF SCIENCE IN HOME ECONOMICS AND NURSING

Christine Louise Overley, Belle Plaine
Ruth Leona Regier, Buhler

Division of Veterinary Medicine

DOCTOR OF VETERINARY MEDICINE

Jacob Antelyes, Brooklyn, N. Y.
Vincent Clinton Bevenue, Kansas City
Arthur Randolph Blythe, White City
Grafton Diddle Bowers, Manhattan
Hugh Burkett Campbell, Geneva, Ind.
Francis Adam Caspar, Alida
Donald Louis Cassidy, Cedar Rapids, Iowa
Merwyn Pierce Chapman, Fredonia
George Edward Cottral, Savanna, Ill.
Joseph Abraham Farney, Kiowa
Merle LeRoy Farris, Ottawa
Joseph George Feinberg, Brooklyn, N. Y.
Lon E. Foote, Brush, Colo.
Merwin Jack Gregg, Caney
John Steward Haley, Delphos
Hyman Joseph Harkavy, New York, N. Y.
David Jacobson, Brooklyn, N. Y.
Sidney Levine, Brooklyn, N. Y.
Ernest Leland Love, Macon, Mo.
Ian Currie McDonald, Petaluma, Cal.
Raymond Leroy McMahan, Manhattan
George Badsky Maichel, Overbrook
Lloyd Burdette Mobiley, Kansas City
Wilbur Henry Mowder, Sabetha
Victor Thomas Oliver, St. Louis, Mo.
Hyman Parrell, Los Angeles, Cal.
Elton Vernon Parsons, Emporia
Charles Bernard Randall, Bethel
Harold Daniel Rodabaugh, Manhattan
Andy John Sargent, Colton, Cal.
Maurice Anthony Schooley, Morganville
Albert V Schwartz, Winkler
§LaGrande Clarence Shaw, Geneva, Neb.
Clarence Franklin Shelby, Columbus
Warren Lang Skinner, Beverly
William Daniel Smith, Fredonia
Joseph Robert Sterling, Brooklyn, N. Y.
Cleon Orel Tackwell, Phillipsburg
Raymond Woodrow Wann, Kingman, Ind.
Wayne Ross Witter, Brookfield, N. Y.
Herald George Wixom, San Bernardino, Cal.
Tit Wong, Canton, China
James Elias Ziegler, Junction City

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* *In absentia.*

§ Requirements for degree completed and diploma presented January 29, 1938.

COMMISSIONS AWARDED

LIEUTENANT, OFFICERS' RESERVE CORPS

Kirk Eiler Adams (Inf), Oak Mills
Edward Ira Allen (CAC), Michigan Valley
Jay Donald Andrews (Inf), Bloom
Victor Pierson Archer (Inf), Kansas City, Mo.
Dewey Axtell (Inf), Manhattan
‡Russell Lee Belflower (CAC), Dodge City
Herbert Harner Blevins (Inf), Clay Center
Arthur Randolph Blythe (VC), White City
Grafton Diddle Bowers (VC), Cowgill, Mo.
Ralph Edward Breeden (CAC), Latham
George Gray Breidenthal (Inf), Kansas City
Russell Conwill Buehler (CAC), Seneca
Hugh Burkett Campbell (VC), Geneva, Ind.
†Wayne Rodeen Carlson (CAC), Topeka
Charles Tulloch Carter (CAC), Topeka
Francis Adam Caspar (VC), Alida
Donald Louis Cassidy (VC), Cedar Rapids, Iowa
Merwyn Pierce Chapman (VC), Fredonia
George Edward Cottrall (VC), Savanna, Ill.
Arthur Howard Costain (CAC), Fort Riley
Maurice Russell Coulson (Inf), Wichita
Fred Butcher Crist (CAC), Brewster
‡Roger McKee Crow (CAC), Topeka
Harold George Deters (CAC), Cawker City
Murray Dean Dougan (CAC), North Kansas City, Mo.
Lester Lloyd Fankhouser (Inf), Haviland
Joseph Abraham Farney (VC), Kiowa
Merle LeRoy Farris (VC), Ottawa
Walter Edo Folkerts (CAC), Timken
Lon E. Foote (VC), Brush, Colo.
Merwin Jack Gregg (VC), Caney
Russell Herman Gripp (Inf.), Hill City
Richard Harry Hageman (Inf), Hollenberg
John Steward Haley (VC), Delphos
John Fenwick Hall (CAC), Junction City
‡Lawrence Isador Haller (CAC), Alma
Hyman Joseph Harkavy (VC), New York, N. Y.
Harold Vincent Henderson (CAC), Eskridge
†Charles Matthew Heizer (CAC), Hamilton
Harold Kenneth Howell (CAC), Quinter
Milford Felix Itz (CAC), Osage City
‡Robert Bright Jaccard (Inf), Manhattan
David Jacobson (VC), Brooklyn, N. Y.
Chester Herman Johnson (CAC), Manhattan
Aimison Jonnard (CAC), Manhattan
*Mac Kappelman (CAC), Athol
Robert Verne Kellogg (Inf), Wichita
†Fred Vinton Klemp (CAC), Leavenworth
Sidney Mercer Levine (VC), Brooklyn, N. Y.
Ernest Leland Love (VC), Macon, Mo.
*Max McCord (CAC), Manhattan
*Frederick Lee McDonald (Inf), Horton
Ian Currie McDonald (VC), Petaluma, Cal.
Vergil Miller McIntosh (Inf), Manhattan
Wayne Wesley McIntosh (Inf), Manhattan
Raymond Leroy McMahan (VC), Manhattan
George Badsky Maichel (VC), Overbrook
Roy Scott Martin (CAC), Pratt
Clayton Matney (CAC), Garden City
Louis Fullington Meek (CAC), Idana
‡Edward Martin Mertel (Inf), Salina
Francis John Moore (Inf), Ashland
Carl William Morgan (CAC), Long Island
Wilbur Henry Mowder (VC), Sabetha
Fred Harold Muret (Inf), Winfield
Victor Thomas Oliver (VC), St. Louis, Mo.
Hyman Henry Parrell (VC), Los Angeles, Cal.
*Earl Foster Parsons (Inf), Max, Neb.
Elton Vernon Parsons (VC), Emporia
Martin Oren Pattison (CAC), Manhattan
*Charles Belden Percival, Kansas City
William Raymond Peterson (Inf), Manhattan
James Maxwell Pierce (CAC), Burden
Joseph Curtis Prentice (Inf), Manhattan
Charles Bernard Randall (VC), Bethel
Ralph Thorton Rankin (CAC), Manhattan
John William Reynolds (Inf), Winfield
John Jacob Rhodes (Inf), Topeka
Charles Eugene Roper (CAC), Atchison
Claude Floyd Ross (CAC), Dover
Carl Robert Sandstrom (Inf), Herington
Maurice Anthony Schooley (VC), Morganville
Paul A. Schoonhoven (CAC), Manhattan
James Newell Seaton (Inf), Manhattan
Clarence Franklin Shelby (VC), Columbus
Fred William Sims (Inf), Salina
Clarence McPherson Skaggs (Inf), Dodge City
Warren Lang Skinner (VC), Beverly
Raymond R. Sollenberger (CAC), Manhattan
Kay Vern Spear (CAC), Leoti
Ralph Norman Spencer (Inf), Leavenworth
Beverly Earl Steadman (CAC), Junction City
†Darrell Stanley Steele (Inf), Treynor, Iowa
Joseph Robert Sterling (VC), Brooklyn, N. Y.
Everett Wilson Stewart (Inf), Talmage
*Clarence Arthur Swanson (CAC), Loveland, Colo.
David Ambrose Thompson (Inf), Cheney
*James Madsen Towner (CAC), Manhattan
Kenneth Wible Tudor (CAC), Holton
Raymond Woodrow Wann (VC), Kingman, Ind.
Charles Poe Weeks (CAC), Wichita
Homer Theodore Wells (CAC), Marysville
Hilary John Wentz (CAC) Concordia
‡Riley Russell Whearty (Inf), Rossville
Floyd Eugene Wiley (CAC), Junction City
Arthur Charles Willis (CAC), Stafford
Solon Luther Willsey (Inf), Anthony
*Richard Gordon Wiltse (Inf), Altoona
Wayne Ross Witter (VC), Brookfield, N. Y.
Herald George Wixom (VC), San Bernardino, Cal.

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* Requirements for commission completed January 29, 1938.

† Certificate in lieu of commission—not 21 years of age.

‡ Commissioned at end of summer camp—1937.

CAC—Coast Artillery Corps.

Inf—Infantry.

VC—Veterinary Corps.

Fourteenth Annual Summer School Commencement

July 29, 1938

DEGREES CONFERRED

Division of Graduate Study

MASTER OF SCIENCE

Mildred Laura Ahlstrom, A. B., Park College, 1925; Reading.
George Howard Bain, A. B., Park College, 1934; Kansas City.
Everett George Barber, B. S., Kansas State Teachers College, Pittsburg, 1926; Salina.
Esther Kathryn Beachel, A. B., Kansas Wesleyan University, 1930; Norcatur.
Hazel Eirene Buck, B. S., Kansas State College, 1930; Derby.
Harold Robert Callahan, A. B., Columbia College, 1925; Junction City.
Ernest Vernon Carson, B. S., Kansas State Teachers College, Emporia, 1935; Emporia.
*Chi Chen, B. S., University of Nanking, 1928; Zakow, Hangchow, China.
Madelyn Crawford, B. S., University of Kansas, 1929; Spring Hill.
George Franklin Dillon, A. B., Friends University, 1936; Wichita.
Raymond Joseph Doll, B. S., Kansas State College, 1935; Manhattan.
Kenneth Joseph Ekdahl, B. S., Kansas State College, 1933; Manhattan.
Theodore Allan Fleck, B. S., Kansas State College, 1929; Wakefield.
Willard LeRoy Gillmore, B. S., Kansas State College, 1927; Yates Center.
Earl Todd Goodfellow, B. S., Kansas State College, 1928; Wells.
Loren Dwight Grubb, B. S., Kansas State College, 1937; Phillipsburg.
Virgil Lee Haas, B. S., Kansas State Teachers College, Emporia, 1929; Severy.
Virginia Frances Harger, B. S., Washington State College, 1934; Spokane, Wash.
Merle Preston Haymond, B. S., Kansas State College, 1933; Plevna.
Madge Delia Hildreth, B. S., Kansas State Teachers College, Pittsburg, 1928; Parsons.
Maurice Wilson Horrell, B. S., Kansas State College, 1935; Manhattan.
Marion Ray Hottell, B. S., Kansas State Teachers College, Emporia, 1925; Americus.
Lois Elda Howard, B. S., Kansas State College, 1934; Cut Bank, Mont.
Walter Henry Hukriede, B. S., Kansas State College, 1925; Lewis.
Geraldine Wanda Jones Hurd, B. S., Kansas State College, 1937; Junction City.
Ethel Hannah Keith, A. B., Southwestern College, 1926; Attica.
Eva Elizabeth Lisk, B. S., Kansas State College, 1933; Manhattan.
Mary Enid Meek, B. S., Kansas State Teachers College, Emporia, 1924; Emporia.
Clark Carlisle Milligan, B. S., Kansas State College, 1932; Linn.
Nelle Ruth MacQueen Morgan, B. S., Kansas State College, 1936; Manhattan.
*Elmer Lewis Munger, B. S., Kansas State College, 1936; Manhattan.
Donald LeRoy Murray, B. S., North Dakota State College, 1934; Edgely, N. Dak.
Donald Baker Parrish, B. S., Kansas State College, 1935; Manhattan.
Paul Clutter Perry, B. S., Kansas State College, 1932; Little River.
Myron Loyd Sallee, B. S., Kansas State College, 1927; Manhattan.
Olive Elizabeth Schroeder, B. S., Kansas State College, 1937; Lorraine.
Hamilton Arlo Stewart, B. S., Kansas State College, 1926; Topeka.
Altha Tedrow, B. S., Kansas Wesleyan University, 1929; Salina.
Arlie Todd, A. B., Kalamazoo College, 1937; Bangor, Mich.
George Edward Truby, B. S., Kansas State College, 1925; Lane.
Katherine Ann Tucker, B. S., Kansas State College, 1912; Topeka.
Martha Jane Ulrich, A. B., University of Kansas, 1930; Hamilton.
*Mabel Stella Westcot, B. S., Iowa State College, 1927, Linden, Iowa.
Harold Wierenga, B. S., Kansas State College, 1935; Cawker City.
*Eleanor May Wilkinson, B. S., Kansas State College, 1936; Howard.
Chester Stanley Wood, B. S., Kansas State College, 1923; Pratt.
Gene Neill Woodruff, B. S., Kansas State College, 1934; Kansas City.
Millard Yantzi, B. S., Kansas State College, 1937; Kansas City.

Division of Agriculture

BACHELOR OF SCIENCE IN AGRICULTURE

Wilbur Leo Alvey, Kansas City
Russell Herman Gripp, Hill City
Frederick Vincent Kilian, Detroit
Rodney Keith McCammon, Esbon

BACHELOR OF SCIENCE IN MILLING INDUSTRY

David Ramsey Page, Topeka
Verlin Willis Randall, Haddam

Division of Engineering and Architecture

BACHELOR OF SCIENCE IN AGRICULTURAL ENGINEERING

Fred Morton Crawford, Madison
George Anthony Hellmer, Olpe

---

* *In absentia.*

BACHELOR OF SCIENCE IN ARCHITECTURAL ENGINEERING

Charles Matthew Heizer

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Fred Butcher Crist, Brewster
Thomas Charles Wherry, Sabetha

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

*John Henry Bateman, Lawrence
Wayne D. Branick, Fredonia
Evert Eric Ericson, Clyde
John Fenwick Hall, Junction City
Clyde Donald Hoover, Macksville
Harry Stevens, Jr., Sycamore

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Walter Francis Cronin, McCune
Theodore Franklin Emerson, Wellington
*Mander Xenophon Yonts, Ivan, Ky.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Clarence Neil Brigham, Topeka
Nelson Lewis Buck, Dover, N. J.
Robert Jerome Frick, Kansas City
Joseph Waker Reeves, Burlington

Division of General Science

BACHELOR OF SCIENCE

Wilma Mildred Barr, Manhattan
Charles Wilmot Benkelman, McDonald
Paul Wendell Cassell, Salina
James Richard Cowan, Wichita
Florine Fay Craig, Protection
Lee Shriver Fent, Newton
Corbin Carter Goff, St. Joseph, Mo.
Elmer Floyd Hampl, Luray
Eunice Ruth Justis, Washington
Roy C. Knappenberger, Penalosa
Dorothy Geraldine Leach, Wellington
Elvera Marlene Lundine, Woodbine
Claudia Maxine Maxwell, Topeka
James Otis Thompson, Emporia

BACHELOR OF SCIENCE IN COMMERCE

Irvin Leroy Cantrall, Olathe
Harry M. Flagler, Manhattan
Eleanor Letitia Foncannon, Ashland
Bernard Harry Holmgren, Kansas City
Edward Fred Klahr, Topeka
*Charles Beldon Percival, Kansas City
Gordon Skiver, Burr Oak
Paul Eugene Spears, Belle Plaine
John Mitchel Stevens, Waterbury, Conn.
Norman Dunning Wiltrout, Logan
Emery Donald Wright, Parsons

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

Howard Hayden Belew, El Dorado
Allen Payne Crowley, Manhattan
James Franklin Ellis, El Dorado
Richard Leon Henderson, Earleton
Homer Ensley Mayo, Kansas City
William Morrow Proudfit, Powhattan
Eldon Eugene Retzer, Manhattan
Max Wolf, Manhattan

BACHELOR OF SCIENCE IN INDUSTRIAL JOURNALISM

Barbara Rairden Carr, Hutchinson
Edna Marie Gaston, Centralia
Kenneth M. Heywood, Summerfield
Charles Morris Platt, Manhattan
Willard H. Scherff, Kansas City
*Adrian Ramsey Sorrells, Kansas City

BACHELOR OF SCIENCE IN MUSIC EDUCATION

Annie Elizabeth Fraser, Manhattan

BACHELOR OF SCENCE IN PHYSICAL EDUCATION

Donald Wilson Beeler, Mankato
Darwin L. Berry, Wilmot
Delia Margaret Call, Mount Vernon, Mo.
Ray LaVern Ellis, Wichita
*Joseph Curtis Prentice, Manhattan
Iva Maxine Zook, Wichita

---

* *In absentia.*

Division of Home Economics

BACHELOR OF SCIENCE IN HOME ECONOMICS

Violet Mae Bauer, Clay Center
Mary Eliza Burt, Manhattan
Lenore Joan Childers, Kansas City, Mo.
Elizabeth Cowie, Kansas City, Mo.
Pauline Bernice Curtis, Manhattan
Edna May Decker, Holton
Deda Harriet DeYoung, Prairie View
Marjorie Forbes, Columbus
Avis Charlotte Hall, Agra
Pauline Louise Hallman, Danville
Margaret McClintock Heath, Wichita
Eleanor Ruth Jenkins, Springfield, Ill.
Helen McCune Jones, Herington
Mildred Lucille Mundell, Nickerson
Ethel Ohr, Portales, N. Mex.
Edith Alfreda Sellberg, McPherson
Hazel Shoemaker, Fort Scott
Dorothy Dawn Stagg, Manhattan
Mary Ethel Stewart, Oak Mills
Theresa Mae Ward, Langdon
Marjorie Ellen Williams, Marysville
Frances Evelyn Wolf, Nickerson
Beulah Marie Woodcock, Manhattan

BACHELOR OF SCIENCE IN HOME ECONOMICS AND NURSING

Alice Louise Denton, Green River, Wyo.

HONORS

PHI KAPPA PHI

1937-1938

Division of Graduate Study

Kling LeRoy Anderson
Esther K. Beachel
Raymond Joseph Doll
Earl Todd Goodfellow
Elmer George Heyne
Rudolph Dickson Michael
Charles Alfred Patterson
Millard Yantzi

Division of Agriculture

Wilbur Leo Alvey
Jay Donald Andrews
Dewey Axtell
Frank Louis Brooks, Jr.
Wayne Henry Freeman
Alvin George Law
Rollin Chester Parsons
Elmore Gregory Stout
Gilbert LeRoy Terman
Wayne Tjaden

Division of Engineering

John Bernard Alfers
Perry Charles Arnold
Delber Lloyd Blackwell
Sanford David Blattner
Carl Czaplinski
Edwin Dale Ebright
Robert Roy Freeman
Charles William Frick
John Worth Hines
Harold Kenneth Howell
Aimison Jonnard
Harris Leo Mackey
Carl William Morgan
Jean Washburn
Arthur Eugene Watson
Evan Watts

Division of General Science

Annette Alsop
*Drussilla Madge Beadle
Dorothy Jane Bell
Edward Alphonse DeClerck
Murray Dean Dougan
Donald Leroy Engle
Ruth Genevieve Freed
Edna Marie Gaston
Lenore Hatter
Thelma Holuba
Paul Emlyn Huff
Marie Louise Ostendorf
Thomas Cruise Palmer
John Donald Peterson
Hugh Patrick Quinn
Opal Bernice Ruddick
Eleanor Evelyn Spencer
Irene Margaret Wassmer
Joseph Arthur Weybrew

Division of Home Economics

Erma Charlyene Deck
Esther Marie Dilsaver
Ermina Jane Fisher
Marjorie Forbes
Mary Christine Jorgenson
Alma Belle Karns
Abby Lindsey Marlatt
Lora Neudeck Patterson
Ruth Leona Regier
Anna Reimer
Jeannette Elizabeth Stearns
Evelyn Emma Stout
Edith Maybelle Woods

Division of Veterinary Medicine

Jacob Antelyes
David Jacobson
Joseph Sterling
George Harold Wixom

* Class of 1936.

SENIOR HONORS

1938

In each Division of the College, high honors are awarded at commencement to not more than three percent of the senior class having the highest standing in scholarship during their junior and senior years. Honors are also awarded to not more than an additional seven percent of the senior class.

Division of Agriculture

HIGH HONORS

*Jay Donald Andrews
Rodney Keith McCammon
Rollin Chester Parsons
Charles Alfred Patterson
Wayne Tjaden

HONORS

Walter Abmeyer
Wayne Henry Freeman
*Alvin George Law
Elmore Gregory Stout
Gilbert Leroy Terman
Charles Peairs Wilson

Division of Engineering

HIGH HONORS

*Perry Charles Arnold
*Delber Lloyd Blackwell
*John Worth Hines
Jean Washburn

HONORS

*Sanford David Blattner
Carl Czaplinski
*Robert Roy Freeman
Charles William Frick, Jr.
*Harold Kenneth Howell
*Aimison Jonnard
*Lyman Max Lyon
*Carl William Morgan
Arthur Eugene Watson
*Evan Watts

Division of General Science

HIGH HONORS

*Annette Alsop
*Donald Leroy Engle
Annie Elizabeth Fraser
Eleanor Evelyn Spencer
Irene Margaret Wassmer
*Joseph Arthur Weybrew

HONORS

William Bradford Danford
Edward Alphonse DeClerck
*Edna Marie Gaston
Dorothy Belle Gudgell
*Lenore Marie Hatter
Paul Emlyn Huff
Tom Allen Montgomery
Marie Louise Ostendorf
*Thomas Cruise Palmer
*John Donald Peterson
*William Morrow Proudfit
Hugh Patrick Quinn
Opal Bernice Ruddick
Gordon Skiver

Division of Home Economics

HIGH HONORS

Erma Charlyene Deck
Marjorie Forbes
*Abby Lindsey Marlatt
Anna Reimer

HONORS

Edna May Decker
Alice Louise Denton
Ermina Jane Fisher
Grace Mary Gustafson
Lora Neudeck Patterson
Jeannette Elizabeth Stearns
Evelyn Emma Stout
Katherine Elizabeth Taylor
*Edith Mabelle Woods
Rose Woods

Division of Veterinary Medicine

HIGH HONORS

Charles Bernard Randall

HONORS

Jacob Antelyes
*David Jacobson
Herald George Wixom

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* These persons were awarded sophomore honors at the end of their sophomore year.

SOPHOMORE HONORS

1938

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

Glenn Arnold West
John Alex Shaw
Donald Irvine McCoy
Joseph Edmond Robertson
John Henry McCoy
John G. Dean
Delbert Earl McCune
Melvin Raymond Peterson
Roland Andrew Kruse
Harold Eugene Jones

Division of Engineering and Architecture

Carroll Dean Owensby
Robert Lansdowne Teeter
Joseph James Redmond
Robert Glenn Lake
Charles Elmer Webb, Jr.
Elmer Rollin, Jr.
Orven Harry Armstrong
Carl Theodore Besse
Clarence Leaman Abell
John Parke Ransom
Ralph Emanuel Samuelson
Lloyd Bryon Tribble
Park Laurence Morse

Division of General Science

Harold Edward Engle
Helen Isabel Peterson
Ruth Helen Hammel
Beryle Elizabeth McCammon
Marvin Ray Shetlar
Ruth Adelaide Getty
Dorothy Dean
Margaret Helen Blevins
Fern Bair
Carlos Irving Cole
Merle Edward Dowd
Frederick Allen Heskett
Walter Woodrow Martin

Division of Home Economics

Maxine Beryl Bishop
Elnora Jane Thomas
Luella Velva Siek
Agnes Marie Smith
Genevieve Eleanor Schroer
Mildred Blanche Bozarth
Dawn Lorraine Hornbaker
Iola Verna Houdek
Vivian Ethel Anderson
Elizabeth Maude Brooks
Abbie Maurine Miller

Division of Veterinary Medicine

Roger Guy Spencer
Max Leon Greenberg
Orin Ellis

GENERAL INDEX

17-6529

List of Students

SEVENTY-SIXTH SESSION

1938-1939

TABLE OF CONTENTS

LIST OF STUDENTS**

Students Pursuing Graduate Work In Regular Session

Graduate Students

Gerald Ellsworth Abbey; Russell
*Coral Kerr Aldous; Manhattan
Annette Alsop; Manhattan
Edith Evelyn Ames; Brewster
Essie Jane Anderson; Lawrence
John Edmond Anderson; Manhattan
Kling LeRoy Anderson; Manhattan
*Adelaide Anne Aschmann; Charleroi, Pa.
Thomas Burt Avery; Coldwater
John Dewey Axtell; Manhattan
†Norman Davis Ball; Manhattan
Nora Elizabeth Bare; Protection
Laura Belle Baxter; Manhattan
Buell Wesley Beadle; Manhattan
*Edgar Sidney Beaumont; Amherst, Mass.
Mary Estelle Blackman; Manhattan
*Clarence E. Bley; Chester, Pa.
*James O. Blodgett; Corvallis, Ore.
Everett George Blood; Garnett
Phyllis Irene Boyle; Manhattan
Carl William Brown; Mildred
Vira Brown; Edmond
Loren Aldro Bryan; Emporia
Harry Ray Bryson; Manhattan
Harry Copley Buchholtz; Olathe
Lucile Beatrice Burt; Manhattan
*Marjorie Louise Burton; Ames, Iowa
†Raymond Cecil Bushland; Menard, Tex.
Marion John Caldwell; Manhattan
†Oren Emery Campbell; Valley Falls
Arthur Adam Case; Manhattan
Ralph Boyd Cathcart; Manhattan
Mildred Edna Chappell; Plains
Carl Ernest Claassen; Newton
Eugene Frederick Collins; Manhattan
Tate Benton Collins, Jr.; Kuttawa, Ky.
Esther Margaret Cormany; Manhattan
Robert Edwin Cress; Manhattan
Alfred Charles Curtiss; Beeler
Reyhold George Dahms; Verden, Okla.
*Ruth J. Dales; Manhattan
Rose Marie Darst; Radnor, Ohio
Floyd Ewing Davidson; Parsons
†*Benjamin Ammon Davis; Seneca
Marion Price Dawley; Manhattan
John Wesley DeMand; Lincolnville
†Lois Estelle Dennhardt; Sheboygan, Wis.
Arthur William Devor; Manhattan
James Paul Dillingham; McFarland
George Franklin Dillon; Wichita
Paul Lawrence Dittemore; Manhattan
Raymond Joseph Doll; Manhattan
Vernon Lloyd Doran; Macksville
*Ralph Gonzales Dunmire; Sterling
Keith Barber Dusenbury; Manhattan
Samuel Allen Edgar; Sterling
*Harold Russell Ekroth; Chicago, Ill.
Vera May Ellithorpe; Russell
Donald Leroy Engle; Manhattan
*Warford Wendling Farrar; Frankfort
Lee Shriver Fent; Newton
Doris Hays Fenton; Manhattan
Miscal Leon Fierke; Manhattan
John Charles Finerty; Chicago, Ill.
*Alva L. Finkner; Akron, Colo.
Karl Frederick Finney; Manhattan
Hazel Marie Fletcher; Modoc, Ind.
Vernon Daniel Foltz; Manhattan
†*Lorena Catherine Foreman; Hutchinson
Jean Dobbs Frank; Manhattan
†Thomas Henry Fraser, Jr.; Moro, Ore.
Forest Sheldon Frick; Albion, Ind.
*Lyman Philip Frick; Kansas City, Mo.
Robert Jerome Frick; Kansas City
Roy Fred Fritz; Manhattan
*Mary Louise Gephart; Peabody
*John H. Gibson; Gower, Mo.
Clarence Lee Gish; Manhattan
Galen Francis Glessner; McPherson
Otis Benton Glover; Manhattan
*George H. Gries; Conover, Ohio
La Motte Grover; Manhattan
Loren Dwight Grubb; Phillipsburg
*Ralph L. Gustafson; Bagley, Minn.
*Anna Lucille Hadden; Pringhar, Iowa
*Charles W. Hadley; Winfield
Virginia Kay Haggart; Topeka
Hubert C. Hahn; Alma
Charles Hal Harned; Manhattan
Ellen Anita Hawke; Irving
Kenneth Marion Heywood; Manhattan
Leona Thurow Hill; Manhattan
Wilma Marguerite Hilt; Sabetha
Leonard Casper Hoegemeyer; Hooper, Neb.
Hilton Delos Hollembeak; Manhattan
Helen Pansy Hostetter; Manhattan
*Miriam Althea Hill Houston; Rosendale, Wis.
Wai Lan Huang; Canton, China.
†Dolf Jesse Jennings; Burlingame
†Julian Almon Johnson; Buhler
*Robert W. Jugenheimer; Manhattan
*Eneas Dillon Kane; San Francisco, Cal.
Virginia Voigt Keim; Lincoln, Neb.
Alvin Lawrence Kenworthy; Mounds, Okla.
Alice Day Kimball; Manhattan
Eunice Leola Kingsley; Manhattan
*Glenn Charles Klingman; Chappell, Neb.
*James M. Koepper; Medora, Ind.
John Theodore Kroulik; Belleville, Tex.
*Raymond John Ladd; Paton, Iowa
Alvin George Law; Hill City
*Henry H. Lee; Chanute
*Kud Chen Lee; Wenan, China
Peter Henry Leendertse; Wichita
*Florence May Lehman; Abilene
Alice Charlotte Linn; Clyde
James Walton Linn; Manhattan
*Morrison Loewenstein; Kearney, Neb.

** June 1, 1938, to May 30, 1939.
* Matriculated 1938-1939.
† In absentia.

GRADUATE STUDENTS—*Concluded*

Sam Long; Abilene
*Ercell Vernon Lynn; Manhattan
Naomi Sue Lyon; Manhattan
Majorie Sellers McCall; Manhattan
Max Elton McCluggage; Manhattan
Patricia Fleming McCluggage; Manhattan
Frederick Lee McDonald; Horton
*Edith Lucile McGraw; Hope
Virgil Miller McIntosh; Manhattan
Wayne Wesley McIntosh; Manhattan
Florence Elizabeth McKinney; Manhattan
*Helen Christie Malcolm; Almena
Abby Lindsey Marlatt; Manhattan
Rachel Martens; Manhattan
Edgar Martin; Manhattan
Ella Jane Meiller; Minneapolis
Hans David Oliver Miller; Manhattan
Kenneth William Miller; Manhattan
Leo Albert Moore; Manhattan
Francis Earl Mordy; Manhattan
*Allen Clareth Morine; McPherson
Shige Namba; Tokyo, Japan
Arthur Leslie Neal; Manhattan
Clayton Omar Obenland; Manhattan
Chester Winfield Ofelt; Minneapolis, Minn.
Daisy Marietta Osborn; Elmont
Maxine Josephine Osbourne; Manhattan
†Carl Gerhardt Ossman; Greenleaf
†Gustaf Clark Overley; Belle Plaine
*Jasper Earl Pallesen; Manhattan
Dan Partner; Manhattan
Buel R. Patterson; Manhattan
Marion Herfort Pelton; Manhattan
Charlotte Penny; Manhattan
†Iver Eugene Peterson; Phillipsburg
*Maurice Lewellen Peterson; Oakland, Neb.
†Roland Winfield Peterson; Riley
*Eugene Harold Pietsch; Chicago, Ill.
*Clarence Andrew Pippin; Decatur, Ill.
Mary Mabry Porter; Russell Springs
Roland Wagner Portman; Manhattan
Imogene Price; Manhattan
William Morrow Proudfit; Powhattan
†Glen Bradshaw Railsback; Clay Center
Addison Doyle Reed; Manhattan
*Luella May Reeve; Midian
Esther Catherine Relihan; Smith Center
*Clarence Walter Rice; Buchanan, Mich.
*Martha Richardson; Kansas City, Mo.
Dan Arnold Richert; Newton
*Betty Jane Harris Roberts; Manhattan
Charles Pearson Roberts; Manhattan
June Roberts; Manhattan
Christine Eleanor Robinson; Nash, Okla.
*Jayne Glenn Robinson; Houston, Texas
*Frances May Rogers; Tulsa, Okla.
Ralph Rogers; Manhattan
*Seth Leonard Root; Topeka
*Joy Belle Sinyard Ross; Bryan, Texas
Marshall Minton Ross; Wichita
*George Edgar Ruggles; Pittsburg
Olga Barbara Saffry; Alma
Jesse McKinley Schall; Manhattan
†William Henry Schindler; Winchester
*Milton Otto Schmidt; Manhattan
William George Schrenk; Manhattan
Luke Michael Schruben; Manhattan
†Herbert Henry Schwardt; Ithaca, N. Y.
Myra Edna Scott; Manhattan
†Roger Turner Shepherd; Tulsa, Okla.
*Rowena Hammons Sherrill; Brownell
Christina Marie Shields; Lost Springs
*Louis Raymon Shobe; Waverly
Charles Leon Simmons; Strong City
*Laurence Nelson Skold; Haxtun, Colo.
Bernice Ethel Sloan; Manhattan
Robert Fred Sloan; Leavenworth
*George Lee Smith; Prairie View, Texas
Mabel Rachel Smith; Eskridge
Raymond R. Sollenberger; Manhattan
*William Zanvil Sosna; Manhattan
Clark Bernard Stephenson; Sedan
*Elizabeth Amelia Stewart; Marion
Charles William Stratton; Manhattan
Francis Joseph Sullivan; Manhattan
William Augustus Tanner; Aurora, Ill.
Delos Clifton Taylor; Manhattan
Howard Lee Taylor; Norton
Warren Chalmer Teel; Morland
*Mary Ellen Thayer; Manhattan
James Otis Thompson; Emporia
Eleanor Tibbetts; Manhattan
Joseph Benjamin Tuck; Morrisville, Mo.
Marvin John Twiehaus; Manhattan
Pauline Ernestine Umberger; Manhattan
*Charles Edmond Wagoner; McPherson
Elizabeth Daniel Walbert; Columbus
Harold Clifford Walters; Wetmore
Norman Coates Webster; Manhattan
*George Harvey Wellington; Springport, Mich.
Otto Ernest Wenger; Basehor
Marion Chalmer West; Blue Mound
Robert Dean West; Coffeyville
Joseph Arthur Weybrew; Wamego
Hugh Erwin White; Kingsdown
*Gailey Arthur Whitney; Manhattan
†Kathryn Whitten; Topeka
Jennie Williams; Manhattan
*Samuel Lonnie Williams; Sparta, North Carolina
Charles Peairs Wilson; Anness
Mannie Ray Wilson; Manhattan
Tit Wong; Canton, China
Joseph Nathan Wood; Manhattan

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* Matriculated 1938-1939.

† In absentia.

UNDERGRADUATE STUDENTS

In Regular Session

The following lists include seniors, juniors, sophomores, freshmen and special students in College. For students in Summer Schools see lists following these.

Abbreviations here used denote curriculums as follows: AA, agricultural administration; Ag, agriculture; AE, agricultural engineering; AH&V, animal husbandry and veterinary medicine; Ar, Architecture; ArE, architectural engineering; C, commerce; C&A, commerce and accounting; CE, civil engineering; ChE, chemical engineering; EE, electrical engineering; GS, general science; GS&V, general science and veterinary medicine; HE, home economics; HE&A, home economics and art; HE&J, home economics and industrial journalism; HE&N, home economics and nursing; IA, industrial arts; IC, industrial chemistry; IJ, industrial journalism; IM&D, institutional management and dietetics; LA, landscape architecture; M, applied music; MuE, music education; ME, mechanical engineering; MI, milling industry; PE, physical education; PVM, preveterinary medicine; SH, specialized horticulture; VM, veterinary medicine.

SENIORS

John Elden Abbott (VM); Manhattan
Margaret Elizabeth Abbott (HE); Manhattan
Neil LaValle Adams (EE); Sun City
George Wilson Aicher (Ag); Hays
Lois Geraldine Aldous (GS); Manhattan
Elizabeth Ennis Allbee (IM&D); Marshall, Mo.
Edward Allen (CE); Michigan Valley
Philip Tingley Allen (Ag); Circleville
Marion Calvert Alson (VM); Carthage, Mo.
William George Alsop (AA); Wakefield
*Elwyn Lavern Alter, Jr. (IJ); Manhattan
Bruce Logue Amos (CE); Arkansas City
Hilding August Anderson (Ag); Cleburne
Alta Margaret Ansdell (HE); Jamestown
Victor Pierson Archer (SH); Kansas City, Mo.
Fernando Edmundo Armstrong (AH&V); Ponce, Puerto Rico
Robert Lee Armstrong (ME); Manhattan
Dean Franklin Arnold (IJ); Kansas City
Edna May Arnold (SH); Wichita
Rose Lee Arnold (IJ); Emporia
†Cynthia Elizabeth Askren (MuE); Manhattan
William Gerald Auer (CE); El Dorado
Jane Alleyne Auld (IJ); Wichita
Ruth Avery (HE); Concordia
†John Dewey Axtell (Ag-1; Grad-2); Manhattan
Nelta Evelyn Axtell (HE); Manhattan
Allan Vincent Ayres (AA); Augusta
Robert Oris Baber (MI); Oakley
Margaret Elizabeth Bacon (GS); Atchison
*William Pratt Bacon (AA); Emporia
Georgene Elizabeth Baird (GS); Formoso
James Annison Baird (IC); Dodge City
Ellwood Tyler Baker (Ag); Abilene
Richard Clair Banbury (PE); Wichita
James Walter Barger (PE); Blue Mound
Bruce Warren Barker (Ag); Burns
Lawrence Newton Barker (Ag); Louisburg
John Wilson Baska (CE); Kansas City
Esther Alba Baxter (HE); Manhattan
Virginia Faye Baxter (HE); Manhattan
Charles Benjamin Bayles (CE); Manhattan
Donald Gordon Beatson (EE); Arkansas City
Emil William Beckman (CE); Phillipsburg
Robert Gale Beckwith (LA); Hiawatha
Glenn Lester Beichley, Jr. (CE); Minneapolis
†Stella Lucille Beil (HE); Bavaria
Roy Swan Belcher (ME); Topeka
Clair L. Belden (C); Kansas City, Mo.
Russell Lee Belflower (EE); Dodge City
Anna Lora Bell (C & A); Silver Lake
Charles Arthur Bell (AA); Fort Scott
Garnetta Lavia Bell (IJ); Haven
George Henry Benson (ME); Grainfield
William Ellsworth Berger (GS); Manhattan
Frances Mildred Berggren (HE); Morganville
Donald Deane Berkey (C&A); Rossville
Israel Berkowitz (VM); Brooklyn, N. Y.
Helen Louise Berridge (HE); Fostoria
Raymond E. Bert (MI); Neodesha
Anna Elizabeth Betts (HE); North Topeka
Ruth Helen Bishop (HE); Atchison
Byron Woodrow Black (IC); Utica
†Mary Estelle Blackman (Grad-1; H. E.-2); Manhattan
Dorothy Grace Blaesi (HE); Abilene
Helen Mae Blake (C); Kansas City
Frank LeRoy Blakely (C); Waterbury, Conn.
†Everett George Blood (GS-1; Grad-2); Garnett
Gerald Martin Boatwright (ME); Valley Center
Arthur Emil Bock (ME); Wamego
Glenn Harold Boes (CE); Pretty Prairie
Jesse Edward Bogan (IJ); Manhattan
Vernon Glenn Boger (ChE); Junction City
Chester Lloyd Boles (CE); Turon
Hubert Paul Bolks (VM); Hull, Iowa
Joseph Michael Bonfield (MI); Elmo

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* Matriculated 1938-1939.

† Also pursuing graduate study.

SENIORS—*Continued*

†Glenn Ivan Booth (Ag); Paradise
†Phyllis Irene Boyle (HE-1; Grad-2); Manhattan
Dean Eugene Braden (ChE); Junction City
Dean Thompson Bradley (IC); Belle Plaine
Raymond Thomas Bradley (CE); Belle Plaine
Elliot Wilson Brady (ME); Manhattan
William Raymond Brady (AA); Vermillion
John Robson Brainard (Ag); Carlyle
Leo James Brenner (AA); Bazine
Vernon L. Brensing (CE); Mullinville
Ray DeLore Brent (AA); Alton
Hubert Ross Breuninger (C&A); Manhattan
John A. Brewer (ME); Concordia
Robert Allen Briggs (PE); El Dorado
Wade Oberlin Brinker (VM); Massillon, O.
Carroll Wright Brooks (AA); Manhattan
Robert James Brossamer (ChE); Topeka
David Wilson Brower (ChE); Emporia
Katherine Elizabeth Brown (HE); Emporia
Elizabeth Grace Brown (HE); Manhattan
Gordon Wonnacott Brown (EE); Manhattan
Grover David Brown (EE); Kansas City
Harold Eugene Brown (CE); Salina
Paul William Brown (PE); Manhattan
†Zona Barbara Brown (C); El Dorado
Elvin Stanton Brumfield (ME); Jetmore
Thomas Rudolph Brunner (C); Wamego
†Harry Copley Buckholtz (C & EE-1; Grad-2); Olathe
Eilene Harriet Buck (HE); Welda
Pauline Clare Budde (HE); Albert
Russell Conwill Buehler (CE); Seneca
Alice Geneva Buikstra (GS); Cawker City
Robert Harlan Bull (PE); Marysville
John Earl Bullock (CE); Glasco
Howard Ernest Bumsted (ChE); Clay Center
Raymond Earl Burdge (MI); Parsons
George Frank Burditt (IC); Coldwater
Anthony Michael Burdo (VM); Brooklyn, N. Y.
Virgil Alfred Burgat (GS); Peabody
Harry Dale Burkholder (CE); Wamego
Ruth Elizabeth Burnet (PE); Manchester, Okla.
Gilbert Harold Burnett (ChE); McPherson
Franklin Harold Burr (VM); South Orange, N. J.
Walter Eugene Burrell (ME); Emporia
Linus Homer Burton (SH); Belle Plaine
Margaret Elizabeth Busch (HE); Manhattan
Beth Alice Byers (IM&D); Jewell
Martha Marie Caldwell (HE); El Dorado
†Marjorie Willis Call (HE); Manhattan
Augustus Caesar Cardarelli (PE); Republic, Pa.
Ena Jeanette Carlisle (HE); Mount Hope
†Bula May Carlson (HE); Manhattan
Glenn Alvin Carlson (EE); Manhattan
Wayne R. Carlson (CE); Topeka
Harold Eugene Carpenter (ME); Coffeyville
Norwood Harry Casselberry (VM); Savanna, Ill.
Earl Everett Certain (C); Dodge City
Donald Evon Charles (Ag); Republic
Eunice Sarah Christenson (HE); Olsburg
Richard Binford Christy (AE); Scott City
Marybelle Churchill (IJ); Topeka
†Carl Ernest Claassen (Ag-1; Grade-2); Newton
Robertha Jeanette Clack (HE); Arkansas City
Allen Roland Clark (AA); Miltonvale
Forrest William Clark (VM); Jewell
Mayselle LaVerna Clark (C); Independence
Owen Earl Clark (IJ); Hoisington
Theodore Stanley Clark (C); Penokee
*Vera Louise Clarke (HE); Le Grand, Cal.
Rosamond Claywell (HE&J); Kansas City
Clarence Bruce Clevenger (CE); Kingsdown
Helen Beth Coats (HE) Topeka
Neva Fern Coble (HE); Sedgwick
Alton Monroe Coddington (VM); Alexander
*Harold Hedrick Coffman (IC); Overbrook
Lawrence Donaldson Colburn (C&A); Manhattan
Alice Rosalind Coldren (IJ); Oberlin
Carlos Irving Cole (C&A); Logan
Carol Eugene Coleman (AA); Sylvia
Wayne Devere Collins (VM); Marysville
Donald Raymond Conard (GS); Coolidge
Jessie May Conard (GS); Coolidge
Harry Jacob Conrad (VM); Kansas City
William Kenneth Conwell (ChE); Manhattan
Earl Jesse Cook (Ag); Parker
Margaret Florence Cook (HE); Newton
James Fenimore Cooper (IJ); Manhattan
Jess Ralph Cooper (AA); Preston
Edwin Courtney (Ag); Danville
Frank Andrew Cowell (EE); Hutchinson
Maynard Gerald Cox (C&A); Colony
Howard Allen Crawford (C); Stafford
*Margaret Louise Crawford (MuE); Hugoton
Delbert Clair Creighton (MI); Denison
Mary Elizabeth Crocker (HE); White City
Geraldine Lucille Cross (GS); Wilson
Margaret Jane Culbertson (C); Long Island
Walter LeRoy Culbertson (ME); Wichita
Philip Henry Curry (VM); Kansas City
Ralph Roy Daggett (IJ); Reading
Eugene Francis Damer (VM); Webb City, Mo.
William L. Daniels (EE); Kansas City
Maxine Evelyn Danielson (HE&A); Manhattan
Lois L. Darby (MuE); Washington
Hyatt Lynne Davidson (IC); Manhattan
Albert A. Davies (VM); Kansas City, Mo.
Charles Willard Davis (Ag); Halstead
Dale Davis (CE); Dodge City
Frances A. Davis (HE); Hutchinson
Mary Frances Davis (HE); Chardon, Ohio
Valoris Aeolia Davis (HE); Hutchinson
Clifton Dawson (Ag); Norcatur
Ermal Irene Dearborn (GS); Manhattan
Peter DeCinque (VM); Woodbine, N. J.
Clifford N. Decker (VM); Arlington, Neb.
Ernest Wilson Decker (Ag); Tecumseh
Everett John Degenhardt (C); Alma
†Myron Samuel Dendurent (ChE); Goodland
John Patton Denton (VM); Manhattan
John Russell DeRigne (ME); Kansas City
Otis Gerald Dewey (AA); Hollenberg
Darwin Newcomb DeYoe (MuE); Hiawatha
John Benjamin Dickens (IJ); Manhattan
*†Dorothy Lou Dickson (GS); El Dorado
William Hyde Dieterich (VM); Spivey
John Dunham Dietrick (AE); Kansas City, Mo.
Rose Geraldine Diller (GS); Manhattan
Evelyn Leone Dilsaver (HE); Kensington
Loren John Dilsaver (AE); Athol
John Perry Dilworth (IC); Winfield
*Veona Ruth Dixon (MuE); Moran
Vivian Aline Doak (IM&D); Kansas City
Leslie Doane (Ar); Osborne
Rowland Maxwell Dolan (C&A); Clifton
Vincent Wendell Doll (C); McPherson
Clifford Jerrold Drake (EE); Corbin

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* Matriculated 1938-1939.

† Also pursuing graduate study.

SENIORS—*Continued*

Clarence Joseph Dreier (CE); Kansas City
Yale V. Druley (VM); Muncie
Robert Harrison Dubois (AE); Burlingame
Samuel Griffith Dukelow (ME); Hutchinson
Clifford Elias Duncan (PE); St. Francis
Forrest Lemoin Duncan (MI); Penalosa
L. Jack Duncan (ArE); Wichita
Robert Frederick Dundon (EE); Junction City
Mary Lou Dunkerley (IM&D); Holliday
Marguerite DuPree (MuE); Salina
Augustus Milton Duvall (ME); Abilene
Stanley Naismeth Dwyer (IJ); Manhattan
George Washington Eberhart (AH&V); Jewell
Cecil Harold Eberle (GS); Alta Vista
†Grover William Eddy (PE); Havensville
Ruth Wilma Edgerton (GS); Iola
Thomas Richard Edgerton (GS); Iola
Luella Edith Effland (GS); White City
Elnita Ella Ehler (C&A); Holyrood
Albert Henry Eikelberger (ME); Scott City
Irene Fay Eisenhower (HE); Manhattan
Howard Surber Elliott (AA); Manhattan
Mary Elliott (C); Manhattan
*Lewis Edward Emery (GS); Manhattan
Merton Vincent Emmert (AA); Manhattan
George Albert Engelland (IC); Sterling
Harold Edward Engle (GS); Manhattan
Shirley Irene Englehart (GS); Bronson
Frederick Dale Engler (Ag); Topeka
Kenneth Leroy Enright (AA); El Dorado
Earl Albert Erickson (Ag); Wilson, Pa.
*Robert Nathaniel Erickson (GS.); Orland, Cal.
Hamel Kai Eshelman (EE); Wichita
James Eskeldon (VM); Ramona
Hoy Boyd Etling (AA); Copeland
David Edward Evans (VM); Montrose, Colo.
Albert Ross Ewing (EE); Great Bend
Willard Halsey Eyestone (AH&V); Pittsburg
Frank Webster Farley (AA); Kansas City, Mo.
Henry Horatio Farrar (GS); Beattie
Willis Bert Faulkender (Ag); Holton
Harold A. Fechter (C); Aurora
Murray Feldman (VM); Brooklyn, N. Y.
Naomi Grace Fent (HE&A); Newton
Mary Helen Filley (IM&D); Kansas City, Mo.
Paul Carey Fisher (GS); Belleville
Mary Helen Fitzgerald (C); Wamego
Beattie Harris Fleenor (MI); Manhattan
Merlin J. Fleming (C&A); Oakley
Homer Wendell Fleming (GS); Pratt
Chester Alanson Foreman (CE); Wichita
Dolores Coraleen Foster (IJ); Manhattan
Mary Jane Foulston (C); Wichita
Emma Helen Frick (HE); Larned
Paul Delbert Fuller (C&EE); Kansas City
Paul Willis Furst (IJ); Atchison
Robert Wade Furtick (MI); Salina
Paul Gabler (EE); Salina
John William Gamby (C&A); Everest
Garrett Gardner (CE); Belvidere, N. J.
Harold Alfred Gardner (ME); Garden City
Howard E. Gardner (EE); Manhattan
Arthur Raymond Garvin (Ag); Ogden
John Franz Gaumer (EE); Manhattan
Frances Macy Gebhart (IJ); Salina
Merrill D. Geraghty (GS); Selden
Peter Joseph Germanio (VM); Belleplain, N. J.
Richard Mills Gillispie (EE); Junction City
Golda Lucile Gish (HE); Manhattan
Barbara Jean Glenn (GS); Amarillo, Tex.
James Banks Godin (GS); Wamego
Charles Martin Good (IC); Plevna
*Kenneth Max Gould (GS); Broken Bow, Neb.
Lawrence Grauerholz (IJ); Kensington
Mary A. Gray (IM&D); Topeka
Roy Raymond Green (AA); Wichita
Beverly Stubbs Greene (C); Dodge City
Robert Hamett Griffin (EE); Chilocco, Okla.
Addie Maurine Grizzell ((IM&D); Claflin
Glenn Gordan Gross (VM); Russell
Hilbert August Grote (Ag); Manhattan
Thomas Joseph Guilfoil (VM); Kansas City
Lois Virginia Gwin (HE); Washington
Beatrice Habiger (HE); Bushton
Herbert Fred Hackett (ME); McCracken
Kenneth M. Hale (EE); Wichita
Donald Eugene Hall (AA); Macksville
Daniel Clell Hallmark (ChE); Arkansas City
Clare C. Hamilton (VM); Geneseo
Frank Frederick Hamilton (CE); Norton
Pauline Chandler Hammack (HE); Parsons
Paul Leo Hammann (EE); Independence
Robert Lyman Hammond (EE); Parsons
Rolland Brooks Hammond (ArE); Pratt
August Martin Hanke (ME); Wathena
†Emmett Benjamin Hannawald (AA); Pratt
John Vernon Hansen (Ag); Hiawatha
Ailene Laurentia Hanson (HE); Olsburg
Walter Edmund Hanson (CE); Lyndon
Harris Warren Hantman (VM); Brooklyn, N. Y.
John Thomas Harrell (C&A); Paradise
John Wendell Harrell (EE); Wichita
†Carl A. Harris (ChE); Mullinville
†John Harris, Jr. (Ag); Havenville
†Meade Cecil Harris, Jr. (MI); Tecumseh
Warner Harris (C); Burrton
Sidney Lloyd Harry (C); Home
George William Hartter (IC); Sabetha
Albert Leo Havlik (VM); Tampa
†Ellen Anita Hawke (GS-1; Grad-2); Irving
Lucile Esther Hawks (HE&A); Hiawatha
Edward Millin Hayes (EE); Anthony
Eldon Francis Hays (VM); Newton
Edna Alletta Heaton (PE); Buford, Ark.
Robert M. Heaton (C&A); Norton
Paul Milton Hefty (ME); Valley Falls
Powell H. Heide (AA); Wilmore
Harold Arthur Heimerich (EE); Clay Center
Hannah Lee Hemphill (HE); Chanute
Elizabeth Fern Henderson (HE); Dover
Harold Vincent Henderson (CE); Eskridge
Tom Knight Henderson (ME); Wichita
Merle Logan Henrikson (VM); Manhattan
Margaret Jane Henry (GS); Belleville
Walter Hermann (AA); Offerle
Earl Francis Hertach (AA); Claflin
Arlene Herwig (GS); Kansas City, Mo.
Helen Ethel Heter (HE&A); Sterling
Michael Earl Hickey (CE); Hoisington
Helen Vivian Higbee (HE); Eureka
Norman Walter Hildwein (AA); Fairview
Benjamin George Hildyard (CE); Nickerson

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* Matriculated 1938-1939.

† Also pursuing graduate study.

SENIORS—*Continued*

Arthur Wayne Hiort (C); Manhattan
George Hofsess (CE); Partridge
Margene Verena Holmes (IJ); Manhattan
Thelma Frances Holuba (IJ); Manhattan
William Henry Honstead (ChE); Topeka
Harvey J. Hoover (C); Kansas City
Garth Conner Hopkins (C); Parsons
Louis John Horn (IJ); Horton
Dawn Lorraine Hornbaker (IM&D); Artesia, N. Mex.
Cecil Earl Hornbuckle (Ag); Hillsdale
†Charles Fred Horne (IC); Alma
Lehnus Lloyd Horst (CE); Holyrood
Richard Eugene Hotchkiss (MI); Manhattan
Blanche Margaret Howe (C&A); Stockdale
Archie Willard Howell (GS); Manhattan
Fung Kuang Huang (VM); Canton, China
William Joseph Hudspeth (C); Parsons
Elizabeth Laura Huey (IM&D); Atchison
Vearl Nathan Huff (EE); Norton
Flora May Hulings (HE); Sidney, Mont.
Frank Carrol Hund (CE); Leavenworth
Jesse Richard Hunt (GS); Arkansas City
Dallas T. Hunter (ME); Newton
Lena Marie Hurst (HE); Clearwater
Roberta Laurine Hutchinson (MuE); Wamego
Aubrey Means Hutton (VM); St. Joseph, Mo.
Donald Clayton Innes (VM); Philadelphia, Pa.
Mary Grace Ioerger (C); Harper
Glenn Reben Irey (ME); Riverton
Margaret M'Lee Isenbart (HE); Wilmore
Clifford Clinton Isom (MI); Baldwin, Ill.
James Thomas Jackson (C&A); Manhattan
Paris Shedrick Jackson (C); Ness City
Warren Cowan Jackson (ME); Manhattan
Duane George Jehliik (CE); Cuba
Calvin M. Jenkins (GS); Manhattan
Avis E. Johnson (HE); Sterling
Dale Edward Johnson (Ag); Manhattan
Earl William Johnson (EE); Salina
James Elbert Johnson (Ag); Winfield
Jean Frances Johnson (MuE); Olsburg
Keith Cleon Johnson (Ag); Sylvia
Kenneth Edward Johnson (AA); Emporia
Kenneth Eugene Johnson (Ag); Norton
Mae Maxine Johnson (GS); Manhattan
Virginia Veile Johnson (HE); Circleville
Walter Lee Johnson (ME); Emmett
Herman August Jokerst (VM); Waco, Neb.
Charles Fenwyck Jones (GS); Irving
Charlotte E. Jones (HE&A); Leavenworth
Gomer Wood Jones (ME); Reading
Raymond Albert Jones (VM); Penalosa
Van Chaffin Jones (EE); Parsons
Frank Wilson Jordan (VM & AH&V); Beloit
Jane Miner Julian (IM&D); Kansas City
Patricia Catherine Kail (HE); Longford
Wendell Lee Kanawyer (VM); Cucamonga, Cal.
Milton Kaslow (ChE); New York, N. Y.
Fred Detter Kaths (C); Hutchinson
Virgil Roscoe Kelley (AH&V); Arkansas City
Robert Verne Kellogg (C); Wichita
†Grace Lorene Kendrick (IM&D); Topeka
Anita M. Kensler (IM&D); Manhattan
Charles Isaac Kern (Ag); Smith Center
Glenn Walter Kerr (IC); Rossville
Joseph Boston Key (VM); Kansas City
Lewis Andrew Kidder (AH&V); Pittsburg
Grace Louise Kiene (GS); Topeka
†Emile Frederick Kientz (Ag); Manhattan
Marion A. Kilian (C&A); Holyrood
Anthony Kimmi (MuE); Everest
Dora Grey King (HE); Manhattan
Elwood Chase King (Ag); Potwin
Ray Carlyle King (IJ); Olsburg
Virginia Lee King (IM&D); Kansas City, Mo.
Dean Carl Kipp (GS); Manhatan
Wayne Klamm (Ag) Bonner Springs
Fred Vinton Klemp, Jr. (IJ); Leavenworth
Jack Ross Knappenberger (VM); Penalosa
Merle Ashton Knepper (EE); Winfield
Robert Samuel Knight (AE); Medicine Lodge
George Robert Kramer (IC); Mankato
Iden Frederick Krase (CE); Cheney
Ralph Edward Krenzin (Ag); Kinsley
Hilda Mae Kroeker (HE); Hutchinson
†Kenneth Ernst Kruse (Ag) Barnes
Max Morton Kurman (PE); Woodbine, N. J.
Charles Davis Labahn (VM) Sedalia, Mo.
Emory Harmon Lackey (AE); Melvern
Gerald August Lake (ChE); Manhattan
Colter Adiel Landis (ChE); St. George
Lewis Emsley Landsberg (AA); Bonner Springs
George Herbert Larson (AE); Lindsborg
William Eugene Larson (IC); Wichita
Beatrice Olive Lasswell (HE&N); Emmett
Jean Marty Lawson (IM&D); McPherson
†Robert Marvin Lay (AA); Higginsville, Mo.
Fern Adele Layman (HE&A); Arlington
Opal M. Leach (HE); Bird City
Robert Jerome Lee (VM); New York, N. Y.
Wayne Howard Lee (CE); Junction City
Margaret Elizabeth Leger (HE); Peiping, China
Edward Lyle Leland (AA); Manhattan
Walter John Leland (Ag) Manhattan
Clifford Alonzo Lemen (GS&V); Manhattan
†Kenneth Ray Leonard (AA); Manhattan
Arthur Frank Leonhard (AA); Lawrence
Joe W. Lewis (Ag); Larned
Paul Allen Lichty (EE); Sabetha
Howard Brice Liebengood (VM); Kentland, Ind.
Richard Edgar Lindgren (CE); Dwight
Marceline Carroll Link (HE); Chase
Wayne Arnold Linville (Ag); Chase
Vere Oakley Lipperd (ME); Udall
John Wheeler Livingston (Ag); Vliets
Charles William Lobenstein (Ag); Edwardsville
Robert Emil Loebeck (ChE); Kansas City
Dorothy M. Lohmeyer (HE); Newton
*Marie Donnasue Lohmeyer (IJ); Kansas City, Mo.
Donald Kenneth Long (Ag); Neodesha
Glenn Richard Long (EE); Arlington
Susanne Long (IJ); El Dorado
Henry Loughridge (VM); Lyndon
Florence Elmo Lovejoy (HE); Almena
John Wilson Loy (ChE); Chanute
James Stanley Lucas (EE); Kansas City
Ruth Maxine Lund (HE); Green
Chauncey Karl Lundberg (GS); Manhattan
Elizabeth May Lyman (IM&D); Northfield, Minn.
William Joseph McAllister (VM & GS); Santa Barbara, Cal.
LeRoy Lloyd McAninch (MI); Manhattan
Robert James McCall (AE); Wakeeney
Dale Edwin McCarty (AA); Oneida
Elizabeth Ann McComb (GS); Stafford

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* Matriculated 1938-1939.

† Also pursuing graduate study.

SENIORS—*Continued*

John Clark McComb (EE); Wichita
Max McCord (CE); Manhattan
Charles Murry McCormick (ArE); El Dorado
Edward LeRoy McCoy (C); Manhattan
Nancy Ellen McCroskey (HE); Kansas City
William Edward McCune (AE); Leavenworth
Norris J. McGaw (MuE); Topeka
Joseph Clark McGonagle (IJ); Manhattan
Helen E. McGuire (HE&A); Burlington
Dean Elwyn McIntire (GS); Manhattan
†Virginia Addie McIntire (GS); Kansas City
Dorothy Carol McKeen (HE&A); Manhattan
†John Thomas McKenna (ME); Narka
Helen Ruth McKenzie (GS); Solomon
John Leonard McKenzie (C); Solomon
Maxine Doris McKenzie (HE); Wayne
James William McKinley (ME); Manhattan
William George McKinley (CE); Parsons
Elsie Marie McLendon (HE); Kansas City
Hugh Otis McMillen (GS); Topeka
John D. McNeal (GS); Boyle
Betty Lee McTaggart (IJ); Belleville
Machlett Neal McVay (Ag); Sterling
Helen Frances Macan (HE); Edwardsville
Lewis Francis Madison (AA); Fort Scott
Herman Paul Madsen (ME); Corbin
Richard Hamilton Magerkurth (MI); Salina
Hazel Mahon (HE); Silver Lake
Albert Leon Malle (VM); Mulberry
Clayton Wilson Marker (AA); Topeka
Mary Frances Marron (HE); Jacksonville, Fla.
Ralph Marshall (ChE); Manhattan
Harold Doig Martin (Ag); La Cygne
Helen Elizabeth Martin (HE); Wichita
Samuel Page Martin (CE); Kinsley
Theodore Vernon Martin (Ag); Kingsdown
Robert Edwin Marx (AA); Emporia
Joseph Raymond Massey II (VM); Sun City
Minnie Isobel Matthias (HE); Atchison
Robert Lewis Mawdsley (EE); Hoisington
William Allen Mayfield (C); Soldier
Galen Elmer Meckfessel (ME); Lewis
Edith Magdalena Meisner (HE); Wichita
Fred Howard Merrick (CE); Wichita
Helen Hope Merryfield (IM&D); Minneapolis
Beatrice Lillian Meyer (GS); Lillis
Dean Ivard Meyer (CE); Bison
†Fred Meyer, Jr. (AE); Jewell
Harry Harrison Meyer (C&A); Basehor
Ivan John Meyer (C); Basehor
Carl William Miller (C); Manhattan
†Earl Edward Miller (AA); Sublette
*Esther Iola Miller (HE); Walton
Irwin Alvin Miller (AA); Oberlin
John William Miller (ME); Almena
Leonard John Miller (VM); Clarkson, Neb.
Verna Irene Miller (HE); Milford
Wayne Ishmael Miller (ChE); Kansas City
June Winifred Milliard (Ar); Manhattan
Arthur Ben Mills (EE); Lakin
Stanley Cole Miner (C); Ness City
John Ludwig Mitcha (ME); Rossville
Charles Edward Mitchell (GS); Ordway, Colo.
Dorothy Mize (HE); Atchison
Gordon Ray Molesworth (IJ); Colony
Darrel Emmett Moll (EE); Hutchinson
Harry Earl Molzen (AA); Newton
Frances Jeannette Montgomery (HE); Sedalia, Mo.
Edward Fox Moody (Ag); Greeley
Margaret Louise Moon (PE); Emporia
Edward Cooper Moore (C&A); Westmoreland
Francis John Moore (Ag); Ashland
†John Richard Moore (Ag); Alliance, Ohio
June Alice Moore (HE); Great Bend
William Hugh Moore (AA); Munden
*Oren Albert Morris (C); Manhattan
Vern Vencil Morris (C); Manhattan
Ethel Clarine Morton (HE); Coldwater
Lynus Robert Morton (VM); Yates Center
Leland Mark Moss (ArE); Miltonvale
Donald Fleet Mossman (VM); Manhattan
Vera May Mowery (HE); Salina
Benn Michael Moyer (C&A); Columbus
Clyde Dewey Mueller (Ag); Sawyer
James Franklin Mugglestone (Ag); Berkeley, Cal.
Harold Hawley Munger (CE); Manhattan
William Minor Murfin (IC); Fort Scott
Elinor Adelle Murphy (HE); Manhattan
Grayson Elwood Murphy (Ag); Norton
Hylen Myers (HE); Burns
Mervin Wilson Myers (MI); Anson
Elizabeth Frances Nabours (HE); Manhattan
Leslie Clyde Nash (Ag); Hays
Samuel Siskind Nebb (VM); Brooklyn, N.Y.
Winifred Gene Needels (IM&D); Salina
Beulah Burnetta Nelson (IM&D); Manhattan
Harold Eugene Nelson (IJ); Holton
Robert William Nelson (C); Leavenworth
Walbert Oscar Nelson (VM); Olsburg
Theron Andrew Newell (IJ); Manhattan
Charles Clarence Newhart (GS&V); Delaware Water Gap, Pa.
†Joseph William Newman (IJ); Manhattan
John Hard Nicholson (C); Newton
Willa Dean Nodurfth (IM&D); Wichita
Fern Aileen Norbury (IM&D); Hume, Mo.
Kenneth Leroy Nordstrom (MI); Norton
Morris Aaron Nossov (VM); New York, N. Y.
Robert William Nottorf (IC); Abilene
LaDonna Jean Ober (MuE); Hiawatha
Leona Venetta Ochsner (HE); Tribune
Auston Edward Olderog (Ag); Omaha, Neb.
Annette Olson (HE); Manhattan
Dorothy Mae Olson (IM&D); Oberlin
Wayne Edward Olson (EE); White City
Ernest E. Opitz (CE); Arcadia
Robert Orpin (ArE); Newton
LaVon Klein Painter (C&A); Kansas City
Joseph Palen (VM); Hays
Wilfred Leroy Park (EE); Oakley
Merle Jay Parsons (Ag) Emporia
William David Paske (Ag) Toronto
†Arthur Eli Patterson (C); Kansas City
Eugene Victor Payer (Ag); Westphalia
Jay Henry Payne (AE); Delphos
Kenyon Thomas Payne (Ag); Manhattan
Mary Margaret Pejsa (IM&D); St. Joseph, Mo.
Sarah Ann Pence (HE); North Topeka
†John Wesley Pennington (ME); Wichita
Alonzo Easton Perkins (ME) Wellington
†John Paul Perrier (Ag); Olpe
Lester Leroy Peterie (CE); Kinsley
Grant Waldemar Peterson (C&A); Healy
Lee Richard Peterson (CE); Kinsley
Forrest Wayne Pettey (C&A); Clay Center
Wendell John Pfeffer (EE); Clifton

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* Matriculated 1938-1939.

† Also pursuing graduate study.

SENIORS—*Continued*

Anna Caroline Pfrang (GS); Goff
Betsy Phelan (IJ); Kansas City, Mo.
Cecil Vernon Phillips (EE); Marion
Mary Martha Phillips (C); Manhattan
Morris William Phillips (AA); Stockton
James Meriden Phinney (EE); Russell
John Robb Pickett (Ag); Galena
Elton Chester Pieplow (IJ); Hutchinson
James Arthur Pierce, Jr., (Ar); Orangeburg, S. C.
James Maxwell Pierce (CE); Burden
Eleanor Marion Pincomb (HE); Overland Park
Staley Leon Pitts (Ag); Willard
Sidney Smith Platt (Ar); Junction City
Frieda Ann Ploger (HE); Kinsley
Margaret Henrietta Ploger (HE&N); Kinsley
Viola Ruth Plush (GS); Penalosa
Helen Louise Poole (HE); Manhattan
Curtis Albert Poppenhouse (VM); Manhattan
Gerhard Charles Poppenhouse (VM); Manhattan
Ruthe Christine Porter (C); Mount Hope
George Eldon Powell (C&A); Manhattan
George Francis Preston (C); Cuba
Rhoda Putzig (HE&A); Sylvan Grove
Hontas Quarles (IM&D); Los Angeles, Cal.
Norma Lee Rebecca Quinlan (IJ); Lyons
Earl Albert Ragland (EE); Herington
Guy Arthur Railsback (VM); Langdon
Rolla Glenn Raines (AA); Manhattan
Ruby Randall (HE); Ashland
George Alfred Randel (AE); Lewis
Leonard James Rawson (ME); Wamego
Don Gilbert Reames (C&A); Independence
David Vernon Rector (Ag); Topeka
Leondis J. Redwine (ME); Lake City
Lois Anita Reed (HE); Wichita
Herman J. Reitz (Ag); Belle Plaine
Robert Arthur Remington (EE); Hutchinson
Mathilda Rempel (HE); Hillsboro
Glen Stanley Remsberg (VM); La Harpe
Mabel Evelyn Ressel (HE); Colony
Cecil Raymond Rhorer (IC); Lewis
Claire Rickenbacker (GS); Turlock, Cal.
Marvin G. Riddell (GS); McPherson
Juanita Louise Riley (HE); Ogallah
Robert Edward Rion (C&A); Wetmore
Frances Susan Ripley (HE); Salina
Eugene Arman Ripperger (CE); Merriam
Clifton Allan Risinger (AA); Neodesha
William Armour Roark (ME); Lake City
Noel Neville Robb (Ag); Dodge City
Bruce Everett Roberts (CE); Chanute
†Charles Pearson Roberts (GS-1; Grad-2); Manhattan
Donald Edwin Rodabaugh (VM); Norborne, Mo.
Mary Margaret Rodgers (IM&D); Cincinnati, Ohio
†Charles Willard Roe (CE); Parsons
†Max Fenton Rogers (CE); Glasco
Herman E. Rohrs (SH); Oakley
Myron M. Rooks (IJ); Salina
Verlin Rosenkranz (Ag); Washington
William Ronald Rostine (CE); Hutchinson
Louis Rotar (ChE); Kansas City
Marjorie Kathryn Rothfelder (HE); Axtell
Harold Albert Rothgeb (AE); New Albany
Barnerd Royner (VM); Philadelphia, Pa.
Lloyd Findley Roy (CE); Wilsey
Virginia Eleanor Royston (HE); Newton
Anelda Rich Runnels (GS); Wichita
Lois Roberta Rust (HE); Manhattan
Ernest Dale Sadler (MI); Wagner, S. Dak.
Orville William Saffrey (IJ); Alma
Eugenia Carolyn Sanderson (IM&D); Arkansas City
Granville Boyd Scanland (ME); Hutchinson
Marjorie Rose Schattenburg (M); Riley
Stewart Claude Schell (GS); West Lawn, Pa.
Charles Eugene Scherzer (CE); Larned
Dallas Glenn Schmidt (EE); Lorraine
Paul Angel Schoonhoven (GS); Manhattan
Leonard William Schruben (AA); Dresden
†Lawrence Curtis Schubert (IC); Hutchinson
Edwin Whitcher Schumacher (ME); Jewell
Marjorie Aileen Schwalm (GS); Paxico
Henry Schweiter (Ag); Wichita
Richard Schwitzgebel (IJ); Kansas City
Walter O'Daniel Scott (Ag); Westmoreland
Willa Mae Searl (IM&D); Hutchinson
Dorothy Alice Sears (HE&A); Kansas City
Robert Paul Seidel (GS); Morrowville
Thomas Joseph Sette (CE); Jackson Heights, N. Y.
Hillard Weston Shaffer (ME); Newton
James McCabe Shaffer (ME); Humboldt
Leslie Maurice Shaw (IA); Bloomington
John Aaron Sheetz (C); Topeka
Robert Baker Shepherd (Ag); Alden
Ralph Vernon Sherer (Ag); Mullinville
John Allen Shetlar (Ag); Bayard
Harold Davis Shull (Ag); Manhattan
Robert D. Sieg (ChE); Greensburg
Catherine Augusta Siem (PE); Rochester, Minn.
Woodrow Bryan Sigley (ME); Canton
Gerald Edward Simms (IC); Republic
Carl Simpson (Ag); Milton
Mary Margaret Simpson (HE); Barnard
Fred William Sims (MI); Salina
Marialice Singleton (HE); Tribune
Ethel Sklar (Ar); Manhattan
Ruth Arline Slagg (GS); Manhattan
William Leonard Slater (Ar); Manhattan
Aubert Charles Slocomb (ME); Kansas City, Mo.
Gwendolyn Maxine Small (MuE); Neodesha
Ramond Edward Small (ME); Conway Springs
Edward George Smerchek (Ag); Garnett
Walter William Smirl (PE); Wilsey
Carlton Smith (EE); Columbus
Doris Maurine Smith (HE); Atlanta
Edward Paul Smith (EE); Morrill
Evelyn Avery Smith (IM&D); Salina
Mary Isabel Smith (IM&D) Manhattan
Orville Roland Smith (EE); Neodesha
Pauline Dorothea Smith (HE); Shreveport, La.
Stephen Milton Smith (ArE) Girard
Morton Smutz (ChE); Manhattan
Bertel Emanuel Soderblom (Ag); Delphos
Norma Elizabeth Spealman (IJ); Manhattan
Whitcomb Glenn Speer, Jr. (PE); Manhattan
Betty Bertha Spoelstra (GS); Prairie View
Charles Cecil Spore (SH); Halstead
Max Raymond Springer (MI); Manhattan
James Porter Sproul (AE); Penokee
Darrell Stanley Steele (VM); Treynor, Iowa
Thurston William Stein (ME); Gypsum
†Floyd Dean Stevens (ChE); Topeka
Alfons Alfred Stiebe (AA); Rozel
Billy Neil Stone (C); Hiawatha
Clifford William Stone (AA); El Dorado
Richard Shelley Storer (GS); Herington

† Also pursuing graduate study.

SENIORS—*Concluded*

William Eugene Story (IJ); Winfield
William Frank Stoudenmire (VM); DeLand, Fla.
James John Stout (CE); Belvidere, N. J.
Howard Roy Stover (ME); Manhattan
Virginia Elizabeth Stratton (HE); Minneapolis
Elwood Malcolm Strom (Ag); Dwight
Kenneth Lee Stuckey (EE); Kansas City
Edna Evangeline Stullken (IM&D); Bazine
Barbara Ellen Sturman (HE); Ulysses
Raymond Lyle Surtees (EE); Wichita
John Bennett Sutherland (ChE); Burlingame
Frank Maynard Sutton (ME); Midian
Clarence Arthur Swanson (CE); Loveland, Colo.
Thiel Holmes Sweet (ArE); Formoso
Donald Dexter Swenson (CE); Clay Center
Buford Delmont Tackett (EE); Topeka
George Gilbert Tanenbaum (VM) Brooklyn, N. Y.
Donald Eug ne Tannahill (GS); Phillipsburg
Edgar Lewis Taylor (VM); Henryetta, Okla.
Harold Edward Taylor (GS); Norton
†Howard Lee Taylor (MuE-1; Grad-2); Norton
†Warren Chalmer Teel (Ag-1; Grad-2); Morland
†William Theis (CE); Dodge City
Beulah Thomas (IM&D); Manhattan
Buford Lewis Thomas (IC); Manhattan
Dudley Percy Thomas (ME); Marysville
Edmond Clyde Thomas (ME); Kansas City
James Marcus Thomas (MI); Garnett
Marshall H. Thomas (ME); Belleville
Mary Eleanora Thomas (IJ); Easton, Pa.
Arthur Henry Thompson (AE); Delia
Charlotte Thompson (HE); Iola
Dorothy Leah Thompson (HE); Manhattan
Joe Earl Thompson (CE); Almena
Kermit Karl Thompson (ME); Wichita
Robert Stewart Todd (VM); Tulsa, Okla.
Dwight Seibert Tolle (AA); Norcatur
John Elwyn Topliff (Ag); Jewell
†Richard Earl Totten (EE); Clifton
William Paul Trenkle (C&A); Topeka
Harry Elmer Trubey (EE); Ellsworth
Marion Ruth Tucker (HE); Kansas City, Mo.
Kenneth Wible Tudor (ME); Holton
Gay Stanley Tuis (Ag); Fredonia
Robert Lee Turner (AA); Oskaloosa
Harold Preston Ulrickson (EE); Kanopolis
Elizabeth Jeanne Underwood (HE); Hoisington
Selma Unruh (HE); Newton
Wilma H. Van Diest (C); Prairie View
Phillip Harris Vardiman (VM); Salisbury, Mo.
Leland Austin Viar (C&A); Dunlap
Elmer Leroy Vinson (EE); Garfield
Roland Emil Vollmar (VM); Montgomery, Minn.
William Alvis Wade (AA); Hoxie
Simon Rosson Wagler (EE); Hutchinson
Keith Bennett Wagoner (Ag); Blue Rapids
Ella Larine Wait (C); El Dorado
Samuel Paul Wallingford (MI); Manhattan
Carl William Walsten (C); Inman
Edna Walters (IM&D); Vining
LeRue Wangerin (AE); Kensington
Irving Wangrofsky (Ag); New York, N. Y.
Lee C. Ward (Ar); Manhattan
Kenneth McKinley Warren (PE); Delphos
Arlene Lois Waterson (HE); Dighton
Horace Cledus Watson (AA); Lake City
Donald Louis Webb (EE); Cedar Vale
Mary Ann Katherine Weiler (HE); Manhattan
Homer Theodore Wells (ME); Marysville
†Otto Ernest Wenger (Ag-1; Grad-2); Basehor
Willis Raymond Wenrich (Ag); Oxford
D C Wesche (CE); Manhattan
Homer Triss Wesche (AE); Manhattan
Helen Ruth Westin (HE); Courtland
Melford Marcelle Wheatley (GS); Gypsum
Richard H. Wherry (ME); Sabetha
Alice Marguerite Whetsel (IM&D); Uniontown, Pa.
DeLaura V. Whipple (GS); Manhattan
Oren Dale Whistler (AE); Independence
†Edith Mary White (GS); Kingsdown
*Roger Ferris White (GS); Buda, Ill.
Robert Louis Whiteside (ME); Topeka
Loyd Elbert Wildman (Ag); Manhattan
Floyd Eugene Wiley (ChE); Junction City
Doris Katherine Wilhelm (HE); Mount Hope
Josephine Mary Williams (HE); Meriden
Arthur Charles Willis (ChE); Larned
Grant Noble Willis (EE); Manhattan
Morris B. Willis (EE); Kirwin
Clifford Eli Wilson (ME); Caney
Marshall Edward Wilson (C); Kansas City
Wilbert John Wilson (AA); Manhattan
Fred Wiruth (CE); Manhattan
Kenneth Carman Witt (EE); Independence
John Edmond Wolfe (EE); Kansas City
James Longwell Woodruff (IC); Dodge City
James Kelly Woods (IC); Burden
Martha Ann Wright (HE&J); Salina
Carl Edward Wristen (EE); Garden City
†Helen Iams Wroten (GS); Beattie
Hulda Bertha Yenni (HE); Ogden
Clinton Volney Young (ME); Salina
†John Henry Young (CE); Centralia
Frederico Sison Zamora (AH&V); Santa Maria, P. I.
Abraham Zatman (ME); Philadelphia, Pa.
Edward Bonjour Zickefoose (VM); Rossville
Ruth Virginia Zirkle (HE); Jamestown
Fred L. Zutavern (MI); Great Bend

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* Matriculated 1938-1939.

† Also pursuing graduate study.

JUNIORS

Clara Adelaide Abell (HE&N); Oakley
Clarence Leaman Abell (CE); Oakley
Edward Linn Abernathy (ArE); Sharon Springs
*Robert Jefferies Acker (ME); Wichita
William Benton Ackley (Ag); Portis
Betty Margaret Adams (GS); Manhattan
Lawrence Douglas Adams (EE); Mount Hope
Michael Bartley Adams (ME) Newton
Vance Ellsworth Aeschleman (Ag); Sabetha
*Julia Jane Alderman (HE); Ottawa
*Eugene Alford (EE); Arkansas City
Earl Walter Amthauer (ChE); Junction City
Alfred Eugene Anderson (Ag); Courtland
Karl Manfred Anderson (AE); Walnut
Madeline Blanche Anderson (MuE); Courtland
Vivian Ethel Anderson (HE); Kansas City, Mo.
Carter Howell Anthony (VM); LaJolla, Cal.
*Fred Edwin Appleton (ME); Hays
Orven Harry Armstrong (EE); Garden City
Mary Margaret Arnold (HE); Newton
*Edwin M. Aronson (ME); Fort Scott
Clarence Lafayette Ash (ME); Wetmore
Lenora Lucille Ash (HE&A); Wichita
Neville LaVon Astle (VM); Manhattan
Earl William Atkins (C); Topeka
Ethel Evelyn Avery (HE); Riley
Dale Deyo Ayers (C); Sabetha
John Henry Babcock (EE); Manhattan
*Ardine Virginia Bailes (HE); Ft. Dodge
Fern Bair (C); Wamego
*Eugene Ware Baird (SH); Kansas City
Ruth Elizabeth Baldwin (IM&D); Manhattan
*William Joseph Ball (MI); Oswego
Evans Eugene Banbury (AA); Pratt
Marian Phyllis Barnes (IJ); Manhattan
*Mayme Pearl Barnett (IJ); Kansas City, Mo.
Melvin Lester Barrett (MuE); Dodge City
Tom Bruce Bash (EE); Kansas City, Mo.
Howard Nelson Batchelder (GS); Hiawatha
Dale Wesley Baxter (CE); Manhattan
Metta Lucille Baxter (PE); Manhattan
Ross Beach (EE-1; GS-2); Hays
Alice Lucille Beal (GS); Eureka
*Vesta Geraldine Beam (HE); Esbon
Theo Mason Beard (VM); Topeka
Victor Bernard Beat (VM); Kingman
*DeElroy Beeler (ME); Kansas City
Ellwood Herschel Beeson (C); Parsons
William Millington Beezley (Ag); Girard
*Carroll Lee Bell (ME); Hutchinson
William Goddard Bensing (EE); Manhattan
*Ina Jean Bentley (IC); Coffeyville
Floyd Willis Berger (AA); Barnes
Eileen Bergsten (Ar); Randolph
Marylee Berry (HE); Kensington
Carl Theodore Besse (CE); Clay Center
Frank H. Betton (ArE); Bethel
Edwin Leroy Betz (AA); Enterprise
Carl Frederick Beyer (ME); Glen Elder
*Ronald Leroy Biggs (MI); Potwin
Maxine Beryl Bishop (HE); Abilene
*Joan Ellen Black (GS); Chanute
Martha Ann Black (IJ); Independence
Charles Wilson Blackburn (EE); Topeka
E. Joseph Blackburn (ME); Alma
Jack Blanke (MI); Atchison
*Russell William Blessing (MI); Emporia
Margaret Helen Blevins (IC); Manhattan
John Kermit Blythe (Ag); White City
John Mathew Boalen (GS); Miltonvale
Ralph Arthur Boehner (AA); Glen Elder
Betty Bonnell (HE); Kansas City, Mo.
Warren Harvey Boomer (C); Portis
Maurice Eugene Bostwick (C); Manhattan
Lawrence Ralph Bowdish (ArE); Wichita
Jean Boyle (PE); Topeka
Louise Evelyn Boyle (IM&D); Spivey
Andrew Jack Bozarth (Ag); Liberal
Mildred Blanche Bozarth (HE); Liberal
Edward Leo Brady (C&A); Fredonia
DeVere Emil Brage (EE); Emporia
James Richard Brandon (CE); Wichita
Jack Wallace Branson (GS); Belleville
Albert Wade Brant (Ag); Sawyer
*Alfred Merle Brecheisen (GS); Hugoton
Richard Harold Breckenridge (ME); Woodston
William Ormond Breeden (AA); Quinter
Margaret Keith Breneman (HE); Wichita Falls, Tex.
Marjorie Bee Breneman (HE); Macksville
Eleanor Stanton Brinton (HE); DeKalb, Mo.
James Charles Brock (Ag); Glasco
John Richard Brock (C); Glasco
Elizabeth Maude Brooks (HE); Scott City
Travis Epps Brooks (Ag); Junction City
Paul Louis Brose (EE); Marion
*Donald Sefton Brown (ChE); Manhattan
Elwood Cameron Brown (EE); Atchison
Francis Richard Brown (AA); Fall River
James Milton Brown (VM); Los Angeles, Cal.
*Lewis Ernest Brown (ME); Chanute
Edith Carey Brownlee (HE); Hutchinson
Dorothy May Buchanan (HE); Abilene
Jean Louise Buchanan (IM&D); Abilene
Frederick Louis Buente (VM); Evansville, Ind.
Richard Melven Bullock (Ag); Glasco
*Curtis Ames Burgan (EE); Hoisington
Wesley Lorenzo Burgan (ArE); Hoisington
Thomas Orland Bush (C&A); Salina
Jack DeLos Butler (CE); Hutchinson
Tarlton Aura Caldwell (C&A); Manhattan
Walter Jackson Campbell (Ag); Wilsey
Lester Wendell Canny (C); Mound Valley
Howard Sidney Cantwell (VM); Riverside, Cal.
Fred Granger Carman (IA); St. Francis
Bill Milton Carnes (VM); Henryetta, Okla.
Charles Otis Carter (Ag); Morrowville
Glenn Irville Case (GS&V-1; VM-2); Nickerson
Richard A. Case (VM); Nickerson
Harlan Wendell Casper (ME); Clifton
Esther Ruth Cassity (HE&N); Clifton
Margaret Bessie Cassity (IM&D); Clifton
Margaret Annabelle Caughey (HE); Manhattan
Helen Frances Chambers (IJ); Chanute
*Elizabeth Kerr Chickering (GS); Hutchinson
LeRoy Christopher (ME); Ellis
Doris Winona Christophersen (IJ); Manhattan
John York Christy (Ag); Meriden
Frank Adelbert Churchill (ME); Detroit, Mich.
Margaret Wilma Clark (HE); Manhattan
Thaine Alvin Clark (AA); Concordia
Cecil Eugene Cleland (AA); Eskridge
Robert George Clendenin (MI); Kansas City
Paul Lawrence Clingman (C); Harlan

* Matriculated 1938-1939.

JUNIORS—*Continued*

*Alonzo Leon Cloninger (EE); Chanute
Walter Harvey Closson, Jr. (ArE); Edwardsville
John Leslie Clow (AA); Goodland
*Elmond Redell Cobb (GS); Galva
Ruth Elizabeth Cochran (HE); Topeka
Robert Benson Coder (EE); Manhattan
Dorothy Frances Cole (HE); Fowler
Stanley Elbert Combs (Ag); Wilson, N. C.
Rachael Jane Congdon (HE); Sedgwick
*Helen Leberta Connely (IM&D); Kansas City, Mo.
Irene Beardwell Cook (HE); Wakeeney
Oscar George Cook (AE); Larned
Louis Wilton Cooper (Ag); Peabody
Barbara Jane Corbett (C); Emporia
Corinne Ruth Corke (HE); Studley
*Mary Ellen Corman (HE); El Dorado
Lucile Mae Cosandier (IM&4); Onaga
Keith Lundy Cowden (C); Kansas City, Mo.
*Virginia Lee Coy (HE); Kansas City
Agatha Neoma Crawshaw (HE); Maplehill
Edith Marie Crist (HE&N); Brewster
Joseph Celester Crofton (Ag); Kansas City
*Edgar Crowley, Jr. (ChE); Kansas City
Don Eldon Crumbaker (Ag); Onaga
Ray Earl Cudney (Ag); Trousdale
Rex Edgar Cudney (Ag); Trousdale
Paul Stromquist Danielson (Ag); Lindsborg
June Darby (IJ); Wamego
Robert Vernon Darby (IJ); Morrowville
Charles James Davidson (C); Madison
Lawrence Roy Davidson (C); Manhattan
*Margaret May Davidson (IM&D); Madison
*Charlene Mildred Davis (C); Kansas City
D. C. Davis (ChE); Sedalia, Mo.
Ileene Genevieve Davis (HE); Marysville
Dorothy Dean (GS); Manhattan
George Thomas Dean (CE); Manhattan
John G. Dean (Ag); Manhattan
LaRue Eldred Delp (CE); Lenora
*Jean Chandler DeVault (ChE); Kansas City
Jean Frances DeYoung (HE&A); Manhattan
Paul Rutherford Dickens (PE); Long Island
Clarence Eugene Dickson (CE); Manhattan
Roger Stephen Dildine (GS); Delphos
*Richard Francis Dilley (CE); Topeka
Hubert Merill Dimond (EE); Smith Center
*Betty June Doan (IJ); Manhattan
Darold Ardale Dodge (AA); Dighton
Mildred Faith Dodge (HE); Manhattan
Theodore Orice Dodge (C&A); Dighton
*John James Dooley (ChE); Parsons
William Earl Doty (Ar); Manhattan
Mary Agnes Doverspike (HE&N); Cottonwood Falls
Stanley James Dowds (VM); Gypsum
Merrill Edward Downer (C); Manhattan
Donald Fredrick Dresselhaus (CE); Lincoln
Helen Amelia Droll (MuE); Alta Vista
Wilbert William Duitsman (AA); Washington
Grace Helen Dunlap (HE); Manhattan
Iona Marie Dunlap (MuE); Manhattan
Harriet Mayer Duvanel (MuE); Alta Vista
John Page Earle (AA); Washington
Joe A. Eckart (MI); Topeka
*Fay Albert Edwards (EE); Arlington
Robert Joseph Edwards (GS); Jewell
Adah Lou Eier (C); Manhattan
John Wallace Elling (MI); Manhattan
Forest Ellis (ME); Garden City
Orin Ellgene Ellis (VM); Phillipsburg
*Dwight Kendall Ellison (Ag); Ogden, Utah
*Ruth Trousdale Ellison (HE); Ogden, Utah
Martha Elnora Emery (HE&A); Manhattan
Burt Walter English (VM); Manhattan
John Henry Eppard (ChE); Kansas City
Carl Frederick Erickson (VM); Aurora
*Frank Howard Estabrooks (ME); Riverton
*Ralph Edgar Evans (C); Kansas City
Richard Cameron Evenson (EE); Claflin
Clair Eugene Ewing (CE); Blue Rapids
Doris Muriel Ewing (C); Sabetha
Lottie Caroline Ewing (HE); El Dorado
John Madison Eyer (EE); Larned
Paul Fagler (PE); Uniontown, Pa.
Gustave Edmund Fairbanks (AE); Topeka
Lyle Willis Falkenrich (ME); Manhattan
Farland Edgar Fansher (Ag); Manhattan
John Robert Farmer (ME); Manhattan
Arthur Anthony Farrell (C); Manhattan
Leora Aliene Fencl (C&A); Haddam
Everett Leroy Fiedler (GS); Enterprise
*Austin J. Fink (EE); Lafontaine
Betty Lou Fisher (HE&A); Manhattan
Dean Lewis Fisher (AE); Mankato
Roy Mac Fisher (IJ); Belleville
George Howard Fittell (MI); Beloit
Truman Brandon Fleener (VM); Tulsa, Okla.
Wilbert John Foos (ChE); Manhattan
*Donald Galen Forbes (IJ); Kansas City
Marie Annette Forceman (HE); Vliets
John Cotterill Foster (Ar); Manhattan
Robert Clare Foulston (GS); Wichita
Paul Edwin Fowler (Ag); Independence
R. Grant Freeman (AE); Tonganoxie
William B. Freeman (ChE); Manhattan
George W. French (AE); Augusta
Clarence Albert Frese (AE); Hoyt
Leland Samuel Frey (Ag); Sacramento, Cal.
James Phillip Frick (ME); Kansas City
Francis Loyd Friedli (MI); Roscoe, Ohio
LeRoy Frank Fry (AA); Little River
Jack Pearson Fuller (CE); Kansas City
William Borland Fullerton, Jr. (Ar); Independence, Mo.
*Betty Lane Gage (IM&D); Kansas City, Mo.
Janis Leigh Gainey (GS); Manhattan
Phil McNabb Gainey (EE); Manhattan
Freddie Joe Galvani (CE); Pittsburg
Chester Wilson Gantz (AA); Nickerson
Merle Leon Garber (Ag); Dennis
*Alva Rodell Gardner (ME); Pomona
Frederick James Gardner (Ar); Manhattan
*William Arthur Gardner (CE); Chanute
Jess Dudley Garinger (ME); Harveyville
Clement Garrelts (CE); McPherson
*John William Geddis (MI); Larned
*Roger Keith Ghormley (EE); Hutchinson
Helen Jean Gibbs (IJ); Kincaid
Elvin Vance Giddings (CE); Manhattan
Frank Glendon Gillett (VM); Wichita
Robert Newton Gist (ME); Manhattan
Mae Florence Glanville (HE&N); Cottonwood Falls
Leslie Ray Glassburner (ME); Leon
*Marshall Fred Glenn (EE); Elk City
William Jack Glover (C); Syracuse
*Frances Louise Gonder (GS); Coffeyville
*William Gerald Gordon (EE); Robinson
James LeRoy Gould (IJ); Manhattan
Henry Clifford Graefe (VM); Elwood
*Betty Deli Grant (IM&D); Iola
Harold Ellsworth Gray (AE); North Stonington, Conn.
Richard Loy Gray (C); Wichita
Gaylord George Green (Ag); Whiting

* Matriculated 1938-1939.

JUNIORS—*Continued*

Gordon Charles Green (Ag); Whiting
*Julia Louise Green (IM&D) Iola
Mark Leon Greenberg (VM); Camden, N. J.
Murray Greensaft (VM); Belmar, N. J.
Dorothy Helen Greeson (GS); Partridge
*Harold Allen Gregg (GS); Oil Hill
C. Lyndon Griffith (ME); Elkhart
Ivan Charles Griswold (IJ); Marysville
Eugenia Louise Grob (HE); Randolph
Ralph Lewis Gross (Ag); Oakley
Raymond Harry Groth (IC-1; ChE-2); Bushton
Alice Ruth Gulick (HE); Olathe
*Celia Camilla Guthrie (IM&D); Walton
*Marie Louise Haberthier (HE); Wichita
Elmer Loyd Hackney (PE); Oberlin
Robert Monroe Hackney (ChE); Parsons
Lucille Haley (PE); Kansas City, Mo.
Orlena Cook Hall (HE); Manhattan
*Julia Helen Hamm (HE); Humboldt
Ruth Helen Hammel (GS); Clay Center
Florence Marie Hammett (HE); Manhattan
James Russell Hammett (C&A); St. John
Paul V. Hannah (ME); Osborne
Warren Thomas Hanne (IJ); Bucklin
Frederic William Hansen (VM); Pelican Rapids, Minn.
Rose Eileen Harman (HE&N); Indianapolis, Ind.
Theron Banco Harmon (C); Arkansas City
*Harold Raymond Harris (ChE); Geuda Springs
Isaac Keith Harrison (AA); Ottawa
Robert Carl Harvey (IC); Minneapolis
Everett Erskine Haskell (Ag); Topeka
Gilbert Marri Hassur (GS); Hanover
*Paul Clement Hauber (EE); Kansas City
Otto Ambrose Hauck (EE); Jackson Heights, N. Y.
Gordon Graham Hazell (Ar); Kansas City, Mo.
Frank Conrad Hefner (C&A); Gove
Richard William Heikes (Ag); Wakefield
*Lewis Ernest Heiney (ME); Bloom
Charles Eldon Heitz (ME); Fort Scott
Carl Helm (CE); Chanute
John Gunion Helm (IJ); Simpson
Dorothy Mary Henderson (HE); Bloomington, Neb.
*Marion John Hennessy (C); Hutchinson
Albert Raymond Henry (C); Salina
*Kenneth Dean Henry (CE); Robinson
Sarah Ann Herning (PE); Kansas City
Frederick Allen Heskett (C&A); Alton, Ill.
Vann Hess (CE); Manhattan
John Emmett Hesselbarth (ME); Abilene
Betty Jane Higdon (HE); Goodland
Marjorie Higgins (Ag); Linn
Halsey Hines (ME); Salina
Marcella Genevieve Hobbie (HE); Tipton
Edward Vaughn Hobbs (ME); Manhattan
Belle Arvice Hoffman (IM&D); Hope
Lester John Hoffman (AA); Haddam
Charles Edwin Hofman (VM) Manhattan
Albert Sidney Holbert (GS); Newton
Charles Harris Holm (AA); Dwight
*Arthur Vernon Holman (E); Wichita
Frances Elizabeth Holman (SH); Leavenworth
*Floyd Arthur Holmes (GS); Prescott
Helen Elizabeth Hood (HE); Salina
Leo Michael Hoover (AA); Greenleaf
Raymond Wells Hopkins (ME); River Forest, Ill.
Iola Verna Houdek (HE); Cuba
James Lynn Hourrigan (VM); Langdon
Tom Clark Houston (AE); Goodland
Horton Kent Howard (VM); Canton, N. Y.
Walter Roy Howat (Ag); Codell
*Gerald Albert Hoyt (EE); Thayer
Howard McCune Hughes (Ag); Formoso
Dena Everett Huitt (AE); Talmage
Wilma Vivian Humbert (HE); Danville
Arlyn Morris Humburg (C); Bison
Alice Claire Hummel (IJ); Kanopolis
*Hannora Maude Hummel (HE); Towanda
Frank Raymond Hunter (ME); Kansas City, Mo.
Thomas Conrad Hutcherson (C); Manhattan
Ann Estella Hutter (HE); Neodesha
Lucille Opal Ifland (HE); Gaylord
Gerald Howard Ingraham (IC-1; MI-2); Manhattan
Margaret Edith Iverson (IM&D); Wilmette, Ill.
Richard Alonzo Jaccard (Ag); Manhattan
Clifton Edward Jackson (AA); Elsmore
John James Jackson (PE); Manhattan
*Marjorie Louise Jacobs (GS); Kansas City
Ruth Mildred Jameson (GS); Garrison
Lawrence F. Jarvis (C&A); Winfield
Morgan Knott Jarvis (VM); Minden, Nev.
*Jack Wilton Jeakins (EE); El Dorado
Elizabeth Ann Jenkins (IM&D); Wamego
Grace Gladys Jenkins (HE); Jewell
*Irvin Brown Jenkins (C&A); Kansas City
Ross Lyman Jewell (VM); Irving
*Charles Franklin Johnson (EE); Kansas City, Mo.
*Earl Clinton Johnson (ChE); Coffeyville
*Eleanor Lee Johnson (HE); Salina
Kenneth Lowell Johnson (VM); Fresno, Cal.
Martha Josephine Johnson (IM&D); Simpson
Ruth Ella Johnston (MuE); Remsen, Iowa
Helen Henrietta Johnstone (PE); Wamego
Betty Jean Jones (IM&D); Salina
Elgie Gerald Jones (Ag); Tonganoxie
Harold Eugene Jones (Ag); Concordia
John Russell Jones (AA); Sterling
Mary Eleanor Jones (IJ); Garden City
*Mary Margaret Jordan (IM&D); Wichita
Thelma Louise Joss (HE); Burlingame
Robert Harry Joyce (AE); Ulysses
*Charles Ellsworth Kaiser (ArE); Kansas City
Ralph Clayton Kantz (ArE); Wichita
Robert Landis Kauffman (C); Salina
*Alvin Daniel Kaufman (CE); Moundridge
Roland Harry Kaufman (IA); Galva
Eldon C. Kaup (MuE); Holton
Grace Lea Kellogg (HE); Lecompton
Charles Alvin Kennedy (Ag); Kansas City
Chester Hennessy Kennedy (VM); Chase
Frances Maxwell Kennedy (VM); Lawrence
William Thomas Keogh (ChE); New York City
Osborn Arthur Kershner (ME); Paola
Jean Elizabeth Kessler (IM&D); Excelsior Springs, Mo.
*Lyman DuVall Ketchum (MI); Kansas City
*Paul Laurence Kewley (EE); Stockton
George Wendell Kilian (EE); Detroit
Perle Everett Kimball (VM); Eskridge
*Donald Eugene King (EE); Wichita
Mildred King (GS); Minneola
Muriel Ruth King (HE&A); Ottawa

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JUNIORS—*Continued*

Ronald Bishop King (Ag); Council Grove
Jane Elizabeth Kinnmonth (MuE); Winfield
Donald Benton Kinkaid (AA); Medicine Lodge
John Wallace Kirkbride (Ag); Medicine Lodge
Wesley Charles Kirschner (Ag); Humboldt
*Gerald Kiser (MuE); Excelsior Springs, Mo.
Roy Wilber Kiser (Ag); Manhattan
George William Kleier (Ag); Oxford
Dell James Klema (EE); Wilson
*LeRoy Vernon Kleppe (EE); Everest
Donald A. Kliesen (Ag); Dodge City
Olga Alma Knapp (HE); Topeka
Ralph Wesley Knedlik (C&A); Belleville
Karl Knoche (VM); Adrian, Minn.
Hildegard Charlotte Knopp (IM&D); Kansas City
*Mary E. Koehler (HE); Paola
*Isaac Henry Kriebel (EE); Liberty
Harold Anderson Krig (VM); Manhattan
Glenn Homer Kruse (AA); Morrill
Roland Andrew Kruse (Ag); Barnes
Henry Fred Kupfer (SH); Kansas City, Mo.
Robert Glenn Lake (EE); Lake City
Eleanor Jane Lambert (GS); Hiawatha
Oliver Diston Lambirth (ME); Elida, N. Mex.
Annie Gertrude Lancaster (HE&N); Hutchinson
Shelvy Harrison Lane (ArE); Bucklin
Chris William Langvardt (AA); Alta Vista
Robert Byron Lank (AH&V); Kansas City
Arthur Robert Laughlin (ME); Turon
Oliver Ned Laurie (EE); Mulvane
Sidney Jean Lawson (C&A); Sylvan Grove
Kenneth Lebsack (C&A); Hutchinson
Gwendolyn Lucille Lee (GS); Lyons
Russell Arden Leeper (VM); Argos, Ind.
*Lee Raymond Leggitt (ME); Hutchinson
Ernest Wayne Leive (EE); Brookville
Dorothea Leland (HE); Manhattan
*Harold McKee Lemert (C); Arkansas City
Dorothy Merle Lerew (HE); Portis
Max Clarence Leuze (EE); Sabetha
Carol Byron Lewis (ArE); Salina
Alvina Freida Licht (HE); Ludell
Ethel Iona Lienhardt (IM&D); Manhattan
Gordon Grigsby Lill (GS); Mount Hope
*Wayne Lill (CE); Mount Hope
*Mildred Florence Limb (HE); Kansas City, Mo.
Charles Ashcom Lindsay (IJ); Junction City
*Leulla Elizabeth Lint (HE); Wichita
Freda Ellen Lipper (GS); Sterling
*Maxine Elizabeth Lippy (C); Independence
William Allen Ljungdahl (Ag); Menlo
Wilbert Lloyd Loewen (ME); Goessel
Harry Wilbur Longberg (AA); Soldier
Daniel Martin Longenecker (EE); Kingman
Paul Torrence Loyd (VM); Valley Center
*James Herbert Lundsted (ME); Kansas City, Mo.
Virginia Ethel Lupfer (GS); Larned
Margaret Eva McAllister (IM&D); Garden City
*Maurine Myrl McCann (HE&A); Newton
Edward Joseph McCarthy (ChE); St. Marys
Marjorie Loretta McCaslin (GS); Manhattan
Donald Irvine McCoy (AA); Manhattan
John Henry McCoy (AA); Manhattan
Charles Melvin McCrann (PE); Wichita
Raedine McCulley (HE); La Harpe
Delbert Earl McCune (Ag); Stafford
Lowell Elvis McCutchen (PE); Kingman
Ernest Raymond McDonald (C); Salina
Velma Maycle McGaugh (HE); Garden City
Joseph Thomas McGinity (EE); Humboldt
Charles Lynn McInnes (C&A); Manhattan
Donald Leslie McInteer (CE); Minneola
Dorothy Lucille McIntosh (GS); Palmer
Robert Glenn McKay (ME); Winfield
Wanda Marie McKeeman (GS); Manhattan
*Percy Herbert McKinley (EE); Kansas City
Carrie McLain (GS); Kansas City
*Marjorie Ellen McLenon (C); Effingham
Gerald Orestes McMaster (AA) Eskridge
*Jewell Thelma McVay (GS); Kansas City
Marcel Dale McVay (Ag); Sterling
Robert MacDonald (VM); Newburgh, N. Y.
Manoutchehre Mahin (Ag); Teheran, Iran
Julius Henry Mai (Ag); Tribune
Alfred Eugene Makins (IJ); Abilene
Donald Regis Makins (IJ); Abilene
Richard Merrill Mall (IJ); Manhattan
Gail Andrew Malson (C); Chanute
Walter Farrel Maninger (VM); Harper
Manford Edward Mansfield (AA); McCune
Charles Franklin Manspeaker (MI); Topeka
*Wyatt Parkman Marbourg (CE); Emporia
Gordon John Marold (VM); Saguache, Colorado
*Louie Marshall (CE); Minneola
Harry Eugene Martin (ChE); Manhattan
Maxine Jeanne Martin (IJ); Manhattan
Ruth Eleanor Martin (HE); Kansas City, Mo.
Walter Woodrow Martin (IJ); Pratt
Robert Dale Masters (C); Latham
Grace Elizabeth Mather (HE); Grinnell
Kenneth William Matthews (CE); Mullinville
Betty Lou Maupin (HE); Silver Lake
John Stephen Maurer (C&A); Winfield
Thurmon Adrian Mayhew (GS); Trousdale
Jeanne Eloise Meadows (GS); Gaylord
Robert Frank Mears (SH); Kansas City
Henry John Meenen (AA); Clifton
Lester Lee Mehaffey (ME); Farmington
Joseph Eugene Meier (C&A); Clay Center
Raymond L. Meisenheimer (EE); Hiawatha
Ethel Marie Melia (IM&D); Ford
Roy Leonard Mesenbrink (VM); St. Louis Mo.
Carrol Louise Meyer (HE&A); Ft. Leavenworth
Frances Lucille Meyer (HE); Lillis
Margaret Louise Meyer (HE); Jewell
Virginia Roget Meyer (HE&A); Ft. Leavenworth
William Christopher Mierau (ChE); Wichita
Abbie Maurine Miller (HE); Agra
*Doris Louise Miller (GS); Sterling
Ernest William Miller (CE); Independence
Lester Isaac Miller (ChE); Le Roy
*Lucile Evelyn Miller (HE&A); Parsons
Robert Dunlap Miller (ChE); Junction City
*Roger Gray Miller (GS); Kansas City
Albert Peter Mitchell (VM); Osborne
Lee Roy Mitchell (AA); Manhattan
Lucille Eleanor Mollhagen (HE); Frederick
Charles Carson Moore (VM); Louisburg
*Katherine Marie Moot (IJ); Abilene
William Dennis Moran (EE); Weir
Virgil Fred Morford (Ag); Olsburg
Patrick Exum Morgan (ME); Wichita

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JUNIORS—*Continued*

Vera Lorene Morgan (HE); Hugoton
Wayne Delos Morgan (Ag); Ottawa
Manuel Morris (Ar); Kansas City
Margery Byrd Morris (IM&D); Topeka
Park Lawrence Morse (ChE); Emporia
Ronald Morton (Ag); Green
*Karl J. Mosbacher, Jr. (ME); Wichita
Robert Clark Mossman (AH&V); Manhattan
Leonard Housden Moulden (GS); Manhattan
Robert Adair Moulthrop (ME); Kansas City, Mo.
Robert Lee Mueller (ChE); Anthony
William Lloyd Muir (C&A); Norton
Martha Jean Mullen (HE); Manhattan
Claude Franklin Murphy (VM); Conway Springs
Joe Kenneth Murphy (EE); Chapman
*Shirley Elizabeth Murphy (HE); Emporia
Robert Howard Musser (Ag); Des Moines, Iowa
Ellsworth Dale Mustoe (AA); Rexford
Barbara Jane Myers (IM&D); Topeka
Homer Samuel Myers (MI); Salina
John Alvin Myers (MI); Edgerton
Willis Roy Myers (C); Abilene
Evelyn Victoria Nagel (HE); Wichita
Betty Neill (MuE); Clay Center
James Thomas Neill (Ag); Miltonvale
Conrad Lundsgard Nelson (GS&V); Oklahoma City, Okla.
Frances ElVera Nelson (GS); McPherson
Glenn Russell Nelson (CE); McPherson
Junior Andrew Nelson (MuE); Gypsum
*Louis Daniel Nelson (ChE); Chanute
Richard Albert Nelson (EE); Susquehanna, Pa.
Rex Alan Neubauer (GS); Manhattan
Sheryl Arthur Nicholas (Ag); La Harpe
William Philip Nichols (PE); Waterville
Chester Dale Nielson (C); Manhattan
Albert Louis Niemoller (ME); Wakefield
Theo Beatrice Nix (IJ); Kansas City, Mo.
James Ancil Nixon (ME); Eureka
Paul Richard Noller (VM); Mankato
Dean Nonamaker (EE); Osborne
Pearl Signe Jane Norberg (GS); Winfield
Ingrid Leone Nordin (HE); Marquette
Avery Albert Norlin (ME); McCracken
John Patrick Nulty (ME); Jewell
*Janet Yvonne Nutter (IM&D); Shelton, Neb.
*Charles Fredick O'Brien (IC); Iola
George Herbert O'Brien (ME); Iola
LaVerne Maurice Odden (MI); Buffalo, N. Y.
Barbara Maria Okerberg (IM&D); Ottawa
Angela Lillian Oliva (HE); Kensington
Earl Laverne Olson (IC); Elsmore
*Margery Louise Olson (IM&D); Chanute
Raymond Winzenried Olson (MI); Atchison
Max Charles Opperman (C); Yates Center
Arlene Octavia Orme (HE); Kansas City
Miriam Sophia Ostlund (HE); Washington
Dorothy Frances Ott (GS); Wichita
Carolyn Jane Overholt (HE); Milwaukee, Wis.
Walter Clyde Owen (C); Council Grove
Margaret Louise Owen (HE); Edson
*Thomas Bernard Owens (C); McPherson
Carroll Dean Owensby (ChE); Manhattan
Everett E. Oyster (Ag); Paola
Mary Anne Pafford (GS); Salina
*Enid Lillian Palmer (C); Parsons
Rex Lewis Parcels (EE); Hiawatha
Rosemary Parisa (HE&A); Lansing
William Thomas Parrott (C); Colby
Kenneth Frederick Parsons (Ag); Manhatan
*Jane Lillian Partridge (HE); Kansas City, Mo.
Kent Leonard Patton (AA); Chase
L. Bruce Patton (EE); Solomon
*Willis Dey Payton (ChE); Arkansas City
James Russell Peddicord (AA); Belvue
Grace B. Pennington (MuE); Manhattan
Viola Anna Peter (HE); Manhattan
Harvey Lee Peterson (Ag); Wellington
Helen Isabel Peterson (GS); Howard
Melvin Raymond Peterson (Ag); Riley
Ralph Edward Peterson (GS); Manhattan
Winzer J. Petr (AA); Waterville
Kenneth Osler Pettijohn (Ar); Larned
Carl Leo Pettyjohn (IC); Talmo
Paul Edward Phillips (VM); Ottawa
Buford Doyle Philpy (VM); Manhattan
*Victor Raymond Piatt (ChE); Santa Fe, N. Mex.
*Wayne Frederick Pickell (ChE); Kansas City
Gerald E. Pierce (AA); Garrison
Katherine Amelia Piercy (HE); Lenexa
Melvin Clark Poland (AA); Barnes
Maurine Pollom (HE&A); Manhattan
Charles Edward Porter, Jr. (ME); Junction City
Kathleen May Porter (HE); Stafford
Kenneth Boyd Porter (Ag); Stafford
Leland Cyril Porter (CE); Dellvale
Clarence Arthur Powers (ME); Alta Vista
Kenneth Herbert Praeger (AA); Claflin
*Charles Albert Pray (GS); Hope
John Clyde Pretzer (AA); Elmdale
Glenn Emerson Pribbeno (ME); Sharon Springs
Albert Paul Price (CE); St. Paul
Donald Calvin Pricer (MuE) Hill City
Marvin Andrew Pringle (ME); Scranton
Virgil Lyle Pyke (C&A); Enterprise
Robert Howard Pyle (ME); Wellington
Byron White Quinby (AH&V); Lake City
Kenneth Willard Randall (CE); Haddam
William Harvey Rankin (C&A); Idana
Wilbur Abe Rawson (AA); Wamego
Virginia Ray (HE); Kansas City
Arline Florence Raynesford (HE); Salina
Lucy Josephine Reader (HE); Sterling
Eric Leroy Reardon (C&A); Minneapolis
Donald Reber (C&A); Sabetha
Matthew Allen Reber (ME); Sabetha
Earl Llwyn Redfield (GS); Bucklin
Joseph James Redmond (EE); Lillis
Thomas Morse Reed (AA); Circleville
Harlan Edward Rees (EE); Beloit
Donald Dorman Reid (CE); Manhattan
Ervin Ellis Reid (GS); Manhattan
Ralph Emery Reitz (C&A); Shady Bend
Frank Lauren Reppert (ME); Bryan, Tex.
Leon Merle Reynard (PE); Alamo, Tex.
Elizabeth Richardson (HE); Cawker City
Maxine LaJune Richardson (PE); Sharon Springs
James Otto Ridenour (ME); Moscow
Merton Alvin Rietzke (AE); Kensington
Ralph Roy Roberts (ME); Downs
Joseph Edmond Robertson (MI); Brownstown, Ind.
Cecil Redford Robinson (Ag); Nashville
Walter Stuart Robinson (Ag); Nashville
Carl Robert Rochat (IJ); Wilsey
*Jane Helen Roderick (HE); Manhattan
Elmer Rollins (ChE); Manhattan

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JUNIORS—*Continued*

Gwendolyn Frances Romine (IJ); Abilene
Martha Barbara Roots (HE&N); Manhattan
*Helen Rosander (IM&D); Lindsborg
Russel Leon Rose (ME); Kiowa
Nathan Matthew Rosenbaum (VM); Yonkers, N. Y.
Stephen Francis Rosner (VM); Bucyrus
William Rosner (VM); Philadelphia, Pa.
Francenia Routt (HE); Paola
Brace Donald Rowley (Ag); La Cygne
*George Richard Rugger (IC); Topeka
Orel Dale Rundle (IM&D); Axtell
Wayne Allard Rutter (IC); Kensington
*Joseph Peter Sachen (ChE); Kansas City
William Roy Sachse (CE); Easton
*Grant Angus Salisbury (EE-1; IJ-2); El Dorado
Ralph Emanuel Samuelson (ChE); Manhattan
*Arthur LeRoy Saylor (Ag); Langdon
*Melvin Eugene Scanlan (CE); Manhattan
Leroy Edward Schafer (VM); Valley Center
Walter Schanfeldt, Jr. (IJ); Cimarron
Genevieve Estella Scheier (IM&D); Everest
George Walter Schiller (IC-1; MI-2); Frankfort
*Leon Washington Schindler (ME); Topeka
Francis Noel Schlaegel (VM); Olsburg
*Aaron Kurt Schmidt (AA); Newton
Winston Albert Schmidt (CE); Lyons
Ruth Lillian Scholer (HE); Manhattan
Anna Martha Scholz (HE); Huron
Alice LaVerne Schroeder (HE); Lorraine
Genevieve Eleanor Schroer (IM&D); Manhattan
Vincent Joseph Schweiger (VM); Lenexa
Myron Carl Scott (C); Newton
Cleo Marie Sealey (HE); Hutchinson
Melvin Harry Seelye (PE); Fort Scott
Edward Frank Sefcik (ME); Cuba
Bert Eugene Sells (ME); Wichita
Ruby Juanita Shamburg (HE); Scottsville
Donald Henry Sharp (C); Hutchinson
John Alden Shaver (Ar); Salina
John Alex Shaw (Ag); Joes, Colo.
Charles Junior Sheetz (CE); Topeka
*Kenneth Thomas Sherrill (AA); Brownell
Marvin Roy Shetlar (IC-1; MI-2); Bayard
Merle Mathias Shilling (CE); Westphalia
Gladys Morgan Shoffner (HE); Manhattan
Robert Nurman Shoffner (Ag); Manhattan
Francis Benjamin Shoup (AA); Udall
George William Shrack (C); Pratt
Philip Newton Shrake (EE); Topeka
Frank Everett Sicks (PE); Okmulgee, Okla.
Ernest Christian Sieder (ME); Schenectady, N. Y.
Luella Velva Siek (HE); Hope
Ernest Harold Simpson (Ag); Conway Springs
Virgil Leonard Simpson (ChE); Towanda
Walter Turner Singleton, Jr. (ME); Tribune
Damaris Irene Sipes (IM&D); Neosho Falls
Ralph Murray Skinner (C); Topeka
Samuel Dwight Slentz (AA); Lewis
Milan William Smerchek (Ag); Topeka
Agnes Marie Smith (HE&A); Fredonia
Clarence Paul Smith (ChE); Marysville
George Harmon Smith (ChE); Longford
Ivan Roland Smith (ChE); Highland
William Edgerly Smith (VM); Fowler
Charles Henry Snider (VM); St. Louis, Ill.
*Galen Max Sollenberger (ArE); Hutchinson
*Mary Jayne Solt (GS); Waterville
James Wilmeth Speers (MI); Manhattan
*Dorothy Elizabeth Spencer (GS); Whiting
Otto Franklin Spencer (Ag); Leavenworth
Roger Guy Spencer (VM); Whiting
*Marjorie Nell Spillman (C&A); Coyville
Kenneth Earl Spring (GS); Sabetha
Charles Willis Stafford (GS); Republic
Beverly David Stagg (Ag); Manhattan
Raymond William Stanzel (VM); La Harpe
Lloyd Arnold Starkweather (C&A); Clay Center
Allen Edward Starosta (Ag); Iola
Merwin Milton Stearns (AA); Haddam
*John Wesley Steffens (IC); Kansas City
Herbert Carl Steinhausen (AH&V); Omaha, Neb.
*Ann Steinkirchner (HE); Newton
George Stevens (Ag); Waterbury, Conn.
Vivian Lorraine Stewart (HE); Hartford
William Francis Stewart (MI); Saffordville
*Everett Clarence Stidham (C); Manhattan
Harry Wayne Stockhoff (MI); Bethel
Harry James Stockman (ME); Wichita
*Ray Elmer Stokely (C); Hutchinson
Enid Lorraine Stoops (HE); Sawyer
Melvin Andrew Stoner (GS); Edson
Warren Wallace St. Pierre (EE); Ames
Joseph Jacob Straut (AA); Wathena
Charles Lyman Streeter (AA); Wakefield
Swanna Lee Suits (IM&D); Odessa, Mo.
Harold Eugene Summers (ME); Pittsburg
Robert Edward Summers (IJ); Manhattan
Roy William Swafford (IJ); Topeka
Robert Vernon Swanson (C); Waterbury, Conn.
Ralph Wilson Swearinger (EE); Courtland
Linn Meredith Swenson (EE); Council Grove
Eldon Derry Swing (EE); Wichita
Raymond Shields Tanner (AA); St. John
Waldo Tate (Ag); Junction City
Lloyd Campbell Teas (CE); Manhattan
Robert Lansdowne Teeter (ChE); McPherson
Morgan William Tempero (VM); Clay Center
Donald Bland Thackrey (IJ); Camden, Ark.
Elnora Jane Thomas (HE); Salina
Daniel Max Thompson (GS); Almena
*Leslie Earl Thompson (ChE); Manhattan
*Jane Elizabeth Thomson (GS); Irving
Robert Sanders Thornburrow (ArE); Wetmore
Celeste Jane Throckmorton (HE); Manhattan
Orval Elmer Thrush (AA); Wakefield

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JUNIORS—*Concluded*

*Henry Albert Thurstin (ME); Chanute
*Mina Fay Tillman (HE); Topeka
Robert John Tindall (C); Lakin
Helen Tipton (IM&D); Paola
Hobart Tipton (ME); Paola
Harold George Todd (AA); Manhattan
Rex Franklin Toomey (ChE); Neodesha
Floy Frances Toothaker (HE); Protection
*Fred Franklin Townsend (CE); Waverly
Leland Mark Townsend (C&A); Junction City
Lloyd Bryon Tribble (EE); Soldier
Harden Halleck Tubbs (ME); Wilburton
*Mildred Darlene Tuttle (GS); Coffeyville
Dorothy Ann Uhl (HE); Smith Center
Harold Wertz Underhill, Jr. (ArE); Wichita
John Lee Urquhart (MI); Wamego
Eloise Utterback (C); Oberlin
*Jane LaVerne Utterback (HE); Yates Center
Helen Louise Van Der Stelt (PE); Wakefield
Glenn Benton Van Ness (VM); Harrison
Gerald Thomas Van Vleet (AE); Danbury, Neb.
George Willits Vaught (CE); Iola
William Wafler (CE); White City
Howard Oscar Wagner, Jr. (C); Wellington
Dan W. Wagoner (EE); Lenora
Ralph John Wahrenbrock (ME); Enterprise
Ruth Elizabeth Walker (HE&N); Manhattan
Evelyne Elnore Ward (HE); Langdon
Verna May Ward (HE); St. Joseph, Mo.
John Henderson Washburne (C); Waterbury, Conn.
Faith Ella Watts (IM&D); Havensville
Charles Elmer Webb (ChE); Hill City
Katherine Evelyn Weldon (HE); Smith Center
Elvera Welk (HE); Pratt
William Walter Wempe (AH&V); Frankfort
Roma Mae Wenger (HE); Sabetha
Glenn Arnold West (MI); Manhattan
Arthur Wexler (GS); New York City
Florence Josephine Wheeler (GS); Jewell
Louis Monroe Wheeler (C); Plevna
John Robert Wheelock (ME); Missouri Valley, Iowa
Alfred Marvin White (EE); Topeka
James Robertson White (Ag); Burlington
Roby Byron White, Jr. (EE); Neodesha
Charles Kenneth Whitehair (VM); Abilene
Ray Murrell Whitenack (ChE); Manhattan
Merle Ray Whitlock (Ag); Elmdale
Dean Duane Whitmore (Ag); Portis
*Lola Christine Whitney (HE&N); Phillipsburg
Walter Robert Wichser (MI); Beardstown, Ill.
Edgar Havard Wilkerson (ME); Wichita
Donald Keith Wilkin (EE); Nortonville
Frances Mildred Wilkins (HE); Chapman
John Herron Williamson (EE); Topeka
Thomas Phil Williamson (C); Topeka
Anna Eileen Willis (HE); Newton
Solon Luther Willsey (ChE); Anthony
Alice Margaret Wilson (HE); New Cambria
Evelyn Agnes Wilson (HE); Grantville
George Lincoln Wilson (ME); Hoisington
Joe James Winderlin (AA); Scott City
Leonard Charles Witt (VM); Scribner, Neb.
Francis Bamford Woestemeyer (EE); Bethel
Sylvester Harlan Womer (Ag); Bellaire
Keith Woodard (ME); Glen Elder
*John Robert Works (Ag); Humboldt
*Ray Edmond Wright (IC); Osawatomie
Norma Geraldine Wunder (HE); Valley Falls
*Erna Gene Wunderlich (HE&A); Kansas City, Mo.
Vera Lucille Wycoff (MuE); Norcatur
Mack Yenzer (Ag); Saffordville
Irl Clarence Yeo (EE); Ellsworth
Dale J. Yokum (VM); Colony
Kenneth Morton Yoos (EE); Atwood
*Donald Allan Yost (Ag); La Crosse
George Otis Young (CE); Centralia
Doyle Leroy Youngs (E); Norton
Nellie Leone Yount (GS); Bazine

SOPHOMORES

*Marilyn Elaine Abel (IJ); Wichita
Merrill Glee Abrahams (Ag); Wayne
Finley Acker (C); Philadelphia, Pa.
Warren Harlin Acker (ChE); Junction City
*Anita Clare Adams (HE&N); Hutchinson
Charles Henry Adams (Ag); Wilsey
James Otis Adams (CE); Eureka
John Beal Adams (IJ); Osborne
Raymond Voiles Adams, Jr. (GS); Manhattan
Walter Alfred Adams (IA); Leavenworth
Charles Warren Adcock (ME); Fort Leavenworth
Donald Dwight Adee (PE); Wells
*DeWitt Benard Ahlerick (AA); Winfield
Louis Fred Akers (C); Atchison
Wilfred John Alden (EE); Talmage
Thomas James Alexander (IJ); Herington
*Ruth Adelia Aley (M); Blue Rapids
Genevie Elizabeth Allen (HE); Manhattan
Richard Carl Allen (EE); Carthage, Mo.
Lueva Eleanor Alsop (GS); Wamego
Enid Alene Altwegg (IJ); Junction City
Loren Edward Amerine (EE); Great Bend
Charles Cornelius Anderson (ME); Emporia
Eugene Elria Anderson (GS); Greenleaf
Wilfred Ira Anderson (CE); Clay Center
Mary Louise Arbuthnot (C&A); Morrowville
Robert Arbuthnot (Ag); Morrowville
George Rankin Armstrong (VM); Gastonia, N. C.
Oliver Wendell Armstrong (C); Mound Valley
Beverly Junior Asher (AE); Stafford
Delmar Wallace Atchison (CE); McPherson
Richard Elton Atkins (Ag); Manhattan

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SOPHOMORES—*Continued*

Wanda Marian Atkins (HE); Manhattan
Leroy Nichols Atkinson (VM); Hutchinson
Ellita Bernice Atwell (HE); Utica
*Betty Hamilton Augur (HE); Fort Leavenworth
Dorothy Elizabeth Axcell (IM&D); Chanute
Merton Bierman Badenhop (AA); Kensington
Lawrence Roy Bain (VM); Pittsburg
Mary Ann Bair (IJ); Wamego
Bruce Walter Ball (C&A); Topeka
*Jack Junior Banks (C); Winfield
*John William Banks (Ag-1; C-2); Independence
*Wendell Glenn Barcroft (IJ); Coffeyville
Virginia Lee Barnard (IM&D); Belleville
Arthur C. Barney (ME); South Haven
Wallace DeArmond Barry (AA); Manhattan
Eugene Henry Bartell (EE); Topeka
Clyde Jennings Bateman (ME); Herington
Willis Clarke Bateman (Ag); Herington
Frank Alexander Bates (ME); Topeka
Fremont H. Baxter (SH); Larned
Winifred Jean Bayer (HE); Manhattan
Annabelle Bays (C&A); Onaga
Edwin Howard Beach (IC); Marysville
Marcella Marie Beat (HE); Kingman
Clarence August Bechtold (AA); Gaylord
*William Daniel Beeby (ME); Topeka
Maurice Wayne Beichley (C&A); Longford
Rena Lauretta Bell (HE&N); McDonald
William Perry Bell (EE); Silver Lake
George Robert Belt (EE); Lane
Wesley Gale Benda (AA); Achilles
Welcome A. Bender (HE); Plains
Bette Mary Benjamin (IJ); Nowata, Okla.
Philip Frank Bennett (CE); Eskridge
Maurice Wittry Bergerhouse (C&A); Greeley
Minnie Josephine Bergsma (HE); Goodland
Helen Elizabeth Berlin (C); Wakefield
Clifford Lee Bertholf (AA); Spivey
James Grant Betts (VM); Randall
Clifford Duane Beyler (Ag); Harper
Keith Daniel Bird (CE); Albert
Roy Thomas Bird (AE); Great Bend
Verne Emil Bistline (C&A); Topeka
Jean Olivia Black (IM&D); Attica
Frances Blackert (IC); Marysville
Betty Jane Blackman (HE&A); Tulsa, Okla.
Pauline Isabel Blackwell (HE); Rozel
Robert Hale Blair (IJ) Ottawa
Victor Ross Blanks (IJ); Manhattan
Leon Phillip Blender (Ag); Kansas City, Mo.
Kathryn Elizabeth Blevins (IC); Manhattan
Kenneth Gardener Blim (GS); Council Grove
Betty Boehm (IM&D); Kansas City, Mo.
Wayne Columbus Bogard (Ag); Junction City
*Carol Ann Bogart (IM&D); Wichita
Ralph Edwin Bonewitz (Ag); Meriden
Ross W. Booth (ME); Paradise
Pauline Marie Borth (HE); Plains
*David Eugene Bourassa (Ag); Topeka
*Marie Joan Bourdon (HE); Topeka
William Dale Bowerman (VM); Oklahoma City, Okla.
Edward Allan Bowman (IJ); Pawnee Rock
Muriel Elaine Bowman (IM&D); Neosho Rapids
Harold Henderson Bozarth (ME); Eskridge
James Thomas Bradley (EE); Sedan
Virginia Lenore Brand (HE); Basil
*Gordon McClellan Braun (GS); Kansas City
Geo. Gray Breidenthal (CE-1; GS-2); Kansas City
Edward Francis Brenner (AA); Bazine
David Henry Breuninger (C); Beattie
George Daniel Brewer (ME); Wichita
Albert Brickell, Jr. (Ag); Saffordville
Harold Brickey (ChE); Emporia
*William Blount Briggs (MI); Landrum, S. C.
*Frances Lorraine Brooks (HE); Norton
Arthur William Brower (VM); Emporia
Jacquelyn Lenore Brower (HE&A); Attica
Arlo Allen Brown (Ag); Almena
Clarence Bernard Brown (EE); Kansas City
*Dwight Carl Brown (ArE); Osborne
*Eileen Brown (C); Ingalls
Lester Earl Brown (AA); Circleville
Paul Lawson Brown (Ag); Sylvan Grove
Sara Davidson Brown (IM&D); Manhattan
Sealy Mark Brown (C&A); Manhattan
Sidney Goodell Browne (AA); Burdett
Wendell Lewis Brubaker (MI); Manhattan
Kenneth Lee Bruce (VM); Orchard, Neb.
Ruth Miller Bruner (GS); Wamego
Robert William Brush (Ag); Wichita
Joe Bryske (IC); Mankato
Edith Louise Buchholtz (HE); Olathe
*Kenneth Oliver Budd (ME); Wichita
Laurence Theodore Buening (C&A); Valley Falls
*Elinor Althea Buenning (MuE); Hope
Raymond Martin Bukaty (ME); Kansas City
Elizabeth May Burchinal (C); Formoso
Max Morris Burger (IA); Randall
Orville Brown Burtis (Ag); Hymer
Bernard Busby (VM); Wakefield
Glen Morton Busset (AA); Le Roy
Sarah Jane Buster (HE); Larned
Wilma Hortense Cade (GS); Manhattan
Leslie James Callahan (GS); Manhattan
Bessie Marie Campbell (HE); Concordia
*Geneva Ruth Campbell (IM&D); Hiawatha
Mary Alice Campbell (HE); Concordia
Ralph Ernest Campbell (CE); Wilsey
Ruth Pearl Campbell (HE); Lakin
Leonard Walter Canfield (C&A); Miltonvale
*Keith Milton Cantrell (CE); Parker
Gilbert Wilson Carl (VM); Hutchinson
Doris Virinia Carlson (HE); Osage City
*Lavone M. Carlson (C); Morganville
Henry James Carothers (C&A); Topeka
Dean Robert Cassity (SH); Clifton
Richard John Cech (ChE-1; IJ-2); Kansas City
Severo Jose Cervera (Ag); Junction City
Edward Eldridge Chambers (VM); Parsons
Howard Wendell Channell (Ag); Kansas City
Robert George Chapman (GS); Manhattan
Clayton Ralph Chartier (MuE); Concordia

* Matriculated 1938-1939.

SOPHOMORES—*Continued*

Garland Baxter Childers (CE); Augusta
Clara Katharine Chubb (IJ); Topeka
Betty Jean Clapp (IM&D); Manhattan
Bonnie Lue Clapp (HE&N); Manhattan
Jack Kenneth Clark (C); Manhattan
Lowell Warren Clark (MuE); Waterville
Robert Hugh Clark (VM); Manhattan
*Margaret Ann Clarke (HE); Winfield
Harold Clay (AA); Meade
Donald Ernest Cleland (AE); Eskridge
Marion Fulton Clevenger (EE); Clifton
George Wilson Cochran (Ag); Topeka
Charles Edwin Coffman (ME-1; C-2); Allen
Robert Christian Colburn (AE); Spearville
Robert Lee Collard (C); Leavenworth
Wayne Robert Colle (AA); Sterling
Joyce Collier (C&A); Hugoton
Clark C. Collins (VM); West Point, Neb.
Dale Collins (CE); Kingman
Jessie Margaret Collins (IM&D); Dwight
Lawrence Keith Collins (AE); Junction City
Lee Wilson Collinsworth (Ag); Rosalia
Kenneth Harold Colvin (ChE); Topeka
*Dorothy Marian Considine (GS); Fort Leavenworth
*Jeanne Eleanor Considine (HE&A); Fort Leavenworth
*Catherine Alice Cook (HE&A); Eskridge
Norma Elizabeth Cook (MuE); Monument
Norman Travis Cook (CE); Monument
*Willard Dwight Cook (AA); Louisburg
Carleton Cooper (C&A); St. John
Richard Warren Cope (Ag); Holton
Keller Cordon (AE); Circleville
Robert Vaile Corns (ME); Greensburg
Charles Joseph Correll (C); Manhattan
Francis Lee Cosgrove (C); Oketo
Robert Thomas Cotton (GS); Manhattan
Donald Wallace Coulson (ME); Wichita
Carl J. Coulter (IA); Leon
Arlene Ruth Cowan (IM&D); Athol
*Marie Jane Cox (IM&D); Iola
*John Dudley Crain (EE); Fort Scott
James Jacob Cram (CE); St. Francis
Elvin Wayne Cramer (GS); Glasco
Myrtle Madena Cranston (IM&D); Manhattan
Virgil Eugene Craven (C); Erie
Arthur Joseph Crawford (ArE); Clements
David Franklin Crews (MI); Manhattan
*Leo Edward Cross (PE); Midian
Sarah Ann Crotinger (HE); Bison
Chester Lee Crotts (AA); Turon
Robert Earhart Crow (GS); Harper
Betty Jane Curtis (IM&D); McPherson
Fay Anne Dale (GS); Coldwater
*Elizabeth Clara Danford (HE); Hutchinson
Durward Clair Danielson (ChE); Clyde
John Cecil Dart (GS); Newton
Clayton Cunningham David (AA); North Topeka
MacDowell Davidson (C); Manhatan
Duane Richard Davis (EE); Beloit
Shirley LeRoy Davis (VM); Fort Scott
Thomas Clayton Davis (VM-1; Ag-2); Thomasville, Ga.
Joseph Dale Davison (EE); Newton
Max Lawrence Dawdy (Ag); Washington
Robert Price Dawley (EE); Manhattan
Walter Wilson Dawley (IC); Lakewood, Ohio
Byron Dawson (C); Russell
*Lorene Dawson (IM&D); Kansas City, Mo.
Clarence Arthur Day (ChE); Ottawa
Wayne Xavier Deaver (MI); Sabetha
Warren James Dedrick (VM); Kansas City
Donald Pitman Deibler (IC); Manhattan
*William Charles Deitchman (CE); Kansas City
Richard M. DeMoss (CE); Topeka
Anne Margaret Dewhirst (HE&N); Salina
Myron Henderson Dick (IJ); Inman
Alma Lorraine Dickerhoof (IM&D); Chanute
Howard Lyle Dickson (IJ); Carbondale
Lois Florence Diehl (IJ); Manhattan
Marvle Dale Deitz (C); Esbon
George Edward Dillenbeck (AH&V); Poultney, Vt.
Millard Fay Dilsaver (AE); Athol
Virgil Dilsaver (EE); Kensington
William Francis Dixon (AE); Junction City
George Lafayette Doak (AA); Stockton
Jane E. Dodge (GS); Manhattan
Robert Hollister Dodge (ME-1; C&A-2); Kansas City
Terryll Dougherty (ME); Manhattan
*Charles Sharp Drew (ChE); Garden City
*Richard Eugene Dreyer (ME); Newton
Leslie Albert Droge (PE); Seneca
*Joyce Lenore Dryden (HE); Stockton
Alva Lease Duckwall (C); Abilene
Lillian Ruth Dumler (IM&D); Gorham
John Wallace Dummermuth (AA); Barnes
Glenn E. Duncan (VM); St. Francis
Jane Cuthbert Dunham (HE); Topeka
Wellington John Dunn (AA); Tescott
Walter Elsworth Dwy (CE); Waterbury, Conn.
*Malcolm Roger Easterday (EE); Atchison
*Kenneth Gilbert Eastman (C); Wichita
Max Paul Eaton (ChE); Coldwater
Howard Clayton Eberline (EE); Manhattan
Myrton Talmadge Ebright (CE); Lyons
Robert Luther Edsall (C); Stafford
*Paul Raymond Edwards (SH); Meade
Theodore Max Ehlert (Ag); Neodesha
Millie Jennie Elias (GS); Manhattan
Vincent Henry Ellis (ME); Leavenworth
*Lester Ernest Elmore (C&A); Kinsley
*Rush Elmore, Jr. (Ag); Topeka
Helen Louise Ensign (IM&D); Garrison
John Ernest Erickson (VM); Wilson, Pa.
Aven Lamar Eshelman (CE); Abilene
Harry Slater Eshelman (AE); Wichita
*Elizabeth Sharlane Estes (HE); Clever, Mo.
Melvin Eugene Estey (ME); Langdon
Lola Grace Evans (HE); Hutchinson
Wilma Florine Evans (HE); Hutchinson
*Francis Max Every (ArE); Parsons
Robert Stephenson Eyestone (ME); Pittsburg
Shirley Frederick Eyestone (E); Wichita
Harry Eugene Fair (Ag); Alden
Charles Edward Fairman (PE); Manhattan
James Madison Fallis (ChE); Luray
*Jack Featheringill (AA); Independence
*Elizabeth Anne Ferrier (GS); Sabetha
Lois Maureen Filson (HE&N); Bartlett
Taylor Leland Fitzgerald (Ag); Silver Lake

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SOPHOMORES—*Continued*

Helen Elaine Fleming (HE); Ottawa
*Patricia Fleming (HE-1; IJ-2); Council Grove
Horton Fletcher (ME); Council Grove
Reed Charles Fleury (Ag); Manhattan
Frank Abram Flipse (VM); Monument
Naomi Clestine Flipse (HE-1; MuE-2); Monument
Margery Anne Floersch (IJ); Manhattan
*Franklin James Flynn (C); Wamego
*Bettie Fogelstrom (PE); Junction City
Merle Everett Foland (CE); Almena
Louis Spencer Foltz (AE); Blue Rapids
William Roy Ford (EE); Frankfort
Barbara Anna Foster (C); Enterprise
*Harry Edward Foster (ArE); Hiawatha
James Robert Foster (AA); Effingham
William Larry Fowler (CE); Wakeeney
Harold Robert Fox (AA); Rozel
Hobart William Frederick (Ag); Burton
Lawrence Dale Freel (GS); Goff
Sam Henry Freeland (C); Wichita
Forrest Elroy Freeman (Ag); Simpson
Ray Day Freeman (ME); Paola
Evalyn Mae Frick (HE); Larned
Eleanor Rand Fritz (HE); Kansas City
John Henry Frohn (EE); Manhattan
Paul Louis Furbeck (AE); Larned
Bertram Wallace Gardner, Jr. (AA); Carbondale
Joseph Boswell Garinger (ME); Harveyville
Neva Marguerite Garrett (GS); Clay Center
Warren Harley Garrett (C); Manhattan
John Van Atta Gates (ME); Goff
Ann Willis Gaumer (HE); Manhattan
Lloyd Reed Gebhart (CE); Culver
Bill Burris Geery (CE); Burrton
Gerald Geiger (C&A); Belvidere, N. J.
Frank Leroy Gentry (CE); Manhattan
Frank Jackson George (Ag); Lebo
Dale Edsel Gibson (GS); Winchester
Gerald Bowen Gibson (C&A); Kensington
Guy Edgar Gibson, Jr. (CE); Kensington
*Harlan Henry Giese (EE); Cottonwood Falls
Mahlon H. Griffin (ME); Sedgwick
Paul Junior Gilbert (CE); Pawnee Rock
Robert Albert Gilles (CE); Kansas City
Robert Currie Gilliford (Ag); Garrison
John Gifford Gish (VM); El Dorado
*Margaret Jane Goble (IJ); Riley
George William Godfrey (ME); Haven
*Frank Orin Good (Ag); Hutchinson
Florence Clarice Gosney (HE); Mulvane
Virginia Lee Goss (IM&D); Dwight
Kenneth Herbert Graham (PE); Framingham, Mass.
Madalene Mildred Graves (IM&D); Clifton
Anita Maye Green (HE-1; GS-2); Mankato
*Dorothy Mae Green (HE); Wichita
John Wyeth Green (EE); Mound City
Wilbert Greer (Ag); Council Grove
Truman DeRoam Gregory (AA); Woodston
Mary Jean Grentner (IJ); Junction City
*Emory Allen Groves (AA); Burlingame
Warren Gerald Grubb (ChE); Phillipsburg
Melvin Ferdinand Gruber (Ag); Hope
Frank Whaley Gudgell (C); Edmond
David Edward Guerrant (IJ); Manhattan
Richard Ward Gundy (IJ); Manhattan
*Mildred Joyce Gurtler (HE); Summerfield
Mary Alice Guy (HE); Longford
Ralph Edward Guyton (C); Salina
Robert Thomas Guyton (C); Salina
Florence Verda Gwin (HE); Junction City
Dorothy Elizabeth Hacker (HE); Pratt
Richard Henry Hagadorn (GS); Gaylord
*William August Hagen (ME); Atchison
Robert John Haggerton (ME); Junction City
Leighton Edgar Hale (AE); Manhattan
*Eugene Hicks Hall (EE); Amoret, Mo.
Lester James Hall (C); Salina
Ethel Dorothy Haller (IM&D); Alma
Glenn Clough Halver (VM); Crane, Mont.
Kenneth Blaine Hamlin (EE); Manhattan
Merrill E. Hamman (AE); Hartford
Opal Marjorie Hammond (HE&A); Woodston
Donald Frederick Hansen (ME); Topeka
Lois Jeanette Hanson (IM&D); Olsburg
*Irene Mayfield Harbour (HE); Osage City
Orval Albert Harold (AA); Oberlin
Caroline Elizabeth Harris (C); McPherson
Paul Eugene Harrison (EE); Gridley
*Wilton Eugene Harry (AA); Home
*Eleanor June Harsh (HE&A); Argonia
Evelyn Annetta Hart (C&A); Blue Rapids
Harlan Dayton Harter (ME); St. John
Donald Edward Hassler (IC); Chapman
Jane Louise Hastings (HE); Lakin
Eugene Edmond Haun (AE); Larned
Joan Elizabeth Hawkinson (IJ); Larned
Pattie Patrice Hay (HE); Eskridge
Robert E. L. Hayes (ArE); Topeka
John Norris Haymaker (MI); Manhattan
Richard Neil Heaton (C); Norton
Ruth Opal Hefty (HE&N); Valley Falls
Eldon Heinschel (ME); Smith Center
Sherman Nelson Helm (GS); Abilene
*Philip Calvert Hendricks (EE-1; C&A-2); Iola
Richard Thomas Hernlund (IC); Chicago, Ill.
Laura Elizabeth Herr (HE); Abilene
*Donald Dwight Hesselbarth (ME-1; C-2); Abilene
Waid Heter (Ag); Manhattan
Edith Hewitt (HE); Pleasanton
William Herbert Hickman (IJ); Kirwin
*Verdie Eugene Hicks (HE); Sterling
Thaine Robert High (AA); Abilene
Russell Lacy Hightower (EE); Centralia
*Bert Junior Hildreth (EE); Leon
*Orville Slocum Hill (AA); Bloom
*Viola May Hill (HE); Hope
John Albert Hineman (CE); Dighton
Leigh Clesson Hines (Ag); Kanorado
James Robert Hoath (GS); Anthony
Eva Mae Hodgson (MuE); Little River
Irvin George Hodgson (ChE); Little River
Robert Milton Hodgson (AA); Little River
Elwin Dean Hoffman (C); Hope
Robert Earl Hoffman (IJ); Manhattan
Vincent Benedict Holbert (C); Manhattan
Herbert Dale Hollinger (IJ); Chapman
Gertrude Lucille Hollis (Ar); Holton
Norris Everett Holstrom (C); Topeka
Lawrence Gard Holuba (EE); Manhattan
Raymond L. Hook (ME); Osborne
John Wentworth Hopkins (CE); McPherson
Jack Louis Horacek (ChE-1; C-2); Topeka
Charles Kendal Horner (MuE); Abilene
Warren Thomas Hornsby (C); Topeka
William Mixon Horton (EE); Wichita
Gilbert Edwin Hotchkiss (CE); Manhattan

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SOPHOMORES—*Continued*

Harry Earl House, Jr. (ME); Cheyenne, Wyo.
Frank Wilson Howard, Jr. (Ag); Oakley
Vaughn Henry Howard (AA-1; GS-2); Wallkill, N. Y.
Dorothy Elizabeth Howat (HE); Wakeeney
Gordon Clarke Howell (VM); Kansas City
Herbert Winston Howell (VM); Kansas City
*Fred Morrison Huey (C); Louisville
Ralph LaVern Huffman (Ag); Chanute
Le Roy Lyman Hughes (ArE); Topeka
*Rees Woodford Hughes (AA); Fort Scott
Harriette Edna Hull (HE); Reece
Billie Dee Hunt (HE); Boone, Iowa
*Gorman Earl Hunt (ME); Leavenworth
Dale Craig Hupe (Ag); Perry
David Henry Hurst (C&A); Kirwin
*Margaret Jean Hurst (IJ-1; IM&D-2); Atchison
*Flora Elizabeth Iles (HE); Manhattan
Robert Donald Immenschuh (VM); San Diego, Cal.
Frank Henry Immroth (EE); Hutchinson
*Helen Maurine Jackson (GS); Salina
Ruth Christine Jacobs (HE&N); Harper
*Don Guy James (ME); Parsons
Kenneth Ralph Jameson (AA); Ottawa
Kenneth Donald Jenicek (ME); Holyrood
Jack Baker Jenkins, Jr. (C); Topeka
Neal Mike Jenkins (VM-1; GS-2); Manhattan
*Don Tallard Jensen (EE); Leavenworth
Herbert Donald Johnson (Ag); Maxville
Neil Theodore Johnson (ArE); Topeka
*Samuel Thomas Johnson (C&A); Oswego
Robert Fones Johntz (CE); Winston-Salem, N. C.
Charles Fisher Jones (VM); Lisbon, N. Y.
Dale Carl Jones (CE); Simpson
Delmar Doyle Jones (Ag); Mulvane
Lloyd Charles Jones (Ag); Frankfort
*Wilbur Fred Jones (ME); Wichita
Tom Edward Joyce (ME); Ulysses
Martin Kadets (VM); Natick, Mass.
Jean Margaret Kallenberger (HE); Edna
Lester Loyd Kammerer (EE); Manhattan
John Pershing Kane (C&A); Rock Creek
*Mary Marvel Kantz (PE); Wichita
*Jacob Landers Karnes (VM); Benton, Ky.
Walter Marvin Keith (SH); Manhattan
Edward Jacob Keller (VM); St. Francis
Lawrence Edward Kelley (AA); Chapman
Harold Eugene Keltner (ArE); Hoisington
James Merlin Kendall (IJ); Dwight
*Mary Evelyn Kennedy (SH); Lawrence
*Mary Keturah Kennedy (IM&D); Neodesha
*Lyman DuVall Ketchum (MI); Kansas City
Ruth Virnita Keys (HE); Winchester
Raymond Lloyd Kieffer (ArE); Independence, Mo.
Richard John Kilian (ME); Detroit
Ruth Ella Kindred (C); Bonner Springs
Beatrice Burnette King (MuE); Manhattan
*Elizabeth Windsor King (HE&N); Ottawa
Theron Lambert King (C&A); Manhattan
William Gregg King (CE); Fort Dodge
Arthur Stuart Kininmonth (C); Winfield
Alan Dean Kinney (CE); Hainesburg, N. J.
Helen Eunice Kirk (IM&D); Wellington
*Orville Kenneth Kirkpatrick (Ag); Bucklin
Marianna Kistler (HE); Manhattan
Doris Marie Kittell (PE); Topeka
Wilma Margaret Kjellin (HE); Garrison
Frederick John Kleymann (ME); Leoti
*Dorothy Maye Knaus (HE); Neodesha
*Jean Marie Knott (IM&D); Independence
*Hugo Adolph Koester (ChE); Herington
Richard Benton Koger (VM); Belvidere
Louis Daniel Kottmann (ChE); Ellsworth
Grace LuAnna Kozak (HE); Silver Lake
*Benno Arnold Krause (ME); Herington
Anne Marie Kristof (C); Collyer
Thomas Frederick Kropf (ME); Wamego
*Albert Kushner (GS); Topeka
Frank William Ladd (C); Sabetha
Glover Wilson Laird (VM); Kansas City, Mo.
Floreine Edith Langenegger (IM&D); Burns
Josephine Estell Lann (HE); Axtell
Betty Lou LaPlante (MuE); Minneapolis
Robert Dean Laramey (Ar); Pueblo, Colo.
John Henry Larkins (EE); Le Roy
Doyle Wayne LaRosh (AA); Natoma
Harlan Ray Larson (IJ); Topeka
Carl Ernest Latschar (IC) Manhattan
*Yvonne Joy Bugg Lemen (IJ); Kansas City
Emery John Levin (ChE); Lindsborg
Ernest Eber Lewis (ME); Mansfield, Pa.
Frank Everett Lichlyter (VM); El Dorado
Leonard V. Lille (C); Ellsworth
*Sarah Elizabeth Lillibridge (HE&N); Hutchinson
James Worth Linn (GS); Manhattan
Mary Jo Linscott (HE); Cummings
Ralph Iden Lipper (AE); Sterling
Bennie Lee Lohman (C&A); Lansing
Kenneth LeeRoy Lohmeyer (GS); Bern
Frank Robert Lonberger (C); Manhattan
Dudley Randolph Londeen (C&A); Abilene
David Hale Long (Ag); Abilene
Roscoe Dean Long (Ag); Drexel, Mo.
William Maurice Long (EE); Wichita
*Frances Margaret Loomis (HE); Jewell
Calvin Frederic Lorentz (CE); Fredonia
Charles Clarence Lucy (EE); Wichita
Cecilia Emma McCandless (HE&N); St. John
Dean McCandless (GS); St. John
John Donnely McClurkin (ME); Clay Center
Robert James McColloch (GS); Manhattan
Boyd Homer McCune (Ag); Stafford
Margaret Ella McCutchan (HE); St. George
Wesley William McDowell (ME); Garfield
Curtis Carey McFarland (ME); Chase
Leo Melvin McIlvain (ChE); Smith Center
Noel LeRoy McKee (AA); Havensville
Martha Roseline McKenna (C-1; HE-2); Kingman
James King McKie (ChE); Salina
William Carr McLaughlin (ME); Junction City
V. Keith McMahon (VM); Manhattan
Harold William McMillan (ME); Formoso
William Dwight McMurry (GS); Idana
Wilbur Doyle McNeese (ChE); Atchison

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SOPHOMORES—*Continued*

Freda Lenore McNickle (HE); Zenith
Raymond Charles McPeek (VM); Ramsey, N. J.
*Nancy Sevier Madden (IJ); Hays
Jennie Marie Madsen (IJ); Dwight
Kenneth Edwin Makalous (AA); Cuba
*Marian Frances Mallonee (HE&A); Wichita
Arthur Charles Mangelsdorf (AA); Atchison
David Oscar Manley (VM); Wakarusa
Milton Lloyd Manuel (AA); Havensville
Melvin Wayne Marcoux (Ag); Havensville
Hazel Marguerite Marlow (GS); Manhattan
John Everett Martin (GS); Lyons
Marlin Wray Martin (EE); Hutchinson
*Mary Alice Matchette (HE); Kansas City Mo.
*Bette Helen Mattes (HE); Kansas City, Mo.
Donald Bain Mayhew (Ag); Belpre
William Arthur Meade (EE); Moline
Waldene Hastings Meadows (GS); Gaylord
*Forrest Eugene Mears (AA); Eskridge
Jack Lewis Medaris (VM); Parsons
Lewis Howard Medlin (C); Oakley
Friedrich Edward Meenen (Ag); Clifton
*Carl Arthur Mehl (ChE); Robinson
Willard Henry Meinecke (MI); Herkimer
George Athlestun Mellard (ME); Russell
Victor Graham Mellquist (ME); Leavenworth
*William Edwin Mentlick (C); Colby
Bert Meriweather (VM); Chetopa
Douglas Neol Merritt (CE); Atchison
Richard G. Merryfield (AA); Minneapolis
Donald Herman Merten (GS); Morganville
Mary Henrietta Meyer (HE&N); Lillis
*Kathryn Louise Millard (HE); Zenda
Frank Miller, Jr. (GS); Milford
Norman Clark Miller (ME); Lyons
Russell Wayne Miller (AA); Lebanon
Harold Elwin Milligan (Ar); Wichita
Maxine Mae Milner (GS); Republic
Alden Borthwick Miner (EE-1; GS-2); Ness City
*Evan Lynn Mitchell (IA); Greenwich
Mary Margaret Mohr (HE); La Cygne
Virginia Monahan (IM&D); Leavenworth
Dorothy Mae Montgomery (HE); Sabetha
Ralph Ungeheuer Moody (EE); Mound City
Dale Lewis Moore (Ag); Ashland
Daniel James Moore (ArE); Salina
*Ellen Wauneta Moore (HE); Burden
John Richard Moore (C); Atchison
Willis E. Moore (EE); Goff
*Carl Henry Morales (ME); Leavenworth
Marjorie Lucile Moree (MuE); Belleville
Ray Morrison (AA); Larned
Willard Lee Morrison (EE); Liberal
Donald Lee Morrow (VM-1; C-2); Concordia
Marylee Mossman (HE); Manhattan
William John Mount (ME); Osawatomie
Wendell Austin Moyer (Ag); Manhattan
Delores Anna Louise Mueller (HE); Topeka
Glen Edward Mueller (C&A); Anthony
John Thomas Muir (C); Norton
Earl Lawrence Mundell (VM); Kansas City
Margaret Lucille Munger (HE); Manhattan
Donald Lee Munzer (C); Herington
Joseph Andrew Murphree (EE); Kansas City, Mo.
Barbara Beth Murphy (PE); Manhattan
Dennis Everett Murphy (IC); Little River
Mabel Lois Murphy (IM&D); Manhattan
Donald James Murray (C); Beloit
Joseph Donald Musil (EE); Manhattan
Arthur Thomas Mussett (Ag); Leavenworth
Byron Eugene Myers (ME); Richland
Walter M. Naylor (CE); Burr Oak
Eugene Jesse Nease (EE); Jamestown
*Eugene Crawford Neeland (MI); Salina
Alice Belle Neilson (IJ); Mankato
Edwin Lee Nelson (EE); Allen
Willard Dean Nelson (MI); Haddam
Donnelle Nesbitt (IM&D); Manhattan
Joan Nethaway (HE&A); Salina
Richard Carl Nethaway (C); Salina
David Edgar Newman (C); Junction City
John Porter Newman (GS); Manhattan
*Mac Donald Newsom (CE); Scott City
Elmer LeRoy Nieman (C); Herkimer
Mildred Elsie Nipper (GS); Jefferson, Okla.
Robert Mudge Niquette (Ag); Garden City
Robert Spalding Nixon (AA); Manhattan
Norman Lynn Noble (CE); Johnson
Louis Etzold Noel (ME); Webster Groves, Mo.
*Robert Bruce Norton (Ag); Wichita
Philip Fredrick Novak (EE); Ottawa
Charles Novich (GS); Yonkers, N. Y.
*Joseph Wesley Nunemaker (Ag); Langdon
Mabel Ruth O'Brien (IM&D); Muscotah
Marvin Alvin Ochsner (MI); Tribune
*Lester Elvin Oertle (AA); Opolis
Frederick Connell Officer (C&A); Topeka
Richard Henry Ogle (ME); Scotia, N. Y.
Dorothy Ruth O'Loughlin (HE); Lakin
Kenneth Dill Olson (C&A); Frankfort
Dennis Gordon O'Neill (CE); Ransom
Maxine Alma O'Neill (IJ); Manhattan
Lloyd Rueben Orrell (Ag); Peck
Barbara Osborn (HE&A); Medicine Lodge
*Harold Leon Osborne (MI); Oklahoma City, Okla.
Aileen Ozment (IM&D); Manhattan
George VanNoy Packer (ChE); Manhattan
Robert Kerr Page (MI); Topeka
Corliss Athol Paramore (Ag); Delphos
John Marchbank Parker (GS); Manhattan
*Wallace William Parker (C); Leavenworth
*Thornton Jones Patton (Ar); Hamilton
Cecil Lewis Paulsen (VM); Onaga
Frank George Paulson (CE); Whitewater
James Wilbur Paustian (C); Manhattan
Loyal Cobb Payne (VM); Manhattan
Ivan Carlton Peck (AA); Soldier
Velva Aldene Peffly (IM&D); Waldron
George Henry Peircey (C&A); Waterbury, Conn.
Keith Pohl Pendergraft (AE); Emporia
Laura Louise Perry (C); Greenleaf
Ralph Hamilton Perry (C&A); Oskaloosa
Orland Joseph Peterka (IA); Manhattan
Carl Adolph Peterson (GS); Kansas City, Mo.
Emily Jean Peterson (HE); Garrison
Vernon Hendrick Peterson (EE); Weskan
Everett Wendell Pettit (GS); Lyons

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SOPHOMORES—*Continued*

Maxine Lesta Pickering (HE-1; IJ-2); Pratt
LeRoy Albert Pierce (VM); Manhattan
Robert Stevens Pierce, Jr. (SH); Topeka
Helen Leona Pilcher (IM&D); Gridley
Harry F. Plotkin (Ag); Swissvale, Pa.
Ray Hamlin Pollom, Jr. (GS); Manhattan
John Germann Poole (Ag); Manhattan
Cheryl Gertrude Poppen (HE); Burr Oak
Rodney Iverson Port (VM); Cheyenne, Wyo.
Winfred Laurine Porter (IJ); Belleville
Herman Albert Praeger (Ag); Claflin
Elwin Raymond Prather (VM); Eureka
Dale Clarke Prentice (Ag); Manhattan
Frank Robinson Prentice (EE); Clay Center
Hubert Glen Priddy (ME); North Topeka
LaVone Anna Puckett (PE); Manhattan
Vinton Wylie Puckett (C&A); Manhattan
*Paul Archie Puttroff (C&A); Newton
Louis Earl Raburn (EE); Manhattan
Donald Henry Raine (C); Maplehill
Marion Albert Ramage (PE); Manhattan
Cleda Doris Rambo (IM&D); Paola
Charles Winston Ramey (C); Protection
*Ruth Pauline Ramsay (IM&D); Beloit
Laura Virginia Randall (HE); Ashland
Wallace Edward Rankin (ChE); Manhattan
John Parke Ransom (ME); Homewood
Robert B. Rathbone (IC); Manhattan
William Joseph Ratliff (MI); Manhattan
Lowell Robert Ray (IC); Wilson
*Tom M. Redding (Ag); Garden City
Mary Campion Redner (GS); Ft. Riley
Myron Dale Reed (VM); Smith Center
Arden Reiman (Ag); Byers
Charles Dixon Renfrow (VM); West Plains, Mo.
Gerald Dale Ressel (Ag); Colony
Melvin Ramsom Reust (GS); Frankfort
*Meredith Hooker Reynolds (Ar); Chicago, Ill.
*Mary Josephine Rhine (HE&A); Manhattan
William Dewitt Rhodabarger (ChE); Russell
Ralph Warren Rhodes (AA); Silver Lake
Doris Louise Rice (C); Smith Center
Vivian Pauline Rice (IM&D); Greensburg
Harriett Frances Richardson (HE); Oswego
Frank Edgar Rickel (GS); Manhattan
Oliver Virgil Riley (EE); Stafford
Charles William Rindom (ME); Liberal
Martha Louise Riordan (IJ); Solomon
Jerry Burr Riseley, Jr. (C&A); Stockton
Kathleen Roberts (IM&D); McPherson
Paul Frederick Robison (C); Miltonvale
Alice Harriet Rodkey (HE); Manhattan
Mary Alice Roe (HE); Kansas City
Clifford Albert Rogers (C&A); Caldwell
Robert Rex Rogers (IJ); Wamego
John Richard Romig (ChE); Bethany, Mo.
Virginia Belle Rooks (HE&A); Manhattan
Bueford Talmage Roper (MuE); Atchison
*Joseph Jackson Rosacker (AA); Emporia
James Leroy Rose (EE); Council Grove
Margaret Frances Roseman (HE); New Cambria
*William David Ross (ArE); Coffeyville
Donald Lee Rousey (ME); Horton
Frances Lillian Ruhl (IJ); Hiawatha
Ruth Roberta Ruhlen (HE); Madison
Wayne Winston Rumold (C&A); Elmo
Fred Lafayette Melvin Runsey (SH); Kinsley
*John B. Rush (ChE); Haviland
Robert Truman Rush (MI); Neodesha
Eula Jean Rutherford (IM&D); Anthony
Ruth Elizabeth Salley (HE); Silver Lake
Moutrie Wilbur Salter (Ag); Wakefield
Ivan Wilbur Salts (AE); Mayetta
Charles Riley Sanford (Ag); Milford
Paul Everett Sanford (Ag); Milford
Alice Mary Santner (HE); Gaylord
Ruth Elouise Santner (HE); Gaylord
Richard Victorian Sardou (ME); Topeka
Harold Elwood Saum (C&A); Oberlin
Cleman Luvester Sawyer (EE); Wichita
Norris Elwood Sayre (C); Ensign
Charles Paul Schafer (IC); Vermillion
Paul Frank Schalansky (CE); Bunkerhill
Samuel Arthur Schendel (VM); Richmond
Keith Merrill Schmedemann (C&A); Junction City
August Mangelsdorf Schmeling (EE); Atchison
Donald George Schmidt (C); Lorraine
Frances Maxine Schmidt (MuE); Lorraine
Virginia Helene Schmidt (HE); Raymond
Bernard Lee Schmitt (ME-1; C&A-2); Powhattan
*Clara Isabel Schnellbacher (IM&D); Colby
Marcue Marion Schowalter (IJ); Halstead
George Davis Schumacher (GS); Lyons
Harold Edward Schwartz, Jr. (ME); Wichita
Daniel Scott (ChE); Garfield
Jean Jewett Scott (HE); Manhattan
*Eldon Ralph Sechler (ArE); Hutchinson
Richard Joe Seitz (Ag); Leavenworth
Helen Marie Sellens (HE); Hoisington
William Bain Sellers (ME); Winfield
*John Victor Sette (CE); Corona, N. Y.
Manette Sexson (HE); Goodland
Emerson Hugh Shade (ChE); Rantoul
Ophelia Deborah Sharp (HE); Great Bend
*Harriett Frances Sharpe (HE); Cleveland Heights, Ohio
William Dean Shearer (MI); Abilene
Jack Sheets (EE); Cozad, Neb.
Claude Wesley Shenkel (C&A); Lyons
Helen Aileen Shepard (HE); Erie
Lorrayne Gladys Shepardson (HE); Junction City
Kathleen Olive Sheppard (IM&D); Manhattan
Lois Mae Sherman (PE); Grantville
ValGene K. Sherrard (MuE); Great Bend
Tasker Bryan Sherrill (GS); Republic
Grant Burks Sherwood (CE); Independence
Mary Louise Sherwood (IJ); Great Bend
Joseph Clyde Short (Ag); Manhattan
*DeArline LaVere Shull (PE); Kansas City
*Raymond Lee Sigg (AA); Soldier
Jenning Wilson Sigley (ME); Canton
*Norma Margaret Simons (HE); Stockton
*Henry Lyman Singer (AA); Parker
Robert Edward Sink (EE); Culver
Harry C. Sipe (ME); Wichita
George Sklar (ChE); Manhattan
Loran Alvin Slaughter (C&A); Manhattan

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SOPHOMORES—*Continued*

Laurence Oscar Slief (EE); Greensburg
Irene Eloise Sloan (HE); Stratford, Tex.
Fred Victor Small (Ar); Eudora
Norma Marie Smedley (IJ); Kensington
Robert Milton Smickle (ME); Belvidere, N. J.
Henry Joseph Smies (Ag); Courtland
*Beth Aileen Smith (HE); Bloomington
Charles Combie Smith (VM); Kansas City, Mo.
Charles Lewis Smith (VM); Harveyville
Clifford Edward Smith (ME); Wakeeney
John Francis Smith (AA); Summerfield
Paul Elbert Smith (Ag); Lebanon
Vernon Eugene Smith (AA); Bloomington
Allen Ellwood Smoll (EE); Wichita
*Dean Waldron Snow (ChE); Neodesha
Frederick Robert Snyder (PE); Junction City
Veryle Edwin Snyder (PE); Mayetta
Mary Pauline Spain (HE&A); Beloit
Hazel Aldine Spessard (IM&D); Junction City
Margaret Elaine Sramek (HE&N); McDonald
Rollin Max Starosta (AA); Iola
Ray Virgil Stauffer (ChE); Onaga
*Elizabeth Ann Steinheimer (IJ); Hutchinson
*Dorothy Jane Steinkirchner (HE); Newton
Robert Charles Stephens (AA); Manhattan
*Ruth Elaine Stevens (IM&D); Manhattan
Mary Louise Stevenson (HE); Waterville
Kathleen B. Stewart (IM&D); Stockton
Jamie B. Stewart (ChE); Greensburg
Mary Lauetta Stewart (IM&D); Saffordville
Raymond Stewart (AA); Manhattan
Ross Merrit Stewart (ChE); Greensburg
Marvin Dean Stitt (VM); Clearwater
*Lawrence Iver Stoland (GS); Lawrence
Arthur Emerson Stoskopf (ME); Hoisington
John Quentin Stratton (Ar); Minneapolis
*Mailand Rainey Strunk (ChE); Kansas City
Floyd Jay Stryker (ME); Blue Rapids
George Lester Sundgren (Ag); Coldwater
Earnestine Alice Sutter (HE); Leon
Wallace Albert Swanson (GS); Sharon Springs
Elver Henry Swart (GS); Seneca
Richard William Swart (VM); Manhattan
Cecil LeRoy Sweeney (Ag); Coldwater
Perrin Kent Symns (Ag); Atchison
Fred Saddler Talbot (AA); Manhattan
Arlene Grace Taylor (HE); Enterprise
Maribelle Teichgraeber (HE); Eureka
Robert Arthur Teichgraeber (MI); McPherson
Benjamin Wickham Tempero (Ag); Clay Center
Wilbur Bevard Tendick (Ag); Kismet
Allis Margaret Terrel (HE); Eudora
James Dow Thackrey (ME); Camden, Ark.
John Otis Thisler (IJ); Chapman
Donald James Thomas (VM); Oswego
John William Thomas (ME); Wichita
*Ralph Theodore Thomas (ChE); Independence
Walter Ross Thomas (GS); Belleville
Clarence Henry Thompson, Jr. (VM); Ozawkie
*Ernest Willard Thompson (ChE); Manhattan
Harley Franz Thompson, Jr. (C); Kinsley
Wilbur Gerald Thompson (ME); Goff
Constance Patricia Thurston (IM&D); Elmdale
Elizabeth Lurene Titus (HE); Cottonwood Falls
Jack William Tompkins (C); Salina
Richard Allen Toole (IJ); Goodland
Raymond Dwayne Topham (AA); Wichita
Theodore Torkelson, Jr. (EE); Everest
Beatta Elizabeth Totten (HE); Clifton
Earl Clair Toynton (VM); Dodge City
Earlene Eleanor Trekell (HE&A); Manhattan
*Thomas Edmund Trenkle (C); Topeka
Frederick Cecil Trippel (AE); Burrton
Wilbur Gerald Trostle (VM); Hope
Lewis Mack Turner (PE); El Dorado
*Lois Belle Turner (GS); Manhattan
Donald Radell Tutcher (ChE); Overbrook
R. V. Tye (GS); Hanover
Joseph Uhrin (Ag-1 GS-2); New York, N. Y.
Donald Dean Urquhart (IA); Wamego
Wilbur David Van Aken (VM-1; C-2); Lyons
William Henry Vanderbilt (VM); Eureka
Cornelius John Vanderwilt (ArE); Solomon
Loren Loeffler Van Patten (Ag); Washington
Dorothy Mae Van Tuyl (HE); Basehor
Chester Edwin Van Voorhis (C); Bucklin
Blossom Rose Vaughn (HE); Newton
Roberta Viola Vawter (HE); Oakley
*Merlyn Everly Voshell (GS); Dodge City
Catherine Jean Wadley (IM&D); Silver Spring, Md.
Mirian Lucille Wagaman (HE&A); Manhattan
Arthur Edgar Wagar (EE); Webber
Gerald Sigurd Wagstad (MI); Osseo, Wis.
Norma Irene Waits (PE); Wichita
Carolee Walker (HE); Kansas City, Mo.
*James Harvey Walker (ME); Emporia
Ruth Marie Wall (GS); Mahaska
Frieda Wallace (HE&A); Douglass
*Janet Ross Wallace (IM&D); Hays
Joe Harrison Walser (CE); Manhattan
John Austin Walters (CE); Manhattan
Dixson Irving Wands (GS); Manhattan
Guy Edward Warner, Jr. (EE); Bucklin
Jack Winfred Warner (EE); Clay Center
Robert Buchanan Washburn (EE); Manhattan
Edward Ernest Watkins (AA); Wellington
Lindley Eugene Watson (Ag); Peck
Garold Benjamin Way (EE); Wichita
John Franklin Weary (EE); Junction City
Robert Earl Weatherholt (IA); Augusta
Kenneth Wilson Webb (GS); Sharon Springs
Robert Mason Webb (AH&V); Neodesha
Vanora Avelene Weber (HE); Caldwell
*John Raymond Weddle (AA); Fort Scott
*Albert George Wehrley (GS); Wichita
Oliver Rex Wells (C); Marysville
*Robert Blaine Wells (Ag); Manhattan
William Henry Wells (GS); Colony
Leo Theodore Wendling (AE); Halstead
Cecil Monroe Wenkheimer (SH); Hutchinson
Morris Windfred Werner (Ar); Corning
Burton Burge West (AA); Meriden
Robert Wilson West (CE); Manhattan
Don Oliver Whitney (VM); Phillipsburg
Elaine Wicker (MuE); Manhattan

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SOPHOMORES—*Concluded*

*Charles Joseph Widman (Ag); Mead, Neb.
Wallace Frank Wiehe (MI); Piper
Margaret Ann Wilkerson (GS); Smith Center
George Theodore Wilkie (ChE); Topeka
Nancy Patricia Wilkins (MuE); Steelville, Mo.
Harold Luther Williams (C); Council Grove
*Jane Williams (IJ); Topeka
*Ralph Williams, Jr. (AE-1; Ag-2); Dodge City
Robert Dean Williams (GS); Manhattan
Ruth LaNelle Willis (IJ); Manhattan
Abbie Jeanette Wilson (HE); Manhattan
Byron Kimble Wilson (Ag); Manhattan
*Carl Alton Wilson (Ag); Quenemo
John Albert Wilson (EE); Webber
John Hoffman Wilson (ME); Augusta
Mark Francis Wilson (AH&V); Ashland
William Horn Wilson (ME); Augusta
Marjorie B. Windhorst (GS); Glasco
Blanche Maida Winkler (HE); Riley
William Howard Winner (AA); Topeka
John Stanley Winter (Ag); Dresden
Leslie Donald Wise (AA); Clearwater
Carlyle Philip Woelfer (MI); Manhattan
Betty Catherine Wolf (HE); McPherson
Joy Edna Wolffing (HE&N); Manhattan
Thomas Richard Woods (ChE); Burden
Frank Edward Woolf (PE); Wichita
*Eugene Ellsworth Woolley (IC-1; MI-2); Osborne
Martha Jane Wreath (HE); Manhattan
Elizabeth Barclay Wright (HE); Salina
*Robert Warren Yeoman (GS); Kingman
Ben Colby York (Ag); Manhattan
Ralph Edgar York (EE-1; C&A-2); Dunlap
Ruth Marie York (HE&N); Dunlap
Evelyn Ernestine Yost (HE); Downs
Burneta Lucile Young (HE); Cheney
Norman Alfred Young (C&A); Hutchinson
*Albert Warren Yoxall (AA); Woodston
Dale Edwin Zabel (IA); Westmoreland
Joseph Brewer Zahn (GS); Miltonvale
Lawrence Ray Zoberst (AA); Gem

FRESHMEN

*Maynard Lynn Abrahams (Ag); Wayne
*Harry Clyde Achenbach (C); Manhattan
*Duane Arnold Achenbach (C); Manhattan
*Archie Reginald Adams (C); Derby
*Mitchel Eugene Adams (MI); Osborne
*Mary Kathleen Ahearn (HE); Manhattan
Francis George Ahrendes (VM); Miltonvale
*Martha Lou Alexander (HE); Hutchinson
*Robert Harry Alexander (Ag); Council Grove
*David Keith Allen (ME); Glen Elder
*Marjorie Adell Allen (HE); Manhattan
*Paul L. Allison (CE); Delphos
*Frank Leonard Alquist (GS); Clay Center
*Sheldon Duane Alquist (PVM); Wakefield
*Margaret Ellen Alsop (HE); Manhattan
*Dorothy Jeanne Amos (IJ); Manhattan
*AddoLee Mae Anderson (GS); Topeka
Howard Rowles Anderson (EE-1; AA-2); Partridge
*Mary Bernice Anderson (MuE); Manhattan
*Paul Quentin Anderson (AE); Waterville
Chester Laroy Andres (EE); Newton
*Marshall Dean Angst (GS); Enterprise
*Robert Warren Annis (EE); Gypsum
*Arthur Allen Appleton (GS); Manhattan
*Wayne Leroy Appleton (VM); Manhattan
*Harold Eugene Armstrong (PVM); Centralia
*James William Armentrout (PE); Plainville
*John Peter Asbill (PVM); Davis, Cal.
Merle James Ashton (GS); Salina
*John Mitchell Atherton (ME); Waterbury, Conn.
*Quentin Leon Ault (PVM); Esbon
*Ruth Margaret Ausherman (HE); North Topeka
*Jack Shupe Austin (ME); Wilmore
*William Hough Avery (Ag); Coldwater
*Floyd Arnold Bacon (Ag); Sylvan Grove
*John Mardie Bail (PE); Uniontown, Pa.
*Shirley Louise Baker (HE&N); Hutchinson
*Benjamin Stockwell Baldwin (IC); Anthony
*Bernice Grace Bale (PE); Clay Center
Maurice Ball (VM); Newport, R. I.
*Jean Louise Banbury (HE); Wichita
*Ralph Edward Barker (Ag); Douglass
*Nathalie Darline Barnes (HE); Manhattan
*Robert Lee Barnett (CE-1; C&A-2); Glen Elder
*Frank Henry Barnhart, Jr. (CE); Fort Riley
Maida Levell Barnhart (IJ); Fort Riley
*Shirley Ruth Bartholomew (C); Norton
*William John Bassler (Ag); Valley Stream, N. Y.
*Wendell Ross Baxter (ChE); Larned
*Robert C. Bayles (CE); Manhattan
*Evelyn Belle Bearman (HE); Wamego
*Kermit Edwin Beary (GS-1; AA-2); Edson
*Larry Beaumont (C); El Dorado
*Kenneth Lewis Bechtold (ME); Courtland
*Henry Vorce Beck (GS); Colby
Lee Wilson Beck (VM); ElReno, Okla.
*Neil Dwane Beckenhauer (PVM); Delavan
*Mary Margaret Behrent (MuE); Selden
*Robert Verle Behrent (AE); Selden
*Elizabeth Louise Bell (HE); Osborne
*James Bell, Jr. (EE-1; C-2); Cottonwood Falls
*Harold Nolan Benham (CE-1; GS-2); El Dorado
*Marjorie Jane Benson (IM&D); Sabetha
Tod Frances Benson (C); Herington
*Rosalie June Benton (HE); Norton
*Dale Vernon Berger (MuE); Abilene
Ordo Frank Berges (CE); Onaga
*Sylvia Louise Bergling (C&A); Ludell
*George Albert Berlin (IJ); Wakefield
*Waldemar T. Berner (VM); Santa Rosa, Cal.
*Grant Winfield Berry (PVM); Mankato
*Donald Earl Berthall (Ag); Spivey
*Leo Russel Best (ChE); Bushong
*John Richard Bicknell (PVM); Parsons
*Hedden L. V. Biffer (EE); Wichita
*Phyllis Evelyn Billings (IM&D); Topeka

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FRESHMEN—*Continued*

*Clara Jane Billingsley (M); Belleville
*George J. Bird (A); Fajardo, Puerto Rico
*Lee Edwin Bird (AE); Great Bend
*Gladys EmaLou Biriline (IJ); Lewis
*William Royce Bixler (ME); Emporia
*Lloyd Harris Bjurstrom (Ag); Marysville
*Wilbur Eugene Black (ChE); Mulvane
*Dan Miller Blair (Ag); Belleville
*Joseph Loren Blattner (CE); Rozel
Ralph Willard Blazier (VM); Junction City
*Helen Marie Blanberg (IM&D); Manhattan
*Wilbur Francis Boeh (PVM); Wathena
Lyle Thomas Boley (PVM); Manhattan
*Marian Frances Boomer (C); Kansas City
*Myron Allison Boone (Ag); Neal
*Jean Evelyn Botkin (HE); Harper
*Harry Phillips Bouck (IJ); Manhattan
*James Alfred Bower (MI); Norton
*Don Raymond Bowers (GS); Downs
William Franklin Bowers (C); Paola
*James Marston Bowyer, Jr. (ME); Courtland
*Douglas Fleurnoy Box (MI); McKinney, Tex.
*Gordon Frank Boy (Ag); Raymond
*Willis Gray Boyd (EE); Meade
*Darrell Ray Bozarth (Ag); Liberal
*Gilbert Branda (Ag); Wilson
*Edward Charles Brann (EE); Wichita
*George William Brannan (ChE); Larned
*Goodwin Bennett Branstad (PVM); Grantsburg, Wis.
*Lester Joseph Brenneis (GS); Hollenberg
*Normazee Jeraldine Brent (IM&D); Alton
*Archie Norman Brewer (PVM); Concordia
*Elizabeth Louise Brewer (MuE); Minneapolis
*Wilbur Raymond Brewer (AE); Topeka
*Lorene Bricker (C); Atwood
*John Hooper Briggs (PE); Collyer
Cruger Lane Bright (VM); Junction City
James Eugene Bright (VM); Arlington, N. J.
*Allen Lee Brite (VM); Kansas City
*Felix Bronner (IC); Berlin, Germany
*Jack Pennock Brooks (C); Norton
*Marcene Irene Brose (PE); Clay Center
*Acton Richard Brown (Ag); Sylvan Grove
*Allen Oscar Brown (Ar); Osborne
*Almira Josephine Brown (HE); Junction City
*Dale Edward Brown (Ag); Manhattan
*Donald Wayne Brown (C&A); Paradise
Douglas Wilbur Brown (C); Abilene
*Francis Hoyt Brown (PVM); Manhattan
*Gordon Michael Brown (CE); Lawrence
*James Seba Brown (ME); Sterling
*John Leon Brown (EE); Great Bend
Lloyd N. Brown (C); Manhattan
*Martha Jane Brown (HE); Manhattan
*Robert Myron Brown (E); Natoma
*Thomas Ragan Brown (ME); Manhattan
*Wayne Edward Brown (C); Manhattan
*Doris Mathalie Brubaker (HE&A); Manhattan
*Ralph A. Bruce (VM); Prescott
*Jeanette Merrium Brunscher (PE); Mulvane
*Clara Ellen Brush (HE); Wichita
*Benjamin Raleigh Bryant (GS); Garnett
*Wesley F. Buchele (AE); Cedar Vale
*Carroll LaRhue Buck (HE); Welda
*Raymond Elmore Bull (ME); Marysville
*Herbert Lawrence Bunker (GS); Junction City
*Margaret Ellis Bunker (C); Kansas City, Mo.
*Orley Glade Burgess (ME); Arnold
*Maurice Owen Burke (MI); Whitewater
*Wilfred Eugene Burnham (IJ); St. Francis
William Harold Burns (C); Arkansas City
*Cornelia Lee Burtis (IM&D); Hymer
*Margie Marion Burton (IJ); White City
*Schelte John Bus (PVM); Edgerton, Minn.
*Burson George Busset (PVM); Le Roy
*Martin Eugene Butler (ME); Clayton
*Arden Byers (CE); Jewell
*Cecil Eugene Byers (ME); Ulysses
*Mildred Mussette Cade (IM&D); Manhattan
*Richard Lee Cadwell, Jr. (Ag); Marquette
*John Dale Cady (VM); Arlington, Neb.
*Eugene Haile Callahan (Ag); Wichita
*Robert James Callahan (IJ); Manhattan
*Hugh Port Callaway (VM); Grand Pass, Mo.
*George Baldwin Callow (EE); Garnett
*John Carl Campbell (AE); Wilsey
*Ronald Wayne Campbell (Ag); Cherryvale
*Vivian Pauline Cann (HE-1; C-2); Atchison
*Everett Elwin Cannon (EE); Thrall
*Hugh Louis Caraway (PVM); Shreveport, La.
*Robert William Caraway (SH); Shreveport, La.
*Joseph Icon Carpenter (PVM); Mulberry
*Robert Alfred Carpenter (ChE); Oswego
*Harvey Russel Carsen (ME); Council Grove
*Clifford Erle Case (Ag); Coldwater
*Jessie Marie Cassidy (HE&N); Cummings
Juan Loza Castillo (PE); Spearville
*Shirley Marie Castor (HE); Topeka
Ward Elmer Cavender (C); Abilene
*Edward Sherman Chandler (PVM); Independence, Mo.
*Beverly Ross Chapin (ME); Wichita
*Doryce Lillian Chapin (GS); Manhattan
*Chatalyn May Chapman (PVM); Manhattan
*Cora Margaret Chapman (HE); Scotia, N. Y.
*Leo Ramey Chapman (C&A); Clay Center
Rodney Elmer Chapman (Ag); Manhattan
*William Edward Charlson (GS); Manhattan
*Maurice Edward Chase (Ag); Effingham
*Richard George Checksfield (EE); Topeka
Brainerd Glenn Cherry (PVM); Redwood Falls, Minn.
Dale Lloyd Cherry (VM); Redwood Falls, Minn.
*Robert Eugene Chestnutt (EE); Concordia
Donald Keith Christian (VM); Manhattan
*Paul Quintin Chronister (Ag); Abilene
*Edwin James Chubb (CE-1; C&A-2); Nickerson
*Thomas Riley Church (EE); Minneola
*Clifford Lawrence Claar (Ag); Rexford
*Buford Lorain Clark (GS); Norcatur
*Charles Eldon Clark (AA); Paxico
James Edward Clark (Ag); Effingham
*Otis Lyle Clark (AE); Webber

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FRESHMEN—*Continued*

*Shirley Louise Clay (C); Meade
*Lorraine Florence Clements (IM&D); Havensville
*Keith Smith Clevenger (PVM); Kingsdown
*Glen Edwin Cline (ArE); Fredonia
*Albert Swift Coates, Jr. (PVM); Kansas City
*Charlotte Jean Cockerill (IM&D); Frankfort
Ralph Eldon Cogswell (AA); Topeka
*William Glenn Collie (GS); Jewell
Cleve Harris Collinsworth (ME); Rosalia
*James Dennison Colt III (GS); Manhattan
*Max Raymond Colwell (ME); Centralia
*Henry Larsen Comley (MI-1; C-2); Wichita
*Neel Leon Conley (PVM); Wellington
*Arlon Duane Conrad (Ar); Clay Center
*Harry Hunt Converse (AE); Eskridge
*George Henry Cook (GS); Concordia
John Allen Cook (VM); Larned
John Daniel Cook (AA); Abilene
*Norman Eugene Cooley (C); Newton
*Robert Kenneth Cooper (ME); Riverdale
*Wilson Dale Cooper (ChE); Riverdale
*Donald Rolfe Corbet (C); Little Rock, Ark
Arthur LaRue Couch (C&A); Phillipsburg
*Marjorie Jean Courter (HE); Severy
*James Harry Cowie (IJ); Herington
*Harry Cowman, Jr. (AA); Lost Springs
*Lyle Ashton Cox (ChE); Atchison
Glen Thomas Crawford (Ag); Manhattan
*Ralph Hamel Creager (GS); West Alexandria, Ohio
*Riley Tieman Crow (Ag); Independence, Mo.
*James Robert Cushing (Ar); Manhattan
*Kenneth Marion Cusick (IC-1; ChE-2); Wichita
*Max William Dail (C&A); Fulton
*Edna Marguerite Dailey (IJ-1; HE&A-2); Manhattan
George Ted Dalziel (VM); San Francisco, Cal.
*Sylves Carroll Dam (PVM-1; ME-2); Marysville
*Carl Virgil Danielson (CE); Lindsborg
*Edwin Speight Darden (C&A); Manhattan
John Henry Darnell (MI); Los Angeles, Cal.
*William Elsworth Daseler (VM); Oroville, Cal.
*William Russell Davis (EE); Topeka
Lail Keith Dawley (PVM); Manhattan
*Clifford Wayne Day (AE); Weir
*Nelson Woodrow Dayhoff (CE); Abilene
*William Paul Deam (Ag); Manhattan
*Willits Clarkson DeArmond (GS); Manhattan
Joseph William DeBord (C); Centralia
*Charles Richard Dedrick (AA); Parker
*Leonard Austin Deets (AA); South Haven
*Cleo Edward Delaney (GS-1; Ag-2); Alton
*Martha Lorraine DeMand (HE); Lincolnville
*Ethel Dorothy Denio (IM&D); Woodston
*Anita Romona Denison (HE); Salina
Walter Eugene Dent (ME); Junction City
*Catherine Eileen Detrich (MuE); Chapman
*Hiram Benjamin Dickson (PE); Admire
*Charles Diehl, Jr. (GS); Manhattan
*LeRoy Ernest Dietrich (PVM); Wichita
*Evan Davis Dildine (GS); Delphos
*Dwight Francis Dill (EE); Winchester
Robert Preston Dille (GS); Tacoma, Wash.
*Richard Owen Disney (EE); Topeka
*Allen Arthur Divilbiss (GS); Winfield
*Charlotte Baenen Dixon (C); Junction City
*John Sayler Doak (C); Olathe
*Betty Lee Doctor (IM&D); Belleville
*Morris John Dodrill (MI); Ottawa
Richard Wilbur Dodrill (AE); Ottawa
*Maxine Frances Dolan (HE); Clifton
*Harold Raymond Domoney (ArE); Downs
*Dennis Ralph Donahue (PVM); Bonner Springs
*Mary Jane Donham (HE); Manhattan
*George Edgar Douros (ME); Topeka
*Keith Warnell Downey (VM); Appleton, Wis.
*Gene Plesse Doyle (IC); Wamego
*Roy Dean Drown (GS); Manhattan
*Donald Kenneth Dubois (MI); Burlingame
*Esther Tabea Dumler (HE); Gorham
William Emanuel Dumler (AA); Russell
*Dean Cuthbert Dunham (EE); Topeka
*Olivia Alfleda Dunham (HE); Jewell
Harry Harold Dunlap (EE); Liberal
*Robert Matthew Dunlap (ME); Liberal
*Carlyle Richard Dunn (CE); Manhattan
*Donald Kent Duwe (ME); Lucas
*Dale Hamlin Dyer (C); Clearwater
*James Francis Eagn (EE); Axtell
*Leonard LeRoy Easterday (Ag); Englewood
*Virginia Lind Eastman (IJ); Bucklin
*Von Eloise Eastman (HE); Matfield Green
*Norman Curtis Eatinger (Ag); Raymond
*John Springer Eaton (AE); Hutchinson
*Harry Leslie Eddy (GS); Topeka
*Lyle Harris Edelblute (GS); Manhattan
*Arthur Calvin Edinger (ME); Caney
Leslie Ruel Edrington (VM); Manhattan
*Alger Rex Ehrsam (Ag); Bern
Melvin Leroy Ehstein (Ag); Perry
*Victor Einsel (Ag); Greensburg
*Edward Himes Elling (MI); Manhattan
Charles Robert Elliott (C&A); Osawatomie
*Albert Murray Ellis (PVM); Fort Leavenworth
Keith Eldred Elmore (C); Lewis
*Lucille Elizabeth Elmore (C); McCracken
*Beth Kathleen Emmert (HE); Manhattan
*Perry C. Emmons (PE); Lenora
Elton A. Endacott (Ag); Manhattan
*Barbara Ruth Enlow (PE); Silver Spring, Md.
*Winifred Jane Enns (HE); Inman
*Glenys Marie Erichsen (HE); Manhattan
*Dorothy Rachel Erickson (HE); Cleburne
Loren Dean Eshelman (ArE); Abilene
*Raymond Keith Eshelman (C&A); Sedgwick
*Phyllis Loretta Estep (HE); Marysville
*Kendall Wayne Evans (IJ); Manhattan
*Richard Lewis Evans, Jr. (Ag); Hutchinson
Calvert Lewis Evins (ME); St. Francis
Wallace Aurie Fager (AE); Wakarusa

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FRESHMEN—*Continued*

*Jean Elaine Falkenrich (IM&D); Manhattan
*Clifford Earl Fanning (AE); Melvern
*Violet Hazel Farmer (GS); Fredonia
*Max Clifford Farrar (ME); Norwich
*Seymour Feldman (PVM); Camden, N. J.
*George J. Fetters (EE); Manhattan
*Jack Byron Fields (SH); Onaga
John Edward Fieser (VM); Norwich
*Raymond Elmer Fincham (Ag); Waterville
*John Finlay (ChE); West Mineral
*Gerald Keith Fish (AA); Neodesha
*Robert Haydn Fisher (GS); Belleville
*William Halpin Fitzsimmons (ME); Macksville
*James Patrick Fitzwilliam (EE); Wichita
*Donald Edwin Fleming (C); Ottawa
*Eugene Miller Fletcher (ME); Meade
Lynn Dewell Fleury (Ag); Jamestown
*Robert Carl Floersch (C&A); Manhattan
*Mary Jane Flower (IJ); Junction City
*Max Wayne Floyd (Ag); Ottawa
*Bill Page Folck (GS); Junction City
*Patsy Forbes (HE); Topeka
*Virginia Maye Ford (IM&D); Manhattan
*Thomas Earl Forster (ME); Wichita
*Loyal Delbert Fortmeyer (EE); Ruleton
*Jack Elbert Fox (VM); Kansas City
*Lowell Enos Fox (Ag); Kansas City, Mo.
*Carl Harmon Francisco, Jr. (Ag); Edna
*Harold William Frasier (AA); Sharon Springs
*Helen Mae Frasier (HE); Sharon Springs
*Ralph Kellum Fredrickson (EE); St. Francis
*June Elizabeth Freed (IJ); Scandia
*Elgena Roy Freeman (ChE); Eureka
*Homer Woodrow Freeman (CE); Chapman
*True B. Fretzs (ME); Wichita
*George Henry Fritz (Ag); Lake City
*Alma Dean Fuller (IJ); Courtland
*Evelyn Dorothy Fuller (HE-1; GS-2); Courtland
*Mabyn Beth Fuller (HE); Manhattan
*Esther Elizabeth Fulmer (HE); Wamego
*Walter Dale Furst (C&A); Goff
*Jane Frances Galbraith (HE&N); Cottonwood Falls
*Samuel Jackson Galloway (PVM); West Plains, Mo.
*Glen Gilbert Gardner (EE); Clifton
*John Pershing Garrett (VM); Joplin, Mo.
*Theodore Elden Garrett (EE); Shawnee
*Bettie Irene Garrison (HE); Waverly
*Scott Harold Gasche (ME); Hartford
William Samuelson Gaston (VM); Axtell
*Nancy Katharine Gentry (HE); Salina
*Donald Wayne George (Ag); North Topeka
*Robert Homer George (AA); Burlingame
*Merrill Claiborne Gerkin (Ag); Fredonia
*Warren Leo Gibbs (AE); Kansas City
*Falcnor L. Gifford (Ag); Haviland
*Henry Cleveland Gile, Jr. (ME); Wellington
*Jane Giles (GS); Abilene
*Robert Wesley Gilger (GS); Montezuma
*Emma Lou Gillett (IJ); Westmoreland
*Chester William Gist (ME); Manhattan
Jay Edwin Givens (AA); Manhattan
*Eldon Dale Gladow (AA); Alma
*Margaret Jane Glass (HE); Wichita
*Charles Jerome Glotzbach (GS); Paxico
*Oscar Joseph Glotzbach (Ag); Paxico
Charles Richard Goff (C); Estelline, S. Dak.
*Meyer Ben Goldfarb (Ag); Newark, N. J.
*William Arnold Gonser (Ar); Leavenworth
*Nellie Jane Goodhue (IJ); Edson
*Foster Samuel Goodlett, Jr. (PVM); Omaha, Neb.
*Vesta Kathleen Goodman (C); Ness City
*Edythe Elaine Goodwin (HE); Gypsum
*Virginia Alberta Goodwin (IM&D); Hiawatha
*Leonard Earl Gordon (Ag); Manhattan
Richard John Gorman (VM); East Hartford, Conn.
*Peter Earl Gory (PVM); Hoisington
*Francis Baxter Goss (GS); Osawatomie
*Alice Elizabeth Grandfield (HE); Manhattan
*Rex Demonte Grauerholz (GS); Esbon
Lowell Glen Graves (ME); Clifton
*Robert Medless Graves (ME); Independence
*Loren Courtney Gray (ChE); Salina
Charles Francis Green (C&A); Wichita
*Frances Elaine Green (GS); Westmoreland
*James Michael Green (Ar); Manhattan
*Robert Eugene Green (C); Wichita
*Blanche Marie Greene (HE&A); Manhattan
*Frederick Dempcy Greenleaf (ME); Greensburg
Fredrick Hamilton Greenway (ME); Kansas City
*William Randolph Greenwood (ArE); Topeka
*Paul Eugene Griffin (Ar); Manhattan
*Norman Jay Griffith (AA); Clayton
*Gordon B. Grimwood (C&A); Sedgwick
*Mary Elizabeth Griswold (IM&D); Marysville
*Carolyn Grogger (IJ); Solomon
Harold William Grote (Ag); Manhattan
*James Gordon Groves (ChE); McPherson
*Geraldine Gundy (M); Manhattan
*Alice Crosby Gunn (HE&A); Kansas City, Mo.
*Lyle Woodrow Gunter (EE); White City
*Gerald Gurss (PVM); Burlingame
Hugh Leon Gurwell (C); Wichita
*James Wylie Guy (ME); Chicago, Ill.
*Roy Emerson Gwin (GS); Leoti
John Henry Haeberle (GS); Clearwater
*Eula Marie Hagan (IJ); St. Marys
*Arden Kenneth Hale (IJ); Mankato
*Frances Margaret Hall (GS); Junction City
Freeman Milton Hall (VM); Kansas City
*Jack Lee Hall (ChE); Salina
*Milton C. Hall, Jr. (IJ); Leavenworth
*Charles Ham, Jr. (ME); Marysville
*Harold John Hamilton (CE); Corning
*Stanley Darwin Hammett (C); Blue Rapids
*John Harvey Hancock (C&A); St. Francis
*Robert Thomas Handel (PVM); Napa, Cal.
William A. Hanly (GS); Manhattan
*Wilma Mae Hannah (HE); Osborne
*Ardyce Louise Hanson (GS); Garrison
Sophia Nora Hantman (IM&D); Brooklyn, N. Y.
*Randall Olen Harbour (ME); Osage City
*George Harner (PVM); Memphis, Tenn.
*Ernest Owen Harris (Ag); Havensville

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FRESHMEN—*Continued*

*Lela LaVetta Harris (IM&D); Fowler
*Wilbur Wynn Hart (AA); Mayetta
*William Eugene Hartman (Ag); Hoxie
Basil Orman Hartwell, Jr. (ME); Drexel, Mo.
*Roy Sears Harvey (C&A); Junction City
Edward Harry Hashagen (GS); Leavenworth
Robert Emmett Hauke (VM); Meriden
*John Gilbert Hayden, Jr. (PVM); Twin Falls, Idaho
*Jane Haymaker (HE); Manhattan
Wayland Bradford Haynes (EE); Topeka
*Jeanne Francees Hayward (HE); Rolla
*Charles Edward Haywood (Ag-1; AE-2); Fowler
*Marie Katherine Healy (HE); Herington
*Virginia May Hecht (IJ); Seneca
Don C. Heffelbower (VM); Newton
*Ervin Lawrence Hefner (GS); St. Francis
*Harvey Harlan Hefner (C&A); Gove
*Compton Ervin Heggy (EE); Stafford
*Kenneth Eugene Hein (EE); Rose Hill
*Vernon Lee Heitman (Ag); Dellvale
*Alice Marie Hejtmanek (IM&D); Delia
*Robert Henry Hellener (Ag-1; C-2); Wichita
*Herman Delford Heltzel (MuE); Atchison
*John Mearl Hemphill (ME); Greensburg
*George Wilson Hendershot (C-1; ME-2); Lone Elm
*Wilbur Ellis Hendershot (Ag); Hutchinson
Elmer Henderson (AA); Iuka
*Irma Ruth Henderson (HE); Topeka
*Lester Joe Henderson (CE); Hollenberg
*Neva Nadine Hendricks (HE); Oberlin
*Keith Donald Henrikson (PVM); Manhattan
*Alma Katheryn Henry (HE); Lecompton
*Robert Wayne Hentzler (PVM); Topeka
William Carl Hentzler (PVM); Topeka
*Eugene Charles Hersche (MI); Bucyrus
*James Sterling Hervey (PVM); Belle Plaine
*Robert William Hester (AE); Kansas City
*Jack Heter (Ag); Sterling
Frank Albert Hetzke (ChE); Moundridge
Julius A. Heyer (MI); Marysville
George Hickman (VM); Atchison
*Jess William Hicks (C) Herington
*Robert Lester Higginbottom (GS); Fredonia
*Albert Lyle Higgins (IJ); Linn
Harold Marvin Hildwein (C); Fairview
*Margaret Louise Hill (HE); Topeka
*Wayne Lester Hill (ME); Topeka
*Dale Lee Hills (ME); Simpson
*Clyde Ivan Hinricks (EE); Leonardville
*Eulene Gayle Hirmon (HE); Cuba
*Kermit Blair Hobbie (Ag); Tipton
*Lawrence Leland Hobson (ME); Kingman
*Charles Willis Hodgson (AE); Little River
Clovis Foreaker Hodgson (AA); Jamestown
*Etta May Hodgson (HE); Harveyville
*Jack Coyle Hodshire (ME); Coffeyville
*Lucille Eileen Hoffman (C); Haddam
William Maurice Hoge (Ar); Carthage, Mo.
*Hellen Virginia Holbert (HE&N); Solomon
*Wilber Glen Hole (EE); Topeka
*Orvin Hugh Holler (GS); Conway
*Don Franklin Holshouser (EE); Dwight
*Arthur Herman Holste (AE); Ludell
*Henry Van Hoover (C&A); Macksville
*Howard Kenneth Hoover (ChE); Arlington, Va.
*Joseph Benedict Hoover (IC-1; ChE-2); Greenleaf
*Julia Janes Hoover (IM&D); Kansas City
*Leonard Ralph Hoover (CE); Manhattan
*Lola Laura Hoover (IM&D); Ford
*Ruth Elsie Hopper (C&A); Manhattan
*Anna Marie Horn (HE&A); Horton
*Myron Finley Hornbaker (EE-1; Ag-2); Hutchinson
*Dorothy May Horstick (HE); Richmond
*Harold William Hossfeld (EE); Willis
LaMonta June Hough (HE); Holton
*Daniel Frederick Howe (AE); Stockdale
*Murlin Thomas Howerton (ChE); Newton
Robert H. Hubbell (EE); Fredonia
*Eula Merna Hudson (HE); Wilsey
*H. Paul Hudson (ME); Topeka
*Edward Barrett Huff (GS); Marysville
*Robert Vern Huffman (ME); Kansas City, Mo.
Ansel Elvin Hugunin (Ag); Manhattan
*Norris Arthur Hulett (PVM); Kendallville, Ind.
*Joseph Seymour Hull, Jr. (PVM); West Plains, Mo.
*June Delore Hull (GS); Dodge City
*Phillip Hamilton Humfeld (ME); Clay Center
*Orville William Hundley (MI); Leavenworth
*Almond Dean Hunt (MI); Osborne
*Bruce Harper Hunt (AE); Topeka
*Donald Munro Hunt (Ag); Manhattan
*Charles Calvin Hunter (EE); Ottawa
*Howard Edwin Hunter (AE); Emporia
*Betty Elaine Hutchinson (HE); Goddard
*Joe Gene Hutchison (PVM); Natoma
*Thomas Junior Hutchison (ChE); Burlingame
*Archie Richard Hyle (CE); Madison
*George Nelson Inskeep (Ag); Manhattan
*Kenneth Edgar Ireland (ChE); Toronto
*Loyd Scott Irwin (PVM); Wilsey
Newton Kelly Irwin (VM); Highland
*Donald Keith Issitt (ME); Woodbine
*Oliver Conrad Jackson (Ag); Elsmore
*Virgil Le Roy Jackson (GS); Frankfort
*Brutus Leonard Jacobs (Ag); Harper
*George Preston James (Ag); East Greenwich, R. I.
*Jeanne Frances James (HE&A); Manhattan
*Gerald Alwin Jamison (PE); Wichita
*Henry Lawrence Janssen (ME); Lyons
*Walker John Jelinek (Ar); Beloit
*Dwight Hillis Jenkins (CE); Woodbine
*Ralph Vincent Jennings (ME); Arnold
*Quentin Ellsworth Jeppesen (VM); Garden City, Minn.
*James Edward Johns (EE); Topeka
*Alice Marie Johnson (HE); Olsburg
*Bruce Phillip Johnson (IJ); Salina
*Cecil Loring Johnson (ChE); Wamego
*Dorothy Ruth Johnson (HE); Manhattan
*Eldon Max Johnson (AA); Canton
*Herbert Warren Johnson (IJ); Scandia
*John Berton Johnson (AA); Saffordville
*John Franklin Johnson (GS); Nemaha, Neb.
*Lorraine Lawrence Johnson (ME); Concordia
*Mary Lucile Johnson (HE); Osage City
*Maxine Elinor Johnson (GS); Manhattan

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FRESHMEN—*Continued*

*Melvin Louis Johnson (EE); Quinter
*Morris Lyle Johnson (MI); Manhattan
*Raymond Ernest Johnson (GS); Manhattan
Raymond Marion Johnson, Jr. (C); McPherson
*Romaine Edwin Johnson (GS); Manhattan
William Pitner Johnson (VM); Manhattan
*Charles Otis Johnston (Ag); Manhattan
*Max Edward Johnston (Ar); Iola
*LeRoy Jule Jolley (IJ); Abilene
*Earl Dwight Jones (EE); Wichita
*Edmund Wesley Jones (IC); Fredonia
Gladys Irene Jones (HE); Reading
Herbert Andy Jones (C); Mulvane
*Joyce Javene Jones (HE); Hanover
*Mona Marie Jones (HE&A); Wichita
*Robert Jonathan Jones (MI); Wichita
*Salem Ford Jones (ChE); Junction City
*Gladys June Jorden (HE); Goff
*Betty Virginia Jorgensen (MuE); Manhattan
*Walter Robert Joy (Ag); Hays
*Jay Hans Kalin (EE); Belleville
*Emil William Karl (IJ); Detroit
*David Edwin Karnowski (AA); Paxico
*Ed Karns, III (ME); Coffeyville
*Doris Mae Kastner (HE&A); Manhattan
*Robert Junior Katz (GS); Manhattan
*Philip Gibbs Kaul (ME); Holton
*Fred Anthony Kays (CE); Eureka
*Ray Albert Keen (GS-1; SH-2); Topeka
Herbert Jack Keene (VM); Junction City
*Vernon Dennis Keim (Ag); Detroit
*Evelyn Davies Keiter (HE); Manhattan
*Richard McClanahan Keith (M); Manhattan
*William Gibbens Kelly (MI); Hutchinson
*Scott Winfield Kelsey (Ag); Topeka
*Raymond Orville Keltner (ChE); Hoisington
*Margaret Belle Kerr (HE&A); Hackensack, N. J.
*Dale Lee Kershner (EE-1; GS-2); Douglass
*Milroy Vencil Kesl (ME); Cuba
*John Leonard Kidwell (ArE); Wichita
*Gerald Ingvard Kier (GS); Mankato
*Kenneth E. C. Kimbell (PVM); Caney
Lyle Kimsey (C); Smith Center
*Marjorie Vivien Kimsey (HE&A); Simpson
*Janet Elizabeth King (PE); Wichita
Leo Floyd King (Ag); Lewis
*Reva Alma King (IM&D-1; GS-2); Council Grove
Virginia Lee King (HE); Manhattan
Harry Melvin Kingsley (AA); Hays
*Murray Luther Kinman (AA); Wamego
*Carlton Miller Kinzler (Ag); Sturgis, Mich.
*Maxine Elizabeth Kirgis (IM&D); Cawker City
Arthur Durward Kirk (VM); Scott City
*Edward Earl Kirkham (ME); Topeka
*Doris Charlotte Klaumann (IM&D); Belleville
*Glenn Clifford Klimek (Ar); Manhattan
*Arthur Junior Kliwer (MI); Abilene
*George Klover (GS); Ramona
*Lyle Herman Knapp (ME); Topeka
*Virginia Carolyn Knauer (IJ); Barnard
*William Frederick Knetter (PVM); Piper
*Ralph William Knoche (PVM); Adrian, Minn.
*Arthur William Knott, Jr. (Ar); Independence
James William Knox (VM); Overland Park
Joseph L. Ko (Ag); Canton, China
*John Marshall Koger (GS); Cheney
*Lawrence Kolarik (GS); Caldwell
*Donald Ely Kortman (C); Manhattan
*Virgil Albert Kraisinger (C&A); Timken
*Wilbur Stephen Kraisinger (Ag); Timken
*Charles Edward Krause (Ag); Belleville
*Elberta June Krehbiel (HE); Detroit
*Bette Jane Kreikenbaum (IJ); Phillipsburg
*William Daniel Kretsinger (ME); Emporia
Laura Lee Kubin (HE); McPherson
*Ralph Jennings Kueker (Ag); Belleville
*Helen Kunkel (IM&D); Waverly
*Leona Marie Kurtenbach (GS); Herington
*Robert Byrd Kyle (Ar); Wellsville
*Catherine Rosalie LaMont (HE-1; IJ-2); Clifton
*Jack Duncan Lamont (GS); Manhattan
*Sherman Luis Lampl (EE); Wichita
*Freda Martha Landis (GS); St. George
*Charles William Lane (C); Manhattan
Philip Roscoe Lane (PE); Manhattan
William Irl Lane (CE); Manhattan
*Herschel Rex Larkin (ME-1; C-2); Beattie
*Marion Joseph Larkin (PE); Baileyville
Dean David Lawellin (Ar); Oswego
*Kathleen Louise Lawson (HE); Sylvan Grove
*Talmadge Esbern Leach (PE); Vesper
*Harold Francis Leckron (CE); Abilene
George Edward Lee (C); Topeka
*Marjorie Ruth Lee (HE); Jetmore
*Junia Elaine Leonard (HE&N); Manhattan
*Marvin Weisman Leslie (PVM); Passaic, N. J.
*Theodore William Levin (Ag); Agra
*George Eldred Lewis (ChE); Phillipsburg
*John Kenneth Lewis (EE); Arlington, Va.
*Mildred Josephine Lewis (HE); Dodge City
*John Leonard Libby (MI-1; C-2); Fostoria, Ohio
*Don Malcolm Liebengood (VM); Kentland, Ind.
*James March Light (ME); Liberal
*June Elaine Light (HE); Liberal
*Carl Andrew Liljeberg (PVM); Grantsburg, Wis.
*Henry Rufus Lillard (Ag); Rossville
*Lona Faye Lille (HE); Atwood
*Grace Burnham Limbocker (HE); Fort Riley
*Gilbert Leonard Lindeman (GS); Hanover
*Marjory Anne Lindgren (C); Dwight
*Fred Ray Lindsey, Jr. (ME); Scotia, N. Y.
*Merlin Elmer Line (AA); Sabetha
*Mervin Coram Line (AA); Sabetha
*Edward Lininger (ME); Fort Riley
Leland Le Roy Linn (VM); Clyde
Mabell Elvia Littell (HE); Colby
Campbell Fackler Logan (ME); Paola
*Arnold Edward Lohmeyer (Ag); Linn
Lyman Parker Long (IC); Fowler
*Joe Grove Loriaux (GS); Herington
*Rector Philip Louthan (ChE); Simpson
Clarence Alvin Love (VM); Coffeyville
*Roy Clyde Lovell (GS); Manhattan

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FRESHMEN—*Continued*

*Hal Arthur Lund (ChE); Manhattan
*Margaret Ann Lupfer (IJ); Larned
*Arlene Minnie Luthi (IM&D); Wakefield
*Thomas Joseph Lynch (PVM); Allendale, N. J.
*Charles Franklin Lyon (ArE); Greensburg
*William Allen Lytle (Ag); Wellsville
*Irwin Brooks Lyttle (PE); Council Grove
*Hazel Juanita McAninch (HE); Stockdale
*Clarence Bennett McCall (AE); Wakeeney
*Harold Clyde McCall (GS); Wakeeney
*Patty McClaskey (HE); Arapahoe, Colo.
*Howard Bruce McClellan (ME-1; GS-2); Emporia
*Verle Orlo McClellan (C&A); Wichita
*Arlan Wilbur McClurkin (Ag); Clay Center
*Bryce Eldon McCormick (ME); Abilene
*Mary Ruth McCoy (HE); Pratt
James Eli McCullough (VM); Solomon
*Dale Fredric McCune (Ag); Stafford
*Ivan Earl McDill (Ag); Paola
Edward James Peter McDonald (VM); Peabody, Mass.
*Julian William McDonald (PVM); Highmore, S. Dak.
*John Gerald McEntyre (CE); Topeka
*Eileen Rose McGhee (HE); Centralia
*Robert Arthur McGhghy (ME); Sharon Springs
*Arthur Douglas McGovern (ME); Schenectady, N. Y.
*Marvin Woodrow McGuire (Ag); Onaga
*Fred Harmon McHugh (ChE); Liberal
*Robert Beitzel McIntire (GS); Manhattan
*William Albert McKinley (ME); Greensburg
Max Massey McLain (C); Sun City
Paul Edwin McManis (MI); Manhattan
*Mary Rowene McMaster (HE&N); Eskridge
*Donald Wallace McMillan (C&A); Wamego
*Joseph Allen McMillen (C); Coldwater
*Phyllis Laurine McNeilley (HE); Norton
*Burton Keith McNickle (Ag); Zenith
*William Basil McQuerry (PVM); Leona
*Lois Marie McVay (HE); Junction City
*Helen Jane Macredie (HE); Clearwater
*Roderick Elvyn MacRae (VM); Evanston, Ill.
*Ed Jay Mahler (VM); Salinas, Cal.
*James Philip Mahuron (IJ); Liberal
*Mildred Marie Major (IM&D); Wilson
*Hurst Kreek Majors (IJ); Manhattan
*Ben Verden Makinney (EE); Columbus
John William Mallory (VM); Kansas City, Mo.
Robert Drury Manly (GS); Manhattan
Frank Lucius Marcy (Ag); Milford
*Ethlyn Lorraine Marks (HE); Council Grove
Darwin Elton Markwell (IA); Kingman
*Ramon Frescas Marquez (ME); Mulvane
*Kenneth Marrs (EE); Harveyville
*Ann Marie Marshal (IJ); Manhattan
*Daniel Claire Marshall, Jr. (EE-1; IJ-2); Manhattan
*Gerry Lenore Marshall (GS); Clay Center
*Audwin Joseph Martin (CE); Norwich
*William Russell Martin (IJ); Severy
Dwight Murray Mason (IJ); Manhattan
*Arlene Venita Mayer (MuE); Alta Vista
*Ben H. Mayer, Jr. (ME); Ellsworth
Orval H. Meinecke (VM); Marysville
Newell Clyde Melcher (Ag); Ottawa
Howard Kermit Melchert (AE); Loraine
*Virgil Luray Menzie (ME); Montezuma
*Betty Jean Merrill (IJ); Ellis
*Frank William Meserve (IJ); Ellis
*Charlotte Jeanne Metcalf (HE&N); Coffeyville
*Everett Russel Meyer (C); Basehor
*Leonard Milton Meyer (C); Basehor
*Virgil Maynard Meyer (C); Carlton
*Hugh Truman Meyers (C); Atchison
Kenneth Benton Middleton (VM); De Soto
*Bob Glenn Miller (ChE-1; GS-2); Belleville
*Dorothy Miller (HE); Kansas City
Dorothy Eaton Miller (HE&A); Manhattan
*Joan Miller (HE); Milford
*Marion Andlauer Miller (AE); Topeka
R. Leone Miller (GS); Manhattan
*Victor Raymond Miller (C); Miltonvale
*Carroll Renshaw Mills (PVM); Frankfort
Andres Peter Mindedahl (ME); Bethel
*Harriette Louise Minton (HE&N); Harper
*Evelyn Elnora Mitchell (HE); Topeka
*Louis Fred Moeller (C&A); Hill City
*Carroll Alvin Mogge (Ag); Goodland
*Naomi Elizabeth Monaghan (HE); Haviland
*Beatrice Marie Montgomery (HE); Hazelton
*James Earl Moon (PE); Greenleaf
*Barbara Caroline Moore (HE); Great Bend
*Ellen Lucille Moore (HE); Manhattan
*Ida Isabel Moore (GS); Alta Vista
*Robert Emery Moreen (C&A); Salina
*Keith Franklin Morey (Ag); Manhattan
Herbert Carl Morgan (AA); Greenleaf
*Lois Lorraine Morgan (GS); Manhattan
*Mary Belle Morris (IJ); Chapman
*Charles Richard Morrison (C); Topeka
*Larry Lee Morrow (AA); Liberty
Ruthe Eileen Morrow (HE); Larned
*John Robertson Morse (PVM); New Hampton, N. Y.
*Harriet Louise Mortensen (HE); Willis
*Robert Melvin Mortimer (C); Delphos
*Neil Alden Morton (Ag); Green
*Donald George Moss (EE); Miltonvale
*John Inman Moss (GS); St. Marys
*George Edward Mount (CE); Sharon Springs
*Bernard Francis Mowery (PVM); Wilsey
*Joseph William Mudge (Ag); Gridley
*Betty Eloise Muir (HE); Salina
*Harry Acea Muir, Jr. (ChE); Manhattan
*William Lowe Mundy (GS); Salina
*Raymond Patrick Murray (EE); St. Marys
*Raymond Lee Mussatto (ME); Burlingame
*Hiram Clawson Mussett (Ag); Leavenworth
*Donald Kivett Myers (EE); Topeka
*Imogene Gale Myers (HE); Sharon Springs
*Richard Bright Myers (PVM); Bethel
*Verne Levi Myers (CE); Windom
*William John Myers (PVM); Bethel

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FRESHMEN—*Continued*

*Franklin Conrad Nagle (ChE); Topeka
*Neil Norman Neely (EE); Topeka
Kenneth Edwin Neidigh (C&A); Salina
*Merven Leland Neis (ME); Abilene
*Elva Ann Nelson (HE); Concordia
Jean Maurine Nelson (IJ); Topeka
*Nora Beth Nelson (HE); Manhattan
*Robert Kenneth Nelson (PVM); Chicago, Ill.
*Warren B. Nelson (Ag); Manhattan
*Donald Orion Neubauer (ME); Manhattan
*Margaret Anne Newcomb (C); Kansas City, Mo.
*Lloyd Edward Newcomer (EE); Russell
*Carrol Brent Newell (Ag); Stafford
*Clarence Eugene Newell (ME); Wellington
*Mary Evelyn Nielson (IM&D); Atchison
*Lee Albert Ninemire (Ag); Wakeeney
John William Nininger (EE); Olathe
*Russell Bernard Nixon (C); Manhattan
*Wilburt Gates Nixon (Ag); Manhattan
*Oscar Woodrow Norby (AA); Pratt
Lela Genevera Nordeen (HE&A); Dwight
Richard William Nordeen (MuE); Manhattan
*Marjorie Minnie Norlin (HE); McCracken
*Harold Sylvester Novak (ME); Ottawa
*Harold Le Roy Nus (ME); Arlington, Iowa
*Wilmer Hardy Oakes (ArE); San Fernando, Cal.
*Marion Ernest Oberhelman (C); Manhattan
*Otto Fredrick Oberhelman, Jr. (EE); Manhattan
*Charles Offen (EE); Topeka
*Zoe Elizabeth Oliver (HE); Junction City
Albert Willard Olson (Ag); Dwight
*Anna Bernice Olson (HE); Manhattan
*Benjamin Eric Olson (ChE); Manhattan
*Bruce Wallace Olson (ME); White City
*George Norman Olson (ChE); Wichita
*Earl Leroy Olson (GS-1; EE-2); Axtell
*Mary Marie Olson (HE&A); Dwight
*Effie May Orr (HE); Kanona
*Jennie Catherine Orr (HE); Kanona
*Lois Orrell (HE); Peck
*Ina Elizabeth Orrick (M); Manhattan
Robert Earl Orsbern (PVM); Manhattan
*Robert Leo Osborne (Ag); Rexford
*Leo Benedict Osterhaus (C); Marysville
*Edward John Otto, Jr. (IC); Riley
*Wilbur Keith Owen (EE); Meade
*Lindell Cook Owensby (GS); Manhattan
*Peggy Louise Paddock (M); Manhattan
Erma Lucille Paget (HE&A); Covert
*James Thomas Painter (EE); Meade
*Albert Earl Palmberg (ME); Meriden
*Charles Robert Palmer (Ag); Anness
*Patricia Palmer (IJ); Kansas City
Orlando Karl Pan-Kratz (ME); Stafford
Victor Eugene Parisa (Ag); Lansing
*Aubrey Glen Park (ME); Oakley
Comer Lloyd Parks (EE); Chautauqua
*Ernest Newton Parvin (ME); Croweburg
*Gerardo Anthony Pascale (ChE); Coffeyville
*David Junior Patterson (ChE); Marysville
*William Henry Patterson (Ag); Holton
*Martha Ann Pattison (IM&D); Manhattan
George Ralph Pauling (CE); Manhattan
*Doris Elaine Paustian (HE); Manhattan
*Martha Marie Payne (HE); Manhattan
*Ellen Peak (IM&D-1; IJ-2); Manhattan
*Mary Jean Peak (IM&D); Manhattan
*Lee Owen Pearl (EE); Columbus
*Donald Lee Pearson (EE); Topeka
Carson Stewart Peck (C); Salina
*Marla Eileen Pendergraft (GS); Emporia
Paul Warren Pennock (EE); Salina
*Helen Catherine Perkins (IM&D); Kansas City
Charles Ross Perry (PE); St. George
*Clyde Finley Peters (C); Mayetta
*Richard Lewis Peters (AE); Valley Falls
*Esther Peterson (HE&A); Kinsley
*Harold Elof Peterson (Ag); Bridgeport
*Ronald Thornton Peterson (EE); Courtland
*John Richard Petford (AA); Saffordville
*Blanche Eleanor Petracek (IM&D); Jennings
*Benjamin Rankin Petrie, Jr. (ChE); Greensburg
*Charles Louie Pfenninger (AA); Nekoma
*Harlan Ralph Phillips (PVM); Manhattan
*Roger Neil Phillips (Ag); Manhattan
*Marjorie Clara Pierson (HE); Clay Center
*Russell Herbert Pierson (PVM); East Haven, Conn.
*Edwin Moats Pincomb (GS); Overland Park
*John Russell Piper (ME); Emporia
*Charles Irving Platt (C); Junction City
*Kenneth Eugene Plumb (Ag); Manhattan
*Leighton Edmond Poague (IJ); Wakeeney
*Claude Arthur Poland (ChE); Manhattan
*Robert Milton Polley (C) Abilene
*Earl Rothwell Pool (Ag); Belleville, Ill.
*William Bryant Poole (Ag); Manhattan
*Arthur Wayne Pope (Ag); Durham
*Irma Lucille Popp (HE); Marion
*Charles Homer Porter, Jr. (GS); Moline
*Jerald Gorman Porter (CE); Dellvale
*Walter H. Porter (Ag); Council Grove
*Ethan Potter (GS); Peabody
*John Warren Powell (GS); Larned
*John William Prager (PVM); Irvington, N. J.
Anthony Joseph Prasnikar (VM); Mulberry
Louis Arthur Prchal (EE); Omaha, Neb.
*Alma Lenora Pressgrove (HE&A); Tecumseh
*Allan Eugene Preston (Ag); Baldwin
William Earl Pretzer (ME); Elmdale
*Harrison Thomas Price (GS); Chicago, Ill.
*John Henry Price (ME); Kansas City
*John Henry Price (VM); Triplett, Mo.
Dorothy Wynne Pritchard (HE); Hiawatha
*Earl Carleton Pugh (PVM); Phillipsburg
*Clarence Alfred Quigley (ME); Great Bend
*Norbert LaVerne Raemer (MI); Herkimer
*Emma Belle Randall (HE); Ashland
*Raymond Henry Randolph (C); Leona
DeVere Frank Ratliff (VM); Portis
*Emily Jane Rawson (HE); Wamego
*Virginia Lee Ray (HE); Wilsey
John Bierer Reamer (PE); Holton

* Matriculated 1938-1939.

FRESHMEN—*Continued*

*Cordelia Jane Reazin (HE&A); Harper
*Edward Purcell Redmond (AA); Marysville
*Edward Anthony Reed (Ag); Lyons
*Eleanor Edith Reed (HE&N); Circleville
*Nyla Frances Reed (HE); Selden
*Quentin Stephen Reed (IJ); Topeka
*Wilbur Bernell Reed (ChE); Marysville
*Morris Griffith Rees (GS); Grantville
*Jerome Alexander Rehberg (ME); Bennington
*Norma June Reid (GS); Topeka
*Helen Florence Reiman (IJ-1; HE-2); Byers
Marie Katherine Reinhardt (HE); Russell
*Jane Ray Reinhart (IJ); Ottawa
*Glenn Meredith Revell (ArE); Chase
*Jay Reynolds (VM); Parsons
*Vernon Edward Reynolds (ME); St. Francis
*Wilma Elizabeth Reynolds (HE); Kansas City
*Charles O. Rhea (ME); Drexel, Mo.
*Ava Maurine Rice (HE); Hill City
*John Lenhart Rice (CE); Fort Leavenworth
*Mildred Joyce Rice (HE); Alma
*Allen Elmer Richardson (AA); Oswego
*Jack Hartman Rickenbacker (EE); Turlock, Cal.
*Robert Wendell Riley (SH); Emporia
*Earl Stratton Ripley (ME); Salina
*Paul Roach (ME); La Crosse
*Arthur Donald Robb (PVM); Wamego
*John Morris Roberts (ChE); Hoisington
*Lewis Paul Roberts (IJ); Council Grove
*Robert Hugh Roberts (ME); Wellington
*Claire Milton Robertson (ME); Holton
*Ellen King Robertson (IC); Wichita
*John Lovell Robertson (Ag); Nowata, Okla.
*Lois Mary Robinson (IJ); La Crosse
Marshall Samuel Robinson (C&A); Topeka
*Ralph Raymond Robinson (PE); Wilsey
*Andrew Scott Robson, Jr. (EE); Westmoreland
*Glen Earl Rochat (PE); Wilsey
*Raymond Francis Roemer (AA); Gove
*Joseph Samuel Rogers (Ag); Horton
*Marjorie Jane Rogers (IJ); Manhattan
*Mae Catherine Rogg (HE); Bunkeer Hill
*Raymond Ruben Rokey (Ag); Sabetha
*Virginia Elizabeth Roller (HE); Circleville
*Sylvia Frances Roper (GS); Manhattan
*Lillian Yvonne Roseman (IM&D); New Cambria
*Lucille May Rosenberger (HE); Greensburg
*Richard Carl Roswurm (EE); Manhattan
*Margaret Maxyne Rugg (HE); Scottsville
George Harold Russell (VM); Paola
*Floyd Allen Rutherford (ME-1; C-2); Baldwin
*Francis Joseph Ryan (EE); Waterbury, Conn.
*Joyce Carmel Sahlberg (IM&D); Wichita
*Vergil Edward Salts (Ag-1; PE-2); Mayetta
*George Arthur Sample (ME); Council Grove
*Harold Jay Santner (GS); Gaylord
*Lorraine M. Sawyer (HE); Kensington
*William Ferdinand Schaefer, Jr. (CE-1; C-2); Topeka
*Kent Navarra Schaffer (EE); Lucas
*Marvin Jerome Scheidel (PVM); Platte Center, Neb.
*Marguerite Mary Scheier (GS); Manhattan
*Alvin Jacob Scherzer (Ag); Larned
*Henry Frederick Scheuch (Ag); Ellsworth
*Annabeth Marguerette Schlotzhauer (HE); Bucyrus
*Clarence Wilbur Schmitz (GS); Alma
*Raymond Clinton Schneider (Ar); Manhattan
*Dean Creighton Scholes (ME-1; C-2); Council Grove
*Mildred Hester Schrepel (HE); Cunningham
*Alva Esther Schroeder (IM&D); Hillsboro
*Billy Gene Schulz (ME); Greensburg
*Norman Francis Schulz (PVM); Liberty, Mo.
*Lloyd Joseph Schurr (C&A); Wamego
*Glenn Orville Schwab (AE); Gridley
*Lucille Marie Scofield (IM&D); Perry
John Neill Scott (IA); Neosho Falls
*Margaret Lenore Scott (HE); Louisville
*Ralph William Scott (ME); Garnett
Richard Quiley Scott (CE); Hill City
*Robert DeForest Scott (ChE); Manhattan
*James Harris Sealey (ArE); Pratt
*Lorrain Oscar Sebree (PVM); Kansas City
*Evelyn Margaret Seeberger (GS); Hanover
*Marjorie Maxine Segrist (HE&A); Manhattan
*Edward George Seufert (AE); Tonganoxie
*John William Sexson (EE); Weskan
Ben Shambaugh, Jr. (VM); Ottawa
*Richard Lowell Sharp (Ag); Neodesha
*Mary Ellen Shaver (HE); Salina
*Harley Donald Shaw (AE1; Ag-2); Selden
*Robert Ulrich Shaw (Ar); Topeka
*Richard Alan Shea (VM); Kansas City
*Ruth Alberta Shepherd (HE); White City
*Elizabeth Mae Sherlock (HE&N); Manhattan
*Nadine Shields (IM&D); Council Grove
*James Franklin Shirck (ME); Waterville
*Gladine Tiny Shirley (IM&D) Perry
*Johnny Dale Shoemaker (IJ); Centralia
*Pauline Lelia Shoffner (HE); Junction City
*Ross Truman Shook (GS); Sterling
*George Edward Short (PVM); Concordia
*Glenn LeRoy Shriver (AA); Medicine Lodge
*Irene Esther Shriver (HE); Medicine Lodge
*Beldora Mae Shultz (HE); Wamego
*Elsie Mae Shuman (HE); Plains
*Charles Otho Shumaker, Jr. (ChE); Wichita
*Virginia G. Siebert (HE&N); Pretty Prairie
*Ernest Allen Siegel (VM); San Francisco, Cal.
*Claredon Hickman Sigley (ME); Canton
*William James Simic (PVM); Superior, Neb.

* Matriculated 1938-1939.

FRESHMEN—*Continued*

*Ruth Viola Simpson (HE); Manhattan
*Kenneth Iden Sinclair (Ag-1; C-2); New Brunswick, N. J.
*Robert Ralph Singleton (Ag); Kansas City
*Henry Augustine Sirridge (ME); Topeka
Leland Richard Skaggs (GS); Salina
*Harold Milton Skalla (CE); Blue Rapids
*Otis Otto Skubal (ME); Dresden
*Eugene Smerchek (GS-1; ME-2); Cleburne
*Margaret Smies (HE); Courtland
*Clyde Hobert Smith (IJ); Frankfort
*Dulcie Madge Smith (HE); Atlanta
*Floyd William Smith (Ag); Shawnee
*Glenn McKinnis Smith (EE); Uniontown
*James Taylor Smith (C); Wichita
*Lewis Hadley Smith (AE); Burdett
*Marcia Gertrude Smith (HE); Amy
*Peter Anthony Smith (EE); Marysville
*Rex Nevielle Smith (EE); Burdett
*John Christopher Sobba (EE); Fowler
*Eugene Lowell Solt, Jr. (C-1; Ar-2); Waterville
Ralph Andrew Sonday (CE); Sharon Springs
*Reed Clement Sparks (C); Stafford
*Robert Junior Spatz (CE-1; C-2); Lebo
*James Rodney Spaulding (ChE); Casper Wyo.
*Lawrence Eldon Spear (ME); Kansas City, Mo.
*Nadine Alfreda Spellman (HE); Salina
*Marjorie Faye Spiller (GS); Frankfort
*Charles Eldon Springer (GS-1; CE-2); Stockdale
*Marjorie Jean Spurrier (GS); Kingman
*Blanche LaVaughn Stacy (GS-1; HE-2); Byers
*George Jacob Stadler (PE); Rossville
*Wilma Marie Staehli (HE); Abilene
*Daniel Rector Stanton (Ag); Rushville
*Elizabeth Harriet Steele (IM&D); Waterville
*Warren Hardy Steffey (AE); Ozawkie
*Viola Alice Stein (HE&N); Chicago, Ill.
*Roy Edward Steinhoff (C); Osage City
*Ivan Verne Stephen (Ag); Hill City
*Lenora Jeanne Stephenson (HE); Larned
*James Roy Sterling (IA); Clay Center
*Homer Albert Stevens (Ag); Silver Lake
*Betty Jean Stewart (HE); Topeka
Katharine Clestia Stewart (HE); Talmage
*Kemp Graham Stiles (GS) Wichita
*Evelyn Irene St. Lawrence (IJ); Fowler
*Edward Donald Stoddard (PVM); Manhattan
*Jean Maxine Stoltenberg (HE); Hiawatha
*James Mark Stoneberger (ME); Lindsborg
*Kenneth Eldon Storer (ME); Manhattan
Kenneth Paul Storey (Ag); Mulvane
*Marshall Leslie Stover (PE); Manhattan
*Clyde Roe Stratton (CE); Greeneville, Tenn.
Raymond Edward Streeter (ME); Hutchinson
*John Strick (ME); Kansas City
*Nita Mae Stricklin (HE); Webster
Keith Phillip Studer (VM); Atwood
*Iris Velna Surtees (HE); Wichita
*Ralph Herman Swart (GS-1; AA-2); Riley
Robert Allen Swartz (Ag); Everest
*Melvin John Swenson (PVM); Concordia
*Dorothy Jean Swingle (GS); Manhattan
*Virginia Symns (GS-1; HE&A); Whiting
*Opal Lorena Tabler (HE&A); Wamego
*Esther Marie Taddiken (GS); Clay Center
*Lenora Jean Taddiken (HE); Morganville
*Jeanne Marie Tarvin (GS); Marysville
*Delbert Gail Taylor (Ag); Meade
*Evelyn Marie Taylor (HE); Bethel
*James Lewis Taylor (ME); Paola
*John Craig Taylor (PVM); Morristown, Tenn.
*Ocie Alice Taylor (IM&D); Tribune
*Roy J. Tebo, Jr. (Ag); Morland
*Robert Crowley Tedrow (CE); Kansas City, Mo.
*Margaret Ruth Teel (IM&D); Morland
*Joye Jean Teeple (IM&D); Manhattan
*George Louis Templeton (EE); Great Bend
*Laverne Oma Templeton (C); Great Bend
*John Harvey Tennery (PVM); Belle Plaine
*Donald George Tepfer (ME-1 GS-2); Fort Dodge, Iowa
*Alice Mae Teply (IM&D); Hanover
*Joyce Jacqueline Terrass (HE); Alma
*Keith Lewis Thompson (Ag); Wichita
*Wilma May Thompson (HE); Almena
*Glenn Steuart Tibbetts (PVM); Wheaton
*Max Eugene Timmons (AA); Fredonia
*Olin Leslie Tippett (EE); Kansas City
*Merrill Wayne Toburen (IC); Manhattan
*Melvin Kenneth Todd (EE); Kansas City
*Harold Theodor Toll (IC); Sharon Springs
*Robert Tull Toothaker (PVM); Wheaton
*Leland Oscar Townley (EE); Kirwin
*Jim Tozier (GS); Salina
*Dorothy Jean Triplett (GS); Humboldt
George Kendrick Turner (GS); Waterville
*Robert Emmett Turkleson (ChE); Troy
*William Dick Turner (ME); Manhattan
William Leonard Turner (Ag); Plevna
*Howard Robert Turtle (ME); Quinter
*Dorothy Jane Underhill (IJ); Kansas City, Mo.
*Roy Walter Upham (PVM); Junction City
*Edna Matilda Uppendahl (HE); Scott City
*Duane Oscar Urbom (IJ); McDonald
*Rosemarie Van Diest (HE); Prairie View
*Thelma Laverne Vandiver (IJ); Norton
Doris Van Landingham (HE); Kingman
*Robert Edward Van Scoyoc (C); Manhattan
*Charley Raymond Vavrock (Ag); Oberlin
*Clyde Maurice Venneberg (Ag); Havensville
*Norman Allen Vick (IA); Wellsville
*George Edgar Visser (Ag); Riley
Carl Joseph Voelker (VM); Manhattan
*Eugene Wilbur Voigt (Ag); Basehor
David Roland von Riesen (IC); Marysville
*Anna Dean Wagaman (IM&D); Manhattan
*Eleanor Joan Wagenrodt (HE); Topeka
*Margaret Lucile Wagner (HE-1; IJ-2); Galesburg
Merribel Wahl (HE); Wheaton
*Paul John Waibler (ME); Great Bend
*Edwina Carol Wait (HE); Centerville
*Mary Jane Wakeman (HE&A); Fowler
*Frederic Barber Walker, Jr. (VM); Santee, Cal.
*John Lewis Walker (PVM-1; AA-2); Dresden

* Matriculated 1938-1939.

FRESHMEN—*Concluded*

*Paul Lauren Walker (ChE); Sharon Springs
*Mary Elizabeth Walters (GS); Manhattan
Theo Parker Walton (ME); Manhattan
*Arlin Bruce Ward (GS); Manhattan
*Charles Everett Ward (ME); Burlingame
*Oliver Howard Wardlow (ArE); Topeka
*Alice Elizabeth Warren (Ar); Manhattan
*Leon Arthur Warta (CE); Ellsworth
*Robert Glenn Waters (C); Junction City
*James Wesley Watkins (PE); Manhattan
Bruce Cornell Watson (VM); Shawneee
*Charles Gordon Waugh (PE); Mankato
*Lowell Madison Webb (PVM); Beverly
*Charles Junior Weber (GS); Manhattan
*Edwin August Weber (GS); Annapolis, Md.
*Valena Glee Weber (IM&D); Clifton
*Willadean Zola Weber (HE); Kansas City, Mo.
*Rhena Corwin Webster (PE); Manhattan
*Maurice John Weckerling (ME); Manhattan
*Dean Keats Weckman (Ag); Holton
*Harry Leroy Weil (ME); St. John
Bernard Morris Weiner (VM); Irvington, N. J.
*Homer Glen Weller (CE); Abilene
*Richard Gale Wellman (Ag); Sterling
*William Beecham Wellman (GS); Bird City
Charles Maurice Wempe (VM); Seneca
*Francis Russell Wempe (Ag); Frankfort
Delbert Oscar Wendt (VM); Bonner Springs
*George Willis Wenger (AA); Sabetha
*Max Miller Wenrich (ME); Oxford
*William Joseph Werts (AE-1; Ag-2); Smith Center
Gordon B. West (IJ); Manhattan
William Roger West (VM); Manhattan
*William Earl West (GS); Hiawatha
*Marvin Lloyd Westerman (Ag); Moundridge
*Hazel Ruth Weygandt (HE); Manhattan
*Everett Johnson Whearty (GS-1; AA-2); Rossville
*Pierce Uhlman Wheatley (GS); Gypsum
*Gertrude Eunice Wheeler (MuE); Manhattan
*John Parsons Wheeler (ME); Fort Riley
*Louise Newton Wheeler (IJ); Fort Riley
*Francis Ivan White (Ar); Manhattan
*Irene White (GS); Kingsdown
*Robert Blair White (ArE); Greeneville, Tenn.
*Norman Vincent Whitehair (AA); Abilene
Richard Victor Whiteside (CE); Topeka
*Fairy Faye Wickham (GS); Oberlin
*Henry Jacob Wiebe (EE); Meade
*Kathleen Floy Wilkie (HE); Topeka
*Ray Franklin Wilkie (ME); Topeka
*Lysle Max Wilkins (PVM); Delphos
*Earle Ellwood Wilkinson (AE); Quinter
*Charles Homer Williams (GS); Marysville
*Edwin DaCosta Williams (MuE); Holton
*Evelyn Lucile Williams (HE&N); Topeka
*Glenn Lawrence Williams (IJ); Manhattan
*John Jasper Williams, Jr. (CE); Pawnee Rock
LaVerne Chiles Williams (Ag); Hill City
Mercedes Jane Williams (HE); White City
*Perry Alexander Williams (IJ); Johnson
*Robert E. Williams, Jr. (Ag); Rocky Ford, Colo.
*Nellie Lou Willis (HE); Manhattan
*Frank Ance Wilson (Ag); Maplehill
*Guy Wilson (ME); Cottonwood Falls
*Robert Dolan Wilson (ME); Manhattan
*William Frederic Wilson (AE-1; AA-2); Strong City
*Shirley Maycele Wing (IM&D); Columbus
*Rosaline June Winger (HE); Johnson
*Mary Elizabeth Wingfield (HE); Norton
*Harlan Clark Wingrave (Ag); Severy
John Edward Winter (GS); Manhattan
Vernon Winfield Woestemeyer (Ag); Bethel
*Lucille Nell Wolford (C); Eskridge
*Richard August Wolgast (PE); Alta Vista
*Margery Wood (HE-1; IJ-2); Omaha, Neb.
*Helen Iona Woodard (HE); Topeka
*Berniece Lucille Woodcock (HE); Manhattan
*Milton Maurice Woodrick (AA); Scott City
*Harold Duane Woods (ChE); Greensburg
*Pauline Henrietta Worland (IM&D); Topeka
*George Carl Wreath (Ag); Manhattan
*Paul Lee Wright (C-1; Ar-2); Osawatomie
*Wendell Orlin Wuthnow (C); Hope
*Jack Seymour Young (AA); Clearwater
*William Arthur Young (Ag); Clearwater
*Robert Oscar Yunghans (Ag); Piper
*Harry Burton Zech (C&A); Wellington
*Dorothy Mae Zerbe (HE); Salina

* Matriculated 1938-1939.

SPECIAL STUDENTS

*Ethel Valeria Anderson (HE); Manhattan
Vina Clifford Anderson (HE); Piney Woods, Miss.
Wilbur Eldon Ashton (GS); Manhattan
Robert Dean Bonnell (EE); Frankfort
John Francis Cramer (GS); Gardner
Thomas Doryland (GS); Manhattan
Charles S. Dornberger (GS); Topeka
*Phyllis Wells Edgar (HE); Manhattan
Zillah Lee Feleay (GS); Manhattan
Louise Ann Frank (GS); Colby
*Wilma Estell George (GS); Edwardsville
*Catherine Elizabeth Gleason (GS); Norton
Twylah Felice Grandfield (HE); Manhattan
John Jacob Groody (GS); Manhattan
James H. Guard (GS); Manhattan
Charles William Ham (GS) Manhattan
Milruth Hawkinson (GS); McPherson
*John Joe Helmke (Ag); Preston
Aurella Mae Hilt (GS); Sabetha
Jack Dexter Hollinger (GS); Chapman
Mildred Charolette Jackson (HE); Manhattan
Ula Jaedicke (HE); Hanover
*Alvin Marrs Johnson (Ag); Eudora
*Don Melvin Johnson (Ag); Manhattan
*Earl Edward Justis (GS); Washington
Allys Joe Kasten (GS); Fort Riley
*Kay Louise Key (HE); Kansas City
*Patricia Ann Kininmonth (Ar); Winfield
*Hubert John Konopaeki (GS); Fort Riley
Lucile Gray Lafferty (HE); Fort Leavenworth
*Lois Elizabeth Lee (HE); Jetmore
Mark Dean Lewis (GS); Conway Springs
Doris Josephine McCammon (HE); Esbon
*Frank John Mares (Ag); Taos, N. Mex.
*William Ernest Mason (ME); Tescott
*Margery Meister (HE); Manhattan
*Charles Lehman Mohler (Ag); Arkansas City
Mildred Moore (HE); Elkland, Mo.
*Richard Gottfried Muggli (Ag); Zurich, Switzerland
Elbert Lindon Mundhenke (Ag); Lewis
*James C. Mustain (GS); Hutchinson
*Robert R. Newman (GS); Enterprise
*Twila Reece Nunemaker (HE); Langdon
*Arthur Fredrich Otte (IA); Herington
Lorena Freda Otte (HE); Great Bend
Pauline Gwendolyn Paddleford (HE); Manhattan
*Victor Leo Pennington (GS); Oberlin
*Ruth Areta Persell (HE); Harper
Nancy Elizabeth Poole (HE); Manhattan
*Clarence Dale Ross (ME); Kansas City
Ruth Elaine Salisbury (GS); Manhattan
Marcine Elizabeth Scheurer (GS); Gypsum
*Fred Seymour (IA); Linn
*Veva Marker Stewart (HE); Manhattan
Dorothy Miles Sumner (Ag); Fort Riley
Bette Louise Thomas (HE); Portis
*Vaulien Juil Timberlake (GS); Colby
*David Salem Totah (Ag); Victoria, Tex.
Elinor Lucile Uhl (GS); Smith Center
Ira M. White (GS); Effingham
Homer Eugene Withee (GS); Manhattan

* Matriculated 1938-1939.

Summer School Students

Nine-week Summer School

June 1 to July 30, 1938

GRADUATE STUDENTS

Orval J. Abel; Manhattan
Mildred Laura Ahlstrom; Reading
Agnes M. Angell; Plains
Thomas Burt Avery; Coldwater
George Howard Bain; Kansas City
Georgia Frances Ballard; Kiowa
Sally Virginia Bancroft;
Wichita Falls, Tex.
Everett George Barber; Salina
Nora Elizabeth Bare; Protection
Ethel Barthold; Nickerson
Esther Kathryn Beachel; Norcatur
Eloise Bloome; Rexford
Francis Woodrow Boyd; Mankato
Hazel Eirene Buck; Derby
Lucile Beatrice Burt; Manhattan
H. Milo Cameron; Smith Center
Elsie Brezo Campbell; Orient, Iowa
Ernest Vernon Carson; Emporia
Merrill Levern Carter; Toronto
Ralph Boyd Cathcart; Manhattan
Ralph Cole; Alton
Orville Wesley Connett; Peoria, Ill.
Hildred Ann Cooper; Lyons
Majel Muriel Cooprider; Wichita
Hazel Sophia Cox; Blue Mound
Golda Mildred Crawford; Manhattan
Madelyn Crawford; Spring Hill
Lucile Florence Dauner; Junction City
Aubrey Elbert Davidson; Miltonvale
Benjamin Ammon Davis; Seneca
Marguerite Rose Davis; Independence
Lois Estelle Dennhardt; Neenah, Wis.
E. Faye Dennis; Cheney
Wayne V. Dexter; Waterville
Raymond Joseph Doll; Manhattan
Gladys Charline Draper; Kansas City
Barbara Alice Eales; Wichita
Nina Edelblute; Manhattan
Samuel Allen Edgar; Sterling
James Bernard Edwards; Manhattan
Percy Nelson Eland; South Haven
Ruby Nance Emery; Manhattan
Miscal Leon Fierke; Manhattan
John Charles Finerty; Chicago, Ill.
Theodore Allen Fleck; Wakefield
Hazel Marie Fletcher; Modoc, Ind.
Lorena Catherine Foreman; Hutchinson
Caroline Ruth French; Lyndon
Esther Clara Gabriel; Eudora
Emma Thompson Galbraith;
Cottonwood Falls
Lee Gemmell; Marysville
Willard LeRoy Gillmore; Yates Center
Dora Eloise Gilmore; Chetopa
Clarence Lee Gish; Manhattan
Otis Benton Glover; Manhattan
Mabel Lillian Hall Good; Kensington
Earl Todd Goodfellow; Wells
Alice Lucile Graham; Webber
Loren Dwight Grubb; Phillipsburg
Herbert Frank Haas; Kansas City
Virgil Lee Haas; Severy
Rosamond Pauline Haeberle; Clearwater
Jeanne Halstead; Manhattan
Gertrude Claire Hamilton; Cimarron
Virginia Frances Harges; Spokane, Wash.
Margaret Harper; Glasco
Frances M. Heaton; Partridge
Irene B. Heer; Manhattan
Madge D. Hildreth; Parsons
Garnet I. Hill; Westmoreland
Zelma Ellen Hockett; Manhattan
Sarah Mathilda Hoefer; Emporia
Leonard C. Hoegemeyer; Hooper, Neb.
Ruth M. Hofsess; Partridge
Phyllis Wheatley Honesty; Kansas City
Maurice Wilson Horrell; Manhattan
Helen Pansy Hostetter; Manhattan
Lois Elda Howard; Cut Bank, Mont.
Travis Berkley Howard;
New Madrid, Mo.
Walter Henry Hukriede; Lewis
Geraldine Jones Hurd; Junction City
Carl Grant Iles; Iola
Allee Winifred James; Sequin, Tex.
Maggie Lorene Jeffrey; Elmdale
Dolf Jesse Jennings; Burlingame
Thelmo Johnson; Gladewater, Tex.
Winifred Johnson; Frankfort
Dale V. Jones; Herington
Ethel H. Keith; Attica
Edith Kelley; Baldwin
Helen King; Greensboro, N. C.
Kathryn Marie Knechtel; Larned
Earl McKee Kroth; Denison
Harold L. Kugler; Manhattan
Lola Vivian Lambert; Pretty Prairie
Ralph Richard Lashbrook; Manhattan
Henry H. Lee; Chanute
Florence May Lehman; Abilene
Helen Louise Lillibridge; Hutchinson
Alice Charlotte Linn; Clyde
Eva Elizabeth Lisk; Manhattan
Jess Robert Lockert; Coldwater
Charles Howard Lockhart; Junction City
Esther M. Loflin; Ogallah
Ted Roosevelt McCandless; St. John
Max Eldon McCluggage; Manhattan
Emily Mae McKenzie; Wayne
Rachel Martens; Hutchinson
Edgar Martin; Effingham
Edna E. Maxwell; Manhattan
Lenora Roma Meachum; Kansas City, Mo.
Calvin J. Medlin; Manhattan
Mary Enid Meek; Emporia
Elsie Lee Miller; Manhattan
Kenneth William Miller; Manhattan
Merna Beatrice Miller; Kansas City
Norris Edward Miller; Kansas City
Ruth Eleanor Miller; Manhattan
Clark Carlisle Milligan; Linn
Phares Mizell; Kansas City
Etoile Josephine Morgan; Chanute
Helen Augusta Mundell; Nickerson
Donald LeRoy Murray;
Coon Rapids, Iowa
Ward Leonard Neel; Kansas City
Minnie Louise Neighbours; Osawatomie
Bertha Elizabeth Nixon; Manhattan
Charles Ernest O'Neal, Jr.;
Jackson, Miss.
Clarence M. Oppy; Council Grove.
Carl Gerhardt Ossmann; Greenleaf

GRADUATE STUDENTS—*Concluded*

Dorothy Vernon Packwood; Manhattan
Jasper Earl Pallesen; Manhattan
Donald Baker Parrish; Manhattan
Earl Foster Parsons; Manhattan
Franklin Leonard Parsons; Manhattan
Cynthia Ethel Payne; Howard
Marion Herfort Pelton; Manhattan
Paul Clutter Perry; Little River
Iver E. Peterson; Concordia
Roland Winfield Peterson; Riley
Clarence Andrew Pippin; Decatur, Ill.
Alice Stuart Plumb; Manhattan
Hiram Danial Polk; Starkville, Miss.
Ida Jean Polson; Lawrence
Imogene Price; Triplett, Mo.
Evelyn Elizabeth Rabb; Turner
Mary Agnes Radell; Pittsburg
Inez Rash; Wichita
Luella May Reeve; Winfield
Pearl Florence Reeve; Winfield
Marshall Minton Ross; Wichita
Opal Bernice Ruddick; Manhattan
Robert Jacob Rychel; Almena
Myron L. Sallee; Morganville
Loretta Maye Sawin; Waterville
William Henry Schindler; Winchester
Ruth Louise Schmidt; Goessel
Edna M. Schroeder; Lorraine
Luke M. Schruben; Manhattan
†Herbert Henry Schwardt; Fayetteville, Ark.
Hazel Marie Scott; Manhattan
Mildred Elizabeth Sellberg; McPherson
Mabel L. Sellens; Russell
Gardner Charles Sellers; Downs
Martha Gene Shelden; El Dorado
Emma Frances Shepek; Narka
Roger Turner Shepherd; Rexford
Christiana Marie Shields; Lost Springs
Francis Leo Showacy; Mahaska
Curtis Daniel Sides; St. George
Charles Leon Simmons; Strong City
Sister Mary Catherine Floersch; Leavenworth
Sister Mary Martha Scott; St. Louis, Mo.
Sister Rose Ellen O'Neil; Leavenworth
Sister Rose Genevieve Downs; St. Louis, Mo.
Blaine E. Sites; Salina
Edna Marie Smith; Kingman
Grace Louise Smith; Kansas City
Harry Herbert Smith; Logan, Utah
Raymond R. Sollenberger; Manhattan
Grace Spoelstra; Prairie View
Frieda M. Steckel; Virgil
Mary Luella Stewart; Topeka
Evelyn Emma Stout; Lone Elm
Rose Mary Stucky; Pretty Prairie
Helen Louise Talbert; Olathe
William A. Tanner; Aurora, Ill.
Altha Tedrow; Salina
William Woodrow Templer; Moline
Lorena Frances Thompson; Clay Center
Arlie Todd; Bangor, Mich.
John Willard Truax; Peabody
George Edward Truby; Anthony
Katherine Ann Tucker; Topeka
Marvin Twiehaus; Manhattan
Martha Jane Ulrich; Hamilton
Irvin Wendell Wagner; Longford
†Norman Coates Webster; Manhattan
Erma Ruth Weide; Yates Center
Kathryn Whitten; Topeka
†Dennis Emerson Wiant; Brookings, S. Dak.
Harold Wierenga; Cawker City
Ernest Sherman Wild; Clements
Fred Woods Williams; Onaga
Charles Peairs Wilson; Anness
Ralph Ernest Wilson; Paxico
Chester Stanley Wood; Pratt
Millard Yantzi; Kansas City
Iva May Zimmerman; Simpson
Catharine Eva Zink; Lincoln

UNDERGRADUATE STUDENTS

Gwendolyn Ellen Abbott; Alma
Margaret Elizabeth Abbott; Manhattan
Dean Russell Adams; Clyde
Ralph Glenn Adams; Clay Center
Harry Thomas Adamson; Manhattan
Kathleen Mary Ahearn; Manhattan
Voma Alcott; Colby
Pearl Mareta Alexander; Norcatur
Arthur Forrest Allen; Allamuchy, N. J.
Wilbur Leo Alvey; Turner
Christine I. Amthauer; Dwight
Clifford E. Anderson; Clay Center
Ross Harris Anderson; Fort Scott
Cynthia Elizabeth Askern; Manhattan
Fern Irene Aspelin; Dwight
Emma Jane Ausherman; Abilene
Gladys Irene Babb; Manhattan
William Pratt Bacon; Emporia
Lillian E. Bales; Hale, Mo.
Thelma Lela Barger; Cawker City
Doris Emily Barnes; Ottawa
Sadie Barr; Manhattan
Wilma Mildred Barr; Manhattan
John Wilson Baska; Kansas City
Violet Mae Bauer; Clay Center
Dale Wesley Baxter; Manhattan
Esther Alba Baxter; Manhattan
Virginia Faye Baxter; Manhattan
Edwin Howard Beach; Marysville
Drussilla Madge Beadle; Stark
Violet Mae Beam; Washington
Theodore Mason Beard; Emporia
Donald Gordon Beatson; Arkansas City
Alma A. L. Becker; Hartford
Guenndolyn Alberta Beeler; Kansas City
Stella Lucille Beil; Bavaria
Roy Swan Belcher, Jr.; Topeka
Howard Hayden Belew; El Dorado
Ottolie Belknap; Beloit
Anna Lora Bell; Silver Lake
Garnetta Lavia Bell; Haven
Dorothy May Benson; Vliets
Hazel Emma Benson; Concordia
Carl John Bergman; Randolph
Minnie Louise Bergsma; Lucas
Helen Louise Berridge; Fostoria
Darwin L. Berry; Wilmot
James Grant Betts; Randall
Grace Bickel; Centralia
Velma Mae Bisel; Junction City
Ruth Helen Bishop; Atchison
Margaret Helen Blevins; Manhattan
Adzanna Maragatha Blochlinger; Concordia
John Mathew Boalen; Miltonvale
Marcella Mary Boeckman; Frankfort
Catherine Lucille Boelsen; Hale, Mo.
Jesse Edward Bogan; Kansas City, Mo.
Margaret Elizabeth Bonifas; Centralia
Robert Dean Bonnell; Frankfort
Muriel Elaine Bowman; Neosho Rapids
Phyllis Irene Boyle; Manhattan

† In absentia.

UNDERGRADUATE STUDENTS—*Continued*

Lola Mae Bradshaw; Westmoreland
Mary Dean Brainard; Carlyle
Doris Mae Bramwell; Concordia
Wayne D. Branick; Fredonia
Corrine Virginia Breen; Aurora
Clarence Neil Brigham; Topeka
Lois Lee Brooks; Clayton
Floyd Payne Brown; Wichita
Gordon Wonnacott Brown; Manhattan
Lola Lucille Brown; Centralia
Sara Davidson Brown; Manhattan
Sealy Mark Brown; Manhattan
William Everett Brown; Junction City
Wilma Alene Brown; Mildred
Thomas Rudolph Brunner; Wamego
Edith Louise Buchholtz; Olathe
Harry Copley Buchholtz; Olathe
Nelson Lewis Buck; Dover, N. J.
Pauline Clare Budde; Albert
Laurence Theodore Buening; Valley Falls
Alice Geneva Buikstra; Cawker City
George Frank Burditt; Coldwater
Anthony Michael Burdo; Brooklyn, N. Y.
Roberta Claire Burgert; Hiawatha
Harry Dale Burkholder; Wamego
Gilbert Harold Burnett; McPherson
William Harold Burns; Arkansas City
Mary Eliza Burt; Manhattan
Margaret Elizabeth Busch; Manhattan
Glenn Morton Busset; Le Roy
Wilma Hortense Cade; Manhattan
Helen Caldwell; Clifton
Delia Margaret Call; Mt.Vernon, Mo.
Marjorie Willis Call; Manhattan
Albert B. Cameron; Smith Center
Irvin Leroy Cantrall; Olathe
Wilbur Joseph Carpenter; Eskridge
Barbara Carr; Hutchinson
Mary Elizabeth Carroll; Axtell
Lyle Murphy Carson; Dennis
Paul Wendell Cassell; Salina
Edward Eldridge Chambers; Parsons
Robert George Chapman; Manhattan
Marjorie Ruth Chase; Beattie
Nettie Evelyn Chavey; Clyde
Dale L Cherry; Redwood Falls, Minn.
Lenore Joan Childers; Kansas City Mo.
Geraldine Clark; Logan
Margaret Wilma Clark; Manhattan
Robert Hugh Clark; Manhattan
Thelma Bernice Clark; Concordia
Enid Ellen Clay; Steamboat Springs, Colo.
Emma Grace Claycamp; Goff
Rosamond Claywell; Kansas City
Ella Grace Clements; Havensville
Walter Harvey Closson, Jr.; Edwardsville
Ernest Wendell Coates; Rice
Neva Grace Coates; Rice
Neva Fern Cobb; Sedgwick
Lawrence Donaldson Colburn; Manhattan
Alice Rosalind Coldren; Oberlin
Mildred Marie Coleman; Mayetta
Margaret Ruth Conner; Soldier
James Fenimore Cooper; Manhattan
Mary Elma Copeland; Clay Center
Viola Mae Copeland; Clay Center
Fae Dorothy Cornelius; Lane
Mildred Kathryn Cornell; Ottawa
Muriel Maree Corrigan; Effingham
Arthur Howard Costain, Jr.; Fort Riley
Evelyn Ruth Craig; Protection
Florine Fay Craig; Protection
Alice Malinda Crane; Jewell
Myrtle Madena Cranston; Langdon
Margaret Louise Crawford; Hugoton
Anna May Martin Crawmer; Speed
Fred Butcher Crist; Brewster
Allen Payne Crowley; Manhattan
Philip Henry Curry; Kansas City
Pauline Bernice Curtis; Manhattan
Dillon O'Neal Darby; Fredonia
Margaret Virginia Dart; Haddam
Audrey Marie Davidson; Miltonvale
Ena Wanda Davidson; Talmage
Freida Elizabeth Davidson; Marquette
June Juanita Davidson; Miltonvale
Ruth Elizabeth Davidson; Miltonvale
Dorine Emily Davis; Beloit
Frances Arbetine Davis; Hutchinson
Irma Simpson Davis; Clyde
Mary Frances Davis; Chardon, Ohio
Thomas Clayton Davis; Thomasville, Ga.
Max Lawrence Dawdy; Washington
Ermal Irene Dearborn; Manhattan
Edna May Decker; Holton
Clarice Marie Dewey; Belleville
Deda H. DeYoung; Prairie View
Dorothy Lou Dickson; El Dorado
Roger Stephen Dildine; Delphos
Vincent Wendell Doll; McPherson
Rachel Marie Donabauer; Glen Elder
Thomas Doryland; Manhattan
Arva Ilene Douce; Narka
Lois Elaine Douce; Narka
Merrill Edward Downer; Manhattan
Ned Emery Drake; Manhattan
Helen Amelia Droll; Alta Vista
Yale V. Druley; Muncie
Robert Harrison Dubois; Burlingame
Ruth E. Duck; Longford
Katheryn Eloise Dull; Morrowville
Mary Lou Dunkerley; Holliday
James J. Dunlop; Detroit
Nada Neola Duryea; Bern
Kirk A. Dutton; Harlan
Marcella Rose Eagan; Axtell
George Washington Eberhart; Jewell
Grover William Eddy; Onaga
Lyle Harris Edelblute; Manhattan
Thomas Richard Edgerton; Manhattan
Aubrey Thornton Edwards; Junction City
Karl D. Edwards; Milford
Irene Eisenhower; Manhattan
Nora Pauline Eisenhut; Milford
Millie Jennie Elias; Manhattan
Irene Veronica Ellenbecker; Marysville
James Franklin Ellis; El Dorado
Atha Lucille Emmot; Beloit
Harold Edward Engle; Manhattan
Wanda Marie Enke; Green
Helen Louise Ensign; Garrison
Evert E. Ericson; Clyde
Winifred Evelyn Faulkender; Circleville
Marie Faulkner; Marysville
Rachel Louise Featheringill; Independence
Zillah Lee Feleay; Manhattan
Leatha Ellen Filson; Bartlett
Betty Lou Fisher; Manhattan
Letha Lena Fitch; Haddam
Mary Helen Fitzgerald; Wamego
Harry M. Flagler; Manhattan
Inus Alice Flinn; Westmoreland
Margery Anne Floersch; Manhattan
Merle Everett Foland; Almena
Eleanor Foncannon; Ashland
Marjorie V. Forbes; Columbus
John Cotterill Foster; Manhattan
Annie Elizabeth Fraser; Manhattan
Lorine Margaret Fraser; Concordia
Lawrence Dale Freel; Corning
Bettie Jane Freeland; Wichita
William B. Freeman; Manhattan
Robert Jerome Frick; Kansas City
John Walters Friedline; Grand Saline, Tex.
Harold J. Froning; Salina
Wanie Condit Froning; Salina
Virgil G. Fulmer; La Harpe

UNDERGRADUATE STUDENTS—*Continued*

Jacob Cornelius Gaeddert; Manhattan
Gladys Irene Gaskell; Tyro
Edna Marie Gaston; Centralia
Marjorie Elizabeth Gauger; Wolcott
Ann Willis Gaumer; Kirwin
Freda Elinor Gemmer; Goodland
Everett Nelson George; Edwardsville
Ruth Adelaide Getty; Winchester
Selena Maudie Gieber; Linn
James Banks Godin; Wamego
Corbin Carter Goff; St. Joseph, Mo.
Hallie Maude Goforth; Winfield
Virgie Evelyn Goodger; Belleville
Geraldine Wilhelmina Gosch; Norwich
Marie Esther Gosen; Inman
Lois Belle Graham; Webber
Josephine May Grammer; Junction City
Twylah Felice Grandfield; Manhattan
Edna Margaret Granell; Clay Center
Maurice Alfred Grant; Scott City
Lawrence Grauerholz; Kensington
Sarah Estella Gravenstein; Stockdale
Mary Alexandra Gray; Topeka
Roy Raymond Green; Manhattan
Bernice Inez Griffee; Blue Rapids
Alma Lorrine Griffing; Riley
Leo Raymond Griffing; Randolph
Eugenia Louise Grob; Randolph
Warren Gerald Grubb; Phillipsburg
James H. Guard; Manhattan
Mildred Joyce Gurtler; Summerfield
Lois Virginia Gwin; Washington
Bess Blanche Haile; Neodesha
Avis Charlotte Hall; Agra
Edna Madge Hall; Beattie
John Fenwick Hall; Junction City
Orlena Rusha Cook Hall; Manhattan
Pauline Louise Hallman; Danville
Elmer Floyd Hampl; Luray
August Martin Hanke; Wathena
Maxine LaFern Harper; Centralia
John Harris, Jr.; Havensville
Meade Cecil Charles Harris, Jr.; Tecumseh
Mary Elizabeth Hatcher; Wamego
Albert Leo Havlik; Tampa
Lucile Esther Hawks; Hiawatha
Robert E. L. Hayes; Topeka
Margaret McClintock Heath; Wichita
Charles V. Heina; Cuba
Lola Marie Heintz; Dwight
Charles Matthew Heizer; Hamilton
Georgia W. Hemphill; Clay Center
Richard Leon Henderson; Earleton
Margaret Jane Henry; Belleville
Laura Elizabeth Herr; Abilene
Vann Hess; Manhattan
Clara May Hesse; St. Marys
Kenneth M. Heywood; Summerfield
Harold Marvin Hildwein; Fairview
Lucy Alice Hinman; Tyro
Gayle Eleanor Hirman; Belleville
Edward Vaughn Hobbs; Manhattan
Clovis Foreaker Hodgson; Jamestown
Gertrude Lucille Hollis; Holton
Margene Verena Holmes; Manhattan
Bernard Harry Holmgren; Kansas City
Clyde Don Hoover; Macksville
Kenneth Bert Hoover; Detroit
Leo Michael Hoover; Greenleaf
Miriam Roberta Hoover; Detroit
Ray Wells Hopkins; River Forest, Ill
Ruth Elise Hopper; Manhattan
Gladys Mirriam Hostinsky; Cuba
Iola Verna Houdek; Cuba
Maxine Eleanor Hough; Olsburg
Albert G. Hunt; Larned
Dallas T. Hunter; Newton
Thomas Conrad Hutcherson; Manhattan
Hazelbel M. Hutchins; Sterling
Mildred Mae Ince; Wamego
Glenn Reben Irey; Riverton
Newton Kelly Irwin; Highland
James Thomas Jackson; Manhattan
Verland Thomas Jahnke; Woodbine
Jeanne Frances James; Manhattan
Eleanor Jenkins; Springfield, Ill.
Grace Gladys Jenkins; Jewell
Neal Mike Jenkins; Manhattan
Doris Elizabeth Jensen; Cawker City
Don Melvin Johnson; Pratt
Jean Frances Johnson; Olsburg
Kenneth Eugene Johnson; Norton
M. Maxine Johnson; Manhattan
Ruth Elizabeth Johnson; Onaga
Verna June Johnson; McPherson
William Pitner Johnson; Manhattan
Helen McCune Jones; Herington
Murl Melvin Jones; Manhattan
Anna Margaret Jueneman; Hanover
Jane Julian; Kansas City
Earl Edward Justis; Washington
Eunice Ruth Justis; Washington
Patricia Catherine Kail; Longford
Betty Kalivoda; Agenda
Janice Winifred Kebler; Sabetha
Dorothy Lucille Kelly; Agenda
Florence Elizabeth Kennedy; Clay Center
Anita Mae Kensler; Manhattan
Geneva Faye Kensler; Manhattan
William Thomas Keogh; New York, N. Y.
Glenn Walter Kerr; Rossville
Osborn Arthur Kershner; Paola
Fred Vincent Kilian; Chapman
Anthony Kimmi; Everest
Bea Burnette King; Manhattan
Mildred King; Minneola
Virginia Lee King; Kansas City, Mo.
Edward Fred Klahr; Topeka
Fred Vinton Klemp, Jr.; Leavenworth
Edward William Klimek; Manhattan
Dorothea Klinger; Ashland
Joseph L. Ko; St. Louis, Mo.
Eleanor C. Kohake; Seneca
Margaret Frances Kohl; Furley
Clarence C. Krehbiel; Detroit
Julianne Marie Kruse; Barnes
Robert Byron Lank; Kansas City
Frieda Helen Lappin; Logan
Margaret Lappin; Logan
David Robert Laurie; Atchison
Barbara Lautz; Manhattan
Dorothy Geraldine Leach; Wellington
Alice Rebecca Lee; Green
Margaret Elizabeth Leger; Peiping, China
Delor A. Letourneau; Aurora
Max Clarence Leuze; Sabetha
Mrs. H. F. Lienhardt; Manhattan
Elvira Marie Linkugel; Bremen
Marie Anne Linkugel; Bremen
Alice Edna Lister; Wamego
Jane Evelyn Llewelyn; Bala
Dorothy Madelle Londene; Enterprise
Eleanor Emma Long; Stockton
Frances Margaret Loomis; Jewell
Florence Elma Lovejoy; Almena
Lucile Alice Lund; Manhattan
Elvera Marlene Lundine; Woodbine
Verda Lenore Lundine; Woodbine
Arla Amelia McBurney; Manhattan
Beryle Elizabeth McCammon; Esbon
Rodney Keith McCammon; Esbon
Mary Elizabeth McConwell; Sabetha
Mary Mabel McCoy; Iola
Dorothy Louise McCully; El Dorado
Edith Lucille McGill; Junction City
Joseph Clark McGonagle; Manhattan
Charles Lynn McInnes; Manhattan

UNDERGRADUATE STUDENTS—*Continued*

June Rosetta McIntire; Wichita
John Thomas McKenna; Narka
Maxine Doris McKenzie; Wayne
William George McKinley; Parsons
Doris McKinsey; Soldier
Stelle Elizabeth McSparron; Osawatomie
Alvin Arthur Maddy; Ransom
Hazel Mahon; Silver Lake
Nevabelle Mall; Manhattan
David Oscar Manley; Wakarusa
Charles Franklin Manspeaker; Topeka
Isla Irene Manuel; Havensville
Milton Lloyd Manuel; Havensville
Ella Ferne Marshall; Clifton
Ralph Marshall; Manhattan
Norma Elizabeth Martin; Longford
Elva Coreen Marty; Courtland
Helen Mathis; America, Ill.
Homer Ensley Mayo; Kansas City
Louise Krummel Meadows; Concordia
Jack Lewis Medaris; Parsons
Fredrich E. Meenen; Clifton
Lester Lee Mehaffey; Farmington
Willard Henry Meinecke; Herkimer
Raymond L. Meisenheimer; Hiawatha
Mildred Elnora Mellinger; Milford
Frances Elizabeth Mergenmeier; Seneca
Flora K. Merrill; Wathena
Mary Christine Meyn; Hanover
William Christopher Mierau; Wichita
Abbie Maurine Miller; Agra
Doris Louise Miller; Sterling
Esther Iola Miller; Walton
Leonard John Miller; Clarkson, Neb.
Lester Isaac Miller; Le Roy
Thelma Ferne Miller; Longford
Verna Irene Miller; Milford
Darrel Emmett Moll; Hutchinson
Earl Atlas Moody; Kansas City
Edward Fox Moody; Greeley
Ida Isabel Moore; Alta Vista
Mildred Moore; El Dorado
J. Wade Morey; Narka
Gladys Marie Morgan; Howard
Leonard Housden Moulden; Manhattan
Robert Adair Moulthrop;
Kansas City, Mo.
Vera May Mowery; Salina
Alice Sarah Moyer; Centralia
Alvin Edgar Mulanax; Enterprise
Mildred Lucille Mundell; Nickerson
Blanche Louise Murdock; Centralia
Claude Franklin Murphy; Conway Springs
Elinor Adelle Murphy; Manhattan
Bernice Marjorie Musil; Manhattan
James C. Mustain; Hutchinson
Hylen Myers; Burns
Milton Herbert Nanninga; Axtell
Harold Francis Neaderhiser; Longford
Edrie Maye Neelly; Hopewell
Erma Mildred Neelly; Hopewell
Leonard George Nehring; Harveyville
Joe P. Neill; Miltonvale
Beulah Burnetta Nelson; Manhattan
Clella Eleanor Nelson; McPherson
Dorothy Leona Nelson; Manhattan
Robert William Nelson; Leavenworth
John Porter Newman; Manhattan
Dorothea Marie Nielson; Marysville
Pearl Signe Jane Norberg; Junction City
Kenneth Leroy Nordstrom; Norton
Robert William Nottorf; Abilene
John Patrick Nulty; Jewell
Ethel Ohr; Portales, N. Mex.
Frances Marie Olsen; Clay Center
Ruth Lucile Olsen; Wakefield
Tilda Jane Orm; Green
Annabelle Osborn; Soldier
Barbara Lucile Osborn; Medicine Lodge
Vernon Alfred Ostendorf; Manhattan
Miriam Sophia Ostlund; Washington
Leonard R. Ottman; Barnes
Carroll Dean Owensby; Manhattan
Robert Monroe Owensby; Pittsburg
Betty Ozment; Manhattan
June Ozment; Manhattan
Lucille Ann Pahls; Cawker City
Mary Edwina Parry; Clay Center
Arthur Eli Patterson; Kansas City
Eugene Payer; Westphalia
Loyal Cobb Payne; Manhattan
Sarah Ann Pence; North Topeka
Grace Breeden Pennington; Manhattan
John Davis Perrill; Webber
Wendell John Pfeffer; Clifton
Mary Martha Phillips; Manhattan
Eleanor Marion Pincomb; Overland Park
Wilfred Harold Pine; Lawrence
Will Musil Pishney; Cleburne
Charles Morris Platt; Manhattan
Frieda Ann Ploger; Kinsley
Nancy Elizabeth Poole; Manhattan
Cheryl Gertrude Poppen; Burr Oak
M. Eula Porter; Jamestown
Gerald Powell; Chanute
Joseph Curtis Prentice; Manhattan
John Henry Price; Triplett, Mo.
Marvin Andrew Pringle; Scranton
William Morrow Proudfit; Powhattan
Rhoda Putzig; Sylvan Grove
Rolla Glenn Raines; Manhattan
Iverne Bessie Ramsay; Beloit
Ruth Pauline Ramsay; Beloit
Verlin Willis Randall; Haddam
Wallace Edward Rankin; Manhattan
Ethel Cooper Reame; Solomon
Donald Reber; Sabetha
Lois Anita Reed; Wichita
Joseph Waker Reeves; Burlington
LaNora Ellen Regnier; Wamego
Mathilda Rempel; Hillsboro
Mildred T. Rettele; Seneca
Eldon Eugene Retzer; Manhattan
Juanita May Rhoads; Goodland
Lucile Esther Rhoads; Goodland
Opal Elnora Rhoads; Goodland
Cecil R. Rhorer; Lewis
L. Irene Riggs; Welda
Blanche Ring; Marysville
Helen Marie Ringel; Alma
Florence Sarah Ripley; Salina
Frances Susan Ripley; Salina
Elsie Lucille Rising; Wetmore
Noel Neville Robb; Dodge City
Lloyd Edwin Robbins; Belleville
Dorothy Marie Roberts; Glen Elder
Maxine Roberta Roberts; Glen Elder
Edith Elizabeth Roesler; Junction City
Gladys Katherine Roglin; Quincy
Martha Barbara Roots; Manhattan
Earl William Rose; White Cloud
Russel Leon Rose; Kiowa
Opal Margarette Ruegsegger;
Cawker City
George Harold Russell; Paola
Roberta Rust; Manhattan
Eula Jean Rutherford; Anthony
Marie Anna Sainer; Bison
Ruth Elaine Salisbury; Manhattan
Elsie Doris Sanford; Belleville
Ruth Dorine Sare; Republic
Katherine Elizabeth Sawin; Morrowville
Granville Boyd Scanland; Hutchinson
Genevieve Lillian Scheffer; St. Marys
Genevieve Estella Scheier; Everest
Leon Washington Schindler; Topeka
Helen Grace Schneider; Beattie
Viola Margaret Schooley; Clay Center

UNDERGRADUATE STUDENTS—*Concluded*

Paul Angel Schoonhoven; Manhattan
Genevieve Eleanor Schroer; Manhattan
Ruth Norma Schultz; Cawker City
Fern Viola Schurle; Manhattan
Aurelia Amelia Seeberger; Hanover
Harriet Maxine Seeberger; Hanover
Edith Alfreda Sellberg; McPherson
Betty Gilmore Seneker; Onaga
Estelle Eleanor Seubert; Chapman
Don Henry Sharp; Hutchinson
Leslie Maurice Shaw; Osborne
Mary Sherwood; Concordia
Myra Sherwood; Concordia
William Shirk; McPherson
Hazel Shoemaker; Fort Scott
Jonny Dale Shoemaker; Centralia
Robert Newman Shoffner; Junction City
Wayne Delbert Sieh; Riley
Luella Velva Siek; Hope
Geraldine Iva Sigg; Soldier
Mary Margaret Simpson; Barnard
Marialice Singleton; Tribune
Damaris Irene Sipes; Le Roy
Sister Mary Constantia Towle; Leavenworth
Sister Mary Oswald; Leavenworth
Vera Hurt Skillman; Emporia
Gordon R. Skiver; Burr Oak
Sylvester August Skoch; Baileyville
Don Hayes Sloan; Hutchinson
Charles Lewis Smith; Harveyville
Doris Maurine Smith; Atlanta
George Harmon Smith; Longford
Leota Arlene Smith; Morrowville
Mary Isabel Smith; Manhattan
Chester H. Somers; Clay Center
Adrian Ramsey Sorrells; Kansas City
Paul Eugene Spears; Belle Plaine
Melba Belle Spiker; Goff
Dorothy Dawn Stagg; Manhattan
Alice Sterling; Morganville
Harry Stevens, Jr.; Sycamore
John Mitchel Stevens; Waterbury, Conn.
Ruth Elaine Stevens; Manhattan
Orvin Leon Stevenson; Chase
Betty Jean Stewart; Topeka
Kathleen B. Stewart; Stockton
Mary Ethel Stewart; Leavenworth
Clarence Herman Stigge; Barnes
Billy Neil Stone; Hiawatha
Virginia Elizabeth Stratton; Minneapolis
William R. Strieby; Council Grove
Eula Elizabeth Strong; Moran
Margaret Carrol Stuewe; Alma
Julia Elizabeth Sulanka; Simpson
Susie Freda Sulanka; Simpson
Robert Vernon Swanson; Waterbury, Conn.
Donald Dexter Swenson; Clay Center
Opal Lorena Tabler; Wamego
Melvin Paul Tack; Milford
Buford Delmont Tackett; Topeka
John William Tait; Sterling
Mildred Blanche Takemire; Topeka
William Hall Tallant; Fort Riley
Marvene Jessie Teeters; Haddam
Oma Laverne Templeton; Great Bend
Donald George Tepfer; Fort Dodge, Iowa
Lorene Terpening; Morrowville
Mary Genevieve Thaller; Manhattan
Bill Theis; Dodge City
Beulah Thomas; Manhattan
Elnora Jane Thomas; Salina
James Thomas; Garnett
Marshall H. Thomas; Belleville
Dorothy Leah Thompson; Manhattan
James Otis Thompson; Emporia
Helen Gertrude Thorpe; Lawrence
Margaret E. Tillinghast; Clifton
Gwendolyn La Verne Tinklin; Atchison
Dwight Seibert Tolle; Norcatur
Mary Belle Trapp; Waldo
Eleanor Earline Trekell; Manhattan
Eloise Cockley Truax; Lyons
Harry Elmer Trubey; Ellsworth
Edgel Nadean Trusler; Junction City
Harold Wertz Underhill, Jr.; Wichita
Eloise Utterback; Oberlin
Virginia Cassandra Van Meter; Ada
Glenn Benton Van Ness; Harrison, Ark.
Alice Vivian Vautravers; Milo
Mildred Joy Venneberg; Havensville
Leila Floretta Vosburgh; Hutchinson
Simon Rosson Wagler; Hutchinson
Edna Walters; Vining
Leota Ferne Walters; Wetmore
Marjorie Dale Walters; Wetmore
Mildred Berniece Walters; Vining
Evelyne Elnora Ward; Langdon
Theresa Mae Ward; Langdon
Alice Elizabeth Warren; Manhattan
Mary Ann Katherine Weiler; Manhattan
Margaret Pluma Weldgrube; Basehor
Charles Maurice Wempe; Seneca
Carol Athene Wentz; Concordia
John Robert Wheelock; Moguarichic, Mexico
Richard Herold Wherry; Sabetha
Thomas Charles Wherry; Sabetha
DeLaura Vivian Whipple; Manhattan
Ira White; Effingham
Hallie Elizabeth Whitney; Council Grove
Esther Irene Wiedower; Spearville
Lois Alma Wierenga; Cawker City
Margaret Ann Wilkerson; Smith Center
Josephine Mary Williams; Meriden
Arthur Charles Willis; Larned
Frances Elizabeth Wilson; Greenfield, Mo.
Helen Inez Wilson; Anness
Orville D. Wilson; Miltonvale
Wilbert John Wilson; Manhattan
Mary M. Windhorst; Altoona
Virginia Iyone Winkler; Randolph
Mildred Edna Wise; Cawker City
Frances Evelyn Wolf; Nickerson
Max Wolf; Manhattan
Frances Jean Wood; Clay Center
Beulah Marie Woodcock; Manhattan
Emery Donald Wright; Parsons
Geraldine Frances Wurtz; Clifton
Winifred Glee Yapp; Esbon
Doris Maxine Yarrow; Clay Center
Leota Josephine Yeager; Concordia
Hulda Bertha Yenni; Ogden
Wilma Elberta Yoder; Hiawatha
Mander Xenophon Yonts; Ivan, Ky.
Cleta Young; Ness City
Edward Brewer Zahn; Miltonvale
Emily Adeline Zerby; White City
Ruth Virginia Zirkle; Jamestown
Iva Maxine Zook; Wichita

Four-week Summer School

June 1 to July 30, 1938

GRADUATE STUDENTS

Fred D. Allison; Abilene
Ralph Wayne Arnold; Manhattan
James Lister Baird; Wellsville
Ervin William Bevlin; Saffordville
Joseph Oscar Brown; Hill City
†Raymond Cecil Bushland; Menard, Texas
Francis Edward Carpenter; Topeka
Theodore Claassen; Saint George
Elery Lowe Collins; Chanute
Blaine Crow; Meriden
Dale Henry Edelblute; Mound City
Walter E. Ewy; Radium
Raymond Glenn Frye; South Haven
Irving Bennett Hawk; Alma
Boyd Herbert Hope; Benedict
Marion Irwin; Gardner
Julian Almon Johnson; Buhler
Ward Ray Miles; Manhattan
Paul LeRoy Mize; Bonner Springs
Hanson N. Murray; Scott City
Vernon Emery Paine; Admire
Cecil H. Pankratz; Whitewater
Edwin Charles Sample; Council Grove
Elmer Philip Schrog; Moundridge
George Elmer Starkey; Syracuse
H. Arlo Stewart; Topeka
Edgar Arnold Templeton; El Dorado
Merle A. Webb; Manhattan
Paul Henry Wilson; McCune
Claude Newton Yaple; Spearville
Clemens Harry Young; Cherryvale

UNDERGRADUATE STUDENTS

Fern Adeline Anderson; Lincoln
George Anthony Hellmer; Olpe

AUGUST PERIOD (IN ABSENTIA)

Eneas Dillon Kane; San Francisco, Cal.
Charles Ernest O'Neal, Jr.; Jackson, Miss
Imogene Price; Triplett, Mo.

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† In absentia.

Students by States, Foreign Countries and Kansas Counties

STATES

Arkansas	5	Massachusetts	4	Oregon	2
California	26	Michigan	5	Pennsylvania	19
Colorado	11	Minnesota	12	Rhode Island	2
Connecticut	12	Mississippi	3	South Carolina	2
Florida	2	Missouri	107	South Dakota	4
Georgia	1	Montana	3	Tennessee	4
Idaho	1	Nebraska	28	Texas	17
Illinois	24	Nevada	1	Utah	3
Indiana	10	New Jersey	23	Vermont	1
Iowa	13	New Mexico	5	Virginia	2
Kansas	4,345	New York	33	Washington	2
Kentucky	3	North Carolina	5	Wisconsin	7
Louisiana	3	Ohio	11	Wyoming	3
Maryland	3	Oklahoma	20		
				Total	4,787

FOREIGN COUNTRIES

China	6	Japan	1	Switzerland	1
Germany	1	Philippine Islands	1		
Iran (Persia)	1	Puerto Rico	2	Total	13
				Grand total	4,800

KANSAS COUNTIES

Allen	37	Greenwood	27	Pawnee	38
Anderson	21	Hamilton	4	Phillips	33
Atchison	39	Harper	25	Pottawatomie	109
Barber	13	Harvey	47	Pratt	25
Barton	45	Haskell	1	Rawlins	12
Bourbon	15	Hodgeman	4	Reno	102
Brown	41	Jackson	47	Republic	71
Butler	53	Jefferson	33	Rice	56
Chase	27	Jewell	55	Riley	696
Chautauqua	5	Johnson	24	Rooks	16
Cherokee	14	Kearney	5	Rush	13
Cheyenne	13	Kingman	26	Russell	26
Clark	12	Kiowa	22	Saline	83
Clay	86	Labette	39	Scott	10
Cloud	65	Lane	5	Sedgwick	159
Coffey	19	Leavenworth	55	Seward	12
Comanche	20	Lincoln	15	Shawnee	170
Cowley	40	Linn	15	Sheridan	10
Crawford	20	Logan	13	Sherman	18
Decatur	24	Lyon	51	Smith	46
Dickinson	121	McPherson	49	Stafford	30
Doniphan	11	Marion	23	Stanton	2
Douglas	17	Marshall	110	Stevens	5
Edwards	26	Meade	21	Sumner	47
Elk	6	Miami	30	Thomas	19
Ellis	12	Mitchell	39	Trego	11
Ellsworth	23	Montgomery	43	Wabaunsee	57
Finney	10	Morris	65	Wallace	15
Ford	38	Morton	4	Washington	84
Franklin	33	Nemaha	77	Wichita	1
Geary	87	Neosho	27	Wilson	34
Gove	9	Ness	18	Woodson	8
Graham	17	Norton	40	Wyandotte	141
Grant	4	Osage	26		
Gray	7	Osborne	35	Total	4,345
Greeley	7	Ottawa	29		

Record of Registration and Degrees Conferred, 1863-1939

Year.	Summer school	Housekeepers' short course	Dairy Mfg. short course	Dairy short course	Farmers' short course	Apprentice	Special	Preparatory	Subfreshman	Vocational school	Freshman	Sophomore	Junior	Senior	Graduate	Counted twice	Net total	Graduated	Advanced degrees
1863-'64*								92			14						106		
1864-'65								91			14	8	1				114		
1865-'66								99			21	3	5				128		
1866-'67								118			11	7	1	5			142	5	
1867-'68								103			6	5	1				115		1
1868-'69								137			10	10	2		1		160		
1869-'70								119			10	12	1				142		
1870-'71								118			13	5	4	5			145	5	5
1871-'72								129			20	11	3	5	2	2	168	3	1
1872-'73																	173	2	1
1873-'74								137			24	14	3	6			184	5	
1874-'75																	143	2	1
1875-'76																	232	5	
1876-'77																	234	9	1
1877-'78																	150	4	
1878-'79																	207	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											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											66	103	41	28	7		445	25	1
1889-'90							1				307	105	63	28	10		514	27	2
1890-'91											343	135	50	53	12		593	52	2
1891-'92											336	139	62	37	10		584	35	
1892-'93											339	110	66	43	29		587	39	9
1893-'94											275	141	72	42	25		555	39	6
1894-'95							5				276	108	89	64	39		572	57	3
1895-'96							3				353	121	67	71	32		647	66	4
1896-'97							6	67			321	163	69	62	46		734	55	8
1897-'98				6		9	15	77			316	174	77	82	57	10	803	68	10
1898-'99				26		35	40	110			306	177	92	65	40	21	870	54	10
1899-1900		24		57	47	50	32	162			376	163	109	69	27	22	1,094	58	3
1900-'01		47		72	109	79	23	318			348	183	80	74	40	52	1,321	60	9
1901-'02		41		66	125	87	19	298			396	206	120	65	32	59	1,396	52	3
1902-'03		63		38	123	78	36	342			471	229	141	86	24	57	1,574	55	
1903-'04	17	51		16	122	72	33	443			403	206	161	114	20	36	1,605	102	1
1904-'05	15	88		24	99	12	30	500			289	198	122	117	26	43	1,462	107	2
1905-'06	18	92		28	118		46	598			373	214	145	110	30	64	1,690	96	4
1906-'07	18	134		23	179	Engineering short course	48	144	511		411	269	149	133	24	88	1,937	119	5
1907-'08	29	188		26	173		42	134	528		450	357	202	148	26	82	2,192	116	4
1908-'09	25	168		18	197		42	134	521		491	381	243	171	28	86	2,308	146	12
1909-'10	22	152	4	111	124		87	89	453		456	417	286	170	26	70	2,305	141	2
1910-'11	31	160	9	26	285		107		364		533	412	288	248	34	59	2,407	219	2
1911-'12	94	160	14	Lunch room mgt	280		85	Milling short course	580		337	461	288	261	44	81	2,523	231	6
1912-'13	282	175	11		289		129		654		444	432	355	268	55	166	2,928	230	4
1913-'14	370	149	12		223		112			658	516	431	324	327	64	159	3,027	283	8
1914-'15	472	127	18		199	98	120		Engineering trade courses	560	575	368	383	321	48	200	3,089	223	6
1915-'16	536	85	17		207	188	175			484	605	454	305	401	76	219	3,314	342	18
1916-'17	586	103	14		228	191	172			422	693	471	378	282	68	279	3,329	197	13
1917-'18	481	84		8	119	135	138			231	483	349	294	238	36	190	2,406	215	17
1918-'19	519	25	5		160	400	199			216	810	322	254	201	34	144	2,991	167	7
1919-'20	415	57	3	6	117	362	271			224	894	400	297	273	44	167	3,376	260	11
1920-'21	604	30	10		96	278	270	8		280	878	602	318	273	42	294	3,395	248	14
1921-'22	820	19	10		59	173	221			297	931	628	422	296	125	813	3,560	271	28
1922-'23	884	19	8		55	83	163	12		220	1004	656	460	401	118	457	3,626	341	31
1923-'24	978	12	7		43	57	161	3		167	1160	657	458	413	171	475	3,812	342	43
1924-'25	1120	14	14		55	54	139	5		47	1391	679	467	347	185	486	4,031	335	52
1925-'26	947	12	11		41	29	89				1494	725	512	344	182	384	4,019	341	51
1926-'27	959		18		52		71		19		1311	854	509	411	179	300	4,083	357	77

RECORD OF REGISTRATION AND DEGREES CONFERRED, 1863-1938—*Concluded*

Year.	Summer school	Housekeepers' short course	Dairy Mfg. short course	Dairy short course	Farmers' short course	Apprentice	Special	Preparatory	Subfreshman	Vocational school	Freshman	Sophomore	Junior	Senior	Graduate	Counted twice	Net total	Graduated	Advanced degrees
1927-'28	966	....	20	....	57	....	88	....	7	....	1039	819	584	500	167	418	3,878	429	70
1928-'29	920	....	18	....	51	....	57	....	9	....	1084	743	584	537	197	321	3,879	461	84
1929-'30	902	....	13	....	59	....	70	....	9	....	1128	787	581	554	†432	548	3,987	469	91
1930-'31	995	....	24	....	52	....	50	....	7	....	1077	790	605	528	506	589	4,045	424	91
1931-'32	1059	....	12	....	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	....	....

* Figures previously published for the years 1863-1879 are here revised to conform to records recently found by Dr. J. T. Willard, College historian.

‡ Figures above this column include neither graduate students in summer session, nor undergraduate students pursuing graduate work.

College Registration, 1938-1939

The Divisions.	Men.	Women.	Total.
The Division of Agriculture	**772**	**6**	**778**
Graduate students	46	1	47
Seniors	161	1	162
Juniors	165	2	167
Sophomores	179	1	180
Freshmen	213	.....	213
Special students	8	1	9
The Division of Veterinary Medicine	**245**	.....	**245**
Graduate students	2	.....	2
Seniors	68	.....	68
Juniors	58	.....	58
Sophomores	57	.....	57
Freshmen	60	.....	60
The Division of General Science	**926**	**370**	**1,296**
Graduate students	86	21	107
Seniors	158	77	235
Juniors	141	77	218
Sophomores	198	82	280
Freshmen	327	101	428
Special students	16	12	28
The Division of Home Economics	.....	**836**	**836**
Graduate students	.....	52	52
Seniors	.....	157	157
Juniors	.....	172	172
Sophomores	.....	193	193
Freshmen	.....	243	243
Special students	.....	19	19
The Division of Engineering	**1,142**	**7**	**1,149**
Graduate students	23	.....	23
Seniors	235	2	237
Juniors	255	1	256
Sophomores	272	2	274
Freshmen	352	1	353
Special students	5	1	6
Totals	3,085	1,219	4,304
Counted twice	78	21	99
Net totals	**3,007**	**1,198**	**4,205**
The Summer Schools (1938)	**386**	**525**	**911**
Totals	3,393	1,723	5,116
Counted twice	183	133	316
Net grand totals	**3,210**	**1,590**	**4,800**
The Division of Graduate Study	**276**	**187**	**463**
Graduate students in regular session	157	74	231
Graduate students in summer schools	125	115	240
Counted twice	33	12	45
Net (in summer school only)	92	103	195
Graduate students in absentia (included in above figures)	20	5	25
Undergraduates carrying graduate work	27	10	37

Degrees Conferred in the Year 1938

Division and Curriculum (or Major Study).	Men.	Women.	Total.
Division of Agriculture (B. S.)	**101**	.....	**101**
Agriculture	92	.....	92
Milling Industry	9	.....	9
Division of Engineering (B. S.)	**156**	**1**	**157**
Agricultural Engineering	10	.....	10
Architecture	10	1	11
Architectural Engineering	5	.....	5
Landscape Architecture	1	.....	1
Chemical Engineering	9	.....	9
Civil Engineering	43	.....	43
Electrical Engineering	43	.....	43
Mechanical Engineering	35	.....	35
Division of General Science	**130**	**72**	**202**
Commerce (B. S.)	51	11	62
General Science (B. S.)	28	32	60
Industrial Chemistry (B. S.)	19	.....	19
Industrial Journalism (B. S.)	18	17	35
Music Education (B. S.)	3	3	6
Music (B. M.)	1	1	2
Physical Education (B. S.)	10	8	18
Division of Home Economics (B. S.)	.....	**134**	**134**
Home Economics	.....	131	131
Home Economics and Nursing	.....	3	3
Division of Veterinary Medicine (D. V. M.)	**43**	.....	**43**
Veterinary Medicine	43	.....	43
Total of undergraduate degrees	430	207	637
Division of Graduate Study (M. S.)	**53**	**27**	**80**
Agricultural Economics	7	.....	7
Agronomy	7	.....	7
Animal Husbandry	1	.....	1
Applied Mechanics	1	.....	1
Chemistry	7	.....	7
Chemical Engineering	1	.....	1
Child Welfare and Euthenics	.....	1	1
Clothing and Textiles	.....	2	2
Dairy Husbandry	2	.....	2
Economics	1	.....	1
Education	12	1	13
Electrical Engineering	2	.....	2
English	.....	3	3
Entomology	1	.....	1
Food Economics and Nutrition	.....	6	6
General Home Economics	.....	5	5
Geology	1	.....	1
History	.....	1	1
Horticulture	.....	1	1
Household Economics	.....	2	2
Industrial Journalism	1	.....	1
Institutional Management	.....	4	4
Mathematics	2	.....	2
Physiology	1	.....	1
Physics	1	.....	1
Psychology	1	.....	1
Sociology	1	.....	1
Zoölogy	3	1	4
Division of Graduate Study (Ph. D.)	**2**	.....	**2**
Chemistry	2	.....	2
Professional Degrees	**3**	.....	**3**
Electrical Engineering	3	.....	3
Honorary Degrees	**5**	**2**	**7**
Doctor of Science	3	2	5
Doctor of Engineering	1	.....	1
Doctor of Laws	1	.....	1
Total of degrees conferred in 1938	**493**	**236**	**729**

	Engineering	Summer schools, 1938			
	M.	M.	W.	Total.	M
Uni	.....	.....	.....	.....	62
S	.....	.....	.....	.....	61
J	.....	.....	.....	.....	70
S	.....	.....	.....	.....	95
F	.....	.....	.....	.....	2
S	.....	.....	.....	.....	2,92
	.....	261	410	671	26
	.....	.....	.....	.....	3,18
Gr	23	.....	.....	.....	15
I	.....	125	115	240	12
I	.....	.....	.....	.....	2
I	.....	1	.....	1	2
U	23	387	525	912	32
	23	.....	.....	.....	3,51
C	.....	1	.....	1	.....
	23	386	525	911	.....

Analysis of Registration, 1938-1939

Classification	Agriculture		Agricultural administration	Specialized horticulture		Milling industry		Animal husbandry and veterinary medicine		Veterinary medicine		Graduate nurses and veterinary medicine		General science		Industrial journalism		Commerce		Commerce and accounting		Physical education		Industrial chemistry		Music		Home economics		Home economics and art		Institutional management and dietetics		Home economics and journalism		Home economics and nursing	
	M.	W	M.	M.	W	M.	M	M.	M.	M.	W.	M.	W.	M.	W	M	W.	M	W.	M	W.	M	W.	M.	W.	M.	W.	W.	W.	W.	W.	M	M	W.	M.	M.	M.	M.	M.
Undergraduates:																																							
Senior	80	....	49	4	1	21	7	68	2	36	32	23	15	37	12	22	4	12	4	22	....	4	10	111	10	31	3	2	18	5	2	7	25	50	61	1	1	58	....
Junior	80	1	53	3	1	27	5	58	2	38	33	18	14	42	10	34	3	10	7	12	2	5	9	114	13	34	....	11	13	8	1	12	39	41	67	2	....	73	....
Sophomore	88	....	62	7	1	19	3	57	....	53	30	20	26	61	12	37	3	10	8	12	2	5	11	117	15	47	....	14	20	6	2	13	37	45	66	3	....	77	....
Freshman	146	....	43	4	....	20	....	60	....	169	33	26	35	67	14	26	2	23	5	11	1	5	11	163	21	46	....	13	32	18	1	11	43	41	79	4	....	124	....
Special	8	1	....	....	....	....	....	....	....	16	12	....	....	....	....	....	....	....	....	....	....	....	....	19	....	....	....	....	....	....	....	....	....	....	1	2	....	2	....
Total in regular session	492	2	204	18	3	87	15	243	4	302	130	87	99	207	48	109	11	55	24	57	5	19	41	524	59	158	3	40	83	37	7	43	144	186	274	17	1	334	....
Summer schools	17	....	15	....	....	6	2	20	....	57	198	9	6	23	9	4	1	6	3	17	1	5	13	131	10	27	2	3	2	2	6	4	17	14	14	1	....	26	....
Totals	509	2	219	18	3	93	17	263	4	359	328	96	96	230	57	113	12	61	27	74	6	24	54	655	69	185	5	43	85	39	13	47	161	200	288	18	1	366	....
Graduates:																																							
In regular session	46	1	....	....	....	....	....	2	....	86	21	....	....	....	....	....	....	....	....	....	....	....	....	52	....	....	....	....	....	....	....	....	....	....	....	....	....	....	23
In summer schools	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
In absentia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Undergraduates carrying graduate work	6	....	3	....	....	1	....	....	....	....	4	1	....	1	1	....	....	1	....	2	....	....	1	3	....	1	....	....	1	....	....	....	3	4	1	....	....	2	....
Totals	52	1	3	....	....	1	....	2	....	86	25	1	....	1	1	....	....	1	....	2	....	....	1	55	....	1	....	....	1	....	....	....	3	4	1	....	....	2	23
Grand totals	471	3	222	18	3	94	17	265	4	445	353	97	96	231	58	113	12	62	27	76	6	24	55	710	69	186	5	43	86	39	13	47	164	204	289	18	1	362	23
Counted twice	15	....	5	....	....	5	2	18	....	16	14	5	3	16	4	1	1	2	1	0	1	1	6	62	6	19	1	1	1	1	2	3	10	7	13	....	....	20	....
Net grand totals	456	3	217	18	3	89	15	247	4	429	339	92	93	215	54	112	11	60	26	67	5	23	49	648	63	167	4	42	85	38	11	44	154	197	276	18	1	342	23
Group totals	459			21						768		185		269		123		86		72		72								49									

Classification	Summer schools, 1938				Totals				Counted twice		Net totals		Net Grand Totals
	M.	M.	M	W	Total.	M.	W.	M.	W.	M.	W.	Total.
Undergraduates:													
Senior	....	....	....	....	....	622	237	4	....	618	237	855
Junior	....	....	....	....	....	619	252	7	....	612	252	864
Sophomore	....	....	....	....	....	796	278	10	6	687	272	959
Freshman	....	....	....	....	....	952	345	40	11	912	334	1,246
Special	....	....	....	....	....	29	33	....	1	29	32	61
Total in regular session	....	....	....	....	....	2,028	1,145	70	18	2,858	1,127	3,985
Summer schools	....	261	410	671	....	261	410	150	121	111	289	400
Totals	....	....	....	....	....	3,189	1,555	220	139	2,960	1,416	4,385
Graduates:													
In regular session	....	....	....	....	....	157	74	....	....	157	74	231
In summer schools	....	125	115	240	....	125	115	33	12	92	103	195
In absentia	....	....	....	....	....	29	5	20	5	....	....	....
Undergraduates carrying graduate work	....	1	....	1	....	27	10	....	....	27	10	37
Totals	....	23	387	525	912	329	204	53	17	276	187	463
Grand totals	....	....	....	....	....	3,518	1,759	273	156	3,245	1,603	4,848
Counted twice	....	1	....	1	....	....	....	....	....	35	13	48
Net grand totals	....	23	386	525	911	....	....	....	....	3,210	1,590	4,800
Group totals												

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CONTINUATION

132697 378.73

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132697 CONTINUATION 378.73

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Kansas. State college of agri. and applied science.

Catalogue. 1938/39.

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L. Everitt

R. VanWinkle

Gorman

Lois V. Jones

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