SOUTH DAKOTA STATE COLLEGE
of AGRICULTURE *and*
MECHANIC ARTS
BULLETIN

Catalog Number

For the Session of
1936-1937

With Announcements for the Session of
1937-1938

BROOKINGS, SOUTH DAKOTA

THE COLLEGE BULLETIN

The South Dakota State College Bulletin is published quarterly by authority of the Regents of Education. The bulletin contains information in detail relative to the entrance requirements of the different courses of instruction, the schedules of study, lists of instructors and officers of administration, equipment, organizations, publications, funds, students' expenses, scholarships, etc.

The institution includes the following departments of instruction: Agricultural Economics, Agricultural Engineering, Agronomy, Animal Husbandry, Art, Botany, Plant Pathology and Bacteriology, Chemistry, Civil Engineering, Dairy Husbandry, Education and Psychology, Electrical Engineering, Engineering Shop, English, Entomology-Zoology, Foreign Languages (French, German and Spanish), History and Political Science, Home Economics, Horticulture and Forestry, Mathematics, Mechanical Engineering, Military Science, Music, Nursing Education, Pharmacy, Physical Education, Physics, Poultry Husbandry, Printing and Rural Journalism, Rural Sociology, Speech, Veterinary Science, and the Vocational School of Agriculture.

In addition to the instructional work, the Agricultural Experiment Station and the Agricultural Extension Service are maintained at the College.

The college bulletins are sent free, postage paid, on request. The request should indicate the department concerning which information is desired.

For bulletins and other information address the Registrar, State College, Brookings, South Dakota.

Volume XXIX April, 1937 Number 4

South Dakota State College of Agriculture and Mechanic Arts Bulletin

Annual Catalog Number
1936-37
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the session of
1937-38

Published Quarterly by
SOUTH DAKOTA STATE COLLEGE
Brookings, South Dakota

Entered as second class matter August 10, 1908, at the post office at Brookings, South Dakota, under the Act of July 16, 1904

CALENDAR FOR 1937-38

June 1937

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July 1937

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August 1937

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December 1937

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February 1938

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April 1938

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May 1938

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June 1938

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July 1938

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THE COLLEGE CALENDAR

1937 SUMMER TERM

June 14, Monday—Summer Term begins.
July 23, Friday—Summer Term Ends.

1937 FALL TERM

September 15, 16, 17, Wednesday, Thursday, Friday—Registration of freshmen. All freshmen are required to report at the college auditorium at 10:30 a.m. on Wednesday.
September 17, Friday—Registration of all students except freshmen.
September 20, Monday—Beginning of class work of Fall Term at 8:00 a.m.
October 9, Saturday—Last day for examinations for removal of "Inc's" of preceding term.
October 21, 22, Thursday, Friday—Enrollment in the School of Agriculture.
October 23, Saturday—Hobo Day, a holiday.
November 9-12, Tuesday-Friday—Farm and Home Week.
November 11, Thursday—Armistice Day, a holiday.*
November 25, 26, 27, Thursday, Friday, Saturday—Thanksgiving recess beginning Wednesday, November 24, at noon.
December 17, Friday—Work of Fall Term closes at noon.

1938 WINTER TERM

January 4, Tuesday—Registration for Winter Term.
January 5, Wednesday—Beginning of class work of Winter Term at 8 a. m.
January 29, Saturday—Last day for examinations for removal of "Inc's" of preceding term.
February 8, Tuesday—Program for Lincoln's birthday at 11 a.m.
March 24, Thursday—Closing exercises of the School of Agriculture at 10 a.m.
March 24, Thursday—Work of Winter Term and of the School of Agriculture closes at noon.

1938 SPRING TERM

March 29, Tuesday—Registration for Spring Term.
March 30, Wednesday—Beginning of class work of Spring Term at 8 a.m.
April 23, Saturday—Last day for examinations for removal of "Inc's" of preceding term.
April 25, 26, Monday, Tuesday—Smith-Hughes Conference and Contests.
May 24, Tuesday—College Memorial Exercises at 11 a.m.
May 30, Monday—Memorial Day, a holiday.*
June 5, Sunday—Baccalaureate Services.
June 6, Monday—Fifty-Second Annual Commencement.
June 9, Thursday—Work of Spring Term closes at 4:15 p.m.

*The R. O. T. C. Battalion will join in patriotic observances of the day.

REGENTS OF EDUCATION

Honorable Frank Cundill - - - - - - - - Isabel
Term Expires January 1, 1943

Honorable W. S. Dolan - - - - - - Milbank
Term Expires January 1, 1939

Honorable E. M. Mumford - - - - - - - - Howard
Term Expires January 1, 1943

Honorable Harry N. Nissen - - - - - Yankton
Term Expires January 1, 1939

Honorable Edward Prchal - - - - - - Burke
Term Expires January 1, 1941

OFFICERS OF THE BOARD

Honorable Edward Prchal - - - - - - - President

Honorable Harry N. Nissen - - - - Secretary

Honorable W. H. Hinselman (State Treasurer) Treasurer

REGENTS' COMMITTEE FOR THE COLLEGE

Honorable W. S. Dolan, Chairman

Honorable E. M. Mumford

COLLEGE STAFF 1936-37

Following the Secretary the names are arranged alphabetically

CHARLES W. PUGSLEY, President.
B. S., University of Nebraska, 1906, D. Agr., 1922.

DAVID B. DONER, Registrar.
B.S., South Dakota State College, 1928.

RUDOLPH A. LARSON, Secretary of the College.

* * * * *

BENJAMIN M. ALDRICH, Instructor in Mechanical Engineering.
B.S. (M.E.), University of Nebraska, 1927; M.S., South Dakota State College, 1934.

KENNETH H. ANDERSON, District Club Agent.
B.S., South Dakota State College, 1934.

ALFRED H. ARNDT, Assistant in Physical Education.
B.S., South Dakota State College, 1934.

EARL R. BALES, Visual Education Specialist.
B.S., Colorado State Agricultural College, 1933.

REX BANKERT, Assistant Extension Agronomist.
B.S., South Dakota State College, 1935.

HERBERT CLIFFORD BATSON, Instructor in Bacteriology.
B. S., South Dakota State College, 1932, M. S., 1934.

WARD POWERS BEARD, Assistant Professor of Education.
B.S., University of Illinois, 1915; M.S., University of Wisconsin, 1928.
(Resigned January 1, 1937.)

LEON F. BEERY, Instructor in Music.
B. S., Columbia University, 1928, M. A., 1931.

RALPH R. BENTLEY, Assistant Professor of Education in charge of Agricultural Education.
B. S., Iowa State College, 1926, M. S., 1936.

EDWARD R. BINNEWIES, Associate Professor of Chemistry.
B. S., South Dakota State College, 1913, M. S., 1915.

HOWARD B. BLODGETT, Professor of Civil Engineering.
B. S. (C. E.), University of Arizona, 1928, M. S., 1929, C. E., 1933.

HENRY BLOEM, Instructor in Agricultural Engineering (Forging, Welding).
B.S., South Dakota State College, 1935. Certified Arc Welder, Hobart Welding School.

JOHN A. BONELL, Assistant Professor of Agricultural Engineering (Woodwork).
Graduate of Stout Institute, 1904.

GEORGE G. BOUGHTON, Instructor in Music (Violin).

GEORGE LINCOLN BROWN, Vice President; Dean of the Faculty; Dean of the Division of General Science; Professor of Mathematics.
B. S., University of Missouri, 1892, M. S., 1893; PhD., University of Chicago, 1902; LL.D., University of South Dakota, 1926.

MABEL E. BRYAN, Assistant Principal and Instructor in Home Economics, School of Agriculture.
B.S., South Dakota State College, 1925.

EUGENE D. BURR, Instructor in Chemistry.
B. S., South Dakota State College, 1930, M. S., 1933.

ADA B. CALDWELL, Professor of Art.
Advanced Study in Art in Chicago Art Institute, Columbia University and other institutions at various times.

DANIEL E. CASS, District Club Agent.
B.S., University of Wisconsin, 1920.

ROY A. CAVE, Extension Dairyman.
B.S.A., Iowa State College, 1906.

CARL CHRISTENSEN, Professor of Music.
B.Mus., McPhail School of Music, 1929.

POUL CHRISTOPHERSON, Assistant Farm Management Specialist.

MARY A. COVERT, Home Management Specialist.
B.E., Western Illinois State Teachers College, 1922.

T. HILLARD COX, Assistant Professor of Agricultural Economics.
B.S. (Commerce), University of Iowa, 1931, M.A., 1932, PhD., 1934.

HAROLD M. CROTHERS, Dean of the Division of Engineering; Professor of Electrical Engineering.
B.S., South Dakota State College, 1910; E.E., University of Wisconsin, 1913, Ph.D., 1920.

EDWARD J. DANIEL, Assistant in Agricultural Education.
B.S. (Agr.), South Dakota State College, 1928.

ROSS D. DAVIES, County Agent Leader.
B.S., South Dakota State College, 1923.
(Resigned December 1, 1936.)

L. LELAND DAVIS, Assistant Professor of Horticulture and Forestry.
B. S., Iowa State College, 1932, M. S., 1933.

HENRY H. DeLONG, Instructor in Agricultural Engineering.
B.S. in Agriculture, South Dakota State College, 1928.

W. E. DITTMER, District Extension Supervisor.
B.S. in Animal Husbandry, Iowa State College, 1922.

LOREN E. DONELSON, Professor of Printing and Rural Journalism: College Editor.
B. S., Iowa State College, 1928, M. S., 1932.

BERTRAND A. DUNBAR, Professor of Chemistry.
B. A., Ohio Wesleyan University, 1891, M. A., 1892.

GEORGE W. EADE, Assistant Pathologist, in Charge of Barberry Eradication in South Dakota.
B. S., South Dakota State College, 1929, M. S., 1931.
(Detailed by U. S. Department of Agriculture.)

ALFRED M. EBERLE, Director of Agricultural Extension.
B.S., Montana State College, 1915.

ARLINGTON EDDY, Instructor in the School of Agriculture.
B.S., South Dakota State College, 1927.

ARTHUR U. EDWARDS, Assistant Professor of Education and Psychology.
A.B., Iowa State Teachers College, 1924; M.A., University of Iowa, 1928, Ph.D., 1932.

CLARK T. EIDSMOE, Instructor in Pharmacy.
Ph.G., South Dakota State College, 1913, Ph.C., 1928, B. S., 1929, M.S., 1931.

R. ESTHER ERICKSON, College Nurse.
R.N., Fairview Hospital, 1928; B.A., Baylor University, 1935.

ALBERT D. EVENSON, Instructor in Printing.
B.S., South Dakota State College, 1930.

FORREST U. FENN, Assistant Professor of Animal Husbandry.
B.S., South Dakota State College, 1926; M.S., University of Minnesota, 1927.

GERALDINE G. FENN, Assistant in Club Work.
B.S., South Dakota State College, 1933.

MATTHEW FOWLDS, Instructor in Agronomy.
B.S., South Dakota State College, 1913.

KURT WALTER FRANKE, Experiment Station Chemist.
B.S., University of Virginia, 1920, M.S., 1920; Ph.D., University of Minnesota, 1927.
(Deceased September 15, 1936.)

CLIFFORD J. FRANZKE, Assistant in Agronomy.
B.S., South Dakota State College, 1924.

WILLIAM H. GAMBLE, Associate Professor of Electrical Engineering.
B.S., South Dakota State College, 1925; M.S., University of Wisconsin, 1929.

JOSEPH ADDISON GIDDINGS, Instructor in English.
A.B., Western Reserve University, 1926; M.A., Cornell University, 1928.

GEORGE I. GILBERTSON, Associate Professor of Entomology; Assistant Entomologist Experiment Station.
B. S., South Dakota State College, 1914, M. S., 1916.

LEONORA GITCHELL, Assistant Extension Rural Sociologist.
B.S., South Dakota State College, 1918.

LEILA I. GIVEN, Professor of Nursing Education.
Graduate of Cottage Hospital School of Nursing, Creston, Iowa; Post Graduate work, Woman's Hospital, New York City; B.S., Columbia University, 1926, M. S., 1929.

C. O. GOTTSCHALK, State Supervisor Trade and Industrial Education.

LESTER S. GUSS, Assistant Professor of Chemistry.
B. S., University of North Dakota, 1923, M. S., 1925.
(On leave of absence 1936-37.)

AGNES M. HANSEN, Assistant State Club Leader.
B.S., North Dakota State College, 1929.

NIELS EBBESEN HANSEN, Professor of Horticulture; Vice Director and Horticulturist of the Experiment Station.
B.S., Iowa State College, 1887, M.S., 1894; Sc.D., University of South Dakota, 1917.

H. P. HANSON, Assistant Professor of Agricultural Economics.
B.S. (Agriculture), Iowa State College, 1914.

ALBERT S. HARDING, Professor of History and Political Science.
B.S., South Dakota State College, 1892; A.M., University of Nebraska, 1897.

EDWIN B. HARDING, Printing Machines Specialist.
B.S., South Dakota State College, 1931.

RAY W. HARRIS, Major, Assistant Professor of Military Science.
B.S., North Georgia Agricultural College, 1912.

EARL HARRISS, District Club Agent.
B.S., South Dakota State College, 1933.

NELLE A. HARTWIG, Instructor in Entomology-Zoology.
B.S., Kansas State Agricultural College, 1926, M.S., 1927.

KENNETH S. HAYTER, Assistant Business Agent.
B.S., South Dakota State College, 1933.

J. FREDERICK HECKER, Assistant Coach.
B.S., Purdue University, 1933.

LLOYD HENRY, Field Agent at Large, Agricultural Extension.
B.S., South Dakota State College, 1925.

HAROLD S. HEPNER, Instructor in Printing and Rural Journalism.
B.A. in Journalism, University of Montana, 1926.

JOSEPH L. HILL, District Supervisor, Agricultural Extension.
B.S., South Dakota State College, 1917.

LOVELL D. HINER, Assistant Professor of Pharmacy.
B.S., South Dakota State College, 1929; M.S., University of Florida, 1931.

G. LYNN HOLLEN, Instructor in Printing (Typography).
B.S., South Dakota State College, 1931.

NORA M. HOTT, State Demonstration Leader.
B.S., Kansas State, 1914; M.S., New York University, 1927.

HOWARD H. HOY, Professor of Engineering Shop.
B.S., South Dakota State College, 1896, M.S., 1903.

ARTHUR NASH HUME, Professor of Agronomy; Superintendent of Sub-Stations; Agronomist, Experiment Station.
B.S.A., Purdue University, 1900, M.S., 1902; Ph.D., Goettingen University, 1910.

JOSEPH GLADDEN HUTTON, Associate Professor of Agronomy; Associate Agronomist Experiment Station.
B.S., University of Chicago, 1908; M.S., University of Illinois, 1910.

DANIEL H. JACOBSON, Assistant Professor of Dairy Husbandry.
B.S., South Dakota State College, 1926; M.S., Washington State College, 1930.

EARL R. JAMES, Instructor in Speech and Dramatics.
B.S., Northern Normal and Industrial School, 1935.

MERRILL E. JARCHOW, Instructor in History.
A. B., University of Minnesota, 1930, A. M., 1933.

JOHN P. JOHANSEN, Assistant Professor of Rural Sociology.
A. B., Nebraska Wesleyan University, 1924; M. A., University of Nebraska, 1927; Ph.D., University of Wisconsin, 1932.

ISAAC B. JOHNSON, Extension Animal Husbandman.
B.S.A., Iowa State College, 1913, M.A., 1921.

MANFRED JOHNSTON, Assistant Professor of Physics.
A.B., Michigan State College, 1930, M.S., 1931; Ph.D., University of Michigan, 1936.

RALPH E. JOHNSTON, Extension Agronomist.
B.S., South Dakota State College, 1916.

EVAN V. JONES, Agricultural Statistician.
B.S., University of Nebraska.
(Detailed by United States Department of Agriculture.)

HORACE M. JONES, State Club Leader.
B.S., South Dakota State College, 1917.

STEPHEN W. JONES, Assistant Farm Management Specialist.
B.S., South Dakota State College, 1927; M.S., Iowa State College, 1928.

MINERVA KELLOGG, Associate Professor of Home Economics (in charge of nutrition research).
B.S., University of Minnesota, 1920; M.S., Columbia University, 1925.

NELLIE G. KENDALL, Assistant Professor of Physical Education.
B.S., South Dakota State College, 1908.

KATHARINE KLEIN, Assistant Professor of Education.
A.B., University of Kansas, 1926, A.M., 1927.

HARRY L. KOHLER, Assistant Professor of Music (Voice).
B.A., Bluffton College, 1917; B.Mus., American Conservatory of Music, 1921.
(On leave of absence 1936-37.)

ESTHER ROSS KORSTAD, Instructor in Shorthand and Typing.

WENDELL F. KUMLIEN, Professor of Rural Sociology.
B.A., Lawrence College, 1911; M.S., South Dakota State College, 1921; M.S., University of Wisconsin, 1923.

CHRISTIAN LARSEN, Dean of the Division of Agriculture.
B.Sc. (Agr.), Iowa State College, 1902, M. S., 1904.

FLOYD J. LeBLANC, Assistant Professor of Pharmacy.
Ph.C., South Dakota State College, 1923, B. S., 1924, M. S., 1927.
(On leave of absence 1936-37.)

WARFIELD M. LEWIS, Major, Professor of Military Science and Tactics
Graduate United States Military Academy, West Point, 1917.

ROBERT M. LIMPUS, Instructor in English.
B.A., Northwestern University, 1929; M.A., University of Chicago, 1931.

ALTA R. LINDSEY, Assistant Librarian.
A.B., Huron College, 1917.

CHESTER H. LINSCHEID, Assistant Librarian.
B.A. in Library Science, University of Oklahoma, 1934.

CHARLES C. LIPP, Professor of Veterinary Science.
D.V.M., Ohio State University, 1903.

NORMAN O. LONG, Instructor in Chemistry.
B. A., Hiram College (Hiram, Ohio), 1932; Ph.D., University of Buffalo, 1935.

GABRIEL LUNDY, Professor of Agricultural Economics.
B. S. (Agr.), North Dakota Agricultural College, 1914; M. S., University of Wisconsin, 1917.

LAURA J. McARTHUR, Assistant Professor of Home Economics.
B.S., University of Minnesota, 1920.

GEORGE McCARTY, Professor of Speech.
A.B., University of Indiana, 1916; A.M., Columbia University, 1920.

G. HORACE McFADDEN, Instructor in Pharmacy.
B.S., Muskingum College (New Concordia, Ohio); B.S. in Pharmacy, Ohio State University, 1926, M.S. 1933.

GERTRUDE McKNIGHT, Assistant to the Dean of Women.

WALLACE McMARTIN, Assistant in Farm Management Research.
B.S., University of Minnesota, 1936.

ROBERT K. McMILLAN, Instructor in Mathematics.
B.S., South Dakota State College, 1936.

HERBERT B. MacDOUGAL, Assistant Professor of Mathematics, Acting Head of the Department.
A.B., Miami University, 1927; M.S., University of Iowa, 1929.

CATHERINE FRASER MacLAGGAN, Professor of Foreign Languages.
A.B., Bucknell University, 1906, A.M., 1922.

JOHN E. MARTIN, Assistant in Education.
B.S., Kansas State Agricultural College, 1909.

RICHARD L. MATTESON, Assistant in Botany.
B. S., South Dakota State College, 1930, M. S., 1933.

LYLE E. MEHLENBACHER, Instructor in Mathematics.
A.B., New York State College for Teachers at Albany, 1931; A.M., University of Michigan, 1934; PhD., 1936.

WARD L. MILLER, Professor of Botany.
A.B., Southwestern College, 1916; S.M., University of Chicago, 1919, Ph.D., 1928.

ROBERT D. MITCHELL, Instructor in Civil Engineering.
B.S. in Civil Engineering, South Dakota State College, 1932.

ALVIN L. MOXON, Analyst, Chemistry, Experiment Station.
B.S., South Dakota State College, 1934.

DOROTHY J. NORRIS, Clothing Specialist.
B.S., University of Nebraska, 1929.

ELSIE T. OBER, Instructor in Art.
Graduate Minneapolis School of Art, 1919, B. S., University of Minnesota, 1933.

THOMAS M. OLSON, Professor of Dairy Husbandry.
B.S., University of Wisconsin, 1915; M.S.A., Iowa State College, 1920.

CALVIN C. OLESON, Instructor in Civil Engineering.
B.S., South Dakota State College, 1925; M.S., Iowa State College, 1928.

C. MAY OVERTON, Assistant Professor of English.
B. A., Hastings College, 1924; M. A., University of Iowa, 1928.

RALPH L. PATTY, Professor of Agricultural Engineering.
B.Di, Iowa State Teachers College, 1907; B.S. in A. E., Iowa State College, 1916.

RAYMOND J. PENN, Assistant Professor of Agricultural Economics.
B.E., River Falls State Teachers College (River Falls, Wis.), 1932.

EDNA M. PETERSON, Instructor in Art.
B.S., South Dakota State College, 1926.

WILLIAM ALBERT PETERSON, Associate Professor of Music.
B. Mus., American Conservatory of Music, 1911.

EDITH M. PIERSON, Dean of the Division of Home Economics; Professor of Home Economics.
B.S., Lewis Institute, 1914; M.S., University of Minnesota, 1922.

WELLINGTON E. POLEY, Professor of Poultry Husbandry.
B.S., State College of Connecticut, 1929; M.S., State College of North Carolina, 1930; Ph.D., Purdue University, 1934.

WILLIAM HOWARD POWERS, Librarian, Professor of Literature.
A.B., Miami University, 1891; A.M., Harvard University, 1899.
(Deceased November 9, 1936.)

LEO F. PUHR, Assistant Professor of Agronomy.
B.S., South Dakota State College, 1925, M.S., 1927.

RAYMOND E. REINHART, Assistant Professor of Physics, Acting Head of the Department.
A.B., Phillips University, 1927; M.S., University of Washington. 1929; Ph.D., University of Kansas, 1933.

WILLIAM H. RICHARDSON, Instructor in English.
B.A., University of South Dakota 1933.

FRANK I. ROCKWELL, Extension Specialist in Forestry.
B.S.F., University of Minnesota, 1906.

ALICE ROSENBERGER, Assistant Professor of Home Economics.
B.A., State University of Iowa, 1916; M.A., Iowa State College, 1927.

AMANDA ROSENQUIST, Assistant Professor of Home Economics.
B.S., Kansas State Agricultural College, 1920; M.A., Columbia University, 1928.

DOROTHY SAVILLE, Research Assistant in Home Economics.
B.S., University of Missouri, 1929; M.S., Kansas State College, 1931.

PAUL J. SCARBRO, Principal of the School of Agriculture.
B.Di, Iowa State Teachers College, 1909; A.B., Des Moines University, 1908.

EARL R. SERLES, Dean of the Division of Pharmacy; Professor of Pharmacy.
Ph.G., South Dakota State College, 1911, B.S., 1915, M.S., 1917; Ph.D., University of Minnesota, 1934.

HARRY CHARLES SEVERIN, Professor of Entomology-Zoology; Experiment Station Entomologist.
B.A., University of Wisconsin, 1907; M.A., Ohio State University, 1908.

CLARENCE SHANLEY, Extension District Supervisor.
B.S., South Dakota State College, 1913.

CECIL O. SHUPE, Instructor in Aviation Mechanics.

GEORGE E. SMOCK, Professor of English.
A.B., DePauw University, 1927; A.M., University of Chicago, 1928; Ph.D., Cornell University, 1934.

LEON C. SNYDER, Instructor in Botany.
B.S., University of Washington, 1931; M.S., 1931; Ph.D., 1935.

HERMAN STALLBAUM, Instructor in School of Agriculture.
B.S., South Dakota State College, 1932.

NEWTON E. STALEY, Instructor in School of Agriculture.
B. S., South Dakota State College, 1931.

HARRIS DEAN STALLINGS, Acting Librarian.
A.B., Stanford University, 1935; Bachelor of Library Science, University of Illinois, 1935.
(On leave of absence fall term 1936-37.)

LYLE C. STITT, Assistant Principal of the School of Agriculture; Instructor in Smith-Hughes Agriculture.
B.S., South Dakota State College, 1925.

MATTIE STODDART, Instructor in Home Economics, School of Agriculture.
B. S., South Dakota State College, 1917.

J. TAYLOR STRATE, Professor of Mechanical Engineering.
B.S. (M.E.), University of Wisconsin, 1921; M.S. (M.E.), Iowa State College, 1928.

ALBERT A. SUTTON, Superintendent of Printing Laboratory.
B.S., Kansas State Teachers College (Emporia), 1929; M. A., University of Kansas, 1936.

STANLEY P. SWENSON, Associate Professor of Agronomy.
B. S., University of Minnesota, 1932, M. S., 1934.

JOHN B. TAYLOR, Assistant College Veterinarian.
V.M.D., University of Pennsylvania, 1917.

GEORGE H. THOMSON, Assistant Extension Editor.
B.A., University of Nebraska, 1929.
(Resigned January 1, 1937.)

REGINALD H. THRELFALL, Professor of Physical Education.
B.S., Purdue University, 1927.

HENRIK TILLISCH, College Physician.
M.D., Northwestern University, 1901.

CLAIRE C. TOTMAN, Instructor in Dairy Husbandry.
B.S.A., University of Wisconsin, 1912.

WILSON WALDO TOWNE, Special lecturer in Sanitary Engineering.
B.E., University of Iowa, 1927, C.E., 1932; M. S., Harvard University, 1935.
(In cooperation with the South Dakota State Board of Health)

ROBERT H. VESEY, Assistant Professor of Military Science.
Graduate U. S. Military Academy (West Point), 1918.

VIVIAN VIRGINIA VOLSTORFF, Dean of Women; Instructor in History.
B.S., Northwestern University, 1928, M.A., 1929, Ph.D., 1932.

ORLIN E. WALDER, Assistant Professor of Mathematics; Manager of Men's Dormitory.
B.S., Huron College, 1928; M.A., University of Nebraska, 1930.

F. MILDRED WALKER, Assistant in Home Economics Education.
B.S., Dakota Wesleyan University, 1925.

G. CARROLL WALLIS, Research Assistant in Dairy Husbandry.
B.S., South Dakota State College, 1923; M.S., University of Minnesota, 1931, Ph.D., 1934.

VICTOR WEBSTER, Instructor in Chemistry.
B.A., University of Iowa, 1930; M.S., 1931; Ph.D., 1933.

GILBERT S. WEAVER, Extension Veterinarian.
V.S., Ohio State University, 1908.

OTTO JOHN WEISNER, Extension Poultryman.
B.S.A., Michigan State College, 1924.

IRENE L. WENTE, Instructor in Mathematics and German.
B.S., Lewis Institute, 1927; M.S., University of Chicago, 1929.

ROBERT B. WESTBROOK, Assistant Professor of Agricultural Economics.
B.S., University of Iowa, 1921, M.S., 1923.

DENNIS EMMERSON WIANT, Assistant Professor of Agricultural Engineering.
B.S. in A. E., Iowa State College, 1924.

SUSAN Z. WILDER, Extension Nutritionist.
B.A., University of Minnesota, 1908, B. S., 1910; M. A., University of Chicago, 1918.

MARY LOUISE WILLIAMS, Manager College Cafeteria; Instructor in Home Economics.
B.S., University of Minnesota, 1917.

JAMES WILBUR WILSON, Professor of Animal Husbandry; Director of the Experiment Station.
B.S.A., Iowa State College, 1896, M.S.A., 1898; LL.D. University of South Dakota, 1922.

TURNER R. H. WRIGHT, Associate Professor of Animal Husbandry.
B.S. (Agr.), University of Missouri, 1909.

CLINTON R. WISEMAN, Professor of Education and Psychology; Director of Summer Session.
B.S., University of Wisconsin, 1915, M.S., 1923; Ph.D., University of Minnesota, 1928.
GERTRUDE S. YOUNG, Associate Professor of History.
A.B., University of Wisconsin, 1906.
HELEN A. YOUNG, Instructor in Home Economics.
B.S., University of Nebraska, 1922; graduate study in Merrill Palmer School, 1929.
MARION YULE, Assistant in Home Economics.
B.S., South Dakota State College, 1924.

SPECIAL SUMMER SCHOOL STAFF, 1936

BENJAMIN M. ALDRICH, B. S., Mechanical Engineering.
JOHN A. BONELL, Agricultural Engineering.
CARL CHRISTENSEN, B.Mus., Music.
BERTRAND A. DUNBAR, M.A., Chemistry.
ARTHUR U. EDWARDS, Ph.D., Education.
LESTER S. GUSS, M. S., Chemistry.
ALBERT S. HARDING, M.A., History.
NELLIE KENDALL, B. S., Physical Education.
HARRY L. KOHLER, B.Mus., Music.
ESTHER ROSS KORSTAD, Shorthand and Typewriting.
JOHN E. MARTIN, B.S., Education.
GEORGE McCARTY, A.M., Speech.
HERBERT B. MacDOUGAL, M.S., Mathematics.
WARD. L. MILLER, Ph.D., Botany.
EDNA PETERSON, B. S., Art.
RAYMOND E. REINHART, Ph. D., Physics.
ALICE ROSENBERGER, M.A., Home Economics.
AMANDA ROSENQUIST, M.A., Home Economics.
LILLIAN RUSSELL, Education.
GEORGE E. SMOCK, Ph.D., English.
ORLIN E. WALDER, M. A., Mathematics.

GRADUATE ASSISTANTS

DERMONT HERREMAN, Entomology-Zoology.
B. S., South Dakota State College, 1935.
CHARLES LOOMER, Agricultural Economics.
B. S., South Dakota State College, 1936.
JOHN MARTIN, Chemistry.
B. S., South Dakota State College, 1936.
DAVID MESICK, Agricultural Economics.
B. S., South Dakota State College, 1934.
DOROTHY NELSON, Pharmacy.
B. S., South Dakota State College, 1935.
OSCAR OLSON, Agronomy.
B. S., South Dakota State College, 1936.
ALLEN PHELPS, Bacteriology.
B.S., South Dakota State College, 1936.

ROLAND RETHKE, Botany.
B. S., South Dakota State College, 1935.
HOWARD SELVIG, Agricultural Economics.
A. B. Augustana College, (S. D.) 1931.
MARLIN SIMONSON, Poultry Husbandry.
B. S., South Dakota State College, 1936.
PERRY WILLIAMS, Physics.
B. S., Dakota Wesleyan University, 1936.

FIELD EXTENSION AGENTS OF SOUTH DAKOTA

District Supervisors

State Office, Brookings, S. D.

W. E. Dittmer — Clarence Shanley
Louis I. Thompson — Joseph L. Hill

COUNTY EXTENSION AGENTS

County	Name of Agent	Address
Aurora	Lloyd L. Bovee	Plankinton
Beadle	Leonard Ladd	Huron
Bennett	Fred A. Beers	Martin
Bon Homme	L. V. Ausman	Tyndall
Brookings	G. A. McDonald	Brookings
Brown	Ben Schaub	Aberdeen
Brule, Buffalo	Howard K. Schultz	Chamberlain
Butte	Floyd F. Collins	Belle Fourche
Campbell	O. E. Prestegard	Mound City
Charles Mix	R. O. Swanson	Lake Andes
Clark	C. H. Wagner	Clark
Clay	Carl W. Sacre	Vermillion
Codington	John Noonan	Watertown
Corson	Idwal Jones	McIntosh
Custer	Harold Doner	Custer
Davison	Frank L. McMahon	Mitchell
Day	A. O'Connell	Webster
Deuel	A. O. Syverud	Clear Lake
Dewey	Raymond Gibson	Timber Lake
Douglas	L. J. Gannon,	Armour
Edmunds	A. D. Lienemann	Ipswich
Fall River	F. A. Haley	Hot Springs
Faulk	Albert H. Hansen	Faulkton
Grant	G. A. Dyke	Milbank
Gregory	Thos. L. Orr	Burke
Haakon	T. H. Young	Philip

County	Name of Agent	Address
Hamlin	Harry D. Witt	Hayti
Hand	N. E. Beers	Miller
Hanson	Glenn Prunty	Alexandria
Harding	Henry P. Holzman	Buffalo
Hutchinson	Harold E. Rott	Olivet
Hyde	W. H. Davis, Jr.	Highmore
Jackson Washabaugh	W. K. Soule	Kadoka
Jerauld	J. R. Urton	Wessington Springs
Jones	Robert Hughes	Murdo
Kingsbury	Charles Sayre	De Smet
Lake	C. A. Hicks	Madison
Lawrence	Carl Entorf	Spearfish
Lincoln	W. N. Parmeter	Canton
Lyman	R. L. Miller	Kennebec
McCook	J. D. Morrow	Salem
McPherson	Henry L. Leonhardt	Leola
Marshall	Gale Peppers	Britton
Meade	Ralph E. Hansen	Sturgis
Mellette Todd	Wesley Henke	White River
Miner	Harmon Boyd	Howard
Minnehaha	L. W. Harding	Sioux Falls
Moody	W. J. Cassidy	Flandreau
Pennington	Raymond F. Lund	Rapid City
Potter	Lyle Kennedy	Gettysburg
Roberts	W. C. Voskull	Sisseton
Sanborn	I. R. Trumbower	Woonsocket
Shannon Washington	W. R. Woods	Pine Ridge
Spink	Paul C. Underwood	Redfield
Sully	U. J. Norgaard	Onida
Tripp	James P. McGibney	Winner
Turner	George E. Anderson	Parker
Union	L. A. Eberlein	Elk Point
Walworth	H. A. Mateer	Selby
Ziebach	Ivan Fluharty	Dupree

ASSISTANT COUNTY AGENTS

Name	Temporary Headquarters
Lloyd Henry, Field Agent at Large	Brookings
James J. O'Connell	Huron
Tyrus Thompson	Sioux Falls
Ellsworth Wikle	Faith
Wm. Spurling	Aberdeen
Orville E. Anderson	Brookings
Milo Opdahl	Rapid City

DISTRICT CLUB AGENTS

Kenneth Anderson	Brookings
Earl Harriss	Brookings
D. E. Cass	Brookings
Jerome Olson	Redfield

HOME EXTENSION AGENTS

District	Name of Agent	Address
Lake McCook	Mrs. Bessie Joyner	Madison
Day,	Mary Bodwell (Dist. HomeAgent)	Webster
Potter Walworth	Artaxa Denniston	Gettysburg
Minnehaha	Sara Dewing	Sioux Falls
Beadle	Olive Neff	Huron
Brule, Charles Mix	Irma Houston	Chamberlain
Butte	Frieda Schroder	Belle Fourche
Brown	Esther Taskerud	Aberdeen
Bon Homme	Anna Kaiser	Tyndall
Custer Fall River	Margaret Koenig	Hot Springs
Clay Yankton	Ida M. Ladiges	Yankton
Davison Hanson, Aurora	Mrs. Ethel Rausch	Mitchell
Stanley Sully	Ora Sloat	Onida
Brookings Deuel	Kathryn Webster	Brookings
Pennington Lawrence	Evelyn Aalseth	Rapid City
Turner Hutchinson	Mrs. Emily Parker	Parker
Hand	Nellie McLcLoughlin (Half time) (Half time District Home Agent)	Miller
Roberts, Grant	K. Loretta Nelson	Milbank

General Information

HISTORICAL SKETCH

Establishment.—An act of the Territorial Legislature, approved February 21, 1881, provided that "an Agricultural College for the Territory of Dakota be established at Brookings, provided that a tract of land not less than eighty acres be secured and donated to the Territory of Dakota."

The Legislature of 1883 provided for the erection of the first building. This building, now known as the Central Building, was opened for use September 24, 1884.

The Enabling Act admitting the State of South Dakota, approved February 22, 1889, provided that 120,000 acres of land be granted for the use and support of the Agricultural College, in accordance with the acts of Congress making donations of lands for such purpose. The acts of Congress referred to are primarily the act of July 2, 1862, known as the Morrill Act, providing that 30,000 acres of public land for each representative in Congress be given to each state towards "the endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts." By the Enabling Act of 1889 Congress granted to South Dakota for the Agricultural College 40,000 additional acres, in lieu of a grant that had been made to the new states in 1841. Thus the total land grant for the Agricultural College was 160,000 acres.

In the Morrill Act of 1862, such colleges were spoken of as "Colleges of Agriculture and Mechanic Arts." In order that the name might more nearly conform to the object for which the College was established, the Legislature of 1907 changed the name from "The Agricultural College of South Dakota" to "The State College of Agriculture and Mechanic Arts."

The Experiment Station* was organized in 1887, under the Hatch Act of Congress, which provided for the establishment

*See the index for references to additional information concerning the Agricultural Experiment Station and the Agricultural Extension Service.

of agricultural experiment stations in connection with agricultural colleges. These stations were established for the purpose of conducting experiments and research in connection with all branches of the home and agricultural industries of the United States, due regard being paid to the various conditions and needs of the respective states. It is also their object to aid in diffusing among the people useful and practical information in all subjects connected with homes and agriculture. The South Dakota station conducts its investigations chiefly along the following lines: Livestock, dairying, soils, field experiments with crops, greenhouse work, trees and small fruits, injurious insects, and chemistry of plant growth and foods. In the home, studies are made of foods, their selection, preparation and conservation, clothes and textiles, and the various phases of home management.

The Agricultural Extension Service was established to carry to the people of the State the results of the work of the College, and also such methods as the most successful farmers and homemakers have approved for different localities. From its earliest history the College has sent out members of its staff to help the people of the State by addressing farmers' meetings, acting as judges at fairs and for agricultural clubs, and in various other ways. The College, however, had no money available to conduct such work in a systematic way until 1914, when the Smith-Lever Act was passed by Congress providing $10,000 annually to each state beginning with July 1, 1914, to be used for agricultural extension work by the State Colleges of Agriculture in cooperation with the United States Department of Agriculture. The act also provides that beginning with July 1, 1915, additional amounts, which increase from year to year, are to be given to the different states upon the condition that the states appropriate equal funds for the extension work.

Sources of Income.—A joint resolution passed by the Legislature of 1890 accepted the lands granted in the enabling act. These lands were not at once assigned. The Commissioner of Public Lands reported that 64,658 acres had been selected. All have since been selected; very few have been sold. A small amount is received yearly as rental. No school lands may be

sold for less than ten dollars an acre. When all the land is sold it will yield an endowment of approximately three million dollars.

The Morrill Act passed by Congress in 1890 provides a yearly appropriation for "the more complete endowment and support of colleges for the benefit of agriculture and mechanic arts." Under the act the College now receives from the general government the sum of $25,000 per annum.

An act making appropriation for the Department of Agriculture, approved by Congress March 4, 1907, provides for the future endowment and support of these colleges. The bill, which was introduced by Senator Knute Nelson, of Minnesota, stipulates that the expenditure of the fund shall be governed in all respects by the provisions of the Morrill Act, and also that a portion of the money may be used to provide for the training of instructors in agriculture and mechanic arts. This act made an appropriation of $5,000 for the year 1907-1908, which increased $5,000 each year until it reached $25,000 per annum, after which time it has remained fixed. The College, therefore, receives $50,000 annually from the National Government for instructional purposes under these two acts. This has been increased under the Bankhead-Jones Act which provided $20,000 additional in 1935-36 for instruction, this amount being increased during each of the three succeeding years until it reaches approximately $28,500 in 1938-39, after which it will remain constant.

The College also receives aid from the State, biennial appropriations being made by the Legislature for maintenance and buildings.

The Hatch Act provides that the agricultural experiment stations should each receive $15,000 annually from the National Government. This amount has been increased by the provisions of the Adams Act of 1906, so that the Experiment Station now receives $30,000 a year for maintenance.

The Purnell Act passed in 1924 provided that each state should receive $20,000 for the year beginning July 1, 1925 and that this amount should be increased by $10,000 each year thereafter until the total amount is $60,000 per year. This maximum has now been reached. This federal money must be

used strictly for research work on projects approved by the government.

Under the Bankhead-Jones Federal Act, passed by Congress in 1935, the South Dakota Experiment Station received $6,108 in 1935-36, the amount appropriated to all the states for this purpose being appropriated on the basis of the rural population of each. This yearly amount is to be increased for five consecutive years, at the end of which period the College will receive about $30,000 annually. In order to become available these funds must be matched by the State.

Under the Smith-Lever Act of 1914 the College receives $10,000 annually from the National Government for extension work. Under the same Act during the present year the College will receive about $55,000 additional on the condition that an equal amount is provided by the State to be used with the national fund.

In addition the College receives annually $20,000 under the Federal Capper-Ketcham Act of 1928. In accordance with this Act the College receives $5,200 in addition provided the State appropriates an equal amount. The provisions of this Act require that this money must be used for boys' and girls' club work.

The Extension Service in accordance with the federal Bankhead-Jones Act receives annually, and for 1936-37, an allotment of $122,247 which is made on the condition that the requirements of the Smith-Lever appropriation have been met by the state. This appropriation by Congress was made especially to aid in the educational work in connection with carrying out the state-wide work in the different counties of the Agricultural Conservation Act.

LOCATION, BUILDINGS, EQUIPMENT

The Location.—The College is located in Brookings, which has a population of about 4600 people. The city is situated on the Central Dakota Division of the Chicago & Northwestern Railway, the Watertown branch making connections with the main line at this point.

Few educational institutions are more advantageously located. The campus, lying at the northeast corner of the City

of Brookings, is approached by wide paved streets, which are shaded with well grown trees. The lawns of the city are well kept and abound in ornamental plants and shrubs. The houses are nearly all modern in equipment, and many of them are new and most attractive in appearance. City conveniences are provided mostly from municipal plants. Brookings is a city of homes and its atmosphere is favorable to the establishment and continuance of good habits.

The College Buildings and Grounds.—The college campus is ornamented with choice and tasteful varieties of trees and shrubs, and laid out with necessary walks and drives. Adjoining to the east are the horticultural gardens, and to the north, northeast, and northwest are the college farms.

The oldest college building, called the Central Building, built in 1884, houses the department of agricultural economics, the post office, the Collegian, the book store, the journalism office, and other college activities. The Old North Building, which was completed in 1887, is used by the School of Agriculture and the printing plant.

Another old building, completed in 1886, has been successively used as a boys' dormitory and for class rooms and offices; in 1917 it was moved to its present location, remodeled, and now houses the Extension Service.

The Agricultural and Administration Building was occupied in 1913, and the north extension was added in 1918. It provides executive offices, an auditorium, laboratories, class rooms and offices for the various agricultural departments and also for other departments.

The Physics-Engineering Building, completed in 1901, is occupied by the physics and engineering departments with their various class rooms, laboratories and shops. It has recently been remodeled, a third story being added, and later the basement excavated, the number of class rooms and the laboratory space being thus very much increased.

The Plant Breeding Building, also completed in 1901, together with the large Greenhouse, furnishes room for the work that is being conducted by the departments of horticulture and entomology.

The Stock Judging Pavilion affords excellent opportunities for the judging and studying of the different kinds of livestock. Recently a modern abattoir has been added which provides an excellent place for the studying of the cutting and curing of meats from the different animals.

The brick Horse Barn does much to facilitate the instructional work in horse production.

The Agricultural Engineering Building was built in 1899 as a gymnasium. It has been remodeled inside and now is used for instruction in automobiles, tractors, and farm machinery.

The Chemistry Building, replacing one destroyed by fire in March 1928, was occupied in January 1929. It is a modern fireproof structure.

The Creamery is a two-story building erected in 1899, and enlarged in 1902, and again in 1911. It furnishes quarters for the department of dairy husbandry and for a creamery which is conducted on a commercial scale.

The Armory was completed in 1918, and provides offices, bath rooms, lockers, dressing rooms, target practice room, etc., for the departments of military science and physical education. The main floor is 100 feet by 165 feet, free from supports, providing ample room for military drill and for athletics. A tract of land near the armory has been fitted up for outdoor exercises and sports.

Wenona Hall, built in 1909, and Wecota Hall, built in 1916, join each other, forming a splendid brick dormitory for young ladies. They will accommodate about 180 women.

The Men's Dormitory was built during the years 1920 and 1921, for the benefit of men who were disabled while in the United States Army or Navy, and who were sent to the College for training by the United States Veterans' Bureau. It is now being used to house freshman men.

The Animal Health Laboratory, a brick building erected in 1920, furnishes quarters for the veterinary department.

The new Lincoln Memorial Library, costing $200,000, was completed in 1927.

The chimes tower, or Campanile, the latest building on the campus, is the first since the observatory in 1892 to have been built out of money privately provided. It is the gift of Charles

L. Coughlin, of the class of 1909. The tower houses eighteen tubular chimes. These are electrically played and are used to mark the hours, also to give concerts of hymns and other tunes. The tower is surmounted by two powerful lights, one revolving and the other stationary, which serve as a beacon to aviators.

All buildings on the campus are heated by steam and lighted by electricity generated in a new heating plant of modern design which is located in the rear of the campus.

Near the campus are the President's house and the home economics Practice Cottage. On the adjoining college farm are located the livestock and dairy barns, together with several dwellings and a number of smaller buildings which are used for agricultural purposes.

The Farm and Horticultural Gardens.—The college farms include 882 acres, about 60 of which are used by the Agricultural Experiment Station as an experimental farm. Here the field experiments with crops, seed germination and soil preparation are conducted, and the students may witness and actually participate in this scientific work. The remainder of the farm is used as a model crop, stock and dairy farm under the direction of the Dean of Agriculture. Practical work in experiments involving the best farming practices for this region is given the students.

The horticulture gardens comprise about 50 acres adjoining the campus. Here and in the greenhouse a large amount of work in fruit propagation and plant experimentation is being carried on.

The Laboratories, Shops and Museums.—Well fitted laboratories and shops have been provided in all those departments where their use is made necessary by modern educational methods. The value of illustrative materials has been recognized, and numerous departments have made large collections and museums. The equipment of the various departments is described in connection with the description of their work.

The Library.—The new library affords plenty of room for readers and books, and space for expansion as the years go on. The large reading room is designed to seat about 250, the periodical room 64. The seminar rooms, designed for confer-

ence and study in small groups, will accommodate about 150. In the stacks before the south windows are tables for about 30 readers.

The library contains about 52,000 bound volumes and 15,000 pamphlets. The library receives about 320 periodicals, including the leading general magazines and a large number of scientific and technical publications. As far as funds will permit, a serious attempt is being made to build up the serial collections on which investigation depends.

On the reading room shelves are kept not only the ordinary reference books but a large collection of bound volumes of the most used periodicals together with a small selection of best books for the general reader in science and art, history and literature. It is the aim to increase this collection until it shall form an ideal general library. These books are for use in the building only.

The library is designed primarily for the use of the college community but its privileges are extended freely to the people of the city and state so far as such use does not interfere with the work of the College. Books are frequently sent out to schools for a period of two weeks for the use of debate groups or for the study of special topics.

The Postal Facilities.—The College furnishes first class postal facilities. State College Station, Brookings, South Dakota, is a Federal Postoffice, located in a college building. Mail is delivered at convenient times during the day, making it unnecessary for students to go to the city postoffice.

ORGANIZATION AND GOVERNMENT

The Board of Regents.—By an act of the legislature approved March 10, 1897, provision was made for the appointment of the Regents of Education, who have charge of all the educational institutions which are maintained either wholly or in part by the State. The terms of office of the regents are each six years and expire at different times, so that the board is a continuous body. Appointments to the board are made by the Governor, with the approval of the Senate, "of persons of probity and wisdom from among the best known citizens, residents of different portions of the State, none of whom shall

reside in the counties in which any of the state educational institutions are located, who shall be designated as the Regents of Education."

Among the powers and duties of the regents as defined by law some important ones are: to employ members of the different faculties and other agents, to determine the proper number of teachers in said faculties, also their compensation and terms of employment, to establish departments, to settle upon the courses of study, to determine the rules to be enacted for the government of the students, to decide upon the textbooks to be used, to fix tuition fees, to guard against unwise duplication of departments, to confer degrees, to control the Agricultural Experiment Station, and to promote education among the farmers by providing for institutes; in fact, to make all regulations as to the executive and instructional functions of the educational institutions of the State. The regents govern the College largely through a regents' committee.

The Faculty.—The faculty, consisting of the president and professors, all of whom are elected by the regents, determines in large part the general policy of the College. The president appoints, at the beginning of each college year, certain faculty committees which take up such work as may be assigned them by the president and the faculty.

In the government of the College the faculty relies chiefly upon the sense of duty of the students. The student is expected to pursue his studies with diligence, to attend classes regularly and maintain good behavior at all times. Students should understand that the College is expected by the State and the parents to maintain these simple standards at all times. This applies during the attendance of a student whether he may be on the campus or elsewhere. However, the College does not presume to usurp the functions of the State when students commit offenses against the law.

By action of the Regents, hazing in every form is prohibited in all the institutions under their control. As interpreted by them, hazing is interference with the personal liberty of others and includes any act of domination by some students over others, such as so-called stunts, etc., that may lead to the physical injury, intimidation, or humiliation of the latter students.

In order that the work of the College may be rendered as efficient as possible, the faculty has adopted regulations for the guidance of themselves and of the students. A copy of these is placed in the hands of the students when they enter. However, no set rules are expected to cover every condition that arises, and all students should recognize the importance of cooperation with the faculty in their efforts to make college life helpful to the student body as a whole.

Automobiles.—The College recommends that students attending State College should not be furnished automobiles by their parents. Very few of our students have need for an automobile, and the operation of one while attending college is not only expensive but usually interferes with the student's college work.

STUDENT ACTIVITIES

Faculty Control.—While the students are allowed wide latitude in carrying on affairs which vitally concern themselves, such as athletic, literary, musical, social and other activities, the faculty retains an advisory interest in all such matters, and has the right at any time to pass reasonable regulations for the welfare of the College. All matters relating to college activities and organizations are under the control, as the case may require, of a Faculty Committee on College Activities, or of this committee acting jointly with student committees. The Chairman of the Committee on College Activities is responsible for the administration of all regulations in this connection. (See Rules and Regulations for the Guidance of Faculty and Students.)

The Student Association.—The athletic, debating and oratorical interests, the musical organizations and student publications, are under the control of the Student Association, which governs these and other student activities by means of a Board of Control consisting of students and members of the faculty. Assisting this Board are the Athletic, Forensic, Music, and Publications Councils, which have charge of the respective activities that are assigned to them.

The College Women's Association.—This Association is composed of two branches,—the Women's Self Government Association, an organization of women in the three dormi-

tories, and the Town Girls' Association. Each woman by virtue of her registration is a member of one or the other branch, hence of the College Women's Association. It brings about co-operation between all of the women of the College in matters which pertain to the interest of the group, and promotes a friendly feeling between the dormitory women and women students of the town.

Physical Training and Athletics.—A large percentage of the men students engage in intra-mural and interclass athletics, and the women students are required to take physical training during the freshman and sophomore years.

Under the auspices of the local organization and a number of college athletic associations of the State, all kinds of athletic sports are practiced and encouraged. Students should understand, however, that their studies must receive first consideration; and that one object of athletic exercises is to develop gentlemanly qualities in those who participate in them.

Rifle Marksmanship.—In addition to the regular instruction to freshmen in rifle marksmanship, rifle teams of both men and women students are selected and matches are fired with teams from different colleges and universities throughout the country.

Oratory and Debating.—Each year for a number of years representatives of the College have met students from other institutions in debating contests. The members of the local teams are chosen in a series of preliminary contests in which all are urged to take part. There has thus been aroused among the student body a large interest in this kind of work together with a healthy rivalry to obtain places on the intercollegiate teams.

Upon the recommendation of the instructor in charge of debating, college credit may be given students who take part in intercollegiate debates.*

A representative of the College is sent each year to the intercollegiate oratorical contest of the State. This student is selected by means of a local preliminary contest. In order that this contestant may fully represent the College, the faculty has imposed the requirement that those competing for this

*See Rules and Regulations of the College for conditions governing such credit.

honor must be pursuing regular work for the bachelor's degree. In like manner a representative is chosen each year for the State Extempore contest.

Excellence of achievement in all these activities is recognized by appropriate awards and prizes.

The Student Publications.—The Industrial Collegian is a weekly paper published by the students of the College. It is intended to be a mirror of student life at this institution, and all phases of college activity have representatives on its staff of editors.

The Jack Rabbit, or college year book, which was formerly published by the junior class, is published annually by the students of the College.

Members of the Collegian and Jack Rabbit staffs may receive credit for their editorial work.

The Christian Associations.—In the state schools the Young Men's and the Young Women's Christian Associations occupy unique positions. They are the only organizations whose primary object is the moral development of the student body. Their platforms are broad enough to allow every student who stands for pure manhood and womanhood to affiliate with them. The purpose of the associations it to present to the student the value of Christian living, and to create an atmosphere of good-fellowship among the members of the student body.

Other Student Organizations.—Among the other outstanding student organizations of the College are the Band, Chorus, and Orchestra, which give a series of musical entertainments during the year; the Art Club, which in many ways fosters an interest in art; the Agricultural Society; Alpha Zeta (an honorary agricultural society); the engineering societies; the Whitehead Chapter of the South Dakota State College Pharmaceutical association; Rho Chi (an honorary pharmacy society); the Cadet Officers' Mess; the Home Economics Club; Phi Upsilon Omicron, honorary home economics society; Sigma Lambda Sigma (an honorary society for senior women); Pi Kappa Delta (a forensic society); Pi Gamma Mu (a social science honor fraternity); the Blue Key (an honorary service society); the Women's Athletic Association; the Scabbard and Blade (a military organization) and the women's auxiliary, the

Guidon; the Printonian Society; Rho Gamma Phi (professional journalistic society); and other organizations which promote interest in the various kinds of college work.

TUITION, LIVING AND OTHER EXPENSES; DEPOSITS

Tuition and Other Fees.—The tuition fees for students who are residents of the state are as follows:

In all collegiate courses, $24 for the fall term, $23 for the winter term, and $23 for the spring term.

For the School of Agriculture term of five months, $45. The School of Agriculture students pay no laboratory or library fees.

For the summer term of six weeks, $15.

For the tuition in special short courses and the fees in Music see "Special and Secondary Courses," in another part of this bulletin.

The tuition fees for students who are non-residents of the state are fifty per cent more than for resident students.

No deduction in regular tuition fees is made when a student enters late.

Each student of college rank pays $5.25 per term for membership in the Student Association ($1 during the summer session).

Each student of college rank is required to pay a health fee of $7.50 for the college year ($2.50 per term). All other students are required to pay a minimum of $1.00, and $1.00 per month after the first month.

A library fee of $1.00 each per term is required of students of college rank, of students enrolled in the six-week summer session, and in the short courses. The money derived from this source is spent for new books and periodicals and to replace old books.

A graduation fee of $5 is required of the student who receives a degree from the College.

See the following pages for statements concerning deposits for military suits and rooms in the dormitories.

A laboratory fee is charged for the use of each laboratory in which the student takes work. Deposits are also required in

connection with some laboratory work. The deposits are refunded after a deduction has been made for equipment broken by the student. These fees are mentioned in connection with the departmental description of the college work.

A fee of 50 cents is charged for each change in enrollment made at the request of the student after the first week of the term.

As an inducement to students to register promptly, the regents have imposed the rule that a tardy-enrollment fee of $2.00 shall be collected of all students who enroll after the time announced for that purpose. A students' registration is completed when his fees have been paid at the Secretary's Office.

EXPENSES

At the present time the necessary expenses of attendance for the college year of 36 weeks are approximately as follows:

Tuition	$ 70.00[1]
Board and Room	225.00[2]
Health Fee	7.50[3]
Laboratory Fees	15.00[4]
Books and Supplies	30.00[4]
Student Association Fee	15.75[5]
Library Fees	3.00
	$366.25

1. Non-residents of the state must pay 50 per cent additional. Tuition is paid in advance by the term.
2. Rooms cost from $1.10 to $2.00 per week, good board from $3.50 to $4.50 per week. Dormitory rooms rent for $1.10 to $1.60 per week, payable in advance by the term. A reduction of 10 per cent is made for cash in advance for the term.
3. Includes physical examination, ordinary medical service and hospitalization. It does not include any surgery. A charge of seventy-five cents per day is made for board while the student is in the hospital.
4. These vary with courses pursued.
5. Includes Collegian subscription, copy of Jackrabbit, a small amount for class dues, use of tennis courts and golf grounds, admission to athletic games, debates and concerts and other privileges. By action of the Regents this fee ($5.25 per term) is to be collected at the time of payment of tuition and other regular fees.

The above estimate does not include expenses for traveling, laundry, entertainments, etc., nor cost of clothing. However, all able-bodied men of collegiate rank below the junior year are required to take military science, and are furnished uniforms by the federal government. A deposit of $10.00 is required of each student who enrolls in military training, to insure proper care and return of the uniform. If this condition is complied

with, the deposit is returned at the end of the year, or when the student completes his military training.

While the above is considered as a reasonable estimate, much depends upon the character of the student and the work he is taking. In some of the technical courses the laboratory fees and the cost of books may be larger than the amounts mentioned in the estimate.

Room and Board.—Every effort is made by the college authorities to render the living conditions of the students wholesome and pleasant. If new students will write—the men to the Registrar, the women to the Dean of Women—these persons will assist them in getting suitably located.

All students must live in rooming places approved by the faculty. Wherever students reside, they are expected to conform to the general regulations of the College governing absences from the home, study hours, and other matters. Men students are not permitted to room in residences where women students, women employed in or about the city, or any girls or women not members of the housekeeper's immediate family, are rooming. This rule applies conversely to women students.

Women students and freshman men students whose homes are not in Brookings are required to room in the college dormitories unless formal permission to room elsewhere is granted in advance by the faculty committee in charge of such matters. If any rooms in the men's dormitory are vacant after the freshman men have been accommodated, they may be assigned to men of the upper classes. All other men students can find approved rooms in private houses, at $1.25 to $2.00 per week.

A cafeteria is operated by the College in connection with the women's dormitory. Students and faculty may secure good food here for from $3.50 to $4.50 per week. Board may be obtained in private homes at about the same price.

The Dormitories.—Everything possible is done to make a real home for those who live in the dormitories. The students are given a large share in the government of the halls and are thus encouraged to form orderly habits and high ideals of conduct. The purpose of those in charge is to make the dormitories as attractive and homelike as possible, and to create the spirit of cooperation that is found in a real home.

Resident nurses acting under the direction of the Student Health Service do everything possible to maintain health among the students, and to care for them when ill.

The buildings are heated by steam and lighted by electricity. Baths, toilet rooms and lavatories are on each floor.

Each room is provided with closets, two single beds, mattresses, two straight chairs, study table, dresser with mirror, rug or linoleum, and window shades. Each student should provide bedding, including a mattress pad, a pillow, two pairs of pillow cases, four sheets, and two pairs of blankets; also six towels and a clothes bag.

The three dormitories, Wenona Hall, Wecota Hall, and the Annex, accommodate about two hundred seventy-five young women. The Men's dormitory will accommodate about one hundred eighty men.*

The cost of rooms in the dormitories for each occupant, two in a room, ranges from $1.10 to $1.60 per week (payable in advance by the term), depending upon the size and location of the room. This fee covers heat, light, and janitor service. The occupants are expected to take care of their own rooms.

A deposit of $3.00 is required of all students rooming in the dormitories as a guarantee against damage to property. This must be paid when the room is reserved. The unused part of this will be refunded at the end of the year.

Student Labor.—Many students earn part of their college expenses while in attendance by working for the College, the people of the city, or near-by farmers. All should understand, however, that since work which can be done by them is naturally limited, the College cannot give students any assurance of employment in advance of their coming here. All possible assistance in this direction is given deserving students. Those interested in securing work should apply to the Registrar's office for a blank used in this connection.

ADMISSION

A candidate for entrance to the freshman class of the College must present at least fifteen units of entrance credit by certificate or examination, or by both as indicated on the fol-

*The College reserves the right to discontinue the Men's dormitory at any time it may become necessary to use the building for other purposes.

lowing pages. A unit is a subject which is taught five times a week throughout the high-school year or the equivalent of this work.

The requirements for entrance to special courses may be found in the description of such work.

Entrance by Certificate.—The four-year accredited high school course is the standard of entrance to the collegiate courses, and the graduate of such high school course will be admitted to freshman standing upon presenting a certificate from the principal, superintendent or other official of his high school specifying the subjects and the credits in each included in his course of study. Application blanks for this purpose are furnished by the College. However, if the student does not present credit for all of the subjects prescribed for entrance to the course of study he wishes to pursue in accordance with the following table he must make up the deficiency during his first year in college. No credit on his course of study will be allowed for subjects so taken.

A student who is not a graduate of a four-year accredited high school will be admitted to freshman standing if he presents fifteen units of credit from such a high school, provided they conform to the requirements mentioned in the table.

Entrance by Examination.—Students who wish to enter the College by examination, either to make up part of their entrance credits or all of them, should report to the Registrar on the forenoon of the first day of registration of freshman students at the beginning of the year. At other times of the year examinations may be taken by special arrangement with the Registrar.

A student who presents at least 14 units from a non-accredited four-year high school may receive credit for these upon passing examinations in English Composition and Rhetoric, Elementary Algebra, American History and Civics, and either a language or a natural science as the student may elect.

Entrance Credits.—Of the fifteen units required for entrance, some are prescribed, the remainder being optional.

The following is a list of subjects which will be accepted as entrance credits to the collegiate courses, together with the number of units which will be accepted in each. The applicant

must present credit for the prescribed work as outlined, and not less than the minimum nor more than the maximum indicated will be accepted as a part of the fifteen units. Not more than four units in vocational subjects will be accepted, unless the applicant is a graduate of a four-year accredited high school.

	Prescribed Units	Min.	Max.
GROUP I			
English	3	3	4½
Composition, Rhetoric and Literature	3	3	4
Public Speaking		½	1
Debating		½	½
GROUP II			
Mathematics	2*	2	4
Algebra*	1	1	2
Plane Geometry*	1	1	1
Solid Geometry*		½	½
Trigonometry		½	½
GROUP III			
Social Sciences	1	1	4
American Government	½	½	1
American History	½	½	1
Ancient Greek and Roman History		1	1
Medieval and Modern History		1	1
English History		1	1
World History		½	1
Economics		½	1½
Sociology		½	1
Psychology		½	½
GROUP IV			
Natural Sciences	1	1	6
General Science		½	1
Physics		1	1
Chemistry		1	1
Biology		½	1
Botany		½	1
Zoology		½	1
Physiology		½	1
Physiography		½	1

*A unit of natural science may be substituted for Plane Geometry for entrance to courses in Agriculture (except Agricultural Engineering and in the two-year Preforestry course), Home Economics and Pharmacy. The same substitution may be made for students who enter the General Science course and elect majors in social sciences. It is desirable, however, that students present credit in Plane Geometry, as in many college courses work in mathematics and the natural sciences is prescribed.

One and one-half units of Algebra, and Solid Geometry are required of Engineering Students.

GROUP V		
Foreign Languages	1	6
Any one foreign language	1	4
GROUP VI		
Miscellaneous:		
Agriculture	½	†1
Arithmetic, Commercial	½	½
Bookkeeping	½	1
Geography, Commercial	½	½
Law, Commercial	½	½
Shorthand	½	1
Home Economics	½	†1
Manual Work and Music, Typewriting, Shop, Mechanical and Freehand Drawing, etc.	½	2

Advanced College Credit.—Advanced credit in the College may be obtained by presenting certified grades from other institutions of reputable standing or by examination. The College reserves the right, however, to cancel grades accepted from other schools should the student be found deficient in a subject for which he has received credit. A student entering with advanced credit in subjects not prescribed in the course he is pursuing may use these as electives as far as his course permits. Reasonable substitutions of additional credits for prescribed work are allowed. Applicants for admission to the collegiate courses are strongly urged to submit their entrance and advanced credits by mail before the opening of the college year and thus facilitate the work of registration.

The Unit of Credit.—A credit or credit-hour is the measure of the work done in carrying for one term a subject of one recitation a week or its equivalent. In work of college rank a recitation is intended to be accompanied by one and one-half to two hours of preparation. Three hours of laboratory work where no outside work is required are counted equivalent to one recitation with the accompanying preparation.

Grades and Grade Points—The grading system of the College assumes that the fairest and most intelligible record of a student's work is that which indicates his approximate rank in comparison with his fellow students. To be valid, the comparison must be made in large classes, or in small classes in the same subjects averaged over a series of years. Under these conditions in the course of several years the distribution

†Four units if these are earned in a Smith-Hughes high school.

of grades in each class should approach a standard which has been adopted by the College.

The quality of work done by students is indicated by the following marks:

A, exceptionally high
B, superior
C, fair
D, passing (the lowest passing mark)
F, failure. The student must repeat the subject in a regular class in order to get a grade.
Inc., incomplete; see following paragraph.

Inc (Incomplete) is a temporary report indicating, (a) that for some reason **beyond the student's control** the essential work in a subject has not been completed, (b) that the work which has been completed was of passing grade, and that it is deemed practicable for the student to complete the subject in a satisfactory way without repeating it in a regular class. The instructor, when he reports a student's work "incomplete," must indicate to the Registrar what the student must do to complete the subject. At the beginning of the next term the subject must be entered on the student's registration card and arrangements, approved by the dean of the division, must be made with the instructor determining the method of completing the work. Unless a special extension of the time has been granted by the dean of the division, the make-up work must be completed by the end of the fourth week of the term and at this time the final grade, A, B, C, D, or F is recorded.

The grades A, B, C, D, and F after having been reported to the Registrar may be changed only by permission of the Dean of the Faculty.

When a student raises his grade in any subject by repeating the subject or otherwise, the new grade shall be counted in place of the old grade, but the latter shall remain on the books of the College as a part of the student's record.

A subject in which F has been received must be repeated the next time it is regularly offered, provided it is prescribed in the course of study the student is following.

Grade Points.—The grade shall carry grade points for each credit hour as follows: A—2 grade points; B—1.5 grade points; C—1 grade point; D—½ of a grade point; F—no grade point.

Example: The following will illustrate the way in which grade points are assigned to the grades of a student in the subjects indicated:

Military, 1 credit; grade A; grade points, 2
Mathematics, 5 credits; grade B; grade points, 7.5
Chemistry, 4 credits; grade C; grade points, 4
French, 4 credits; grade C; grade points, 4
English, 3 credits; grade D; grade point, 1.5

Total credits—17; total grade points—19

NOTE: Grade points or credits may be subtracted for unexcused absences. (See 1 under Penalties for Absences, Rules and Regulations of the College.)

In general, the number of grade points required for graduation in any collegiate course is at least equal to the number of credits required. This requires that the student who does not carry his work at an average grade or higher must complete additional work in order to graduate.

Note: Beginning with the summer school of 1937, grade points for each credit of A,B,C,D,F will be 4,3,2,1,0 and 408 grade points will be required for graduation, no grade points being counted for credits of D grade after the student has 204 credits.

Registration.—In registering for work the student is advised by a member of the faculty who helps him to make out a consistent schedule of studies. In general he is expected to classify in the normal amount of work in the scheme of study he is pursuing.

The student of college rank will not be allowed to register in more than nineteen credit hours the first term of his attendance, and not more than nineteen hours any subsequent term unless his work during the preceding term is of a high character, and then only by special action of the faculty committee in charge of registration.

Elective Work.—Unless there are statements to the contrary, elective work in the college schemes of study may be

chosen from any subjects offered for college credit in the different departments.

No instructor is required to give an elective subject to fewer than five students.

Military Requirements.—In fulfillment of the purpose of the National law endowing State Colleges devoted chiefly to agriculture and mechanic arts, the Regents have made basic military training (two years) a requisite for graduation for all physically fit male students—the minimum prescribed being three hours per week. In accordance with this requirement all such students who rank below the junior year are required to enroll in military science until the two years' work has been completed. Fitness for this training is determined by physical examination conducted by a physician appointed by the College, without expense to the student. For statement concerning deposit for military uniform, see page 31.

Students who have satisfactorily completed the basic military training, and whose record and character are such as to warrant their selection by the Professor of Military Science and Tactics and the President of the College, may elect the Advanced Military Course.* This Advanced Training requires five hours per week during the junior and senior years and attendance at a camp of instruction during six weeks of the summer intervening between the junior and senior years. During this time the student draws pay from the government. Satisfactory completion of the Advanced Military Course makes the student eligible for appointment as Second Lieutenant in the Officer's Reserve Corps of the Army. For further details see "Military Department."

Physical Training.—Women students of the freshman and sophomore classes are required to take physical training twice a week throughout the year, unless they are engaged in some other regular exercise. Additional physical training may be

* The following requirements are made in connection with the advanced work in Military Science:

1. In order to enroll in the advanced military course the student must have completed sufficient work, including the basic R.O.T.C. work, to enroll as a junior.
2. While enrolled in the advanced R.O.T.C. work, the student must carry a reasonably heavy classification each term at an average grade.
3. Upon the completion of the advanced military course, in accordance with the requirements just mentioned, the student may receive his commission.

Note: If students for reasons other than lack of ability or of application are unable to meet requirements 1 and 2, by special request they may have their cases reviewed by the college administration, who may modify the requirements in their cases.

required of students who need corrective exercises. Personal hygiene, first aid to the injured and similar topics are given in connection with the freshman work in physical training.

Conditioned Students.—Any student who without good reason has failed to receive a passing grade in a reasonable amount of his work will be registered only conditionally for future work. And if any student at any time is not carrying the work in which he is classified at a passing grade, or fails to perform other duties which may be expected of him, he may be placed upon the conditioned list and thus debarred from certain student privileges, or he may be dropped from the College.

Absences.—Students are expected to attend all recitations or other assignments in connection with their college work. In general absences are excused only when due to illness or official representation of the College. Negative credits or negative grade points are entered in the records against students whose absences are not excused, thus causing the student to do extra work for graduation. Absences on the first day of a term or on days immediately before or after a holiday are given double weight. This rule applies to all the assignments of the freshman class on their registration days of the fall term. For more detailed information concerning this matter the student should consult the general regulations which are issued by the College.

Student Health Service.—In order to guard the health of the students a department of Student Health Service has been established in the College. A college nurse is stationed in the women's dormitories and closely watches the health of the women students of the College. Some infirmary rooms are set aside in the women's dormitories for women students who are ill enough to require hospital service. The cost of board to students while they are in the infirmary is seventy-five cents per day, but no charge is made for the college nurse or the infirmary rooms. The College has also made arrangements with The Municipal Hospital of Brookings to receive men students who require hospital service. The cost of board to students while they are in the hospital is also seventy-five cents per day. The College pays for the rooms and for general care from the

health fees. In cases requiring special nurses and special care, the cost must be borne by the students concerned. The College assumes no financial responsibility for expenses of operations or special hospitalization of an individual student for more than thirty days during each school year, nor will the College assume hospital expenses for illnesses due to conditions which existed prior to the opening of college each year. It will lend assistance in securing physicians or quarters selected by students or their parents in such circumstances.

The College has recently installed a new X-Ray machine for the benefit of the students. A minimum charge sufficient to cover the cost of the films and material is made. This low cost permits the college physicians to take full advantage of any X-Ray study necessary for any student.

The college physicians maintain a suite of rooms in the Extension building where students may consult them. This office is open from 10:00 to 12:00 a.m., and from 4:00 to 5:30 p.m. Students who need attention at other hours may call on any of the college physicians at their down town offices in Brookings without any charge.

The following rules govern the health service:

1. Each student in the regular collegiate courses shall pay a health fee of $7.50 a year ($2.50 each term). Other students pay in proportion to the length of the term.

2. Upon registration in the College for the first time all students will be given a physical examination. Subsequent examinations may be given at the discretion of the College Health Service. In general one complete physical examination will be given every student each year.

3. In order to prevent, as far as possible, the spread of contagion, the following measures will be adhered to:

Vaccination for small pox will be administered upon matriculation.

Immunity tests, in so far as practicable, will be administered whenever there is an occurrence of contagion in the community.

4. In case of an epidemic of any quarantinable disease, proper housing and care will be furnished the student at cost. The cost of special nursing will be borne by the students re-

ceiving same. The services of the College Nurse will not be given in cases of contagious diseases or where special duty is required.

5. Major injuries and certain specific and chronic diseases will not be attended, and major operations will not be performed under direction of the Health Service. For these the student will be expected to choose and pay his own physician.

6. The Division of Pharmacy maintains a Dispensary where only the prescriptions issued to the students by their physicians will be dispensed. A charge covering the cost of the material and labor will be made to the student receiving the service.

The Dispensary is in charge of a registered Pharmacist and will be open daily from 11:00 to 12:00 a.m., and from 4:00 to 6:00 p.m. except Saturday afternoons. All prescriptions will be cash on delivery.

Nothing in the foregoing paragraphs is to be construed as interfering with the right of the student to employ on his own responsibility a physician or surgeon whom he may choose, provided in doing so he complies with the regulations governing physical examinations and such health measures as may be prescribed by the Health and Sanitation Committee of the College.

HONORS AND SCHOLARSHIPS

In order to give recognition to superior worth as shown throughout their course by candidates for the degree of Bachelor of Science honors are awarded at Commencement.

To be eligible for honors a student must have been in residence in the College for two years, must not have failed in any subject, and must on the basis of the last three years rank in the upper 20 per cent of his division. A student coming from another college shall have his credit evaluated on the basis of "C".

The selection for honors from those eligible in each division is made by the heads of departments of the respective divisions, the number selected not to exceed one for every twelve in the division who are eligible and for a major fraction of twelve. In making the selection consideration is to be given to character, loyalty and service to the College and promise of future usefulness.

Those receiving honors will have this fact inscribed on their diplomas, and will be specially mentioned on the commencement program.

(For additional details see copy of Rules and Regulations of the College.)

War Service.—Free tuition is given by the institutions under the control of the Board of Regents of Education to residents of the State who have performed military service and who have been discharged or released from active service. This includes any person who has performed active war service in nursing or assisting in the care of soldiers or sailors as a member of the Red Cross or any similar organization engaged in war relief work which was recognized and approved by the government. Applicants for these scholarships should bring their discharge papers when they enroll.

DEGREES AND CERTIFICATES; COURSES OF STUDY

Bachelor of Science.—This degree is conferred upon the completion of one of the four-year courses of study mentioned on page 43, and outlined on the following pages in connection with the various divisions.

Non-Degree Courses.—In addition to the courses leading to degrees, the College offers special and short courses in several important and practical lines of work. (See index for Special and Non-degree Courses.)

The Degree of Master of Science.*—The degree of Master of Science is conferred upon students who have received the degree of Bachelor of Science from this or some other institution offering an equivalent course of study and who in addition have completed a year of advanced work in residence in accordance with the regulations of the College.

Professional Degrees in Engineering.*—The degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), or Electrical Engineer (E.E.), may be conferred upon a graduate of this institution who has made a superior record in college and in the practice of his profession, and who, in addition, has complied with the regulations of the College governing this degree.

* A more complete statement concerning the requirements for the advanced degrees may be found in the section devoted to graduate study. (See index for reference to this section.)

ORGANIZATION OF THE COLLEGE

DIVISIONS

1. Agriculture, including the departments of Agricultural Economics, Agricultural Engineering, Agronomy, Animal Husbandry, Dairy Husbandry, Entomology-Zoology, Horticulture and Forestry, Poultry Husbandry, Rural Sociology, and Veterinary Science. This division also includes the Experiment Station, the Extension Service and the Vocational School of Agriculture.

2. Engineering, including the departments of Civil Engineering, Electrical Engineering, Mechanical Engineering, and Engineering Shop.

3. Home Economics, including instruction in Home Economics Education, Nutrition and Dietetics, and Clothing and Textiles.

4. Pharmacy, including the departments of Pharmacy and Nursing Education.

5. General Science, including the Departments of Art, Botany, Plant Pathology and Bacteriology, Chemistry, Education and Psychology, English, Foreign Languages (French, German and Spanish), History and Political Science, Mathematics, Military Science, Music, Physical Education, Physics, Printing and Rural Journalism, and Speech.

COURSES OF STUDY

I. Four-year courses leading to the degree of Bachelor of Science (B.S.):

1. (a) Technical Agriculture, in which the student may major in Agricultural Economics, Agricultural Education, Agronomy, Animal Husbandry, Dairy Husbandry, Farm Mechanics, or Horticulture.
   (b) Agriculture-Science, which affords a basic training in Agriculture, with the opportunity to major in allied sciences.
2. Engineering, in which the student may specialize in Agricultural, Civil, Electrical or Mechanical Engineering.
3. Home Economics, in which the student may pursue a general course, or specialize in foods, clothing, or teacher-training in Home Economics.
4. Pharmacy.
5. General Science, with majors in Natural sciences.
6. General Science, with majors in Social sciences.
7. Printing and Rural Journalism.
8. Industrial Art.
9. Nursing Education.

II. The following courses which do not lead to degrees:

1. The School of Agriculture vocational courses in Agriculture and Home Economics.
2. The three-month Creamery course.
3. The one-year course for training managers of Cooperative Associations.
4. The special winter short course in Agriculture.
5. The two-year vocational course in Printing.
6. The two-year Pre-Forestry course.
7. The two-year course in Aviation Mechanics.
8. The night course in Oxy-acetylene Welding.

III. Work leading to the following advanced degrees:

1. Master of Science (M.S.).
2. The Professional Degrees in Engineering (C.E., E.E., and M.E.).

DIVISION OF AGRICULTURE

The agricultural work at State College is of three kinds—resident instruction, experimentation and investigation, and extension. Experiments and investigations for the benefit of the farmers of the state are carried on in connection with problems of livestock production, dairying, soils, crops, poultry veterinary, horticulture, farm economics, rural sociology, and agricultural engineering.

The results of these investigations form a basis for class room instruction, for extension work, and a means of answering inquiries coming to the College. The Extension Service makes the work of instruction really state wide, by carrying the results of investigation to every farm in the state.

The aim of the resident instruction is to prepare men for successful work and leadership in the field of active farming, in agricultural education, in research work, in administrative and regulatory work, and in the many lines of business closely related to agriculture.

CURRICULA IN AGRICULTURE

Five courses of collegiate grade are offered in the Division:

A. The four-year course in Technical Agriculture.
B. The four-year course in Agriculture-Science.
C. The four-year course in Agricultural Engineering.
D. The four-year course in Industrial Arts.
E. The two-year Pre-Forestry course.

For outlines of these courses, see pages following.

Four courses of special and secondary grade are also offered:

1. The School of Agriculture course of four years for students of high school age or students who do not have sufficient high school credit to be admitted as regular collegiate students.
2. The three-month practical creamery course.
3. The one-year course for training managers of cooperative organizations.
4. The special winter short course.

For outlines of these courses, see index for "Non-degree Courses."

A. COURSE IN TECHNICAL AGRICULTURE

As suggested by the name, this course places emphasis

on the technical side of agriculture. While the general objective is to give students a liberal training with agriculture as a basis, the specific aim is to prepare them for the agricultural profession. Typical outlets in this field are: practical farming, including specialized types of farming in South Dakota, farm management, managing of co-operatives, soil surveying, agricultural extension work, agricultural research work, teaching of agriculture, service in state and the United States departments of agriculture, executive work with farm organizations, and numerous business enterprises closely allied to agriculture, such as the distribution of farm implements, fertilizers, dairy products, seeds and feeds, insecticides and fungicides, etc.

The total requirements of 204 credit hours for graduation comprise: (1) the basic required subjects of 121 credit hours described below, which every student must complete, and (2) the elective subjects aggregating 83 credit hours which include a major, a minor, and a choice of free electives. The method of choosing these electives is described on the following pages.

Basic Required Subjects

The required subjects referred to are designed to give the student a broad but rather comprehensive background in agriculture, and the related fundamental, natural, social and physical sciences.

Arranged by years and terms, together with the names of the specific subjects and their respective credits, the basic requirements for the Technical Agricultural course are outlined as follows:

BASIC REQUIREMENTS OF THE COURSES IN TECHNICAL AGRICULTURE AND AGRICULTURE-SCIENCE

Freshman Year	Fall	Winter	Spring
Types and Classes of Livestock, A H 1	5		
Field Crops, Agr 1		5	
Farm Dairying, D H 1			5
Inorganic Chemistry, Ch 1ab	4	4	
Inorganic Qualitative Analysis, Ch 1c			4
General Botany, Bot 1ab	3	3	
College Algebra, Math 13			5
Rhetoric, Engl 1abc	3	3	3
General Survey Course	1		
Military Science, Mil 1abc	1	1	1
	17	16	18

Sophomore Year

	Fall	Winter	Spring
Veterinary Anatomy and Physiology, Vet 20			5
General Horticulture, Hort 20			3
Elementary Organic Chemistry, Ch 21	5		
American or English Literature, Engl 20abc or 22abc	2	2	2
Elementary Bacteriology, Bact 31		4	
General Zoology, Z 20ab	3	3	
Extempore Speaking, Sp 21abc	1	1	1
Principles of Economics, Ag Ec 20	5		
General Poultry Culture, P H 20*		3	
Military Science, Mil 20abc	1	1	1
Elective		3	5
	17	17	17

Junior Year

	Fall	Winter	Spring
Soils, Ag 151 ab	4	4	
General Agr. Entomology, Ent 20			5
Animal Nutrition, A H 40	3		
Farm Machinery, AE 34			3
Principles of Sociology, R S 20		5	
Elective	10	8	9
	17	17	17

Senior Year

	Fall	Winter	Spring
Agricultural Policy, Ag Ec 195			3
Elective	17	17	14
	17	17	17

It is recommended that those who have not taken Elementary Physics in high school should elect at least the fall term of General Physics 21a as an elective in this course.

AE 22, Engineering Drawing and Plans, is required of students who qualify for the Smith-Hughes teaching certificate.

Electives

The choice of electives for all agricultural students working toward a degree should be made subject to the approval of the Dean of Agriculture, and under the guidance of the head of the subject matter department in which the student is majoring.

Preferably during the sophomore year, but not later than

* Students desiring to major in Animal Husbandry may substitute the elective course in Breeds of Livestock for this term in the place of General Poultry, taking the latter course in the winter term of the junior year.

the beginning of the junior year, the student should choose under guidance as indicated above, a major and a minor, each to consist of subjects in one department or of closely related subjects. A major consists of from 24 to 36 credit hours and a minor of from 15 to 24 credit hours. The balance of electives necessary to complete the number of credits required for graduation may be free electives or may be selected with the view of supplementing the major and minor.

The subject matter fields in which a major[1] and minor may be chosen from the electives allowed in the Technical Agriculture course are:

Major Fields[2]

1. Agricultural Economics
2. Agricultural Education
3. Agronomy (Field Crops, Soils)
4. Animal Husbandry
5. Dairy Manufacturing
6. Dairy Production
7. Farm Management
8. Farm Mechanics
9. Horticulture
10. Marketing
11. Poultry Husbandry

Minor Fields[3]

1. Rural Sociology
2. Veterinary Science

or

3. Any of the fields listed in the opposite column, except the one chosen as a major

or

4. Any of the fields listed as major or minor in the Agriculture-Science course.

B. COURSE IN AGRICULTURE-SCIENCE

As implied in the name, this course also calls for a broad basis of required work in agriculture, but allows for specialization in one of the related sciences.

The immediate aim of this course is to prepare students for fields of service closely associated with agriculture, and in which an understanding of agricultural problems is a decided asset. Illustrative of these fields are: the teaching of sciences closely allied to agriculture, research work in the biological, social and physical sciences, agricultural journalism, applied entomology, genetics, and the science of government as it affects agriculture.

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[1]After selecting the major and minor fields preferred in either the course in Technical Agriculture or the course in Agriculture-Science, the student should file a formal statement of his choice in the Dean's office, preferably during the sophomore year but not later than the beginning of the junior year.

[2]For an outline of subjects and credits required for a major in the various departments, please refer to the statement made concerning majors at the conclusion of the description of courses offered by the respective departments.

[3]For an outline of subjects and credits required for a minor, please confer with the head of the subject matter department concerned.

Basic Requirements

The total requirements of 204 credit hours for graduation include (1) the same basic subjects, aggregating 121 credit hours, as are required in the course in Technical Agriculture; (2) Elective subjects amounting to 83 credit hours, chosen under the same conditions as in the course in Technical Agriculture.

Electives[1]

The subject matter fields in which a major[2] and minor[3] may be chosen in the Agriculture-Science course are:

Major Fields[1]

1. Botany
2. Chemistry
3. Entomology
4. Political Science
5. Rural Journalism
6. Rural Sociology
7. Zoology

Minor Fields[1]

1. Bacteriology
2. English
3. Foreign Languages
4. Mathematics
5. Plant Pathology

or

6. Any of the fields listed in the opposite column, except the one chosen as a major

or

7. Any of the fields listed as major or minor in the Technical Agriculture course.

C. COURSE IN AGRICULTURAL ENGINEERING

In this course is included a sufficient number of agricultural subjects to give the student a precise understanding of farming and farming problems. To these are added subjects covering the fundamental principles of engineering and their application to agriculture.

The student so trained will be able to apply intelligently the principles of engineering to agriculture and to secure on the farm such efficiency as engineers have secured in other industries. In his senior year the student may be allowed credit for laboratory work on an important agricultural engineering problem, the amount of credit, not to exceed six hours, to de-

[1]See footnotes to course in Technical Agriculture.

pend upon the time spent, the grade of work, and the quality of the thesis presented.

Upon the completion of the prescribed subjects and additional elective work to make 204 term credits with 204 grade points, the student may receive the degree of Bachelor of Science in Agricultural Engineering.

COURSE IN AGRICULTURAL ENGINEERING

Freshman Year

	Fall	Winter	Spring
Inorganic Chemistry, Ch 1abc	3	3	3
Rhetoric, Engl 1abc	3	3	3
College Algebra, Math 14	5		
Plane Trigonometry, Math 15		5	
Analytic Geometry, Math 16			5
Farm Concrete, A E 16			2
Engineering Drawing, M E 3a	3		
Field Crops, Agr 1		5	
Carpentry, A E 11	2		
Forge Shop, A E 10			2
Technical Lecture, A E 12		R	
Architectural Drawing, M E 4a			2
Military Science, Mil 1abc	1	1	1
	17	17	18

Sophomore Year

	Fall	Winter	Spring
Calculus, Math 25, 26, 27	4	4	4
General Physics, Phy 21abc	4	4	4
Plane Surveying, C E 3	3		
Topographic Surveying, C E 25			3
Advanced Composition, Engl 41	3		
Farm Machinery, A E 34			3
General Mechanics, A E 23		3	
Machine Shop, M E 2a		2	
Engineering Problems, C E 30			3
Agricultural Engineering Seminar, A E 37ab		R	R
Military Science, Mil 20abc	1	1	1
Electives	2	3	
	17	17	18

Junior Year

	Fall	Winter	Spring
Soils, Agr 151 ab	4	4	
Extempore Speaking, Sp 21abc	1	1	1
Farm Motors, A E 145, 146		3	3
Mechanics and Materials, C E 142abc	4	5	3
Farm Structures, A E 150, 151		3	3
Heat Engines, M E 44 or			
Mechanical Laboratory, M E 62, and			
Descriptive Geometry, M E 5	5		
Farm Dairying, D H 1			5
Agricultural Engineering Seminar, 157ab		1	1
Elective	3		
	17	17	16

Senior Year

	Fall	Winter	Spring
Electrical Machinery, E E 40	4		
Principles of Economics, Ag Ec 20		5	
Farm Management, Ag Ec 38		3	
Drainage Engineering, and Land Improvement, A E 154, 164	3		2
Farm and Home Utilities, A E 160	2		
Landscape Gardening, Hort 47	2		
Livestock Management, A H 21			3
Landscape Architecture, A E 165			2
Economic History of U. S., Hist 26ab	3	3	
Hydraulics, C E 170	3		
Senior Problem, A E 167		3	2
Elective		3	7
	17	17	16

It is recommended that elective subjects be chosen from the following list:

Roads and Pavements, C E 50, 4 credits
Construction Materials, C E 144ab, 6 credits
Descriptive Geometry, M E 5, 2 credits
Mechanical Laboratory, M E 62, 3 credits
Sketching, M E 21, 1 credit
Newswriting, P R J 24, 3 credits
General Horticulture, Hort 20, 3 credits

D. COURSE IN INDUSTRIAL ART

The following four-year course has been outlined especially for students who wish to prepare themselves to teach industrial art. The course has been made broad enough and flexible enough so that the student at the same time may prepare himself to teach other subjects. This is a desirable arrangement as in most high schools of the state the teacher of industrial art must teach other subjects as well.

FOUR YEAR COURSE IN INDUSTRIAL ART

Freshman Year

	Fall	Winter	Spring
Rhetoric, Engl 1abc	3	3	3
Military Science, Mil 1abc	1	1	1
Library Use, Lib 1	1		
Algebra, Trig., Solid Geometry, Math 10, 11, 1	5	5	2
Inorganic Chemistry, Ch 1abc	4	4	4
Carpentry, A E 11			2
Engineering Drawing, M E 3a		2	
Freehand Drawing, Art 2a		2	
Forge Shop, A E 10			2
Farm Concrete, A E 16			2
Elective	2		1
	16	17	17

Sophomore Year

American or Eng. Literature, Engl 20abc or 22abc	2	2	2
Extempore Speaking, Sp 21abc	1	1	1
Architectural Drawing, M E 4c			2
Gen. Physics or College Physics, Phy 21abc or 20abc	4	4	4
[1]Elementary Psychology, Psy 25			3
Modern or American Hist., Hist 20abc or 23abc	3	3	3
General Botany, Bot 1abc or Gen. Zoology and Physiology, Z 20ab, 22	3	3	3
Machine Shop, E S 2a		3	
Advanced Carpentry, A E 21	2		
Military Science, Mil 20abc	1	1	1
	16	17	19

Junior Year

	Fall	Winter	Spring
Prin. of Vocational Education, Ed 41	3		
Educational Psychology, Ed 45		3	
Methods of Teaching in High School, Ed 47			3
Principles of Economics, Ag Ec 20	5		
Principles of Sociology, R S 20		5	
American Government, P Sc 44ab	4	4	
Political Parties, P Sc 46			4
Geology, Agr 171			5
Agricultural Carpentry, A E 31			3
Acetylene Welding, A E 29			2
Farm Structures, A E 150		3	
Elective	6	2	1
	18	17	18

Senior Year

General Mechanics, A E 23		3	
*Natural Science or Mathematics Sequence	3	3	3
*Social Science or Language Sequence	3	3	3
Wood Turning, A E 41			2
[2]Practice Teaching in Industrial Art, Ed 74		5	
Shop Methods, A E		1	1
[3]Elective	11	2	8
	17	17	17

In addition to the credits required in Industrial Art subjects, the student is advised to elect from the following list enough to bring the total up to 42 credit hours:

Engineering Drawing and Plans, A E 22	2
Farm Machinery, A E 34	3
Farm Motors, A E 145	3
Advanced Farm Motors and Power, A E 146	3
Descriptive Geometry, M E 5	2
Machine Design, M E 144	4
Freehand Drawing, Art 2abc	6
Advanced Freehand Drawing and Composition, Art 20abc	6

E. TWO-YEAR COURSE IN PRE-FORESTRY WORK

Two years of undergraduate work in forestry are offered. This gives students from South Dakota an opportunity to remain near home for two years of their four-year course in forestry, thus materially reducing the cost to the student of a four-year course. The following pre-forestry course fits into

* Sequences should be above freshman year.
1. Elementary Psychology is not counted as Education subject.
2. Practice Teaching any term when students can be accommodated.
3. The electives should include sufficient education subjects to total 22½ credits in that department.

four-year courses of leading forestry schools, so that a student, completing this two-year course, can transfer to a forestry school and complete his work in two more years. In addition to four years of collegiate work, most colleges of forestry require attendance at a summer camp. The outlined course will be accepted at full value by the leading forestry schools.

PRE-FORESTRY COURSE

Freshman Year

	Fall	Winter	Spring
College Algebra, Math 14	5		
Plane Trigonometry, Math 15		5	
Plane Surveying, C E 3			3
Inorganic Chemistry, Ch 1abc	4	4	4
General Botany, Bot 1abc	3	3	3
Rhetoric, Engl 1abc	3	3	3
General Forestry, For 1			3
General Survey Course	1		
Military Science, Mil 1abc	1	1	1
	17	16	17

Sophomore Year

General Physics, Phy 21ab	4	4	
Geology, Agr 171			5
General Zoology, Z 20ab	3	3	
General Entomology, Ent 20			5
Extempore Speaking, Sp 21abc	1	1	1
Principles of Economics, Ag Ec 20		5	
Elementary Organic Chemistry, Ch 21	5		
Topographical Surveying, C E 25			3
Engineering Drawing, M E 3a	3		
Dendrology, For 22			3
Military Science, Mil 20abc	1	1	1
Elective		3	
	17	17	18

Electives

Forest Planting, For 21, 3 credits
Soils, Agr 151a, 4 credits
Elementary Plant Physiology, Bot 45, 3 credits
Elementary Bacteriology, Bac 31, 4 credits
Topographic Mapping, C E 35, 4 credits
American Government, Hist 44a, 4 credits
Elementary Plant Pathology, Bot 61, 5 credits
Timber Preservation, For 23, 3 credits

Departments of Instruction*

AGRICULTURAL ECONOMICS

PROFESSOR LUNDY, ASSISTANT PROFESSORS COX, HANSON, PENN, WESTBROOK AND MR. McMARTIN

The courses offered in the Agricultural Economics Department are designed to give the student a working knowledge of the principles of economics and business management which apply to the practical operation of a farm, and to provide training in the efficient marketing of the product after it is produced; also to provide a basic training for those who wish to make more intensive study of these problems later, or who wish to go into some of the many lines of activity related to farming, such as work in agricultural statistics, investigational work in agricultural economics which has been increasing in importance, loan approval and inspection work, country banking, retailing in rural communities, work with cooperative associations, etc. More and more the necessity is apparent for introducing into farming and related industries the business principles which lead to financial success, and to make more efficient, more business-like and more profitable the management of these fundamental industries.

Advertising and typewriting are offered by the department of printing and are available to economics students.

The requirements for a graduate major in this department are not less than 30 credit hours in agricultural economics selected in consultation with the head of the department, from courses numbered 100 and above. In addition the candidate for a graduate major must present as a prerequisite 30 hours of credit in the social sciences, of which at least 19 must be in the field of economics, preferably Nos. 20, 30, 38, 48 and 55. Similarly, the requirements for a graduate minor in this department are not less than 15 credit hours in agricultural economics.

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* In the departmental description of subjects, numbers from 1 to 19 indicate freshman rank; from 20 to 39 sophomore rank; 40 to 59 junior rank; 60 to 79 senior rank; 100 to 199 undergraduate and graduate subjects; 200 and above, subjects ordinarily open only to graduates.

The prerequisites for a graduate minor are 15 credit hours in the social sciences of which at least 9 must be in economics.

In connection with certain phases of work in agricultural economics it is highly desirable to have a farm background and a training in agriculture. Those planning to go into statistical research work should also obtain training in mathematics. Because of the large social consequences of many activities in economic life, the student should know something about the other social sciences such as Sociology, History, Political Science, and Psychology. Students majoring in agricultural economics will be expected to have a fair knowledge of sociology and modern economic and agricultural history.

20 Principles of Economics (5,0,10) 5 credits F,W, or S

Offers training in the fundamental principles of economic science as an aid to the understanding of the modern economic problems involved in production; value and price-making; money and price fluctuations; distribution; international economic relations, etc.; P, sophomore standing. Five recitations a week. Mr. Lundy, Mr. Westbrook.

25 Farm Records (2,2,4) 3 credits W

Farm inventories, livestock and crop accounts, complete farm accounts; emphasis on the interpretation of records and their application in the organization and management of farms. This subject will be offered if desired by a sufficient number of students who are unable to take Principles of Accounting. Two recitations and two hours of laboratory work a week. Mr. Hanson.

30 Economic Geography (3,0,6) 3 credits S

A study of the geographic distribution of the natural factors on which economic life is based. This course aims to acquaint the student with the economic earth environment on the basis of which agriculture, industry and commerce have developed. Prerequisite, 20. Mr. Lundy.

35ab Principles of Accounting (2,4,6) 4 credits each term F,W

This course deals with fundamental bookkeeping procedure, the preparation of financial statements and with the uses which may be made of accounting data in the operation of single proprietorships, partnerships, and corporations, and treats of their organization and liquidation. The training offered in this course is essential in the management of both farm and business enterprises. P, sophomore standing. Two recitations and four hours of laboratory work a week. Mr. Cox.

38 Farm Management (2,2,5) 3 credits W

Farming as a business; factors of success, including: type and size of farm; best combinations of livestock and crop enterprises; choice of equipment and power; rates of production; arrangement of fields and buildings; ways of starting to farm; forms of tenure and leases; use of capital and credit; meeting risk; and management of specific farms to meet changing prices and drought conditions. Actual records of farms are used for analysis; a few farms will be visited. P, sophomore standing. Two recitations and two hours of laboratory work a week. Mr. Hanson.

41 Business Law (5,0,10) 5 credits W

This course aims to give the student such practical knowledge of legal problems encountered in the organization and operation of farm and business enterprises as will enable him to avoid needless litigation. The subjects covered will include Property, Contracts, Agency, Negotiable Instruments, Sales, Insurance, Common Carriers, Partnerships, etc. P, junior standing. Five recitations a week. Mr. Cox.

47 Transportation (3,0,6) 3 credits F

A study of the history of transportation in the United States, rate making, transportation finance, and state and federal legislation with respect to transportation, together with the influence of transportation on various other economic activities. P, 20. Three recitations a week. Mr. Cox. Given in alternate years; not offered in 1937-38.

48 Financial Organization (4,0,8) 4 credits W

A general survey course in money and banking, acquainting the student with all the chief types of financial organization and their functions and services in modern economic society. P, 20. Four recitations a week. Mr. Lundy.

55 Principles of Marketing (5,0,10) 5 credits W

A study of the organization and structure of the market for farm products, raw materials, and manufactured products; of the principles of wholesaling and retailing; and of the problems in buying and selling, including standardization, risk-taking, financing, advertising, price-making, price policies and government regulation. P, 20. Five recitations a week. Mr. Penn.

100 Agricultural Economics (3,0,6) 3 credits S

An introduction to the economic problems of the farmer arising out of his business relationships. Problems of production and distribution as well as the influence of prices on the farmer and the social implications of the farming business will be considered. P, 20. Three recitations a week. Mr. Penn.

135 Intermediate Accounting (2,4,6) 4 credits S

Advanced work in general accounting principles in the operation of single proprietorships, partnerships, and corporations; also a study in the principles of actuarial science. This course is designed to prepare a student for advanced work in accounting theory and C.P.A. problems. P, 35ab. Two recitations and four hours of laboratory work a week. Mr. Cox. Given in alternate years; offered in 1937-38.

138 Advanced Farm Management (2,2,5) 3 credits S

Special problems in farm management including: analysis of actual farm records, budgeting; and forms and methods used by resettlement workers, insurance companies, and farm management service companies. Field trips will be made to farms representative of South Dakota agriculture. P, 38. Two recitations and two hours of laboratory work a week. Mr. Hanson.

141ab Statistical Method (1,4,5) 3 credits each term F, W

141a, Deals with the methods of collection, tabulation, analysis and graphic presentation of quantitative data, and stresses those phases of statistics which are most commonly used by business men and by research and extension workers. One recitation and four hours of laboratory work a week. Mr. Cox.

141b, Advanced phases of statistical methods, emphasizing time series analysis; first and second moment correlation; and index numbers of quantity, price, and value. P, 141a. One recitation and four hours of laboratory work a week. Mr. Cox.

142 Production Economics (3,0,6) 3 credits S

Analyses of the general principles underlying the production of goods; the organization of a business enterprise; the conditions affecting its size and the problems involved in the proper combination of the elements of production to reduce the cost and increase profits. P, 20 and junior standing. Three recitations a week. Mr. Westbrook.

145 Public Finance (3,0,6) 3 credits F

A general introduction to the science of public finance; public expenditures; fiscal administration; public revenues and public credit; shifting and incidence of taxation. P, 20. Three recitations a week. Mr. Westbrook.

146 Agricultural Finance (3,0,6) 3 credits F

A study of the needs of agriculture in financing real estate, equipment, production, marketing, etc.; the functioning of the agencies handling the various types of credit for agriculture; principles of money and credit; problems involved in extending and using agricultural credit. P, 48. Three recitations a week. Mr. Lundy. Given in alternate years; offered in 1937-38.

148 Money, Bank Credit and Prices (3,0,6) 3 credits S

Devoted to a study of monetary theory and the economic consequences to different classes in society of various monetary and banking policies, including their effect on the general price level. Proposals for reducing the fluctuations in the general price level by means of monetary and banking policies are analyzed. P, 48. Three recitations a week. Mr. Lundy.

149 Investments (3,0,6) 3 credits S

A study of investment principles and practices; investment credit and its application to corporate, civil, foreign and real estate securities; analysis of bond prices and yields, together with the methods of testing. All other essential investment factors are carefully considered. P, 20. Three recitations a week. Mr. Westbrook. Given in alternate years; not offered in 1937-38.

155 Agricultural Marketing (3,0,6) 3 credits W

A study of the organization of and the functions performed in agricultural markets including the analysis of organized commodity exchanges, auctions, and recent trends in marketing agricultural products. P, 20. Three recitations a week. Mr. Penn. Given in alternate years; not offered in 1937-38.

166 Land Economics (3,0,6) 3 credits S

Deals with various aspects of land as an economic factor. Emphasis will be centered on the economic and social objectives of land utilization and land use planning. Attention will also be given to past land policies; types of land tenure; land values; and land taxation policies as they affect land use. P, 142. Three recitations a week. Mr. Penn. Given in alternate years; offered in 1937-38.

175 History of Economic Thought (3,0,6) 3 credits F

This course is a survey of the evolution of economic theory dealing with the different schools of economic thought and the economic

environments which give rise to them. P, graduate standing or consent of instructor. Three recitations a week. Mr. Penn.

179 Agricultural Cooperation (3,0,6) 3 credits W

Deals with philosophy of cooperation, and traces the development of cooperative activity in agriculture. Emphasis is placed upon the principles that are basic to success in cooperative activity. P, eleven hours of economics. Three recitations a week. Mr. Penn. Given in alternate years; offered in 1937-38.

185ab Advanced Economics (3,0,6) 3 credits each term W, S

185a, Economic theories of value and valuation.

185b, Economic theories of distribution; wages, rent, interest, profits, price theories, and busines cycle theories. P, graduate standing or consent of instructor. Three recitations a week. Mr. Penn.

195 Agricultural Policy (3,0,6) 3 credits S

The economic policies affecting agricultural prosperity and an analysis of some of the suggested means of reform. Emphasis will be placed on national and regional programs dealing with land utilization, taxation, tariff, and credit. The philosophy and administration of contemporary reforms will be considered. P, 20 and 100. Three recitations a week. Mr. Lundy.

200 Thesis 7 to 10 credits total F, W, S

The subject matter to be selected in consultation with advisor. Required of all candidates for Master's Degree. The final approved typewritten copy must be checked in at the department office not later than one week before the date set for the oral examination.

270 Agricultural Economics Seminar F, W, or S

Special seminar courses in the fields of cooperation, agricultural finance, farm management, land economics, agricultural marketing, prices of agricultural products, foreign trade and the tariff, and taxation relating to agriculture, etc., may be arranged. P, graduate or senior standing. Number of credits will be arranged in consultation with head of the department. Mr. Lundy and other members of the department.

277 Research Methods (3,0,6) 3 credits W

A presentation of the methods, problems and principles involved in research work and sources of agricultural economics data for the prospective research workers in the field of agricultural economics. P, graduate or senior standing. Three recitations a week. Staff members.

285 Research in Agricultural Economics

3 to 5 credits as arranged F, W, S

Graduate students may elect any one of the following subjects in agricultural economics research: agricultural credit, farm management, land economics, marketing, prices, statistics, taxation, etc. Subject matter is to be arranged in consultation with advisor or teacher. From nine to fifteen credit hours required of all graduate students working toward a Master's Degree in agricultural economics. Members of staff.

An undergraduate major in Agricultural Economics should include not less than 36 credit hours in the department.

Twenty-four credit hours are required for a minor. In addition, electives should be chosen to supplement the major.

The major and minor should be selected from the following subjects in consultation with the head of the department.

	Fall	Winter	Spring
Sophomore Year			
Principles of Economics, 20, either fall, winter or spring	5		
Principles of Sociology, RS 20			5
Economic Geography, 30			3
Principles of Accounting, 35ab	4	4	
Economic History of U. S., Hist 26ab	3	3	
Farm Management, 38		3	
History of Agriculture in Europe and U. S. Hist 28ab		3	3
Junior Year			
Financial Organization, 48		4	
Principles of Marketing, 55		5	
Statistical Method, 141ab	3	3	
Production Economics, 142			3
Rural Sociology, RS 131			3
Money, Bank Credit and Prices, 148			3
Agricultural Economics, 100			3
Senior Year			
Agricultural Marketing, 155		3	
Public Finance, 145	3		
Agricultural Finance, 146	3		
Advanced Economics, 185ab		3	3
Agricultural Cooperation, 179		3	
Agricultural Policy, 195			3
Land Economics, 166			3
Advanced Farm Management, 138			3

AGRICULTURAL EDUCATION

ASSISTANT PROFESSOR BENTLEY

The work of preparing teachers of vocational agriculture has been assigned to the South Dakota State College by both the State Board of Regents and by the State Board of Education carrying out the provision of the Smith-Hughes Vocational Education Act concerning the training of teachers of vocational agriculture. In order to do this, the Divisions of Agriculture and General Science cooperate in offering such teacher training work. Those persons preparing to teach agriculture should take the Basic Required Subjects for all the curricula in Agriculture. They should take a major in Agricultural Education, a minor or major in some phase of agriculture, and electives* including work in technical agriculture and farm mechanics to make up a total requirement of 204

* Students should consult with major adviser concerning requirements and electives in education and electives in technical agriculture and farm mechanics.

credits. Teachers of vocational agriculture in South Dakota receive the High School Special Certificate to teach Agriculture issued by the State Department of Public Instruction. Vocational Agriculture instructors are often required to teach certain academic subjects. This teaching certificate permits them to teach other branches in which they have made adequate preparation. To secure these certificates the professional (education) requirement is 15 semester credits (22½ term credits) of work in Education including supervised student teaching. The curriculum indicating the required psychology and education subjects is shown below. Besides the specific requirement in Education there is also a specific requirement in Farm Mechanics of at least six semester credits (9 term credits) including work in wood working, general mechanics and others. There are also required eight term credits in sociology, including general and rural sociology and ten term credits in economics, including farm management. The student should select his electives so as to have at least 60 term credits in technical agriculture.

A graduate major or minor in Agricultural Education is also provided for those interested and qualified to pursue graduate work.

CURRICULUM FOR HIGH SCHOOL SPECIAL CERTIFICATE

	Fall	Winter	Spring
Sophomore Year			
*Elementary Psychology, 25			3
Junior Year			
Principles of Vocational Education, 41	3		
Educational Psychology, 45		3	
Methods of Teaching in High School, 47			3
Senior Year			
Special Methods of Teaching Vocational Agr., 70	3		
Organization and Management of Vocational Agr., 71		2	
**Supervised Student Teaching Vocational Agriculture, 73	5		
Elective in Education	4		

NOTE.—See Department of Education, General Science Division for a list and descriptions of courses offered in Agricultural Education and General Education.

* Elementary Psychology is not to be counted as part of the 22½ term credits required in Education.

** Supervised Teaching Vocational Agriculture is offered each term.

AGRICULTURAL ENGINEERING

PROFESSOR PATTY, ASSISTANT PROFESSOR BONELL, MR. WIANT, MR. BLOEM, MR. DE LONG

Students pursuing the four-year course in Agriculture may specialize in the work of this department by selecting the Farm Mechanics group, or they may select courses that are offered. It is not the purpose of these courses to make an expert mechanic of the student, but this training should prepare him to see the efficient application of power and equipment on the farm as well as to plan and improve the farm with a degree of engineering efficiency. For students taking the four-year course leading to the degree Bachelor of Science in Agricultural Engineering most of the following courses are required.

10 Forge Shop (0, 6, 0) 2 credits F, W or S

Use of forge and tools, hardening and tempering small tools. Helpful in repair of machinery. This course will offer a good outline in metal work for manual training. Six hours of laboratory work a week. Mr. Bloem.

Laboratory fee $1.00 per credit.

11 Carpentry (0, 6, 0) 2 credits F or S

Use, care, and sharpening of tools. Materials, fundamental processes in wood and carpentry. Framing and rafter cutting. This course is prerequisite to all farm-building courses. Six hours of laboratory work a week. Mr. Bonell.

Laboratory fee $1.00 per credit.

12 Technical Lecture (1, 0, 0) R W

History, purpose, aims and general status of Agricultural Engineering. Mr. Patty.

16 Farm Concrete (1,3,2) 2 credits S

Specifications, strength, and methods of pouring. Use on the farm, mixtures, and cost estimates. One lecture or recitation and three hours of laboratory work a week. Mr. Patty.

20 Advanced Forge Shop (0, 6, 0) 2 credits W or S

Advanced work in repair and welding of farm machinery and equipment. Planning of a farm shop. Tools, arrangement and building. P, 10. Six hours of laboratory work a week. Mr. Bloem.

Laboratory fee $1.00 per credit.

21 Advanced Carpentry (0,6,0) 2 credits F or S

Cabinet construction and machine wood working. Rafter cutting, framing of windows and roofs, sills and sill framing. Some work on equipment such as wagon beds, scoop boards, etc. P, 11. Six hours of laboratory work a week. Mr. Bonell.

Laboratory fee $1.00 per credit.

22 Engineering Drawing and Plans (0,6,0) 2 credits S

Lettering and use of drawing instruments for agricultural students. Some work in mechanical drawing, small building plans and graphic presentation of agricultural statistics. Use of the architect's

scale and the reading of blue print plans. Six hours of laboratory work a week. Mr. Patty.

23 General Mechanics (1, 6, 2) 3 credits W

Soldering, acetylene welding, pipe fitting, electric wiring, batteries, post treating, belt lacing, babbitt bearings, concrete work, use of explosives in land-clearing and similar problems. One recitation and six hours of laboratory work a week. Mr. Wiant.

Laboratory fee $2.00.

29 Acetylene Welding (0,6,0) 2 credits S

Care and operation of apparatus. Methods of distinguishing metals. Preheating and welding of cast iron, steel, brass and aluminum. Brazing of malleable iron; oxyacetylene cutting and carbon burning. P, 10. Six hours of laboratory work a week. Mr. Bloem.

Laboratory fee $1.00 per credit.

31 Agricultural Carpentry (0,6,0) 2 credits W or S

Problems and exercises in carpentry that are met on the farm. A special course for "Industrial Arts" and "Smith-Hughes" students. P, 11. Nine hours of laboratory work a week. Mr. Bonell.

Laboratory fee $1.00 per credit.

34 Farm Machinery (1, 6, 2) 3 credits S

Design, construction, adjustment, operation, care and tests of farm machinery and farm equipment. Comparative draft. P, Phy 21a. One recitation and six hours of laboratory work a week. Mr. Wiant.

Laboratory fee $1.00.

37ab Seminar (1, 0, 0) R W, S

Preparation, presentation and discussion of papers on Agricultural Engineering subjects. Agricultural Engineering Staff.

41 Wood Turning (0, 6, 0) 2 credits F or S

Exercises in the use of wood lathe. Pieces are turned to exact scale including patterns for foundry work. Exercises include spindle, face plate, drive chuck, and wood chuck turning. P, 11 and 21. Six hours of laboratory work a week. Mr. Bonell.

Laboratory fee $1.00 per credit.

120 Special Methods in Teaching Industrial Art (2,0,4) 2 credits S

A special methods course for prospective Industrial Arts teachers. Deals with specific situations which are met by teachers of Industrial Arts subjects whether in the shop or classroom, or in various other relationships. Observed from the point of view of the teacher on the job and the teacher in training. P, junior rating. One lecture and one recitation hour per week. Mr. Bloem.

145 Farm Motors (1,6,2) 3 credits W

The design, operation, adjustment, construction, care and testing of gas and oil engines and tractors. P, 34, Phy 21abc. One recitation and six hours of laboratory work a week. Mr. Wiant.

Laboratory fee $2.00.

146 Advanced Farm Motors and Power (1, 6, 2) 3 credits S

Includes horse power, wind, water and electric power. Design, construction, adjustment, operation and testing of farm engines and motors. P, 145. One recitation and six hours of laboratory work a week. Mr. Wiant.

Laboratory fee $2.00.

150 Farm Structures (1, 6, 2) 3 credits W

Planning of farm buildings with regard to convenience, ventilation, sanitation and appearance. Comparison of building materials and their relative costs. Standard dimensions and framing. Design and drawing. One recitation and six hours of laboratory work a week. P, 22 or ME 4a. Mr. Patty.

151 Farm Structures (1,6,2) 3 credits S

Computation of stresses in farm buildings. Comparative strength of building materials. Designing of complete farm building plans, specification and cost estimates. P, 150, CE 142. One lecture and six hours of laboratory work a week. Mr. Patty.

154 Drainage Engineering (2, 3, 4) 3 credits F

Design and construction practices for tile drainage and open ditch drainage; depth, and spacing of tile for different soils; and structures and run-off rates, and specifications. One lecture, one recitation and three hours of laboratory work a week. P, CE 3, Agr 151ab. Mr. Patty. Laboratory fee $2.00.

157ab Seminar (1,0,0) 1 credit W,S

Preparation, presentation and discussion of papers on Agricultural Engineering subjects. Agricultural Engineering Staff.

160 Farm and Home Utilities (2, 0, 4) 2 credits F

Sanitary arrangement and construction. Home modernization, including sewage disposal, water supply, lighting and heating of the farm home. Two recitations a week. Mr. Patty.

164 Land Improvement and Drainage (1,3,2) 2 credits S

Soil erosion control including the design and practices used in gully control and terracing; land clearing methods and practices including the use of explosives and mechanical methods of clearing lands; drainage as continued from 154; and land irrigation including the design of irrigation ditches and structures. One lecture and three hours of laboratory work a week. P, 154, Soils 151ab. Mr. Patty.

165 Landscape Architecture (0,6,0) 2 credits S

Topographical survey of location. Location of buildings and development of complete landscape plan. Six hours of laboratory work a week. P, Hort 47, C E 25. Mr. Patty.

167 Senior Problem 3 to 6 credits

An original problem in design or research. This problem should give the senior student experience in design or research upon a subject of machinery, power, structures, rural electrification, or land improvement. It should include the taking and tabulating of data and the writing of a neat and comprehensive report of results.

The following major in Farm Mechanics is suggested:

Sophomore Year

	Fall	Winter	Spring
Forge Shop, 10			2
Farm Machinery, 34			3
Engineering Drawing and Plans, 22			2

Junior Year			
Farm Motors, 145		3	
Farm Structures, 150		3	
Farm Concrete, 16			2
Carpentry, 11	2		
Agricultural Engineering Seminar, 157ab		1	1
Senior Year			
Agricultural Carpentry, 31			3
General Mechanics, 23		3	
Farm and Home Utilities, 160	2		

AGRONOMY

PROFESSOR HUME, ASSOCIATE PROFESSORS HUTTON AND SWENSON, ASSISTANT PROFESSOR PUHR, MR. FOWLDS, MR. FRANZKE

The Agronomy department is the department of soils and crops. To help students apply the principles of science to crop production on the farms of South Dakota is the essential purpose of the courses offered.

What is the soil of South Dakota, or on some farms within the state? The student may learn to outline soil areas, to analyze soils, to observe field experiments, and to answer the question for himself.

What crops will grow in South Dakota soil areas, and how may the growing of them be made more profitable to the man who does the work? A study of the results of experiments will answer these questions for the student. These courses attempt to give the student in agronomy that accurate knowledge of conditions which is necessary to success in farming.

The courses offered are fundamental, practical, scientific. They are designed for South Dakota farmers. They may be pursued with profit by prospective teachers of agriculture or by experiment station workers and managers of marketing enterprises.

FIELD CROPS

1 Field Crops (4,2,9) 5 credits W

Classification, production and utilization of general field crops. Special attention is given to the physiological growth requirements and economic adaptations of the separate crops. The laboratory work consists largely of the identification of varieties and the commercial grading of cereals. Open to all college students; required of all agricultural students. Four lectures and two hours of laboratory work a week. Mr. Swenson.

Laboratory fee $1.00.

20 Forage Crops (3,0,6) 3 credits S

Production, improvement, and utilization of perennial and annual forage plants; the establishment and care of tame meadows and pastures as well as conservation, management and improvement of native meadow and pasture lands. Open to all college students; P, 1; required of all agronomy students. Three lectures a week. Mr. Swenson.

40 Seed Inspection (0, 6, 3) 3 credits F

Seed testing, seed impurities and methods of eradication of weeds from farm crops and seeds; characteristics of crop impurities from the standpoint of eradication of quack grass, Canadian thistle, wild oats. Open to all college students; required of all agronomy students. Six hours of laboratory work a week. Mr. Fowlds.

141 Crop Pathology and Crop Inspection (2, 2, 5) 3 credits F

Detection and methods of control of the common diseases of crop plants taken up especially from the standpoint of developing pure and improved sources of seed. Two lectures and two hours of laboratory work a week. P, Bot 1ab. Mr. Swenson. Given in alternate years; not given in 1937-38.

142a Crop Breeding (3, 0, 6) 3 credits F

The improvement of field crops, by selection and breeding, with emphasis upon earlier and later methods utilized by plant breeders, and their application to principles of inheritance. Definitions of heritable characters and ratios, with corn, and more briefly with other field crops. Practical criticisms of corn breeding systems, from the standpoint of accomplishing genetic improvement. In addition to the text book, such magazines as the Journal of Agronomy, Science, the Journal of Heredity are used. Students may be requested to subscribe for at least one such magazine. Text: Breeding Crop Plants, Hayes and Garber. P, Bot 1ab. Required of all Agronomy students. Three recitations a week. Mr. Hume.

142b Cereal Breeding (3, 0, 6) 3 credits W

The application of genetic principles to the improvement of small grain and root crops. P, 142a. Three recitations a week. Mr. Swenson.

142c Biometry (3,0,6) 3 credits S

Principles of statistical methods as applied to biological data with special reference to field plot technique and the analysis of plot yields. P, 142ab. Three recitations a week. Mr. Swenson.

160 Crop Ecology (3, 0, 6) 3 credits W

The study of crop plants in relation to their physiological and social environment. Open to all college students of junior standing. Required of all agronomy students. Three lectures a week. P, 142b. Mr. Swenson. Given in alternate years; given in 1937-38.

261 Crop Problems and Research 3 credits each term F,W,S

Special problems for advanced and graduate students who may become interested in a particular line of investigation, in relation to cereal or forage crops; production or growth of crops; crop improvement; study of previous experiments; original work in greenhouse or field. Students may be required to submit a final report or thesis. By special arrangement. Mr. Hume, Mr. Swenson.

SOILS

151abc Soils (2, 6, 4) 4 credits each term F, W, S

The first half of the year is devoted to Soil Physics and Management. The origin and development of the soil under different climatic conditions; classification of soils upon several bases; texture; porosity; specific gravity, plasticity, capillarity, granulation of soils; the soil as a reservoir for water; the movement and control of soil water; irrigation and drainage; the alkali problem; aeration of the soil and its relation to soil texture and plant growth; soil temperature; the physical effect of manures upon the soil; erosion by wind and running water—blowing and washing—and their control; the practical application of the foregoing methods of tillage; crop rotation and the application of green and farm manures in the management of different types of soils. The laboratory work includes careful study of physical properties of the soil through observation and practice; soils are also studied under field and greenhouse conditions.

The second half of the year is devoted to soil fertility and management. The regulation of the fertility content of the soil crop yields; effect of supplying various elements of fertility; effects of different rotations and systems of farming in relation to permanent agriculture; farming systems adapted to South Dakota conditions. The laboratory work includes the analysis of manures and fertilizers and the determination of their agricultural and commercial values; the analysis of various farm products and the analysis of a soil, preferably from the student's home farm, to determine fertility content. These analyses serve as a basis for devising a system of permanent agriculture for the student's home farm. P, Phy 21abc, Ch 1 abc, Ch 21. The fall and winter are required of all agricultural students. Two recitations and six hours of laboratory work a week. Undergraduate; non-agricultural graduate, minors only. Mr. Hutton, Mr. Puhr.

Laboratory fee $2.00, deposit $2.00.

152ab Advanced Soils F, W, S

A continuation of the work begun in 151abc. This course may include advanced work in Soil Physics or Soil Fertility as the group of students may elect. Such problems as the following may be chosen:

A study in the field of the effects of disking, harrowing, rolling, subsoiling, frequency and depth of cultivation with reference to conservation of soil moisture. The student may select a soil in which he is interested and make a complete physical analysis thereof; he may make a careful study of the movement of the water therein and its effect upon the growth of plants; he may investigate the relation of soil texture and structure to erosion control.

The student may study in detail a special soil in which he is interested or pursue a special problem. The work may include pot culture work in the greenhouse, analysis of soil used in pots; application of various fertility elements and their relation to the management of the soil; the study of the elements and their relation to the management of the soil; the study of the micro-organisms of the soil in relation to the preparation and availability of plant food, preparation of cultures, ammonification, nitration, nitrogen fixation; legume bacteria and conditions favorable to their growth, inoculation; results of bacterial action determined by quantitative analysis; reading of bulletins, books, etc., and a preparation of a bibli-

ography. The results of the study will be submitted in a final report or thesis. P, 151c. The number of recitations, laboratory and study periods will be arranged according to the line of work pursued. Mr. Hutton.

Laboratory fee $2.00, deposit $2.00.

153 Irrigation and Drainage (3, 0, 6) 3 credits By special arrangement

A consideration of the effects of changing the water content of soils through irrigation and drainage; the effect upon the physical conditions of the soil and upon its productivity; special attention given to problems of irrigation and drainage of reclaimed lands in South Dakota. Lectures, readings, field observations. P, 151c. Three recitations a week. Mr. Hutton.

154 Great Soil Groups of the World

(3, 0, 6) 3 credits By special arrangement

A study of the great soil groups and their distribution over the earth; the relation of soil profiles to the climatic zones in which they occur; native vegetation and agricultural crops found on various soils. This course aims to give the student a view of the soils of the earth in order that he may better understand the soils of his own country in relation to the changing conditions of world agriculture. P, 171, 151c, 172. Mr. Hutton.

155 Soil Surveying and Land Classification

(2, 0, 4,) 2 credits By special arrangement

The object of this course is to familiarize students with the methods of determining soil types and constructing soil maps. The work in the recitation room is supplemented by actual work in the field. Designed for those students who may wish to take up soil survey work. P, 151b. Two recitations or fields trips a week. Mr. Hutton and assistants.

156 Soils Field Trip 3 credits By special arrangement

An excursion to the representative soil areas of eastern and western South Dakota. This trip will be made by automobile, preferably before the opening of the fall term. About two weeks will be required for the trip. Credit will be given when a written report has been submitted. This report should be completed during the fall term. P, 151b. Mr. Hutton.

157abc Soils Seminar (1, 0, 2) 1 credit each term F, W, S

Discussion of important soil problems. Reviews of the literature and reports on investigations. Special attention given to those problems which concern the farms of South Dakota. P, 151b. One recitation a week. Mr. Hutton.

251 Soils Research 12 to 20 credits Time to be arranged

EARTH SCIENCE

171 Geology (3,4,8) 5 credits S

A course in general geology with the greater emphasis placed upon the physical divisions of the subject. The geology of South Dakota in relation to soils, water supplies and mineral wealth is given special attention. Collections of rocks, minerals, typical fossils, physiographic and geologic models, lantern slides, charts and maps are available for laboratory work and reference. P, junior standing. Three recitations and four hours of laboratory work a week. Mr. Hutton.

Laboratory fee $1.00.

172 Meteorology (3,4,5,) 4 credits F

A practical course dealing with the laws controlling the movements of the atmosphere, the study of climatological and weather factors, with special attention to conditions in the United States; the climate and weather of South Dakota in relation to various economic interests; weather maps and forecasts. P, junior standing. Three recitations and four hours of laboratory work a week. Mr. Hutton.

Laboratory fee $1.00.

173 Historical Geology (3,4,5) 4 credits. Time to be arranged

An introduction to Historical Geology. Offered for the benefit of students who expect to pursue advanced work in Geology after graduation. Offered only on request. Consult instructor at beginning of year. P, 171. Mr. Hutton.

271 Climatology (3,0,6) 3 credits W

A study of the important climates of the earth with special reference to Agriculture. P, 171, 172. Three recitation periods per week. Mr. Hutton.

272 General Physical Geography (4,2,9) 5 credits

A study of the physical environment including weather, climate, topography, natural vegetation, and soils. A comprehensive view; for graduates and advanced undergraduates. P, 12 credits in Soils and Earth Science. Text: Finch and Trewartha.

Laboratory fee $1.00.

The following majors are suggested:

FIELD CROPS

Freshman Year

	Fall	Winter	Spring
Field Crops, 1		5	
Sophomore Year			
Forage Crops, 20			3
Junior Year			
Crop Pathology and Crop Inspection, 141	3		
Seed Inspection, 40	3		
Crop Breeding, 142a	3		
Cereal Breeding, 142b		3	
Biometry, 142c			3
Geology, 171			5
Meteorology, 172	4		
Senior Year			
Crop Ecology, 160		3	
Crop Problems and Research, 261 (By arrangement for any term)			3

SOILS

Minimum Requirement
Junior Year

	Fall	Winter	Spring
Soils, 151abc	4*	4*	4

Senior Year

Advanced Soils, 152a	4		
Meteorology, 172	4*		
Geology, 171			5*
Soil Seminar, 157abc	1	1	1

Other courses such as 152b (4 cr.), 152c (4 cr.), and 172 (4 cr.) may be elected up to a total of 36 credit hours, the maximum requirement. Such electives should be chosen after conference with the Professor in charge of the Major.

ANIMAL HUSBANDRY

PROFESSOR WILSON, ASSOCIATE PROFESSOR WRIGHT, ASSISTANT PROFESSOR FENN

It is generally admitted that livestock farming is the basis for an intensive agriculture and that it, as well as good farming, must be practiced if the fertility of the soil is to be maintained.

Work in this department aims to give the student a practical and scientific knowledge of animal husbandry. The herds and flocks include representatives of twelve of the leading breeds of farm animals, which are used for class and demonstration purposes.

The following subjects are offered by this department:

1 Types and Classes of Livestock (2,6,7) 5 credits F

Practice in scoring and judging market types and classes of horses, beef cattle, sheep, and swine; market terms and methods of marketing livestock. Usually one trip to the market and packing plant at Sioux Falls. Two recitations and six laboratory hours a week, Mr. Wilson and Mr. Wright.

Laboratory fee $1.00.

20 Breeds of Livestock (1,4,4) 3 credits W

The early history and development and changes in type of the leading breeds of livestock including the judging of breeding classes. P, 1. One lecture and four laboratory hours a week. Mr. Wright.

Laboratory fee $1.00.

21 Livestock Management (2,2,5) 3 credits S

Principles and practices concerned with the management of beef cattle, sheep, swine and horses under farm and ranch conditions. Includes outlook surveys; selection, breeding and improvement; feeding; equipment; marketing; and practice in handling livestock and in doing certain management jobs. Designed for Animal Husbandry minors and for majors of other departments. Two lectures and two hours of laboratory work a week. Mr. Fenn.

Laboratory fee $1.00.

* Courses so marked may be elected as a minor in Earth Science.

40 Animal Nutrition (3,0,6) 3 credits F

Principles underlying the successful feeding of farm animals. Studies are made of the chemical compounds important in nutrition; the processes of digestion, absorption and metabolism; nutritional requirements of farm animals; and nutritive qualities of feeds. Practice is given in devising and balancing rations. P, 1, Ch 21, Vet 20. Three recitations or lectures a week. Mr. Fenn.

41 Farm Meats (1,4,4) 3 credits W

Selecting, evaluating, slaughtering and dressing of meat animals; cutting, curing, smoking and canning of farm meats; food value and utilization of meat and meat products; identification and grading of meat cuts. One lecture or recitation and four hours of laboratory work a week. Mr. Fenn.

Laboratory fee $1.50.

42 Livestock Judging (0,6,3) 3 credits S

The economic importance of the various breeds of beef cattle, swine, sheep and horses; the selection of breeding stock; and judging classes of breeding animals. Trips usually are made to conveniently located farms on which purebred livestock is kept. P, 1 and 20. Six hours of laboratory work a week. Mr. Wright.

Laboratory fee $1.50.

60 Meat Studies (1,2,3) 2 credits F

Identification, selection and grading of wholesale and retail meat cuts; carcass cutting demonstrations; selection, care and handling of animals to be slaughtered; preparation, care and storage of meats and meat products in the home; structure, composition and food value of meats; Meat Inspection Service. Trips to nearby meat packing plants and retail markets will be included. For Home Economics students. One lecture or recitation and two hours of laboratory work a week. Mr. Fenn.

Laboratory fee $1.00.

144 Horse Production (2,2,5) 3 credits W

Survey of horse industry and of various types and breeds of horses; selection, breeding and improvement; feeding; management; and marketing of horses. P, 20, 40. Two recitations or lectures and two hours of laboratory work a week. Mr. Fenn. Alternates with 164. Not given in 1937-38.

Laboratory fee $1.00.

145 Swine Production (2,2,5) 3 credits S

Improvement and management of breeding stock; feeding and marketing; and a study of swine feeding experiments. P, 20, 40. Two recitations or lectures and two hours of laboratory work a week. Mr. Wright.

Laboratory fee $1.00.

161 Advanced Livestock Judging (0,6,3) 3 credits F

Advanced work in judging market, breeding and show animals. Trips are made to conveniently located herds and flocks of purebred animals for practice judging and study of the methods of successful breeders. Usually participation in the International Collegiate Livestock Judging Contest is included. P, 20, 42. Six hours of laboratory work a week. Mr. Wright.

Laboratory fee $1.50.

162 Advanced Meats (1,4,4) 3 credits F

Intensive practice is given in the identification, judging and grading of carcasses and of wholesale and retail cuts. Trips are made to nearby packing plants and markets and usually particpation in the International Collegiate Meats Judging Contest is included. Recent research on quality and palatability of meats is reviewed and practice given in specialized meat cutting. P, 41. One recitation and four hours of laboratory work a week. Mr. Fenn.

Laboratory fee $1.50.

163 Principles of Animal Breeding (3,0,6) 3 credits W

The reproduction and development of animals and a study of the systems employed in improving breeding and market animals. P, 1, 20, Vet 42. Three recitations a week. Mr. Wright.

164 Sheep Production (2,2,5) 3 credits W

Improvement and management of breeding stock; feeding and marketing; and a study of sheep feeding experiments. P, 20, 40. Two recitations or lectures and two hours of laboratory work a week. Alternates with 144. Given in 1937-38. Mr. Wright.

Laboratory fee $1.00.

165 Beef Cattle Production (2,2,5) 3 credits S

Improvement and management of breeding stock; cattle feeding experiments. P, 20, 40. Two recitations or lectures and two hours of laboratory work a week. Mr. Wilson.

Laboratory fee $1.00.

166 Livestock History (3,3,6) 4 credits S

The origin and development of the common breeds of beef cattle, sheep, swine and horses; the methods employed by prominent breeders; and studies of pedigrees, breed families and herdbooks. An insight is given into the literature and philosophy dealing with livestock and stockmen. P, 1, 20. Three recitations or lectures and three hours of laboratory work a week. Mr. Fenn.

200 Research Problems 1 to 5 credits F,W,S

Advanced and graduate students who have the necessary qualifications may be assigned problems in the following fields:

(a) Swine production.
(b) Cattle production.
(c) Sheep production.
(d) Horse production.
(e) Meats.
(f) Nutrition problems.

Assigned readings, conferences and original work, any term. Mr. Wilson, Mr. Wright, Mr. Fenn.

201 Thesis 7 to 10 credits W,S

Graduate students majoring in Animal Husbandry will be assigned a suitable project, the same to be approved by the graduate committee.

The following major is suggested:

Freshman Year

	Fall	Winter	Spring
Types and Classes of Livestock, 1	5		

Sophomore Year			
Breeds of Livestock, 20		3	
Junior Year			
Animal Nutrition, 40	3		
Horse Production, 144		3	
Farm Meats, 41		3	
Livestock Judging, 42			3
Swine Production, 145			3
Senior Year			
Principles of Animal Breeding, 163		3	
Sheep Production, 164		3	
Beef Cattle Production, 165			3

DAIRY HUSBANDRY

PROFESSOR OLSON, ASSISTANT PROFESSOR JACOBSEN, MR. TOTMAN, MR. WALLIS

The Dairy Husbandry Department offers two dairy majors in the four-year collegiate Technical Agriculture curriculum, and a three-month creamery course.

The dairy majors have been outlined with the special view of fitting young men to become teachers and investigators of dairying in public schools, agricultural colleges and experiment stations; inspectors of creameries and dairy products in municipal, state and governmental service, and superintendents of creameries and dairy farms. In this curriculum a major in either dairy production, dairy manufactures, or both, may be chosen, the choice being made at the beginning of the junior year. For graduation there is required at least one summer's work either on a dairy farm or in a creamery or other dairy plant, depending on the work in which the student is specializing.

The three-month creamery course is given with the view of training men to become successful operators of creameries, ice cream and market milk plants. For details concerning this course see "Special and Secondary Courses."

The demand for good men properly trained along dairy lines is very good. Compensation for dairy and creamery work is good. Worthy students can depend upon the co-operation of the department in securing positions.

The Dairy Husbandry Department operates on a commer-

cial basis a well equipped creamery in which butter, cheese, and ice cream are manufactured throughout the year. The department occupies a two story brick building. On the first floor are the engine room, creamery rooms with full equipment for butter, cheese and ice cream making, refrigerating rooms, locker room, and the large laboratory used for instructional purposes. On the second floor are located class rooms, offices, dairy bacteriology laboratory, chemistry research laboratory and reading room.

The dairy herd, which consists of representatives of the principal dairy breeds, affords an excellent opportunity to become acquainted with dairy types. The dairy barn is large and well equipped. Milking machines are in daily use, thus affording students opportunity to acquire practical knowledge regarding their operation and care.

Experiments relating to feeding, breeding and care of dairy stock and the manufacture of dairy products are in progress at all times. Students may have the advantage of keeping in touch with these experiments, note the manner of outlining and executing investigational work, and profit from results. Advanced students may arrange to assist in some of this work.

1 Farm Dairying (4,3,8) 5 credits S

A study of the purposes and importance of dairy farming; breeds of dairy cattle; management and feeding of the dairy herd. Study of breed type and conformation. Judging of dairy cattle. A brief study of the processing, manufacturing and disposition of milk and the various milk products. Study of dairy equipment. Testing milk, skimmilk, buttermilk and cream for fat and acid. Study of cream separators. Four recitations and three hours of laboratory work a week. Mr. Olson.

Laboratory fee $1.00, deposit $1.00.

20 Dairy Cattle and Products Judging (0, 6, 0) 2 credits S

The judging of the major breeds of dairy cattle with special emphasis on the standard score card. The judging of dairy products by U. S. D. A. score cards. Six hours of laboratory work a week. The Staff.

Laboratory fee $1.00.

40 Dairy Inspection (0,6,3) 3 credits S

The various chemical and biochemical tests used in the control of the composition and quality of dairy products. Practice in the use of the Mojonnier tester on all milk products. The U. S. D. A. score cards for dairy farm, milk plant, and milk inspection. P, 1. Six hours of laboratory work a week. Mr. Jacobsen.

Laboratory fee $2.00, deposit $2.00.

141 Dairy Bacteriology (2,6,4) 4 credits F

A study of the types of bacteria found in milk, sources of contamination, pathogenic organisms in milk, milk fermentations, and study of pasteurization from a sanitary standpoint. Methods of bacterial examination and counting as used in milk inspection are applied under practical conditions. P, 1, 40, Bac 31. Two recitations and six hours of laboratory work a week. Mr. Jacobsen.

Laboratory fee $2.00, deposit $2.00.

142 Study of the Dairy Breeds (3,0,6) 3 credits F

Origin, history and characteristics of the leading dairy breeds. Study of families, and noted producers and show ring winners. Study of leading breeders and their contribution to the breed. P, 1, 20. Three recitations a week. Mr. Olson.

143 Condensed Milk Products (3,0,6) 3 credits F

The manufacture of condensed milk, powdered milk, casein and lactose; defects in condensed milk products, their causes and prevention; history and statistics of the industry. P, 1, 40, 141, 150, Ch 20. Three recitations a week. Mr. Totman.

144 Manufacture of Cheese (3,3,6) 4 credits F

A study of the constituents of milk with special reference to cheese making; manufacture of hard and soft cheese, principles involved in processing, curing, and marketing of cheese. Food value, history, and statistics of the cheese industry. P, 1,40,141, Ch 20. Three recitations and three hours of laboratory work a week. Mr. Totman.

Laboratory fee $2.00.

145 Manufacture of Butter (3,3,6) 4 credits S

A study of receiving, sampling, and grading of cream; preparation and use of starter; pasteurization, neutralization, and ripening of cream. Principles of churning, grading, and marketing of butter; mechanical refrigeration, types and suitability of creamery equipment. Food value, history and statistics of the butter industry. P, 1, 40, 141, Ch 20. Three recitations and three hours laboratory work a week. Mr. Totman.

Laboratory fee $2.00.

146 Manufacture of Ice Cream, Sherbert, and Ices (3, 3, 6) 4 credits S

A study of ice cream mixes, calculations, preparation, and processing. The principles of freezing, hardening, storage, and transportation of ice cream. A detailed study of the effects of various ingredients of the mix on yield, freezing and quality of ice cream. Refrigeration and ice cream equipment, food value, history and statistics of ice cream. P, 1, 40, 141, Ch 20. Three recitations and three hours of laboratory work a week. Mr. Totman.

Laboratory fee $2.00.

147 Market Milk (2,3,4) 3 credits S

The sanitary production and processing of milk; factors affecting quality; methods of buying and distribution of market milk with special attention to the small city milk plant; milk inspection and standardization. P, 1, 40, 141, Ch 20. Two recitations and three hours of laboratory work a week. Mr. Jacobsen.

Laboratory fee, $2.00.

148 Advanced Judging of Dairy Cattle 1 or 2 credits F

Judging of dairy cattle in the college herd and trips to nearby breeding establishments. Special attention is given to oral reasons. The course will usually include participation in the National Collegiate Cattle Judging Contest. The credits determined by the time devoted to judging each year. P, 20. Two hours of practice judging a week. Mr. Jacobsen.

149 Advanced Judging of Dairy Products 1 or 2 credits F

Judging of butter, cheese, milk and ice cream according to the U. S. D. A. score cards. The course will usually include a trip to the National Collegiate Products Judging Contest. Credits determined by time devoted to practice judging. P, 20. Two hours of practice judging a week. Mr. Totman.

Laboratory fee $1.00.

150 Dairy Chemistry (3,6,6) 5 credits F

A study of the physical, colloidal, and chemical properties of milk and its major and minor constituents, with special reference to their relation to the nutritive value of milk and their importance in the manufacture of dairy products. Analysis of milk, and milk products with a study of the chemical changes involved in the manufacture of dairy products. P, 1, Ch 20. Three recitations and six hours of laboratory work a week. Mr. Wallis.

Laboratory fee $2.00, deposit $2.00.

162 Advanced Dairy Bacteriology (0, 6, 3) 3 credits S

A continuation of Dairy 141. The role of micro-organisms in the manufacture of butter, cheese, ice cream, and condensed milk; the numbers and types concerned. The preparation and study of fermented milks and starters. The isolation of common types of micro-organisms found in milk. P, 1, 40, 141. Six hours of laboratory work a week. Mr. Jacobsen.

Laboratory fee $2.00, deposit $2.00.

163 Dairy Cattle Feeding and Management (4,3,8) 5 credits W

Study of milk production, and factors affecting same; feeding standards; methods of preparing feeds and feeding dairy cattle. Methods of improving the dairy herd, keeping feed, herd and other records. A study of arrangement and location of dairy buildings. Details of dairy herd management. P, 1, 40, 150. Four recitations and three hours of laboratory work a week. Mr. Olson.

166abc Dairy Seminar (1,0,2) 1 credit each term F,W,S

This course includes the study and review of scientific literature on various phases of the dairy industry; writing and reporting of same. P, senior standing. One recitation a week. Staff.

167 Dairy Problems 1 to 3 credits F,W,S

Special problems in the field of dairying. For advanced students only. P, junior or senior standing. The staff.

267 Dairy Research 3 to 9 credits F, W or S

Views held by different authorities on important dairy subjects; a digest of recent dairy work of the experiment stations; research problems, references and reports. P, graduate standing. Number of credits as arranged. The staff.

268 Thesis 5 to 8 credits W, S

The thesis must comply with the regulations of the graduate committee. Number of credits as arranged. The staff.

The following majors are suggested:

DAIRY MANUFACTURING

Freshman Year

	Fall	Winter	Spring
Farm Dairying, 1			5
Sophomore Year			
Dairy Inspection, 40			3
Dairy Cattle and Products Judging, 20			2
Junior Year			
Dairy Bacteriology, 141		5	
Dairy Chemistry, 150	5		
Manufacture of Butter, 145			4
Senior Year			
Dairy Cattle Feeding and Management, 163		5	
Condensed Milk Products, 143	3		
Manufacture of Cheese, 144	4		
Manufacture of Ice Cream, 146			4
Market Milk, 147			3
Dairy Seminar, 166 abc	1	1	1

DAIRY PRODUCTION

Freshman Year

	Fall	Winter	Spring
Farm Dairying, 1			5
Sophomore Year			
Dairy Cattle and Products Judging, 20			2
Dairy Inspection, 40			3
Junior Year			
Dairy Bacteriology, 141		5	
Dairy Chemistry, 150	5		
Senior Year			
Study of Dairy Breeds, 142	3		
Market Milk, 147			3
Dairy Cattle Feeding and Management, 163		5	
Dairy Seminar, 166 abc	1	1	1

ENTOMOLOGY—ZOOLOGY

PROFESSOR SEVERIN, ASSOCIATE PROFESSOR GILBERTSON, MISS HARTWIG

The subjects offered by the Entomology-Zoology Department are planned to meet the needs of three classes of students: first, those who wish to major or minor in Entomology, in Zoology or in both fields; second, those who must have a fundamental training in the work of this department in order that they may pursue certain branches of study such as animal husbandry, horticulture, veterinary medicine, home economics, pharmacy, medicine, dentistry, nursing etc.; third

those who desire merely to acquire a knowledge of the fundamental facts and principles of zoology and entomology.

The work of this department is conducted by means of lectures, recitations, laboratory and field work. The student is thus afforded not only an opportunity to gain familiarity with the principles and theories discussed in the class room, but is also encouraged to put these theories to the test and verify the principles in the field.

The laboratories are well supplied with apparatus and illustrative materials. The apparatus includes compound microscopes, binocular microscopes, dissecting microscopes, camera lucidas, paraffin baths, incubators, microtomes, physiological apparatus, photographic apparatus, spray machinery and accessories, etc. As illustrative materials, in addition to the general museum and entomological collections, there is a large series of charts, skeletons, formalin and alcoholic preparations, models, lantern slides, microscopic preparations, a line of insecticides and fungicides, a collection of approximately 600 Riker mounts illustrating the life cycle of injurious insects. etc.

ZOOLOGY

20ab General Zoology (2,4,3) 3 credits each term F,W

The fundamental principles of animal morphology, physiology, reproduction, embryonic development, genetics, classification, ecology, geographic distribution, paleontology and evolution. A limited study is made of the life histories of various types of animals, especially those of major economic importance. Two recitations and four hours of laboratory work a week. Mr. Severin, Mr. Gilbertson.

Laboratory fee $1.50 each term.

21abc Physiology for Pharmacy Students

(1,6,2) 3 credits each term F,W,S

The functions of the human body and the effects of different drugs upon these functions. The laboratory work of the fall term is devoted to a study of the anatomy of a frog and a mammal. Each student is required to dissect a frog and a mammal. In the winter and spring terms, the fundamental physiological processes are studied from the viewpoint of the pharmacist. Frogs and domesticated animals are used in the physiological experiments when it is impossible or impracticable to use the human being.

Modern equipment such as kymographs, sphygmographs, haemocytometers, are used in the physiological studies, as are also histological slides, anatomical models, etc. One recitation and six hours of laboratory work a week. Miss Hartwig.

Laboratory fee $2.00 each term.

22 Human Physiology (2,3,4) 3 credits S

A study of the fundamental physiological processes of the human body. Histological slides are used for the study of tissues while anatomical models and the organs of domesticated animals are used for the study of the structure of organs and systems. Modern equipment such as kymographs, sphygmographs, haemacytometers, etc., are used in some of the physiological studies. P, 20ab. Two recitations and three hours of laboratory work a week. Miss Hartwig.

Laboratory fee $1.50.

40abc Invertebrate Zoology (2,4,3) 3 credits each term F,W,S

A general survey of all the phyla of invertebrate animals with an intensive study of the more important groups. Emphasis is placed upon the morphology, ecology and economic importance of important representatives of each phylum. Considerable time is devoted to field work in this course. The student is required to prepare protozoan cultures, and is given practice and training in identification work. P, 20ab. Two recitations and four hours of laboratory work a week. Mr. Severin.

Laboratory fee $2.00 each term.

41 Parasitology (2,3,4) 3 credits S

The chief worm and protozoan parasites of domestic animals and man, their habits, life histories and economic importance. This course includes lectures, laboratory work and assigned reading, and should be preceded by Veterinary and Medical Entomology (see Ent 60). P, 20. Two recitations and three hours of laboratory work a week. Miss Hartwig.

Laboratory fee $1.00.

42 Genetics (3,0,6) 3 credits F

A general discussion of genetics, the origin of the germ cell, the germ cell cycle, embryological development as determined by heredity and modified by environment, the cytology of the germ cells, the relation of the chromosome material to genetics, the theory of the gene, linkage, crossing-over, non-mendelian inheritance, experimental evolution and related phenomena. Statistical studies are made of variations so that the student may become acquainted with the use and application of biometrics in the field of genetics. P, 20ab, or equivalent. Three recitations a week. Miss Hartwig.

60 Organic Evolution (3, 0, 6) 3 credits S

The fundamentals of the doctrine of organic evolution. Evidence in support of the doctrine is discussed from the following sources: comparative animal morphology, comparative physiology, comparative embryology, paleozoology, animal taxonomy, geographic distribution, experimental genetics and blood tests. This is followed by a study of the causal factors of organic evolution. An historical account of the doctrine of organic evolution concludes the course. P, 20ab. Three recitations a week. Mr. Severin.

161ab Vertebrate Zoology (1,6,2) 3 credits each term F,W

A study of vertebrates, their morphology, physiology, probable origin and relationships. The laboratory work consists of a study of the morphology of a fish, amphibian, reptile, bird and mammal, and gives

the student considerable training in dissection. One recitation and six hours of laboratory work a week. Given in alternate years; not given in 1937-38. Miss Hartwig.

Laboratory fee $2.00.

162ab Vertebrate Embryology (2, 3, 4) 3 credits each term F,W

The male and female germ cells, fertilization, cleavage, development, origin of the germ layers and initiation and growth of the systems of organs. The pig and chicken furnish laboratory material. Given in alternate years; given in 1937-38. P, 20ab. Two recitations and three hours of laboratory work a week. Miss Hartwig.

Laboratory fee $2.00 each term.

163ab Animal Ecology (3 0, 6) 3 credits each term W, S

A study of the adjustments and responses of organisms or groups of organisms to factors in the environment. In this course will be included an ecological study of marine animals, fresh water animals and terrestrial animals. Special emphasis will be laid upon an ecological study of insects during the spring term. Laboratory field trips will be made in the spring term for the purpose of certifying ecological principles studied in the classroom. P, 20ab. Three recitations a week. Given in alternate years; not given in 1937-38. Mr. Severin.

164ab Vertebrate Histology (2,6,4) 4 credits each term F,W

A course in microscopic anatomy and microtechnical methods, which includes the preparation by the student of a large number of microscopic slides. The latter part of the course consists of the study of tissues from these preparations. P, 20ab. Two recitations and six hours of laboratory work a week. Miss Hartwig.

Laboratory fee $2.50 each term.

165abc Seminar in Entomology and Zoology
(1,0,2) 1 credit each term F,W,S

At the beginning of each term a definite subject in the field of Entomology or Zoology will be chosen for discussion. Each student will be given assignments of research literature bearing upon the subject and the student will be expected to report upon such assignments at specified times. Prerequisite, all sophomore and junior subjects listed for an undergraduate major in Entomology or Zoology or their equivalent. All seniors and postgraduates in Entomology and Zoology are expected to take this course. Mr. Severin.

201 Special Problems in Zoology
3 to 5 credits F,W or S

Students having the proper qualifications may investigate a special zoological problem. The investigation must be carried on under the supervision of some member of the departmental staff throughout at least two terms. A detailed report of the investigation must be submitted to and accepted by the supervising instructor. P, all subjects in Zoology listed in the required work under Major in Zoology or their equivalent. Mr. Severin, Mr. Gilbertson, Miss Hartwig.

202 Zoological Literature (2,4,3) 3 credits F

A course whose purpose is, (1) to instruct the student in methods of finding published materials on a particular zoological subject; (2) to help the student become acquainted with the most important zoological

works, both separate and collected; (3) to point out to the student the importance of a knowledge of the literature on a subject; and (4) to teach the student how to use and prepare bibliographies. All postgraduate students in Zoology are expected to take this course. P, all subjects listed for an undergraduate major in Zoology or their equivalent. Given in alternate years; not given in 1937-38. Two recitations and four hours of laboratory work a week. Miss Hartwig, Mr. Severin.

203 Thesis in Zoology 7 to 10 credits F,W,S

Graduate students majoring in Zoology are assigned a suitable problem for investigation. The investigational work must be carried on under the supervision of some member of the departmental staff throughout at least three terms. A detailed report of the investigations must be submitted to and accepted by the supervising instructor and the graduate committee before it can be used to fulfill the thesis requirement for the Master's degree. P, all subjects listed for an undergraduate major in Zoology or their equivalent. Mr. Severin, Mr. Gilbertson, Miss Hartwig.

ENTOMOLOGY

20 General Agricultural Entomology (2,6,7) 5 credits S

A general course in Entomology adapted to students of agriculture. A brief discussion of the morphology and physiology of insects, followed by a study of the various types of mouth parts of insects. Metamorphosis, reproduction and development are then taken up. The remainder of the term is devoted to a study of insecticides, spraying machinery and the major insect pests of South Dakota. Two recitations and six hours of laboratory work a week. Mr. Gilbertson.

Laboratory fee $1.50.

21 Principles of Beekeeping (2, 3, 4) 3 credits S

The general principles of modern beekeeping. An extensive study is made of the habits and life history of bees, care of the apiary throughout the year, production and marketing of honey and commercial methods of honey production. The laboratory work includes the manipulation and management of one or more colonies of bees in the college apiary. Two recitations and three hours of laboratory work a week. Mr. Severin.

Laboratory fee $2.00.

40 Field Crops Entomology (2,3,4) 3 credits S

A study of insect pests which are injurious to field crops. Through the recitations and lectures the student learns to recognize the pests under discussion; he familiarizes himself with their life cycle and learns the fundamentals regarding their control. Through the laboratory work a study is made of the injurious insects and of the insecticides, spray pumps and other apparatus necessary in the control of the pests. P, 20. Two recitations and three hours of laboratory work a week. Mr. Gilbertson.

Laboratory fee $1.00.

41 Orchard Entomology (2,3,4) 3 credits S

The life history, development, and control of insect and mite pests of fruit-producing plants. Much of the laboratory work is devoted to a study of spray pumps and the preparation of insecticides and the

application of these to infested plants. Given in alternate years; not given in 1937-38. P, 20. Two recitations and three hours of laboratory work a week. Mr. Gilbertson.

Laboratory fee $1.00.

42 Garden Entomology (2,3,4) 3 credits F

The insect and mite pests of vegetable-garden crops. The recitations and lectures are devoted to a discussion of the pests, their life cycle, their work, and their control. The laboratory periods are devoted largely to a field study of the pests, experimental control of the insects in gardens, and insectary work devoted to life history studies. Given in alternate years; given in 1937-38. P, 20. Two recitations and three hours of laboratory work a week. Mr. Gilbertson.

Laboratory fee $1.00.

43ab External and Internal Insect Morphology

(1, 6, 2) 3 credits each term F,W

The external and internal morphology of representative insects of a number of different orders. The types studied give the student a fundamental knowledge of external insect morphology which serves as a basis for courses in taxonomy. The study of the internal anatomy is fundamental to a proper understanding of insect physiology, life history studies of insects and insect parasitism. Given in alternate years; given in 1937-38. P, 20. One recitation and six hours of laboratory work a week. Mr. Severin.

Laboratory fee $1.00.

44ab Taxonomy of Insects (1, 6, 2) 3 credits each term F, W

A general course in the taxonomy of insects. In this course the student becomes familiar with the methods used in the classification of insects. He learns the characters used in identifying all the orders of the Insecta, and he becomes acquainted with many of the important families. Each student is required to collect and properly mount at least 300 different species of insects. He is further expected to classify all of these insects correctly as to order, and at least 75 as to family, and 25 as to species. P, 20. One recitation and six hours of laboratory work a week. Mr. Severin.

Laboratory fee $1.00.

45 Entomology for Pharmacy Students (2,2,5) 3 credits S

The pharmacist, through state law, is a licensed dispenser of poisons used in the preparation of insectides, rodenticides, etc., and is therefore called upon by his patrons to recommend proper controls for insect and rodent pests. This course is adapted to meet the needs of this particular group of students and the major aim is to familiarize them with the life history of our most common insects and rodents and the fundamentals regarding their control.

The recitations and lectures are devoted to discussions of insect morphology, behavior and control through insecticides, while the laboratory work is devoted to a study of insect and rodent life histories and recognition of the common forms. Two recitations and two hours of laboratory work a week. Mr. Gilbertson.

Laboratory fee $1.00.

60 Veterinary and Medical Entomology (2,3,4) 3 credits W

The injurious insects, mites and ticks which affect domestic animals and man. Since insects play such an important part in the trans-

mission of diseases, a considerable portion of the term is devoted to a discussion of this phase of work. It is intended that students electing this course also elect Parasitology (see Z 41). P, 20 or its equivalent. Two recitations and three hours of laboratory work a week. Mr. Gilbertson.

Laboratory fee $1.00.

161 Insectary Methods (2, 4, 3) 3 credits F

Methods of rearing insects under laboratory, greenhouse and outdoor conditions. Each student is assigned one or more species of insects to rear. A thorough written report of the project must be submitted to the supervising instructor and also a carefully prepared mount showing all the stages of the life cycle of the species of insects reared. P, all sophomore and junior subjects in Entomology listed in the required work under major in Entomology. Two recitations and four hours of laboratory work a week. Mr. Severin.

Laboratory fee $1.00.

162 Taxonomy of Insects (1, 6, 2) 3 credits F

A taxonomic study of a group of insects, followed by a classification of the species and varieties of the South Dakota insects belonging to this group. The student prepares a manuscript in which the following subjects are covered thoroughly: a technical description of the family, of the genera, of the species and of the varieties; the geographic distribution of each species or variety is to be shown on a map of South Dakota; food habits, if known, are to be listed; keys to genera and species are to be prepared; a bibliography of all literature used must be prepared. P, 20, 43ab, 44ab. One recitation and six hours of laboratory work a week. Mr. Severin.

201 Special Problems in Entomology 3 to 5 credits F,W or S

Students having the proper qualifications may investigate a special entomological problem. The investigation must be carried on under the supervision of some member of the department staff throughout at least two terms. A detailed report of the investigation must be submitted to and accepted by the supervising instructor. P, all subjects in Entomology listed in the required work under Major in Entomology or their equivalent. Mr. Severin, Mr. Gilbertson.

202 Principles of Taxonomy (1,0,2) 1 credit W

A course in which the fundamental principles of taxonomy are discussed. Subjects emphasized are the following: systems of classification, taxonomic categories, international code of zoological nomenclature, code of nomenclature for use in entomology, pre-Linnaen nomenclature, binominal nomenclature, modern nomenclature, conceptions and criteria of subspecies, species and genera, laws of priority, types, publication, modern tendencies in taxonomy and professional ethics. Given in alternate years; not given in 1937-1938. P, 20, 43ab. One recitation a week. Mr. Severin.

203 Entomological and Zoological Literature (2,4,3) 3 credits W

The purposes of this course are (1) to instruct the student in methods of finding materials on a particular entomological or zoological subject; (2) to help the student to become acquainted with the most important entomological and zoological works, both seprate and collected; (3) to point out to the student the importance of a knowledge of the literature on a subject; and (4) to teach the student how to use and prepare biblio-

graphies. All postgraduate students in Entomology are expected to take this course. P, all subjects listed for an undergraduate major in Entomology or their equivalent. Given in alternate years; not given in 1937-38. Three recitations and six hours of laboratory work a week. Mr. Severin.

204 Wing Venation (1, 6, 2) 3 credits W

A course designed to acquaint the student with the details of wing venation of insects in order that he may be able to use venation in insect taxonomy. This course affords excellent training in comparative morphology, and enables the student to study evolutionary processes as far as they relate to morphology. P, all subjects listed for an undergraduate major in Entomology or their equivalent. Given in alternate years; offered in 1937-38. One recitation and six hours of laboratory a week. Mr. Severin.

205 Insecticides (3,0,6) 3 credits W

A study of the history, preparation, application and toxicology of insecticides. Theories of the action of insecticides are discussed. A limited amount of time is devoted to a review of the National Insecticide Law and the South Dakota Drug Act, together with regulations and prosecutions under these acts. A number of lectures are given by members of the staff of the Department of Chemistry and the Division of Pharmacy. P, all subjects listed for an undergraduate major in Entomology or their equivalent. Three recitations a week. Mr. Gilbertson.

206 Thesis in Entomology 7 to 10 credits F,W,S

Graduate students majoring in Entomology are assigned a suitable problem for investigation. The investigational work must be carried on under the supervision of some member of the departmental staff throughout at least three terms. A satisfactory report of the investigation must be submitted to the supervising instructor and the graduate committee before it can be used to fulfill the thesis requirement for the Master's degree. P, all subjects listed for an undergraduate major in Entomology or their equivalent. Mr. Severin, Mr. Gilbertson.

The following majors are suggested:

ZOOLOGY

Sophomore Year

	Fall	Winter	Spring
General Zoology, 20ab	3	3	
Human Physiology, 22			3
General Agricultural Entomology, 20			5

Junior Year

Invertebrate Zoology, 40abc	3	3	3
Parasitology, 41			3
Genetics, 42	3		

Senior Year

Vertebrate Histology, 164ab	4	4	
Seminar in Entomology and Zoology, 165abc	1	1	1

ENTOMOLOGY

	Fall	Winter	Spring
Sophomore Year			
General Zoology, 20ab	3	3	
General Agricultural Entomology, 20			5
Principles of Beekeeping, 21			3
Junior Year			
Field Crops Entomology, 40			3
External and Internal Insect Morphology, 43ab	3	3	
Taxonomy of Insects. 44ab	3	3	
Senior Year			
Veterinary and Medical Entomology, 60		3	
Insectary Methods, 161	3		
Seminar in Entomology and Zoology, 165abc	1	1	1

HORTICULTURE AND FORESTRY

PROFESSOR HANSON, ASSISTANT PROFESSOR DAVIS

This course places emphasis not only on the technical and practical side of horticulture, but it is well supported by work in the fundamental sciences and cultural courses. The extensive orchard and greenhouse enable the department to supplement the technical work with practical experience in orcharding, vegetable crops, floriculture and landscape gardening. Breeding of horticulture plants is of major importance in the experimental field, and abundant material is available on the new apples, pears, plums, cherries, apricots, and ornamental trees and shrubs originated in this department, and now widely grown in many states.

Successful horticulture is possible on small areas of land and permits a better balanced agricultural program. There are also openings for good horticulture graduates in nurseries, truck farming, landscape gardening, as writers in horticultural journals and farm papers, teachers in colleges, high schools, Indian schools, experiment stations, and federal government service.

A major consisting of 29 credits and a minor of 15 credits is offered by this department. Students contemplating taking a major or minor in horticulture should consult their departmental head sometime before the beginning of their junior year.

A two-year pre-forestry course is offered. See page (53)*

20 General Horticulture (2,3,4) 3 credits S

The general principles of fruit growing and vegetable gardening; the planting and care of home grounds. Two recitations and three hours of laboratory work a week. Mr. Hansen, Mr. Davis.

40 Floral Decorations (1,2,2) 2 credits W

Color harmony and art principles as applied by florists to table, hall and window decorations, school celebrations, community festivals, and pageants; florists' plants and home flower growing; the College Greenhouse and Laboratory contains a representative collection of plant materials; one recitation and two hours of laboratory work a week. Mr. Hansen.

41 Farm Forestry (2,0,4) 2 credits W

Planning, planting and maintenance of farm windbreaks, shelter belts and groves; harvesting and utilization of farm woodlot products. Two recitations a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

42 Home Orcharding (2,0,4) 2 credits F

The fundamental principles of orcharding; sites, soils, nursery stock, planting, tillage, fertilizing, cover crops, pollination, pruning. Prerequisite, 20. Two recitations a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

43 Small Fruit Culture (2,0,4) 2 credits F

Principles and practices for the successful culture of small fruits and grapes. P, 20. Two recitations a week. Mr. Davis. Given in alternate years; given in 1937-1938.

44 Plant Materials (1,3,2) 2 credits F

A study of deciduous and evergreen trees, shrubs and vines; their seasonal characteristics and use in landscape gardening. One recitation and three hours of laboratory work a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

45 Plant Propagation (1,3,2) 2 credits S

Commercial methods and theories of propagating plants by seed, cuttings, layers and grafting. P, 20. One recitation and three hours of laboratory work a week. Mr. Davis. Given in alternate years; given in 1937-1938.

46 Home Gardening (1,3,2) 2 credits S

Growing vegetables for home use; varieties, soils, fertilizers, hot beds, seeding, transplanting, culture, harvesting and storing. One recitation and three hours of laboratory work a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

47 Landscape Gardening (1,3,2) 2 credits F

Planning, planting and maintenance of home grounds in the city and country. One recitation and three hours of laboratory work a week. Mr. Davis. Given in alternate years; given in 1937-1938.

48 Garden Flowers (1,3,2) 2 credits S

A study of the common annual, biennial, and perennial flowers; their culture and arrangement in the garden. One recitation and three hours of laboratory work a week. Mr. Davis. Given in alternate years; given in 1937-1938.

49 Horticulture Problems (1,0,2) 1 credit F, W, or S

The study of experiment station research in horticulture. One recitation a week. Mr. Hansen.

160 Orchard Management (3,0,6) 3 credits S

The principles of fruit production; moisture, fertility, temperature, fruit formation, fruit setting and pruning factors. P, 20, 42. Three recitations a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

161 Market Gardening (3,0,6) 3 credits S

Methods employed by market gardeners and truck farmers in vegetable production. P, 20, 46. Three recitations a week. Mr. Davis. Given in alternate years; given in 1937-1938.

162 Systematic Pomology (1,6,2) 3 credits F

Origin, history and relationship of economic fruits. Practice in the description, identification and classification of fruits, and in exhibiting and judging fruit. P, 20, 42. One recitation and six hours of laboratory work a week. Mr. Davis. Given in alternate years; given in 1937-1938.

163 Literature of Horticulture (3,0,6) 3 credits F

The study of the literature and development of horticulture. Three recitations a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

164 Greenhouse Management (2,3,4) 3 credits W

Greenhouse management; principles of growing plants under glass. Two recitations and three hours of laboratory work a week. Mr. Davis. Given in alternate years; not given in 1937-1938.

165 Landscape Design (1,6,2) 3 credits W

Landscape composition, civic art, advanced composition. Solution of problems in landscape gardening. City planning, rural and town improvement. P, 47. One recitation and six hours of laboratory work a week. Given in alternate years; given in 1937-1938.

The following major is suggested:

	Fall	Winter	Spring
Sophomore Year			
General Horticulture, 20			3
Junior Year			
Farm Forestry, 41		2	
Home Orcharding, 42	2		
Home Gardening, 46			2
Landscape Gardening, 47	2		
Senior Year			
Electives in Horticulture	6	6	6

PRE-FORESTRY SUBJECTS

1 General Forestry (2,3,4) 3 credits S

A brief history and survey of the field of forestry in Europe and America; forestry problems; description of the forests of the United States. Two recitations and one three-hour laboratory period. Mr. Davis.

21 Forest Planting (2,3,4) 3 credits S

Collecting and storing tree seeds; seedbed preparation and planting; nursery practice and field planting. Two recitations and one three-hour laboratory period. Mr. Davis.

22 Dendrology (1,6,2) 3 credits S

Identification, classification and characteristics of the important forest trees of the United States. One recitation and two three-hour laboratory periods. Mr. Davis.

23 Timber Preservation (3,0,6) 3 credits W

Covering such items as seasoning and durability of woods, kiln drying, and the methods of preserving railroad ties, timbers, paving blocks, poles and posts. Three recitations a week. Mr. Davis.

POULTRY HUSBANDRY

PROFESSOR POLEY

Poultry and poultry products yield the fourth largest agricultural revenue in South Dakota, being exceeded only by beef cattle, swine, and dairy products. In the United States the value of the Poultry Industry in 1930 was a billion and a quarter dollars.

The work of this department is designed to meet the needs of several different interests. First the course in General Poultry is offered for those desiring only a general knowledge of the industry. Secondly, adequate training is offered for those desiring either a major or a minor in poultry husbandry. Thirdly, certain courses are offered to meet the requirements for poultry knowledge in certain allied industries such as packing houses. Prospective high school teachers, county agents and marketing specialists should take courses suitable for their respective fields.

Students having a thorough knowledge of poultry husbandry are increasingly in demand, to carry on research work and college teaching, to superintend hatcheries, to take charge of commercial organizations manufacturing poultry equipment, and in other branches of this industry. Generally, farming enterprises are suitable for profitable poultry or turkey production, which offers a good means of diversification.

Students are urged to supplement their training with any of these courses and such other courses as may seem desirable, according to the type of poultry work they wish to follow.

20 General Poultry Culture (2,2,5) 3 credits W

A study of the rise of the poultry industry and its economic importance; breeds and varieties of domestic fowls, poultry farms, buildings

and equipment, feeds and feeding, management of laying and breeding stock, etc. Two lectures and two hours of laboratory work a week.

41 Judging Poultry (2,3,4) 3 credits F

Includes the principles and practices of culling and utility judging. Judging for constitutional vigor and standard quality. Selection, conditioning, fitting and training poultry for exhibition purposes. Two lectures and three hours of laboratory work a week. P, 20.

155 Advanced Poultry Husbandry (2,2,5) 3 credits S

A study of incubation and brooding, types of incubators and brooders, embryonic and chick development and practical management of growing stock. Caponizing. Poultry diseases and parasites, sanitation and control measures. Two lectures and two laboratory hours a week. P, 20.

156 Poultry Breeding (3,0,6) 3 credits W

Takes up the genetic principles and practices of poultry breeding. Progeny testing. Trapnest and breeding records. Study of experimental findings. Problems of the hatchery industry. Three lectures a week. P, 20.

157 Egg and Poultry Marketing (2,2,5) 3 credits F

Deals with the marketing of various poultry products, market classes of fowls. Egg candling, grading and packing. Involves a study of the preparation of poultry products for market and marketing problems from both production and distribution angles. Two lectures and two hours of laboratory a week.

158 Turkey Production (2,2,5) 3 credits S

A study of the turkey industry and the economics of production and marketing. Breeding, feeding, management, disease prevention and control, incubation and brooding, etc. Two lectures and two hours of laboratory each week.

159 Poultry Nutrition (5,0,10) 5 credits F

A detailed study of the principles and practices of poultry feeding, Anatomy and Physiology. Vitamins, proteins, minerals and other nutrients will be studied, in connection with more recent experimental findings. Effect of feed on the quality of meat and eggs. Study of the relative nutritive values of common poultry feeds in various types of rations. Five lectures per week. P, 20.

201 Poultry Research Problems 3 or more credits F, W, S

For advanced undergraduate and graduate students desiring further studies and research either in poultry nutrition, management or marketing. A suitable problem for investigation may be assigned for work towards the master's degree, thus affording an opportunity to obtain either a major or minor in some branch of Poultry Husbandry.

202 Thesis 7 to 10 credits As arranged

Required of all graduate students majoring in Poultry. This includes the gathering and organization of data relative to the research project required for the Master's degree. A satisfactory report must be completed before full credit for Thesis may be given. P, graduate standing in Poultry.

203 Graduate Conference 1-5 credits Any term

A study of the problems of certain phases of the poultry industry, research methods, and a review of the more recent literature. Graduate

students are required to have some credit in this course. P, graduate standing in Poultry.

The following major is suggested:

	Fall	Winter	Spring
Sophomore Year			
General Poultry Culture, 20		3	
Advanced Poultry Husbandry, 155			3
Junior Year			
Judging Poultry, 41	3		
Poultry Breeding, 156		3	
Turkey Production, 158			3
Senior Year			
Poultry Nutrition, 159	5		
Egg and Poultry Marketing, 157	3		
Poultry Research Problems, 201		3	3

Electives from 3 to 6 credits, selected from the following:

Veterinary Science 40, Veterinary Hygiene; Animal Husbandry 40, Animal Nutrition; Agricultural Economics 155, Agricultural Marketing; Agricultural Economics 55, Principles of Marketing; Zoology 42, Genetics; Chemistry 162, Physiological Chemistry; and Agricultural Engineering 151, Farm Structures.

A minor must include 18 credits.

RURAL SOCIOLOGY

PROFESSOR KUMLIEN, ASSISTANT PROFESSOR JOHANSEN

The courses offered by this department have been organized with three definite objectives in mind: first, to meet the need for basic service courses that will be of interest and practical help to students in any division of the College; second, to offer a sequence of courses for those in the Agricultural or other college divisions who may wish to earn an undergraduate major or minor in the Rural Sociology department; third, to offer sufficient courses in sociology of an advanced nature to fulfill the requirements for a major or minor towards a master's degree.

20 Principles of Sociology (5,0,10) 5 credits F, W, or S

A basic introductory course prerequisite to all other sociology courses. A comprehensive study of society, with an analysis of the forces shaping human behavior in group life. P, sophomore standing. Five recitations a week. Mr. Johansen, Mr. Kumlien.

131 Rural Sociology (3,0,6) 3 credits S

The principles of sociology applied to the study of rural society and its problems. P, 20. Three recitations a week. Mr. Kumlien.

140 Social Control (3,0,6) 3 credits F

A survey of agencies influencing the attitudes of individuals and shaping public opinion, such as the press, the radio, and the movie;

propaganda and pressure groups; myths, beliefs, and customs; codes and laws. P, 20. Three recitations a week. Mr. Johansen. Given in alternate years; not offered in 1937-38.

143 Social Pathology (3,0,6) 3 credits F

Conditions and factors which result in individual maladjustment, such as illness, blindness, mental disease, and suicide; in breakdown of domestic relations, such as divorce, widowhood, illegitimacy, and vice; or in failure to cope with social problems, such as alcoholism, crime, poverty, unemployment, and war. P, 20. Three recitations a week. Mr. Johansen.

144 Urban Sociology (3,0,6) 3 credits W

The geographical setting, structural characteristics, functions, personality types and pathologies of the modern city. P, 20. Three recitations a week. Mr. Kumlien. Given in alternate years; offered in 1937-1938.

145 Population Problems (3,0,6) 3 credits W

Problems involved in controlling the number and quality of population. P, 20. Three recitations a week. Mr. Kumlien. Given in alternate years; not offered in 1937-38.

160 The Field of Social Work (3,0,6) 3 credits F

A pre-professional course surveying the development, organization, and administration of public and private social welfare agencies. Brief consideration of social case work technique. Inspection visits to public institutions and social agencies. P, 20 and 143, or consent of instructor. Three recitations a week. Mr. Johansen. Given in alternate years; offered in 1937-38.

162 Criminology and Penology (3,0,6) 3 credits W

The nature and causes of crime. The making of the criminal. Theories of punishment. Agencies and methods of arrest, conviction, and segregation of criminals. Jails, prisons, and reformatories. Probation and parole. P, 20. Three recitations a week. Mr. Johansen. Given in alternate years; offered in 1937-38.

168 The Family (3,0,6) 3 credits S

Traces the historical development of the family in different parts of the world with the main emphasis on the present American family. Consideration is given to the importance of family life, personal relations within the family and social changes affecting it. P, 20. Three recitations a week. Mr. Kumlien.

170 Contemporary Social Movements (3,0,6) 3 credits W

A survey of movements which arise in the course of conflict and adjustment of social classes, nations, and races. Among these are farmer and labor movements, the cooperative movement, nationalistic conflict and the peace movement. P, 20. Three recitations a week. Mr. Johansen. Given in alternate years; offered in 1937-38.

171 Social Legislation (3,0,6) 3 credits W

A digest of legislation dealing with social security for the aged and unemployed; child welfare and the family; conditions of industrial labor and selected social problems. Principles and problems of such legislation in the United States. P, 8 hours of sociology. Three recitations a week. Mr. Johansen. Given in alternate years; not offered in 1937-1938. To be given in summer session, 1937.

180 Public Welfare Administration (3,0,6) 3 credits W

An introduction to the historical development, organization, and functions of governmental institutions and agencies dealing with dependent groups or special classes in need of welfare services. Problems of finance of public welfare work. The place of social work in public welfare adminisration. P, 8 hours of sociology. Three recitations a week. Mr. Johansen. Given in alternate years; not offered in 1937-38.

260 Social Change (4,0,8) 4 credits F

Prehistoric origins of civilization. The accumulation of culture traits. The culture patterns of Greece, Rome, and 16th Century Scandinavia. Interpretation of social-cultural change in terms of stages, cycles, and factors. Survivals from the past, invention, and cultural lag. Human nature as a factor in social change. P, graduate standing or consent of instructor. Two double-period seminars a week. Mr. Johansen.

261 Social Institutions (4,0,8) 4 credits W

The origin, evolution, component parts, and general unique characteristics of social institutions and their relation to social values; the interplay between the individual and institutions will be stressed as well as the factors involved in their progressive adaptability. P, graduate standing or consent of instructor. Two double-period seminars a week. Mr. Kumlien.

262 History of Social Thought (4,0,8) 4 credits S

A brief survey of the history and development of the world's most important social theories and schools of social thought, evaluated in the light of present knowledge. P, graduate standing or consent of instructor. Two double-period seminars a week. Mr. Kumlien.

271abc Thesis 2 to 5 credits each term F,W,S

Collecting data for and writing of thesis. Total credit seven to ten. P, candidacy for Master's degree. Mr. Kumlien, Mr. Johansen.

The following major is suggested:*

	Fall	Winter	Spring
Sophomore Year			
Principles of Sociology, 20		5*	
Junior Year	Fall	Winter	Spring
Rural Sociology, 131			3*
Social Control, 140	3		
Statistical Method, Ag Ec 141	3*		
Social Pathology, 143	3*		
Urban Sociology, 144		3	
Population Problems, 145		3	
Senior Year			
The Field of Social Work, 160	3		
Criminology and Penology, 162		3	
The Family, 168			3
Contemporary Social Movements, 170		3*	
Social Legislation, 171		3	
Public Welfare Administration, 180		3	

*An undergraduate major in Rural Sociology consists of 36 credits. The 17 credits marked with an asterisk (*) are required, while the remaining 19 hours may be selected from the balance of courses listed in the outline. For an undergraduate minor 20 credits are required including the principles of sociology.

VETERINARY SCIENCE

PROFESSOR LIPP, ASSISTANT PROFESSOR TAYLOR

The development of our complex systems of livestock farming and transportation has increased the rapidity with which animal diseases spread over wide areas. Through the necessity of protecting their own interests, farmers and stockmen are paying more attention to all that relates to animal disease prevention than ever before. The following veterinary courses are planned to meet this demand. No attempt is made to teach diagnosis or treatment, since these arts belong to the practicing veterinarian. But every effort is made to teach the principles underlying animal disease prevention and the methods for their practical application. The following courses, except Applied Embroyology, are arranged in logical sequence. No student will be permitted to register for any of these courses unless he can satisfy all the prerequisite requirements.

20 Veterinary Anatomy and Physiology (5,0,10) 5 credits S

The anatomy and physiology of the various species of domestic animals. P, sophomore standing. Five recitations a week. Dr. Lipp.

40 Veterinary Hygiene (3,0,6) 3 credits F

The general causes of disease, the most common pathologic processes, stable hygiene, disinfection, quarantine and carcass disposal. P, 20, Bac 31. Three recitations a week. Dr. Lipp.

41 Contagious Diseases (3,0,6) 3 credits W

The cause and method of preventing the most prevalent contagious and infectious diseases of farm animals. P, 20, 40, Bac 31. Three recitation a week. Dr. Lipp.

42 Applied Embryology (2,0,4) 2 credits S

The uterine development of the common domestic animals and the process of parturition. P, junior standing. Two recitations a week. Dr. Lipp.

THE AGRICULTURAL EXPERIMENT STATION

In 1887, Congress passed an act known as the Hatch Act, giving to each state and territory $15,000.00 for the establishment of an Agricultural Experiment Station. The members of the South Dakota State Legislature accepted the provisions of this act and passed a law making the Experiment Station a part of the South Dakota Agricultural College located at Brookings.

In 1906, Congress passed another act known as the Adams Act, giving to each of these same stations an additional sum

of $15,000 per year; and in 1925 a third act known as the Purnell Act, which provides $60,000 annually for experimental purposes.

In 1935 Congress passed the Bankhead-Jones Act which provides additional money for the experiment Stations of all States, the total amount being divided among the different states in proportion to their rural populations. This law differs from former recommendations in that it requires the matching of funds by the State. During the fiscal year ending June 1937 the College will receive approximately $12,000 from this source.

The following 13 departments are doing research work on regularly approved projects: Agronomy, Animal Husbandry, Horticulture, Dairy Husbandry, Chemistry, Entomology, Poultry Husbandry, Veterinary, Agricultural Economics, Rural Sociology, Home Economics, Agricultural Engineering and Pharmacy. Each of these divisions is in charge of an expert who is also professor of the same subject in the College. Experiment station employees are paid in proportion to the time they work on approved projects.

In addition to the above the State Legislature has appropriated money for the support of sub-stations at Highmore, Cottonwood, Eureka, Vivian and the Belle Fourche Field Station at Newell. The soil and climatic conditions found at the five different stations are supposed to represent the different conditions found in South Dakota. Results of these experiments are published in bulletins which are mailed free to South Dakota residents on request.

All communications to this department should be addressed to the Director, Agricultural Experiment Station, Brookings, South Dakota.

THE AGRICULTURAL EXTENSION SERVICE

The Smith-Lever Act passed by Congress in 1914 appropriated a sum of money to the various states for which extension work in agriculture and home economics should be established. The State Legislature of South Dakota at each session has appropriated funds to meet the requirements of the Smith-Lever Act. All extension work in South Dakota

therefore is a cooperative enterprise participated in by the United States Department of Agriculture, the State College, and by various local and county organizations. The aim of this service is to carry to the people of the state the results of investigations of the Experiment Station and the State College, and also results of investigations made by other institutions that are applicable to our state.

Communities and counties in the state may secure the benefits of the extension work when the County Commissioners appoint a County Extension Board in accordance with the State Extension Law, and make the necessary appropriation. The assistance available through the Extension Service is in the form of County Agricultural Agents, Home Extension Specialists, Boys' and Girls' Club Work, and the assistance of Extension Specialists in Animal Husbandry, Dairy Husbandry, Horticulture and Entomology, Animal Health, Field Crops and Soils, Poultry, Farm Management, Marketing, Foods and Nutrition, Clothing and Health.

County Agricultural Agents are giving their efforts to the urgent agricultural problems of quality production, organization and marketing. They follow closely the counsel of the local and advisory committees in the county. For the past two years they have had charge of the educational work in connection with all AAA programs. This has absorbed a great deal of their time but in spite of the many details to look after, they have found time to conduct some other extension projects. Home Extension Agents are serving from one to three counties each in the state and work with groups of women organized into Home Extension Clubs, giving demonstrations and instructions along lines of foods, clothing, health and the home. Ten thousand farm boys and girls in South Dakota are assisted yearly through the Extension Service in obtaining instruction in better agricultural and marketing practices, in better home making, in improvement of health and in aspirations towards better citizenship. The 4-H Club Work is an active project of every extension worker in South Dakota.

As far as personnel and funds will permit, a program service is provided for the various Community Clubs; also assistance in securing speakers, demonstrators, and judges. Win-

ter meetings, short courses and demonstrations are conducted in many of the counties not having Extension Agents. Assistance is also given in the control of plant diseases, insect pests and animal diseases, by specialists from the Extension Service. Bulletins on timely and important subjects are written and are available for distribution to the public. A news service on agriculture and home economics is also made available to the newspapers of the state.

DIVISION OF ENGINEERING

The Division of Engineering offers four-year collegiate courses in Civil, Electrical, and Mechanical Engineering as described below. The establishment of a four year course in Architectural Engineering has been authorized by the Regents of Education and the full course will be offered as soon as sufficient funds are made available. At present, students in this branch may obtain some work in architectural drawing and a thorough foundation in mechanics and theory of structures which are offered in the Civil Engineering course.

In each of the courses about half the total time is devoted to general subjects such as English, Mathematics, Physics, Chemistry, and Economics. About half of the Engineering subjects are common to all courses. The Mechanical Engineering course and the Electrical Engineering course differ mainly in the senior year. The Civil Engineering course has a small amount of special work in topographical surveying and mapping in the sophomore year.

Upon the completion of the prescribed subjects and additional elective work to make 204 term credits, with 204 grade points, the student may receive the degree of Bachelor of Science.

FOUR-YEAR COURSES IN ENGINEERING

Freshman Year

	Fall	Winter	Spring
Inorganic Chemistry, Ch 1abc	3	3	3
Rhetoric, Engl 1abc	3	3	3
College Algebra, Math 14	5		
Plane Trigonometry, Math 15		5	
Analytic Geometry, Math 16			5
Engineering Drawing, ME 3ab	3	2	
Forge Shop, AE 10	2		
Machine Shop, Eng S 2a		3	
Descriptive Geometry, ME 5			2
Plane Surveying, CE 3			3
Military Science, Mil 1abc	1	1	1
	17	17	17

Sophomore Year

	Fall	Winter	Spring
Calculus, Math 25, 26, 27	4	4	4
General Physics, Phy 21abc	4	4	4
Principles of Economics, Ag Ec 20			5
Economic History of the United States, Hist 26ab	3	3	
Extempore Speaking, Sp 21abc	1	1	1
Technical Sketching, ME 21	1		
Engineering Problems, CE 30			3
Military Science, Mil 20abc	1	1	1
Civil Engineering Group			
Topographic Surveying, CE 25	3		
Topographic Mapping, CE 35		4	
Electrical and Mechanical Engineering Group			
Machine Shop, Eng S 2b	3		
Mechanism, ME 27		5	
	17	17 or 18	18

Civil Engineering

Junior Year

	Fall	Winter	Spring
Roads and Pavements, CE 50		4	
Route Surveying, CE 52			3
Junior Seminar, CE 57abc	1	1	1
Mechanics and Materials, CE 142abc	4	5	3
Construction Materials, CE 144ab		3	3
Heat Engines, ME 44	5		
Electrical Machinery, EE 40	4		
Geology, Agr 71			5
General Bacteriology, Bac 31		4	
Advanced Composition, Engl 41	3		
Elective			2
	17	17	17

Senior Year

	Fall	Winter	Spring
Framed Structures, CE 161abc	4	4	4
Reinforced Concrete, CE 163ab	3	2	
Cement and Concrete Laboratory, CE 165	2		
Hydraulics, CE 170	4		
Sewerage, CE 172		5	
Water Supply, CE 173			5
Specifications and Contracts, CE 175	3		
Engineering Economy, CE 177		3	
Highway Engineering, CE 179			4
Elective	1	3	3
	17	17	16

Electrical Engineering

Junior Year

	Fall	Winter	Spring
Electricity and Magnetism, EE 141	5		
Direct Current Machinery, EE 143ab		5	2
Dynamo Laboratory, EE 144ab		2	2
Mechanics and Materials, CE 142abc	4	5	3
Heat Engines, ME 44	5		
Thermodynamics, ME 142ab		3	3
Machine Design, ME 144			4
Alternating Current Circuits, EE 161			3
The Engineering Profession, EE 50		2	
Advanced Composition, Engl 41	3		
	17	17	17

Senior Year

	Fall	Winter	Spring
Alternating Current Machinery, EE 163ab	4	3	
Advanced Dynamo Laboratory, EE 164abc	2	2	2
Communication Circuits, EE 171	3		
Vacuum Tubes, EE 172		3	
Power Transmission, EE 165			3
Dynamo Design, EE 169	2		
Electrical Problems, EE 170a		2	
Hydraulics, CE 170	3		
Metals, ME 168			3
Metals Laboratory, ME 169			2
Mechanical Laboratory, ME 62			3
Specifications and Contracts, CE 175			3
Internal Combustion Engines, ME 163	2		
Elective		7	1
	16	17	17

Mechanical Engineering

Junior Year

	Fall	Winter	Spring
Electricity and Magnetism, EE 141	5		
Direct Current Machinery, EE 143a		4	
Dynamo Laboratory, EE 144a			1
Mechanics and Materials, CE 142abc	4	5	3
Heat Engines, ME 44	5		
Thermodynamics, ME 142ab		3	3
Machine Design, ME 144			4
Alternating Current Circuits, EE 161			3
Mechanical Laboratory, ME 62		3	
The Engineering Profession, EE 50		2	
Advanced Composition, Engl 41	3		
Elective			3
	17	17	17

Senior Year

Engineering Design, ME 161ab	3	2	
Internal Combustion Engines, ME 163	2		
Hydraulics, CE 170	3		
Alternating Current Machinery, EE 163ab	3	3	
Advanced Dynamic Laboratory, EE 164ab	1	1	1
Advanced Mechanical Laboratory, ME 162abc	2	2	2
Specifications and Contracts, CE 175			3
Heating and Ventilation, ME 164		3	
Power Plant Engineering, ME 165ab		3	2
Metals, ME 168			3
Metals Laboratory, ME 169			2
Seminar, ME 180			1
Elective	2	3	2
	16	17	16

CIVIL ENGINEERING

PROFESSOR BLODGETT, MR. MITCHELL, MR. OLESON, MR. TOWNE

Civil Engineering includes the location, design, construction and maintenance of railways, highways, bridges, dams, water supply, sewerage, irrigation and drainage systems, river and harbor improvements and many other works.

The course in Civil Engineering is planned to give students a foundation in the exact sciences (mathematics, physics, and chemistry); a thorough training in the technical phases of Civil Engineering (drawing, surveying, hydraulics, testing of construction materials, and principles of design involved in engineering works); and an introduction to the humanistic subjects (rhetoric, speech, history, and economics); in order to prepare them for responsible positions in the profession.

3 Plane Surveying (1,6,2) 3 credits F or S

Lectures, field and office work in the theory and practice of plane surveying. Field work with tape, level and transit. Much emphasis is placed on high standard in form and style of the student's field notes and office calculations. P, Math 15 and ME 3b. Six hours of field work and one hour of recitation a week.

Laboratory fee $3.00.

25 Topographic Surveying (1,6,2) 3 credits F or S

Continuation of Plane Surveying with considerable practice in leveling and the use of the transit. A study of the theory and use of the stadia and plane table. Determination of contours. P, 3. Six hours of field and office work and one hour of recitation a week.

Laboratory fee $3.00.

30 Engineering Problems (3,0,6) 3 credits S

Practical engineering problems solved by the use of coordinated

applications of algebra, trigonometry, calculus and physics. Methods of computation include the use of logarithms, slide-rule and calculating machines. Special emphasis is placed upon the development of good habits of work and study. P, Math 26. Three recitations a week.

35 Topographic Mapping (1,9,2) 4 credits W

Engineering lettering and pen typography; a study of scales and contours; the plotting of profiles from contour plans; and the construction of a complete topographic map. Topographic computations. P, 25. One recitation and three three-hour laboratory periods a week.

Laboratory fee $1.00.

50 Roads and Pavements (4,0,8) 4 credits W

Elements of Highway Engineering. Types of roads and pavements, methods of construction and maintenance, jurisprudence and finance. P, 25. Four recitations a week.

52 Route Surveying (3,0,6) 3 credits S

Methods used in railway, highway, street, canal, pipe-line and similar project surveys. Theory of curves and earthwork computations. P, 25, Math 26. Three recitations a week.

57abc Junior Seminar (1,0,2) 1 credit each term F,W,S

Oral reviews of articles from technical magazines and technical society publications with class discussion. Written outlines required. P, junior standing in civil engineering. One period a week.

142abc Mechanics and Materials (4,0,8) 4 credits F
(5,0,10) 5 credits W
(3,0,6) 3 credits S

A study of resultants and equilibrium of force systems; friction; motion; moment of inertia; force, mass and acceleration; work and energy; impulse and momentum; pendulums, gyroscopes, and governors.

An analysis of stresses and strains in thin walled cylinders and spheres, riveted joints, beams, columns, springs and other structural members; direct, torsional, bending, and combined stresses and deflections of structural units; impact, and repeated loads; fatigue; and mechanical properties of materials. P, Math 26. Four, five and three recitations a week during the fall, winter and spring terms respectively.

144ab Construction Materials (1,6,2) 3 credits per term W,S

Steel, cement, masonry materials, clay products, bituminous and non-bituminous road materials, and timber. P, 142a. One recitation and two three-hour laboratory periods a week.

Laboratory fee $4.00 each term.

161abc Framed Structures (2,6,4) 4 credits per term F,W,S

A study of problems involved in the stress analysis, design, detailing, fabrication and erection of structural steel frames and members as found in bridges and buildings. A detailed study of graphical and analytical methods of determining stresses and deflections in statically determinate systems. A detailed study of conventional load systems to be considered in the design of modern steel structures. Complete designs and drawings are made for representative structures such as roof trusses, railway and highway bridge trusses and plate girders. P, 142. Two

recitations and two three-hour drawing room periods each week each term.

163ab Reinforced Concrete (3,0,6) 3 credits F
(0,6,0) 2 credits W

A detailed study of reinforced concrete structures and members. Beams, columns, footings, foundations, retaining walls, culverts, bridges and buildings are considered as problems in stress analysis, design and detail. A brief consideration of the methods of analysis of continuous frames. P, 142. Three recitation periods each week during the fall term; two three-hour drawing room periods during the winter term.

165 Cement and Concrete Laboratory (0,6,0) 2 credits F

Manufacture, properties, and uses of cement, sand, gravel, stone, steel, plain concrete, and reinforced concrete. P, 142. Two three-hour laboratory periods a week.

Laboratory fee $4.00.

170 Hydraulics (3,0,6) or (3,3,6) 3 or 4 credits F

Hydrostatics and hydrokinetics. Static fluid pressures, flow of water through orifices, pipes, open channels, and over weirs. Three recitations and one three-hour laboratory period per week required of civil engineering students. Three recitations per week required of other engineering students. P, Phy 21abc, Math. 26.

172 Sewerage (3,6,6) 5 credits W

Selection, design, construction and operation of efficient municipal sewage treatment plants. Storm sewers and sewerage systems. P, 170. Three recitations and two three-hour laboratory periods a week.

173 Water Supply (3,6,6) 5 credits S

Requirements, sources and development of municipal water supplies; design and construction of waterworks systems. P, 170, and Bac 31. Three recitations and two three-hour laboratory periods each week.

175 Specifications and Contracts (3,0,6) 3 credits F or W

Synopsis of the law of contracts. Typical specifications and contracts. P, senior standing in engineering. Three recitations a week.

177 Engineering Economy (3,0,6) 3 credits W

A study of methods of estimation of costs of engineering projects. The determination of the most economical arrangement of structural units. The selection of the most economical structural types for given conditions. Problems in the finance of engineering projects. P, senior standing in engineering. Three recitation periods each week.

179 Highway Engineering (2,6,4) 4 credits S

Theory and practice in the design of rural highways and city street improvements. P, 50,52. Two recitations and two three-hour periods a week.

Laboratory fee $3.00.

180abc Special Engineering Problems credit as arranged Any term

An elective course to provide opportunity for special or detailed study or investigation. P, senior standing in civil engineering.

244abc Advanced Construction Materials 2 to 4 credits As arranged

Selection, testing and utilization of construction materials. P, graduate standing in civil engineering.

261abc Advanced Structural Engineering 3 to 5 credits As arranged
Steel and reinforced concrete design problems as applied to office buildings, industrial buildings, bridges and dams, their foundations and super-structures. P, graduate standing in civil engineering.

272abc Sanitary Engineering 3 to 5 credits As arranged
Plans and specifications covering both water and sewage treatment plants and processes and distribution and collection systems. Administration, finance and jurisprudence of sanitary engineering bureaus, departments and concerns. P, graduate standing in civil engineering.

279abc Advanced Highway Engineering 2 to 5 credits As arranged
Economics of location and design; selection, improvement and maintenance; administration, finance and jurisprudence; as applied to rural and city highways. P, graduate standing in civil engineering.

280 Thesis 7 to 10 credits As arranged
An original treatment of a laboratory, design, or other approved problem. P, graduate standing in civil engineering.

ELECTRICAL ENGINEERING

PROFESSOR CROTHERS, ASSOCIATE PROFESSOR GAMBLE

The object of the work offered by the Electrical Engineering department is twofold: the first or primary object being to develop a thorough understanding of the group of laws and principles on which electrical engineering practice is based; the second being to give the student a knowledge of present day engineering practice.

The student is provided an opportunity to master those principles of which electrical theory is made up through a carefully arranged series of laboratory experiments, text assignments and problems. These extend throughout the junior and senior years. The opportunity to become familiar with engineering practice in some lines is provided in connection with such subjects as Direct Current Machinery, Alternating Current Machinery, and Power Transmission.

Throughout practically all subjects, laboratory work is given in connection with class room work. The laboratories contain apparatus with which the student may demonstrate for himself the fundamental laws of electricity and magnetism. In the electric machine laboratory there is a complete assortment of direct current machinery, alternating current machinery, transformers, and auxiliary equipment, which each student operates for himself. In this work he tests for himself the correctness of the class room theories, and in addition gains

a practical knowledge of the operating characteristics of the various types of electrical machinery. Other equipment is available for laboratory work in connection with courses in vacuum tubes and communication circuits.

40 Electrical Machinery (3, 3, 6) 4 credits F

Principles of electric and magnetic circuits; direct current dynamos and motors; alternating current generators, motors and transformers; methods of connecting and operating these, all very briefly studied. This course should be taken by engineering students who do not expect to take more advanced electrical courses. P, Math 26, Phy 21. Three recitations and one three-hour laboratory period a week.

Laboratory fee $2.00.

50 The Engineering Profession (2,0,4) 2 credits W

Lectures, seminar papers and assigned readings dealing with engineering as a profession and the place of the individual in the professional group. Two recitations a week.

141 Electricity and Magnetism (5,0,10) 5 credits F

Electric and magnetic circuits; measurement of electric and magnetic properties. P, Math 26, Phy 21c. Five recitations a week.

143ab Direct Current Machinery (4,0,8) 4 credits W
(3,0,6) 3 credits S

The theory, construction, and operation of direct current machines, their characteristics, efficiencies, and other topics. P, 141. Four recitations a week, winter and spring.

144ab Dynamo Laboratory (0,3,3) 2 credits per term W,S

Practical operation of and standard tests on direct current machines, calculations of test results and preparation of engineering reports. May be taken for one credit each term with less emphasis on report writing, by students in Mechanical Engineering. To accompany course 143ab. One three-hour laboratory period a week.

Laboratory fee $2.00 each term.

161 Alternating Current Circuits (3, 0, 6) 3 credits S

Alternating currents, voltages, and power in single-phase and polyphase circuits, use of symbolic notation. P, 141. Three recitations a week.

163ab Alternating Current Machinery (3,0,6) 3 credits per term F,W

Construction and characteristics of various types of alternating current machinery. P, 161. Three recitations a week.

164abc Advanced Dynamo Laboratory
(0,3,3) 2 credits per term F,W,S

Measurements in alternating current circuits, including polyphase power, phase angles and phase sequences. Operation and testing of alternating current generators, transformers, and motors. With calculations and reports. May be taken for one credit each term with less emphasis on report writing, by students in Mechanical Engineering. To accompany courses 163ab. One three-hour laboratory period a week.

Laboratory fee $2.00 each term.

165 Electric Power Transmission (3,0,6) 3 credits S

Efficiency, regulation, and other characteristics of transmission

lines. Insulation and inductive interference. P, 161. Three recitations a week.

169 Dynamo Design (0, 6, 0) 2 credits F

Computation of principal dimensions, and drawing for a direct current machine. P, 143 ab. Six hours of computation and drawing a week.

170 Electrical Problems (0,4,2) 2 credits W or S

Assigned problems on electrical machinery, electrical circuits, including transmission systems, etc. Problems are chosen partly for review purposes, and occasionally to assist in the class work running parallel. P, 161. Two two-hour periods a week.

171 Communication Circuits (3,0,6) 3 credits F

Properties of electric circuit at high frequencies. Circuit theorems applicable to complex networks. Principles of conversion and electrical transmission of sound. P, 161. Three recitations a week.

172 Vacuum Tubes (3,0,6) 3 credits W

Elementary physics of the vacuum tube. Voltage-current characteristics of the tube, and its properties as a circuit element. Use as amplifier, oscillator, or modulator. Attention will be given primarily to three-element tubes. P, 161. Three recitations a week.

173 Transient Currents (3,0,6) 3 credits W

Theory of transient currents in simple series circuits, with steady voltages and with alternating voltages applied. P, 161 and a grade of C or above in Math and EE subjects. Three recitations a week.

210abc Advanced Circuit Theory 3 to 5 credits per term As arranged

Method of symmetrical components for unbalanced polyphase systems. General mathematical treatment of steady states and transient states in complex networks. Electrical filters, uniform lines and cables, combined mechanical-electrical systems, and other special topics as arranged. P, graduate standing in electrical engineering with a high average in mathematics. Class periods as arranged.

220ab Electrical Machine Theory 2 to 4 credits As arranged

More detailed and accurate analysis of characteristics of electrical machinery. Mainly a study of the technical literature, but may be accompanied by special laboratory tests. P, graduate standing.

Laboratory fee $2.00 each credit of laboratory work.

280 Thesis 7 to 10 credits As arranged

An original treatment of a laboratory, analytical, or other approved problem. P, graduate standing in electrical engineering.

ENGINEERING SHOP

PROFESSOR HOY

The subjects offered in the machine shop are arranged with the idea: first, of giving the student an opportunity to become acquainted with the various types of machines used in general shop operations, and the kinds of work for which the different machines are adapted, and at the same time to acquire

some knowledge and skill in shop methods and the proper use of machine tools; second, to give the students a knowledge of some of the physical qualities and properties of various metals, especially iron and steel used in the construction of machines and structural work.

The shop equipment comprises various types of lathes, drill presses, grinders, shapers, milling machines and a large number of small tools, gauges, and measuring instruments.

2a Machine Shop (0, 9, 0) 3 credits F or W

A study of equipment and tools used in machine shop work, methods of laying out work, elementary principles of machine and bench work, and problems involved in the use of machine tools.

Laboratory fee $1.50 per credit.

2b Machine Shop (0, 9, 0) 3 credits F, W or S

A continuation of work begun in 2a, with special attention given to accuracy of work and methods for securing best results. Shop drawing reading and the working out of small shop projects.

2c Machine Shop (0,9,0) 3 credits S
(0,6,0) 2 credits

Advanced work. The student is expected to complete some larger project in machine construction. Special attention is paid to proper method of handling work and the operation of machine tools.

MECHANICAL ENGINEERING

PROFESSOR STRATE, MR. ALDRICH

The course in Mechanical Engineering is designed to give the student a thorough training in the fundamental principles involved in the design, construction and operation of machinery of all kinds, and in the generation and transmission of power. Stress is laid on fundamental principles and general application, rather than on highly specialized fields of engineering endeavor. In this way the student is better equipped to adapt himself to the ever-changing field of engineering.

The Mechanical Engineering Laboratories are equipped to provide instruction and experimental work in steam and gas engineering, internal combustion engines, fuels, lubricants, and metallography. These laboratories also include a small brass and aluminum foundry for instruction in foundry practice. The college power plant is available for the study and testing of power steam boilers, steam turbo-generator and power plant auxiliaries.

3ab Engineering Drawing (0,9,0) 3 credits F
(0,6,0) 2 credits W

Instrumental and geometrical problems and parts of machines. Open to all students who have had high school mathematics. Three hours of drawing room practice a week for each credit.

4abc Architectural Drawing (0,6,0) 2 credits F, W or S

Rendered drawings of simple buildings, examples of various orders, giving facility in draughtmanship, familiarizing students with principles introduced in practical problems, exercises in composition and details. Open to all students who have had high school mathematics. Three hours of drawing room practice a week for each credit.

Laboratory fee $1.50 per credit.

5 Descriptive Geometry (0,6,0) 2 credits S

Instruction in methods of representing graphically all geometrical magnitudes, and solution of problems relating to these magnitudes in space. P, plane geometry. Six hours a week in recitation and drawing work.

21 Technical Sketching (0,3,0) 1 credit F

Development of skill and technique in freehand rendering. Sketching of machine parts; engineering curves and conventionals; machine movements. Three hours of drawing room work a week.

27 Mechanism (3,6,6) 5 credits W

Elements of machinery; velocity ratios; graphic representation of speed and acceleration; motion transmitting parts such as gears, belts, cams, screws, link work; automatic feeds; parallel and quick return motions. P, Math 15. Three recitations and six hours of drawing room work a week.

44 Heat Engines (5,0,10) 5 credits F

An introductory course, including a study of steam and gas power machinery, its operation and performance. P, junior standing. Five recitations a week.

62 Mechanical Laboratory (0,6,3) 3 credits W

Calibration of laboratory instruments; testing of fuels and lubricating oils; study of engines and boilers; report writing. P, 44. Three hours of laboratory work and three hours of supervised computation and report-writing a week.

Laboratory fee $3.00.

142ab Thermodynamics (3,0,6) 3 credits each term W,S

Fundamental principles underlying the design and operation of all heat power machinery. Ideal gases and thermodynamic process. P, 24 and Math 26. Three recitations a week.

144 Machine Design (1,9,2) 4 credits S

Design of machines and machine parts. Assembly and detailed drawings of machines. P, 142ab. One recitation and nine hours of drawing room work a week.

146 Simple Aerodynamics (2,0,4) 2 credits W

Airfoil characteristics; wing shapes; static and dynamic forces; stability and control; airplane engines; construction details. P, junior standing. Two recitations a week.

161ab Engineering Design (0,9,0) 3 credits F
(0,6,0) 2 credits W

Solution of typical problems involved in the design of steam engines, steam turbines, internal combustion engines and heat transfer apparatus. P, 142ab and 144. Nine hours of drawing room work a week, fall term, six hours, winter term.

162abc Advanced Mechanical Laboratory
(0,3,3,) 2 credits per term F,W,S

Standard tests and analysis of boilers, steam engines, gas engines, oil engines and auxiliary equipment. P,142ab. Three hours of laboratory work a week.

Laboratory fee $2.00 a term.

163 Internal Combustion Engines (2,0,4) 2 credits F

Study of the theory, design and operation of gas, gasoline and oil engines and of various types of gas producers. P, 142ab. Two recitations a week.

164 Heating and Ventilation (3,0,6) 3 credits W

Principles underlying the design of various systems of heating and ventilation in common use; loss of heat from buildings; problems of proportioning ventilating ducts; arrangement of systems of piping for steam and hot water. P, 44. Three recitations a week.

165ab Power Plant Engineering (3,0,6) 3 credits W
(2,0,4) 2 credits S

Design and operation of modern power plants; combustion theory; furnaces, boilers and prime movers; fuel handling and storage; economics of design and operation. P, 142ab. Three recitations a week in winter term; two recitations a week in spring term.

168 Metals (3,0,6) 3 credits S

Commercial methods of manufacturing iron and steel; sizing and shaping of metallic bodies; heat treatment. P, CE 142, Ch 2abc. Three recitations a week.

169 Metals Laboratory (0,6,0) 2 credits S

Principles of metallography; properties of metals commonly used in engineering practice. P, 168. Six hours of laboratory work a week.

Laboratory fee $4.00.

180 Seminar (1,0,2) 1 credit S

Group discussion and reports on current events and developments in the field of mechanical engineering. P, senior standing. One recitation a week.

242ab Applied Thermodynamics 3 credits As arranged

Heat generation and transmission; thermal analysis of steam engines, steam turbines and internal combustion engines. P, graduate standing.

265abc Central Stations 3 to 5 credits As arranged

Choice and arrangement of apparatus; design and operation; economics of plant operations. P, graduate standing.

266 Refrigerating Engineering 3 credits As arranged

Design and operation of ice making and cold storage plants; compression and absorption systems. P, graduate standing.

280 Thesis 7 to 10 credits As arranged
An original treatment of laboratory, analytical or other approved problem.

THE ENGINEERING EXPERIMENT STATION

The Regents of Education on December 3, 1926 established an Engineering Experiment Station in the Division of Engineering. The aim of the Station is to encourage and support engineering research, especially in the practical engineering problems that relate to the development of South Dakota's resources, South Dakota industries, the state highway system, etc. The objects sought are (a) results of practical and economic value to the state, (b) the improvement of teaching that has been found to occur when engineering teachers can carry studies of practical problems along with their teaching.

The establishment of Engineering Experiment Stations has been the general practice of Land Grant Colleges, only a few states being without such stations.

DIVISION OF HOME ECONOMICS

The course of study in home economics is designed to train a young woman for home making and for a skilled occupation, whereby she may become self-supporting. The four-year college course as outlined has been planned to permit students to obtain a broad general training in home economics, or to specialize in Foods and Nutrition, Clothing and Textiles or Home Economics Education.†

The first two years are essentially the same, irrespective of later specialization. During the junior and senior years, the student has the opportunity to specialize through optional groups of electives. Two hundred four term credits with two hundred four grade points are required for graduation. Of the total number of credits required for graduation, not more than seventy-five may be in purely home economics subjects. Fifty percent of the total number of credits for graduation must be in academic non-technical courses.

Following are the requirements for all students in the course in Home Economics:

FOUR-YEAR COURSES IN HOME ECONOMICS

Freshman Year	Fall	Winter	Spring
Foods, HE 1			3
Rhetoric, Engl 1abc	3	3	3
Inorganic Chemistry, Ch 1abc	4	4	4
Design, Art 1abc	2	2	2
Textiles, HE 10	3		
Clothing, HE 11ab		3	3
General Zoology, Z 20ab	3	3	
Physical Education, PE 1abc	1	1	1
Freshman Lectures	R	R	R
	16	16	16

Sophomore Year	Fall	Winter	Spring
Foods, HE 20,21	3	2	
Survey of American Literature, Engl 20abc or Survey of English Literature, Engl 22abc	2	2	2
Elementary Psychology, Psy 25			3
*Elementary Bacteriology, Bac 31 or *Clothing, HE 30	4		3

† See Department of Education for information concerning teaching certificates.
* Half of the class will take Bacteriology in the Fall term and the other half will take Clothing.

Extempore Speaking, Sp 21abc	1	1	1
Physical Education, PE 20abc	1	1	1
El. Organic Chemistry, Ch 20	5		
Food Analysis, Ch 25		3	
Applied Design, Art 26a	1 or 2		
Home Care of the Sick, HE 31			3
Principles of Economics, Ag Ec 20		5	
Human Physiology, Z 21			3
Electives to make 17 credits		3	1
	17 or 18	17	17

Junior Year
Required

	Fall	Winter	Spring
American History, Hist 23abc			
or			
Modern History, Hist 20abc	3	3	3
Prin. of Sociology, RS 20		5	
Household Physics, Phy 143			5
Dietetics, HE 140		4	
Child Development, HE 75	3		
Household Management, HE 71	3		
Art Appreciation, Art 27abc	1	1	1
Electives to make 17 credits	7	4	8
	17	17	17

Options

Home Practice.—Home Practice will be required of all students in:

a. Foods and Nutrition between the sophomore and junior years. The character of the work must be planned at a conference with a member of the staff of the Foods and Nutrition department during the sophomore year. An examination will be held during the fall term of the junior year to test the results of the work.

b. Clothing and Textiles between the junior and senior years. The problem selected should be arranged with a member of the staff of the Clothing and Textile department during the junior year.

Group A. Home Economics Education-Teachers' Course

Prin. of Secondary Ed., Ed 40	3	Child Nutrition, HE 141	3
Meth. of Teach. in H. S., Ed 47	3	Meth. of Teach. Cloth., HE 146	2
Educational Psychology, Ed 45	3	Behavior Problems, HE 176	3
Special Meth. in H. E., Ed 51ab	6		

Group B. Nutrition and Dietetics

Ed. Psychology, Ed 45	3	Child Nutrition, HE 141	3
Algebra, Math 3 or 10	3	Sanitary Bacteriology, Bac 142	4
Quantitative Analysis, Ch 23	3		

Group C. Clothing and Textiles

Free Hand Drawing, Art 2a	1-2	Advanced Clothing, HE 144	3
Costume Design, Art 22	1⅓	News Writing, PRJ 24	3
Applied Design, Art 26b	1-2	Feature Writing, PRJ 51	2
Decorative Stitchery, HE 69	1		

Senior Year
Required

	Fall	Winter	Spring
Art Appreciation, Art 32ab		1	1
***Home Management Practice, HE 72	5		
***Child Development Laboratory, HE 77	3		
The Family, RS 168			3
Electives to make 17 credits	9	16	13
	17	17	17

***Offered each term.

Options

Group A. Home Economics Education-Teachers' Course

Sp. Meth. in Related H. E. Sub., Ed 52	3	The House, HE 174	4
Student Teaching, Ed 78	5	Advanced Clothing, HE 144	3
Adult Home Making, Ed. 53	2	Textiles Economics, HE 166	2

Group B. Nutrition and Dietetics

Diet in Disease, HE 162	2	Physiolog. Chemistry, Ch 162	5
Experimental Cookery, HE 160	3	Clinical Methods, Pha 152ab	8
Nutrition Seminar, HE 264	2	Quantity Cookery, HE 73	2
		Institution Buying, HE 74	2

Group C. Clothing and Textiles

Costume Design, Art 22	1⅓	Textile Economics, HE 166	2
Advanced Clothing, HE 144	3	Children's Clothing, HE 167	2
History of Costume, HE 145	2	Advanced Textiles, HE 268	1-2

A great many high schools require the home economics teacher to teach at least one other subject. It is, therefore, desirable that students who take the teacher's course above should elect sufficient work in English, science (botany, zoology, chemistry, etc.) social studies (history, economics and rural sociology), foreign languages and mathematics, depending upon the group in which teaching work is desirable, to qualify for teaching subjects in those fields.

The following are the main requirements for teaching these subjects:

English—22½ term credits. (English 20abc, 22abc, and either 60 or 70 are suggested.)

Science—22½ term credits of which 7½ should be in the science taught.

Social Studies—22½ term credits which must include preparation in the subjects taught.

Foreign Languages—22½ term credits in the language taught.

Mathematics—22½ term credits.

DEPARTMENT OF HOME ECONOMICS

PROFESSOR PIERSON, ASSISTANT PROFESSORS KELLOGG, ROSENQUIST, McARTHUR, ROSENBERGER, INSTRUCTORS YOUNG, WALKER, YULE, BRYAN, ASSISTANT IN RESEARCH SAVILLE

The Home Economics division is located on the third floor of the Administration building. There are three large clothing laboratories, a laundry, a textile and textile testing laboratory, three foods laboratories, and an animal experimental room.

The clothing laboratories are equipped for forty students. They contain sewing machines, cutting tables, display cases and fitting rooms. The textile laboratory is arranged for testing and studying fabrics. The laundry has various types of equipment suitable to home use.

The two foods laboratories are equipped for general foods work, with additional special equipment when used by the classes in dietetics. A unit kitchen with a dining room and a reception room adjoining provides an opportunity for practice work in meal planning and serving.

Home Management House: The course in Home Management Practice is given at the Home Management House. This is a nine room dwelling on the college campus with accomodations for six students, an instructor, and a child.

Child Development Laboratory: The students in Child Development use the Nursery School which is located on the ground floor of the men's dormitory. The Nursery school enrollment is limited to sixteen children between two and five years of age. The school hours are from nine to one o'clock. It is the aim of the Nursery School to contribute to the welfare of each child enrolled, and to give students a practical knowledge of behavior and growth of young children.

Foods and Nutrition

PROFESSOR PIERSON, ASSISTANT PROFESSORS KELLOGG, ROSENQUIST

1 Foods (1, 6, 2) 3 credits **S**

The principle of selection, preparation, and use of the various classes of foods in the planning of meals for the family. P, Ch 1a. Miss Rosenquist.

Laboratory fee $4.00.

20 Foods (1, 6, 2) 3 credits F

The technique involved in food preservation for the home; food sources, varieties, and selection; responsibility of the consumer in the purchases of food for the family. P, 1. Miss Rosenquist.

Laboratory fee $4.00.

21 Foods (1, 4, 2) 2 credits W

History of cookery, customs and convention; individual planning, preparation and serving of meals for the family with consideration of nutritive, economic and aesthetic aspects. P, 20. Miss Rosenquist.

Laboratory fee $4.00.

140 Dietetics (3, 2, 7) 4 credits W

A study of the fundamental principles of human nutrition, the relation of food to health, the planning of dietaries for adults. P, Ch 20. Miss Pierson.

Laboratory fee $4.00.

141 Child Nutrition (2,2,5) 3 credits S

A study of the present nutritional status of children; the methods of judging nutrition; the cause and effect of malnutrition. P, 140. Miss Pierson.

Laboratory fee $4.00.

160 Experimental Cookery (1, 6, 2) 3 credits F, W or S

Investigation of factors which affect standard food products by laboratory experiments and a review of the literature on research in cookery. P, junior standing in Home Economics. Miss Rosenquist.

Laboratory fee $4.00.

161 Demonstration Cookery (1,4,4) 3 credits S

To meet demands for better training in extension teaching, lecture work, commercial work and similar fields. Demonstrations by instructors, students and specialists from outside the department. Discussions of equipment, organization, methods of procedure, etc. P, junior standing. Miss Rosenquist.

Laboratory fee $4.00.

162 Diet in Disease (1, 2, 3) 2 credits S

A study of diets for abnormal conditions. A preliminary course for students who wish to become hospital dietitians. P, 140, 141. Miss Pierson.

Laboratory fee $4.00.

263 Research in Foods and Nutrition 4 to 5 credits F, W, S

Feeding experiments with animals as a basis for determining the biological value of foods. For prerequisites consult advisors. Miss Pierson, Miss Kellogg.

264 Nutrition Seminar 2 credits F

Assigned readings and discussions of topics in the field of foods and nutrition with special attention to recent literature bearing on problems in dietetics in both normal and pathological conditions. P, 140, 141. Miss Pierson.

265-266 Home Economics Problems 1 to 5 credits F, S

Opportunity is given for the investigation of selected problems in home economics in fields such as foods, nutrition, textiles and child care. Miss Pierson, Miss Kellogg, Miss Rosenquist and Miss Rosenberger.

Home Administration

PROFESSOR PIERSON, INSTRUCTORS YOUNG, WILLIAMS

31 Home Care of the Sick (2, 3, 4) 3 credits S

Elements of nursing, the best methods employed in the home for the care of children, the sick and aged. Miss Erickson.

Laboratory fee $1.00.

71 Household Management (3, 0, 6) 3 credits F

An application of the principles of scientific management to the home with special emphasis on budgeting time and money. P, junior standing. Miss Pierson.

72 Home Management Practice 4 to 5 credits F, W or S

Seven weeks residence in the home management house, with various household management problems, including the care of a child of pre-school age. P, junior standing. Miss Pierson.

73 Quantity Cookery (1,3,2) 2 credits W

Application of the principles of cookery to large quantity preparation. Experience in planning and preparing meals for college cafeteria. P, junior standing. Miss Williams.

Laboratory Fee $3.00.

74 Institution Buying (1,3,2) 2 credits S

Problems involved in the purchasing and use of foods and equipment for cafeteria. P, junior standing. Miss Williams.

Laboratory Fee $2.00.

75 Child Development (2,2,5) 3 credits F

A study of the physical and mental growth of children during the preschool years. The students enrolled in this course spend two hours a week at the Nursery School, observing the children according to a prescribed procedure. P, Ed 45. Miss Young.

77 Child Development Laboratory (1,8,0) 3 credits F, W, or S

Students assist in the Nursery School for the purpose of providing contact with children and the management of behavior reactions. Each student makes an intensive study of one child. P, 75. Miss Young.

Laboratory fee $1.00.

174 The House (3,2,7) 4 credits F

Problems in planning and furnishing a medium priced house from the standpoint of economy, comfort and beauty. P, Art 1a. Miss Rosenquist.

176 Behavior Problems 3 credits W

A study of the emotional and social development of young children with consideration of desirable methods of managing behavior reactions. P, 75, 140. Miss Young.

Clothing and Textiles

ASSISTANT PROFESSOR ROSENBERGER, INSTRUCTOR YOUNG

10 Textiles (2, 3, 4) 3 credits F

A study of textile fabrics to determine fundamental differences, to develop judgment in selection and use of textile fabrics for personal or household use. Laboratory analysis to include practical home tests. Miss Rosenberger.

Laboratory fee $4.00.

11ab Clothing (1,6,2) 3 credits W, S

Consideration of the factors affecting the selection, use and care of clothing; comparison of home and factory made garments; clothing budget; use and care of sewing machine; fitting and use of commercial patterns. Laboratory experience includes construction of suitable garments of washable materials and light weight wool or wash silk. Miss Rosenberger.

Laboratory fee $1.00 each term.

30 Clothing (1, 6, 2) 3 credits S

Development of the foundation pattern, flat pattern construction, and the selection and construction of a wool garment. Emphasis on selection of design and color to express individual personality. P, 11a. Miss Rosenberger.

Laboratory fee $1.00.

69 Decorative Stitchery (0, 3, 0) 1 credit S

A laboratory course to give practice in decorative stitchery. Miss Rosenberger.

Laboratory fee $1.00.

144 Advanced Clothing (1, 6, 2) 3 credits F

Application of principles of costume design to promote more independence, initiative, originality and art in planning and adapting garments for different types of figures. Laboratory practice to include remodeling for a child and the construction of an afternoon silk dress. P, 30. Miss Rosenberger.

Laboratory fee $1.00.

145 History of Costume (2, 0, 4) 2 credits S

Study of the history of costumes of the important periods, as a means for better understanding the costumes of today and as a foundation for costumes of plays and pageants. P, Hist 23a or 20b. Miss Rosenberger.

146 Methods of Teaching Clothing (1,2,2) 2 credits S

Analysis of problems; making of illustrative material for clothing courses. P, junior standing. Miss Rosenberger.

166 Textile Economics (2, 0, 4) 2 credits F or S

A study of the economic aspects of clothing which directly or indirectly affects the consumer. P, Ag Ec 20. Miss Rosenberger.

167 Children's Clothing (1, 3, 2) 2 credits S

The selection, designing and construction of suitable clothing for children. P, junior standing. Miss Rosenberger, Miss Young.

Laboratory fee $1.00.

268 Advanced Textiles

Research problems in textiles may be arranged with instructor. For prerequisites consult instructor; credit and hours arranged.

Home Economics Education

ASSISTANT PROFESSOR McARTHUR, INSTRUCTORS YULE, WALKER

The work in Home Economics Education is administered jointly by the department of Vocational Education and the

Division of Home Economics. The Department is approved by the Vocational Division of the Department of Interior, Office of Education.

Ed 51a Special Methods in Home Economics (3,0,6) 3 credits W

The organization of home economics courses in high school and in vocational departments and methods of classroom teaching. P, junior standing. Miss McArthur.

Ed 51b Special Methods in Home Economics (3,0,6) 3 credits S

Problems of classroom teaching and project supervision. This is planned to follow or parallel student teaching. P, junior standing. Miss McArthur.

Ed 52 Special Methods in Related Home Economics Subjects (3,0,6) 3 credits F

Methods of teaching related subjects in vocational home economics departments. P, junior standing. Miss McArthur.

Ed 53 Adult Homemaking Education (1,3,2) 2 credits F, W, S

History, philosophy and objectives of adult education in general and in home economics. Curriculum and methods of teaching applied particularly to home economics. Opportunity is provided for developing teaching units, planning means of publicity and for observation of adult classes. P, senior standing. Miss McArthur.

Ed 78 Supervised Student Teaching in Home Economics 5 credits F, W or S

Student teaching is done under supervision in at least two phases of home economics. Group conferenc s, one hour each week, parallel student teaching. P, senior standing. Miss McArthur.

Laboratory fee $3.00.

DIVISION OF PHARMACY

The Division of Pharmacy offers an opportunity to receive a Bachelor of Science degree in Retail Pharmacy, Pharmaceutical Research, and Clinical and Hospital Pharmacy.

At the request of the South Dakota State Nurses' Association, the Department of Nursing Education was established by the Board of Regents in 1935.

THE COURSES IN PHARMACY

Following the recommendations of the American Association of Colleges of Pharmacy, the South Dakota State College. Division of Pharmacy, discontinued the three-year course beginning with the fall term of 1930.

The above change enables the Division of Pharmacy to give attention to the addition of certain business courses which are essential to retail pharmacy and to offer electives in certain scientific lines which may be of advantage to the student in allied fields. These electives may be selected in such science courses as may be approved by the dean of the division.

Upon the completion of the prescribed work of the four-year course with sufficient elective work to make 204 term credits together with 204 grade points the student may receive the degree of Bachelor of Science in Pharmacy.

The course is arranged with reference to the South Dakota State Law governing the registration of Pharmacists. A portion of the law is as follows:

> "Any person of good moral character and temperate habits not less than twenty-one years of age, who is a graduate of a four-year high school course or whose education is equivalent thereto in the discretion of the Board, who is a graduate of a four-year course in a school or college recognized and approved by the Board and who has had at least one year's experience before, after or during his college course, in the practice of Pharmacy under a regularly licensed pharmacist in a pharmacy where physician's prescriptions are compounded, and who shall pass a satisfactory examination prescribed by the Board of Pharmacy shall be entitled to a certificate of registration as a licentiate in Pharmacy."

All applicants for registration by examination will be required to obtain an average rating of 75 per cent and not less

than 60 per cent in any one subject. The subjects given will be Chemistry, Pharmacy, Materia Medica, Manipulation, Identification of Drugs, Chemical and Pharmaceutical Arithmetic, and an Oral Examination.

In order to harmonize the work of the College with these standards the completion of four years of high school work or its equivalent is required. The results have justified the measure, for at present only a few of the graduates of the College who have taken the state examination are not registered.

This line of work offers many inducements to young men and young women. The requests of the pharmacists of the state for our graduates are far in excess of the supply and the pure food and drug laws have opened up a new field for young men who are competent drug and food analysts.

Rowland Jones Award

An award of $50 is made annually by Mr. Jones to one of the three high-ranking juniors who submits the best project outline of an original research problem.

The award is made through a Committee appointed by Mr. Jones.

Jewett Research Fellowship Award

Each year the Jewett Drug Company of Aberdeen, South Dakota donates $200 for a research fellowship to further the interest of research in the field of Pharmacy.

The award of this fellowship is secured upon the application of the student who is best qualified to continue in graduate work for a Master of Science degree.

Lehn and Fink Medal

The Lehn and Fink Medal is awarded each year to the student who has attained the highest scholarship rank, or who in the judgment of the faculty has made the most distinctive contribution to the advancement of science in Pharmacy.

The Fairchild Scholarship

Mr. Samuel W. Fairchild, New York City, offers annually a scholarship, amounting to $500 in cash, to a graduate of an accredited college of Pharmacy, who will do graduate work

the year immediately following his graduation. Not more than two candidates may be offered from any one school. The award will be made on the basis of a competitive examination.

Below is given a brief outline of the subjects and the credit required for each of the four years.

THE FOUR-YEAR COURSES IN PHARMACY

Freshman Year

	Fall	Winter	Spring
Rhetoric, Engl 1abc	3	3	3
Inorganic Chemistry, Chem 1abc	4	4	4
Theoretical Pharmacy, Pha 5ab		3	4
Pharmaceutical Latin, Pha 1	4		
Practical Pharmacy, Pha 6ab		1	2
Lettering & Color Theory, Art 3ab	2	2	
Business Math., Math 7abc	3	3	3
Military Science, Mil 1abc	1	1	1
	17	17	17

Sophomore Year

Theoretical Pharmacy, Pha 27abc	3	3	3
Practical Pharmacy, Pha 28abc	2	2	2
Pharmacognosy, Pha 23abc	4	4	4
Organic Chemistry, Chem 22ab	4	4	
Volumetric Analysis, Chem 24			4
Physiology, Z 1abc	3	3	3
Military Science, Mil 20abc	1	1	1
	17	17	17

Junior Year—Retail Pharmacy

Prin. of Economics, Ag Ec 20	5		
Prin. of Sociology, R S 20		5	
Elementary Psychology, Psy 25			3
Entomology, Ent 45			3
Drug Assaying, Pha 41ab	4	4	
Window Display, Pha 46	2		
Store Management, Pha 40ab		2	2
General Bacteriology, Bac 31,142,143	4	4	4
*Electives	2	2	5
	18	18	17

Senior Year—Retail Pharmacy

Pharmacology, Pha 62abc	4	4	4
Dispensing, Pha 60ab	4	4	
Pharm. Jurisprudence, Pha 61			4
Chemistry or Physics	4	4	4

* Electives are to be chosen subject to the approval of the Dean of the division.

Electives	5	5	5
	17	17	17

Junior Year—Pharmaceutical Research

	Fall	Winter	Spring
Prin. of Economics, Ag Ec 20			5
Prin. of Sociology, R S 20		5	
Drug Assaying, Pha 41ab	4	4	
Language or Science	4	4	4
Adv. Organic Chemistry, Chem 160abc	5	5	5
Electives	5		4
	18	18	18

Senior Year—Pharmaceutical Research

Dispensing, Pha 60ab	4	4	
Pharmacology, Pha 62abc	4	4	4
Pharm. Jurisprudence, Pha 61			4
Toxicology, Pha 143ab		4	4
Language or Science	4	4	4
Electives	5	1	1
	17	17	17

Junior Year—Clinical and Hospital Pharm.

Prin. of Economics, Ag Ec 20	5		
Prin. of Sociology, R S 20			5
Vertebrate Histology, Z 164ab	4	4	
Drug Assaying, Pha 41ab	4	4	
Gen. Bacteriology, Bac 31,142,143	4	4	4
Electives		5	9
	17	17	18

Senior Year—Clinical and Hospital Pharm.

Pharmacology, Pha 62abc	4	4	4
Dispensing, Pha 60ab	4	4	
Pharm. Jurisprudence, Pha 61			4
Clinical Methods, Pha 152abc	4	4	4
Electives	5	5	5
	17	17	17

THE COURSES IN NURSING EDUCATION

The Department of Nursing Education offers to prospective students of nursing a program of study which, combined with an approved course in nursing, leads to the degree of Bachelor of Science.

Graduate registered nurses who meet the college entrance requirements and whose professional credentials are approved may register in the Department of Nursing Education. A special form to be filled out by the Director of Nursing in the school from which the applicant graduated will be required.

Candidates for the degree must complete two hundred four credits of satisfactory work distributed as follows:

Group I—Bacteriology, Chemistry, Hygiene, Physics, Physiology, Zoology. 68-70 credits.

Group II—Art, Economics, English, Ethics, History, Language, Psychology, Sociology. 30-40 credits.

Group III—Nursing and Allied fields. 94-106 credits. (The professional course in nursing is credited toward this requirement.)

Elizabeth Dryborough Loan Fund for Graduate Nurses

The South Dakota State Nurses' Association has created a fund to be used for loans to graduate nurses, registered in South Dakota, who may wish to prepare for teaching, supervisory or administrative positions in schools of nursing, or for those who may wish to enter the field of public health nursing.

For details, write to the Director, Department of Nursing Education.

Program for the Student Nurse

The program for the student nurse is divided into three periods as follows:

1. **Preclinical Period** of two college years, spent in the College.

2. **Clinical Period** of thirty to thirty-six months, spent in residence in an approved hospital school of nursing.

3. **Post-Clinical Period** of two quarters, spent in the College. Special programs of study are planned for those students who may wish to prepare for faculty positions in schools of nursing. **Such programs are designed to serve as a foundation for the more advanced professional courses offered in other institutions.**

A program is also offered for graduate nurses who may wish to prepare for positions of office nurse and laboratory technician.

Freshman Year

	Fall	Winter	Spring
General Zoology, Z 20ab	3	3	
Inorganic Chemistry, Ch 1ab	4	4	
Rhetoric, Engl 1abc	3	3	3
Medieval History, Hist 1	4		
English History, Hist 2ab		4	4
Principles of Ethics, N Ed 1	2		
Foods, HE 1			3
Household Physics, Phy 43			5
Physical Education, PE 1abc	1	1	1
Freshman Lectures			
Electives		2	1
	17	17	17

Sophomore Year

	Fall	Winter	Spring
English Literature, Engl 22abc	2	2	2
Elem. Organic Chemistry, Ch 20	5		
Human Physiology, Z 1abc	3	3	3
Elementary Bacteriology, Bac 41	5		
Hygiene, N Ed 20		3	
Dietetics, HE 140		4	
Pharmacology, Pha 24abc	2	2	2
Elementary Psychology, Psy 25			3
History of Nursing, N Ed 21ab		2	2
Principles of Sociology, RS 20			5
Physical Education, PE 20abc	1	1	1
	18	17	18

Upon successful completion of the subjects in the freshman and sophomore years the student will enter the hospital for her clinical education.

Having completed the professional course in nursing she may return to the College and elect one of the following programs, the successful completion of which will entitle her to the Bachelor of Science degree.

Senior Year

Science Instructor	Credits
Vertebrate Zoology, Z 161ab or Vertebrate Embryology, Z 162ab	6
Vertebrate Histology, Z 164ab	8
Physiological Chemistry, Ch 162	5
Principles of Infection and Immunity, Bac 142	5
Educational Psychology, Psy 45	3
Nursing Education, N Ed 80	3
Nursing Education, N Ed 81ab	6
Supervisor and Instructor of Nursing Arts	
Principles of Economics, Ag Ec 20	5
Educational Psychology, Psy 45	3
Principles of Infection and Immunity, Bac 142	5

Behavior Problems, HE 176	3
Mental Growth and Development, HE 75	3
Nursing Education, N Ed 80	3
Nursing Education, N Ed 81ab	6
Electives	8
Public Health Nursing	
Principles of Economics, Ag Ec 20	5
Rural Sociology, RS 31	3
Urban Sociology, RS 144	3
The Family, RS 168	3
Child Nutrition, HE 141	3
Principles of Infection and Immunity, Bac 142	5
Public Health, N Ed 60	3
Educational Psychology, Psy 45	3
Nursing Education, N Ed 80	3
Electives	5
Laboratory Technician	
Vertebrate Histology, Z 164ab	8
Principles of Infection and Immunity, The Pathogenic Bacteria, Immunology and Serology, Bac 142, 152, 153	15
Clinical Methods, Pha 152 abc	12
Physiological Chemistry, Ch 162	5

Program for Graduate Nurses

In order that the course in nursing may serve as an acceptable basis for the college program, the professional subjects should be distributed in approximately the following proportions:

	Credits
1. Sciences (anatomy, bacteriology, chemistry, physics, physiology)	12 to 14
2. Social and general professional subjects (nursing ethics, history of nursing, professional problems, applied psychology, applied sociology)	8 to 10
3. Subjects in allied fields (dietetics, pharmacology, hygiene, sanitary science)	10 to 12
4. Nursing arts and clinical specialties (general, medical, surgical, pediatric, obstetric, neurological, psychiatric	30 to 40
Total credits	60 to 70

When the record from the nursing school is deficient in the subjects of the first three groups, these may be made up by additional college courses. Should the record show deficiencies in the fourth group students will be required to supplement their work in a school of nursing offering approved post-graduate courses in the clinical services.

Graduate nurses who have had no previous college education will be classified upon entrance as sophomore students.

COURSE OF STUDY

Sophomore Year

Subjects required as for the freshman year, with the following changes: Psychology 25, 45, History of Nursing 21ab, Bacteriology 41, Sociology 20 substituted for: Zoology, Ethics, Foods, Physics.

Junior Year

Subjects required as for the sophomore year with the following changes: Physics, Electives substituted for: Psychology, Sociology, History of Nursing.

Senior Year

Subjects as listed for the various specialities with the following changes: Electives substituted for: Educational Psychology.

Departments of Instruction

PHARMACY

PROFESSOR SERLES, ASSISTANT PROFESSORS LEBLANC, HINER, MR. EIDSMOE

Below is given a description of the subjects that are offered in the department:

1 Pharmaceutical Latin (4,0,8) 4 credits F

The subject is taught with special reference to its application to Latin titles and prescription practice. First year. P, freshman standing. Four recitations a week. Text: Muldoon's Pharmaceutical Latin. Mr. Serles.

5ab Theoretical Pharmacy (3,0,6) 3 credits W
(4,0,8) 4 credits S

A study of the comparison of weights and measures of the various systems, and the theory of the application of the methods used in pharmaceutical manufacture. This course consists of three recitations each week of the winter term and four recitations each week of the spring term. Text: Remington's Practice of Pharmacy, with lectures. Mr. Eidsmoe.

6a Practical Pharmacy (0,2,1) 1 credit W

Experiments are outlined which are designed to train the student to use the balance, measure liquids accurately, and to determine specific gravity by the various methods common to the practice of pharmacy. Text: Remington's Practice of Pharmacy. Mr. Eidsmoe.

Laboratory fee $2.00, deposit $3.00.

6b Practical Pharmacy (0,4,2) 2 credits S

Preparation of waters, syrups, mucilages, and other galenicals prescribed by the instructor. P, 6a. Text: Remington's Practice of Pharmacy. Mr. Eidsmoe.

Laboratory fee $3.00, deposit $3.00.

23a Pharmacognosy (2,6,4) 4 credits F

This course consists of a brief introduction to the Thallophytes, Archegoniates and Gymnosperms, from an economic viewpoint, special emphasis being placed upon the study of the medicinal products obtained from these groups. The second portion of the course deals with morphological studies from the angle of the future work in Pharmacognosy. Two recitations and six hours of laboratory work a week. Text: Younken's Pharmacognosy, Mr. Hiner.

Laboratory fee $3.00, deposit $3.00.

23b Pharmacognosy (2,6,4) 4 credits W

A pharmaco- and micro-chemical study of the cell and some 25 drug plant constituents, e.g., alkaloids, glucosides, tannins, resins, gums, volatile oils, fixed oils, fats waxes, calcium oxalate, calcium carbonate, latex, enzymes, aleurone grains, etc. Two recitations and six hours of laboratory work a week. Text: Younken's Pharmacognosy. Mr. Hiner.

Laboratory fee $3.00, deposit $3.00.

23c Pharmacognosy (2,6,4) 4 credits S

A careful study of the source, characteristics, constituents, etc., of all of the crude vegetable and animal drugs of the United States Pharmaceopeia, and of the more important crude drugs of the National Formulary as well as those of the Non-official group. Two recitations and six hours of laboratory work a week. Text: Younken's Pharmacognosy. Mr. Hiner.

Laboratory fee $3.00, deposit $3.00.

24abc Pharmacology (2,2,4) 2 credits F, W, S

A study of the systems of weights, measures, and rules for computing the dosage of drugs and preparations used by the nurse in her daily practice. Attention is given to the method of administration as well as the action of important remedial agents used in medicine. Two recitations and one two hour laboratory per week. P, sophomore standing. Text: Introduction to Materia Medica & Pharmacology, McDugan and Brodie. Miss Nelson.

Laboratory fee $3.00.

27abc Theoretical Pharmacy (3,0,6) 3 credits each term F,W,S

A careful study of the official inorganic salts, their compounds, and methods of manufacture. Similar consideration is given the common organic compounds. The last portion of the course is given to the study of the commercial manufacture of pharmaceuticals. P, 5 and 6. Text: Remington's Practice of Pharmacy. Mr. Eidsmoe.

28abc Practical Pharmacy (0,6,0) 2 credits each term F,W,S

Application of the principles in course 27 which it accompanies. P, 5 and 6. Text: Remington's Practice of Pharmacy. References: United States Pharmacopoeia, National Formulary, and other Formularies. Mr. Eidsmoe.

Laboratory fee $3.00, deposit $3.00 each term.

40ab Store Management (1,3,2) 2 credits each term W,S

The courses are planned to give the student practical knowledge in the operation of a drug store. A study of drug store fixtures, their arrangement, lighting, display value, including counter displays with suitable placards made by the student. Plans of model stores adapted to varying conditions are required. Beginning with the spring term

the actual conditions, the actual every day business of the drug store are taken up. A study of drug store locations, salesmanship, records, ordering of supplies, discounts, free deals, marking merchandise, figuring percent profit, credit and numerous other details connected with the successful management of a drug store. A new model pharmacy is used as a laboratory. P, first two years of pharmacy. One recitation and three hours of laboratory work a week. Mr. LeBlanc.

Laboratory fee $2.00, deposit $2.00 each term.

41ab Drug Assaying (1,9,2) 4 credits each term F,W

P, Chem 1abc. One recitation and nine hours of laboratory work a week. Mr. LeBlanc.

Laboratory fee $3.00, deposit $3.00 each term.

46 Window Display (1,4,1) 2 credits F,W, or S

The work in window display is made up of a combination study of color schemes, and arrangements of material used in display. Lighting effects will also be given careful consideration.

The course in Art 3ab should precede this course but is not necessary. Commercial displays as well as products of the trade are used to make up windows for show purposes. Mr. Eidsmoe.

Laboratory fee $2.00, deposit $3.00.

60ab Dispensing (2,6,4) 4 credits each term F,W

This course is designed to acquaint the student with the actual work that comes before him in the store, and to give him the practical side of the work, previously given in lectures on incompatibility and prescription filling. P, all courses of Theoretical and Practical Pharmacy. Two recitations and six hours of laboratory work a week. Text: Scoville's Art of Compounding. Mr. LeBlanc.

Laboratory fee $3.00, deposit $3.00 each term.

61 Pharmaceutical Jurisprudence (4,0,8) 4 credits S

Special attention will be given to the National and State laws governing the importance, commercial disposition and the medico-legal aspects of prescription practice. P, 60ab. Four recitations a week. Texts and references: Scoville's Art of Compounding; Ruddiman's Incompatibles in Prescriptions; Remington's Practice of Pharmacy; Holland's Toxicology; Sollman's Manual of Pharmacology; Potter's Therapeutics and Materia Medica; National and State Laws. Mr. LeBlanc.

62abc Pharmacology (3,3,9) 4 credits each term F,W,S

This course replaces the course formerly offered under the title of Materia Medica. The course in Pharmacology is designed to embrace a knowledge of the action of the more important drugs and preparations dispensed by the pharmacist. A careful study of the dose, therapeutic action and mode of administration of the U. S. P. and N. F. substances comprises the major portion of the course. Some attention will be given all remedial agents of known therapeutic value. Laboratory work consisting of biologic assays, antidotal treatment of common poisons, and first aid will accompany the lectures. P, 23abc. Mr. Hiner.

Laboratory fee $3.00, deposit $3.00 each term.

143ab Toxicology (2,6,4) 4 credits each term W,S

A systematic physiological and chemical study of the more common poisons, together with nature, effects, and antidotes for the same.

Lectures will also be given concerning the medico-legal aspect. P, senior standing. Two recitations and six hours of laboratory work a week. Text and references: Authenrieth's Detection of Poisons; Holland's Toxicology; Sollman's Manual of Pharmacology; Howell's Physiology; Journal of Experimental Medicine. Mr. Serles.

Laboratory fee $3.00, deposit $3.00 each term.

152abc Clinical Methods (2,6,4) 4 credits each term F,W,S

A study of the technique of various laboratory tests required of the hospital pharmacist. The course is designed to give practical application to the modern methods employed in clinical procedure. P, junior standing. Text and references: Laboratory Diagnosis, Osgood and Haskins; Qualitative Clinical Chemistry, Peters and Van Slyke; Recent Advances in Medicine, Beaumont and Dodds. Mr. Serles.

Laboratory fee $3.00, deposit $3.00 each term.

160c Prescription Practice 4 credits S

An advanced course in Dispensing consisting of the study of the official substances and preparations of the latest edition of the National Formulary. The course will also include a review of the important new and non-official remedies which have definite therapeutic value. Three recitations and two hours of laboratory work a week. P, 60b. Text: National Formulary, with lectures by the instructor. Mr. LeBlanc.

Laboratory fee $2.00, deposit $3.00.

164 Pharmaceutical Research Credits 1 to 5

Undergraduate students of superior ability may elect a research problem from any of the following: Toxicology, Manufacturing Pharmacy, Drug Assaying, Product's from the Medicinal and Poisonous Plant Garden. Members of the staff.

Laboratory fee $1.00 per credit hour.

241c Advanced Drug Assaying (1,9,2) 4 credits S

A continuation of courses 41ab, including some of the more difficult analytical methods. Assays of various foods and pharmaceuticals employing the use of the polariscope, refractometer, colorimeter and types of apparatus used in industrial laboratories. Outside reading of literature dealing with these subjects will be required. P, first two years of Pharmacy and courses 41ab. One recitation and nine hours of laboratory work a week. Text and references: Thurston's Pharmaceutical and Food Analysis; Leach's Food Inspection and Analysis; Olson's Quantitative Analysis; U. S. P.; N. F.; and selected A. O. A. C. methods. Mr. LeBlanc.

Laboratory fee $3.00, deposit $3.00.

264 Pharmaceutical Research Credits 1 to 5

The advanced students may select as an elective any one of the following subdivisions of pharmaceutical research: Toxicology, Manufacturing Pharmacy, Drug Assaying, Products from the Medicinal and Poisonous Plant Garden. Members of the Staff.

Laboratory fee $1.00 per credit hour.

265 Thesis 7 to 10 credits

Required of all graduate students majoring in any of the several subdivisions of Pharmacy. The facilities as offered by the modern research laboratory and the Medicinal and Poisonous Plant Investigations Gardens are placed at the disposal of the students in this con-

nection. The thesis must comply with the regulations as established by the Committee on Advanced Degrees.

267 Pharmacology (2,6,4) 4 credits W,S

A study of the fundamental principles and theories of drug action upon animal life. The modes of administration and the methods of recording physiological action are given special attention. A certain amount of research work will be given those competent to carry on the same. P, 62abc. Text: Sollman's Pharmacology. Mr. Serles, Mr. Hiner.

Laboratory fee $3.00, deposit $3.00 each term.

268 Microscopy of Foods and Drugs (1,9,2) 4 credits F

A study of the microscopic structure and characteristics of powdered drugs and foods with methods, including microchemical tests, for the identification of adulterants. This course is especially designed to acquaint the student with the proper technique for microscopical identification of drugs, chemicals and foods. P, 23abc. Texts and references: Greenish's Microscopical Examination of Foods and Drugs; Kramer's Scientific and Applied Pharmacognosy; Leach's Food Inspection and Analysis; and Hanausek's Microscopy of Technical Products. Mr. Hiner.

Laboratory fee $3.00, deposit $3.00.

NURSING EDUCATION

PROFESSOR GIVEN

The Department of Nursing Education, as indicated on preceding pages, offers a program of study which leads to the degree of Bachelor of Science. The following subjects are offered in the department:

1 Principles of Ethics (2,0,4) 2 credits F

A brief survey of ethical theories and an analysis and discussion of ethical problems. The purpose of the course is to help students formulate an ethical philosophy which will serve as a foundation for professional ethics in the field of nursing. Two lectures a week.

20 Hygiene (3,0,6) 3 credits W

This course deals with the general principles of personal and mental hygiene with their special application to personal needs. The first half of the course emphasizes the importance of good health habits and stresses the obligations of a nurse as a health teacher. In the second half of the course emphasis is placed upon the means of preventing and correcting personality disorders. The different types of constitutional make-up and the underlying motives and mental mechanism involved in making every day adjustments. P, Physiology 21a. Three lectures a week. Open to all women students.

21ab History of Nursing (2,0,4) 2 credits each term W, S

This course traces the development of nursing under religious, military and secular control from ancient to modern times. Prerequisite or parallel, History 1a. Two lectures a week. Text: Dock and Stewart—A Short History of Nursing.

60 Public Health (3,0,6) 3 credits S

A course including a general survey of present day health problems, the various public and private health agencies, and the principles of sanitary science with their applications to water, milk, food supplies and to the disposal of refuse, garbage and sewage. Three lectures a week.

80 Nursing Education (3,0,6) 3 credits F

A survey course including the recent developments in the entire field of nursing. Designed to familiarize the student with the current trends in American nursing. Three lectures a week.

81ab Nursing Education (3,0,6) 3 credits F,W

A survey course introducing the student to the work of the school of nursing as a whole. It includes the historical development of nursing schools, their organization, educational objectives, the content of the educational program and the essentials for efficient operation. Three lectures a week.

DIVISION OF GENERAL SCIENCE

The General Science Division offers three courses, the General Science Course, the Social Science Course, and the Course in the Printing Arts and Rural Journalism.

In the courses in Agriculture, Engineering, Home Economics, Pharmacy and other professional subjects, study is primarily directed to the application of the various sciences in these fields. It is necessary that students pursuing these technical courses should have a broad training in such subjects as botany, zoology, chemistry, physics, history, English, economics, sociology, and other subjects. The inclusion of these basic studies in the technical courses affords an opportunity also for other students who do not desire to specialize to the extent that these courses require. For them the College offers two four-year courses, one for students who wish to specialize in the natural sciences and mathematics, and the other for those who wish to specialize in the social sciences. As the name indicates, these courses provide a broad education; at the same time they prepare students for services which are closely allied to the major specialized fields; in fact students who have completed the General Science courses often find their work in the technical fields.

For a statement concerning the entrance requirements to all four-year courses offered by the College, see "Admission Requirements," page 31.

The course in Printing and Rural Journalism is designed for those who wish to pursue a full college course and specialize either in printing or in journalism or in both. In the main, the regular general science curriculum is followed with major emphasis placed on printing and journalism and allied subjects.

All three courses of this division include a common nucleus consisting of six hours of military education, twenty-eight (or twenty-seven) hours of science, and thirty-two hours in social science and language. The remaining subjects are selected in accordance with the requirements that follow.

Majors and Minors

Not later than the beginning of the junior year the student

who is pursuing the course in General Science or in Social Science, is required to choose, subject to the approval of the Dean of the Division and the head of the departments concerned, a major and a minor, each to consist of subjects in one department or of closely related subjects, as described in the catalog.*

Majors are offered students in General and Social Science in the following fields:

Botany, Plant Pathology and Bacteriology, Chemistry, Entomology, Mathematics, Physics, Zoology, Agricultural Economics, Agronomy (Soils and Crops), History, Political Science, Printing and Rural Journalism, Rural Sociology.

Elective minors may be chosen in the above fields and also in Animal Husbandry, Art, English, Foreign Languages, Industrial Art, and Music. But a major and a minor may not be chosen in the same field.

The requirements for graduation in these courses are 204 credits and 204 grade points, in accordance with the schemes of study which follow.

* The majors and minors, as published in the catalog in the departmental descriptions, may be modified with the approval of the head of the department concerned.

The General Science Curriculum

This curriculum is adapted to the needs of students who wish to specialize in the physical and biological sciences and in mathematics. Too narrow specialization is prevented by requiring a sufficient amount of study in literature, history and other liberal arts subjects to insure that those who complete the course get a broad training.

The following summary shows the distribution of subject matter of the course:

Group I—Natural Sciences and Mathematics	
Elementary Inorganic Chemistry, Ch 1abc	12
College Algebra, Trigonometry, Math 10, 11	10
General or Elementary Physics, Phy 21ab, or 1abc	8
General Botany, Bot 1abc	9
General Zoology, Human Physiology, Z 20ab, 21	9
Geology, Ag 171	5
	53
Group II—Language and Social Sciences	
Rhetoric, Engl 1abc	9

Extempore Speaking, Sp 21abc	3
Literature, English or American, Engl 20abc, or 22abc	6
Library Use, Lib 1	1
History (connected work)	9
Elementary Psychology, Psy 25	3
Principles of Economics, Ag Ec 20	5
Principles of Sociology, RS 20	5
	41

Group III—Military Science and Physical Education

Military Science (for men)
or
Physical Education (for women) ---------- 6

Group IV—Electives

Major and Minors and General Electives ---------- 104

Major and minors as outlined in the catalog must be satisfactory to departments concerned or logical substitutions made with approval of departments.

Additional electives must be chosen to total 204 credits and 204 grade points.

General Science Curriculum by Years

Freshman Year

	Fall	Winter	Spring
Rhetoric, Engl 1abc	3	3	3
Library Use, Lib 1	1		
Military Science, Mil 1abc (men) or Physical Education, PE 1abc (women)	1	1	1
College Algebra, Math 10	5		
Trigonometry, Math 11		5	
* Analytic Geometry, Math 12 or 16			5
and two subjects, one of them a science, from the following:			
French, 1abc, German, 1abc, Spanish, 1abc	4	4	4
Medieval and English History, Hi 1, 2ab	4	4	4
Elementary Inorganic Chemistry, Ch 1abc	4	4	4
Elementary Physics, Phy 1abc	4	4	4
Elementary Botany, Bot 1abc	3	3	3

Note—Those choosing Elementary Botany will elect from the following to make up the requisite number of credits: Drawing, Typing, General Literature, and other subjects.

* Descriptive Astronomy, Math 23, or other elective may be substituted for Analytic Geometry.

Sophomore Year

The work of the sophomore year is dependent on that of the freshman year. The following subjects are required of all:

American Literature or English Literature, Engl 20abc or 22abc	2	2	2
Extempore Speaking, Sp 21abc	1	1	1

Military Science, Mil 20abc (men) or Physical Training, PE 20abc (women)	1	1	1

If a foreign language has been begun in the freshman year, it should be continued in the sophomore year.

In general a student should have taken the required work in botany, chemistry, history, mathematics, and zoology by the end of his sophomore year. It is well also to have taken elementary psychology and principles of economics. Those aiming to major in physics should take physics in the sophomore year.

In the junior and senior years, the subjects must be so chosen as to include the remainder of those prescribed in the courses as indicated in lists above.

The Social Science Curriculum

The special curriculum in the social sciences is designed to furnish a broad background of human societal knowledge but with considerable room for specialization in either Agricultural Economcs, Rural Sociology, Political Science, or History.

The offerings in economics include a number of different courses in each of the following fields: Farm and ranch management, cooperation and marketing, public and agricultural finance, land economics, statistical analysis, and economic theory.

Sociological courses are organized mainly within the fields of rural sociology, family relationships, population problems, sociological theory, social pathology, and social welfare.

The fields emphasized in political science are American government, comparative government, political theory, and international relationships. In history, in addition to various standardized courses, special emphasis is given to the fields of economic history, agricultural history, and to survey courses in modern and contemporary European and American history.

The following summary shows the distribution of subject matter in the Social Science Curriculum.

GroupI—Applied Science and Mathematics	
College Algebra, Math 10	5
Chemistry or Physics, Ch 1abc or Phy 1abc or 21abc	12
Gen. Botany or Gen. Zoology, Bot 1ab or Z 20ab	6

Physiology, Z 21	3
Geology, Ag 171	5
Electives, pure or applied science	14
	45

Group II—Social Sciences—(History, Sociology, Economics)

History

English History, Hi 2ab	8
Economic History U. S. or Am. History, Hi 26ab, Hi 23ab	6
American Government, Hi 44ab	8
Modern History, Hi 20c	3
	25

Rural Sociology

Principles of Sociology, RS 20	5
Social Pathology, RS 143	3
The Family, RS 168	3
	11

Agricultural Economics

Economic Geogr., Ag Ec 30	3
Prin. Economics, Ag Ec 20	5
Statistical Method, Ag Ec 141a	3
Financial Organization, Ag Ec 148	4
	15

Group III—English, Speech, Psychology

Rhetoric, Engl 1abc	9
El. Psychology, Psy 25	3
English or American Literature, Engl 20abc or 22abc	6
Library Use, Lib 1	1
Extempore Speaking, Sp 21abc	3
	22
Group IV—Military Science (men) or phys. Educ. (women)	6
Group V—Electives	80

Majors and minors as outlined in catalog must be satisfactory to departments concerned or logical substitutions made with approval of departments.

Additional electives must be chosen to total 204 credits and 204 grade points.

SOCIAL SCIENCE CURRICULUM BY YEARS

Freshman Year

	Fall	Winter	Spring
Inorganic Chemistry, Chem 1abc or Elementary Physics, Phy 1abc	4*	4*	4*
Rhetoric, Engl 1abc	3	3	3
College Algebra, Math 10	5		
English History, Hist 2ab		4	4
Library Use, Lib 1	1		

Military Science, Mil 1abc (men)			
or			
Physical Education, PE 1abc (women)	1	1	1
Options (See below)	4	5	5
	18	17	17

Sophomore Year

General Zoology, Z 20ab			
or			
General Botany, Bot 1ab	3	3	
Human Physiology, Z 20			3
American Literature, Engl 20abc			
or			
English Literature, Engl 22abc	2	2	2
Extempore Speaking, Sp 21abc	1	1	1
Economic History of the U.S., Hist 26ab			
or			
American History, Hist 23ab	3	3	
Economic Geography, Ec 30			3
Principles of Economics, Ec 20	5		
Elementary Psychology, Psy 25			3
Principles of Sociology, RS 20		5	
Military Science, Mil 20abc (men)			
or			
Physical Education, PE 20abc (women)	1	1	1
Options (See below)	3	3	3
	18	18	16

*The physical science sequence, listed for the freshman year may be interchanged with the biological science listed for the sophomore year.

Any one of a number of the optional subjects or sequences listed below may be taken in the space allotted for electives in the freshman and sophomore years. It is advised that students who know in advance what particular department of the social sciences they wish to major in should consult the head of that department for suggestions as to electives.

Freshman Options

Medieval History, Hist 1	4		
Trigonometry, Math 11		5	
Analytic Geometry, Math 12			5
or			
Foreign Language (Spanish, French or German)	4	4	4
or			
Typewriting, PRJ 16abc	1	1	1
Shorthand, PRJ 18abc	5	5	5
or			
A Second Natural Science	3-4	3-4	3-4
or			

An Applied Science Sequence in Agriculture or Home Economics	3-5	3-5	3-5
Sophomore Options			
A Second History Sequence (Economic, American, Modern)	3	3	3
or			
Foreign Language (Spanish, French, or German, 21abc)	3	3	3
or			
Elementary Accounting and Advanced Accounting or Business Law	4	4	4-5
or			
A Second Natural Science	3-4	3-4	3-4
or			
An Applied Science Sequence in Agriculture or Home Economics	3	2	3
Junior Year			
American Government, Hist 44ab	4	4	
Modern History, Hist 20c			3
Social Pathology, RS 143	3		
Statistical Method, Ec 141a	3		
Financial Organization, Ec 48		4	
Electives	7	9	14
	17	17	17
Senior Year			
Geology, Agr 171			5
The Family, RS 168			3
Electives	16	16	9
	16	16	17

PRINTING AND RURAL JOURNALISM COURSE

The country newspaper and printshop field offers great possibilities for the well trained college graduate. Daily, agricultural and trade papers are turning to the college for their workers. Large commercial printing plants are in need of executives and salesmen. There is a constantly growing demand for men trained in printing, journalism and advertising to serve as publicity and advertising men for business concerns and public institutions. The need for agricultural and home economics leaders who are able to reach the public through the medium of the press is greater than ever before. High schools and vocational schools require men who are qualified to teach journal-

ism and printing and to supervise publication and publicity work.

The course in printing and rural journalism has been designed with these opportunities in mind, giving the student a well balanced training in all the practical phases of printing and rural journalism that are the most beneficial for the country newspaper and print shop.

A short course in printing and rural journalism is also given to accommodate students who have not completed the entrance requirements to the four-year course or do not have the time to pursue this course. Special courses also are given during the summer session for the benefit of those of the printing trades who wish to broaden their experiences or develop their skill in presswork, composing machines, and typography. For descriptions of these courses see "Non-Degree Courses" in the back of this catalog, page 191.

For a major in Printing and Rural Journalism, students should select courses as indicated in the description of the wor] offered by the department of Printing and Rural Journalism

Courses in shorthand, typewriting and advertising are offered in this department. These courses are open to all students. Description of the courses will be found under Printing and Rural Journalism.

The rule with reference to limited credit subjects as applied to the General Science course also operates in connection with the course in Printing and Rural Journalism.

FOUR-YEAR COURSE IN PRINTING AND RURAL JOURNALISM

Freshman Year

	Fall	Winter	Spring
College Mathematics, Math 10, 11	4	4	
Rhetoric, Engl 1abc	3	3	3
Inorganic Chemistry, Chem 1abc	4	4	4
or			
Elementary Physics, Phy 1 abc	4	4	4
English History, Hist 2b			4
Library Use, Lib 1	1		
Principles of Typography, PRJ 12abc	2	2	2
Platen Presswork, PRJ 11abc	1	1	1

Bindery Operations, PRJ 14			1
Drawing and Design, Art 24abc	1	1	1
Typewriting, PRJ 16		1	1
Physical Education, PE 1abc (women) or Military Science, Mil 1abc (men)	1	1	1
	17	17	18

Sophomore Year

General Botany, Bot 1ab or General Zoology, Z 20ab	3	3	
American Literature, Engl 20abc	2	2	2
Newswriting, PRJ 24	3		
News Editing, PRJ 25		3	
News Reporting, PRJ 26			3
Principles of Economics, Ag Ec 20			5
Economic History of U.S., Hist 26ab	3	3	
Display Typography, PRJ 31abc	3	3	3
Introduction to Composing Machines, PRJ 23			2
Presswork Problems, PRJ21			1
Cylinder Presswork, PRJ 32abc	1	1	1
Physical Education, PE 1abc (women) or Military Science, Mil 1abc (men)	1	1	1
	16	16	18

Junior Year

Composing Machine Operation and Mechanism, PRJ 43abc	2	2	2
Keyboard Operation and Machine Appreciation, PRJ 44 abc, or Composing Machine Problems, PRJ 42abc	2	2	2
Technical Theory of Composing Machines, PRJ 41abc	1	1	1
Extempore Speaking, Sp 21abc	1	1	1
Feature Writing, PRJ 51	2		
Advertising, PRJ 50ab		3	3
Editorial Writing, PRJ 52			2
Elementary Psychology, Psy 25	3		
Principles of Sociology, RS 20		5	
Geology, Agr 171			5
Principles of Accounting, Ag Ec 35a	4		
Electives	3	4	5
	18	18	18

Senior Year

Newspaper Composition and Makeup, PRJ 57abc	2	2	2
Publishing and Office Management, PRJ 53	3		
Cost and Estimating, PRJ 54ab		3	3
American Government, Hist 44a	4		

Advanced Reporting, PRJ 64			3
Advertising Salesmanship, PRJ 55			2
Electives	8	12	7
	17	17	17

The following sequences of electives are grouped in order that each student may select minors in two other departments, a major in another department, or a minor in journalism, subject to approval by the head of the department. A state certificate for teaching may be obtained by following the education sequence.

The sequences follow:

Group I	Fall	Winter	Spring
History of Printing and Journalism, PRJ 68			2
Public Relations, PRJ 65		3	
Publicity Methods, PRJ 66			3
Advanced Typography, PRJ 73 abc	1	1	1
Advanced Composing Machines, PRJ 71abc	1	1	1
Advanced Presswork, PRJ 72abc	1	1	1
Journalism Laboratory, PRJ 27abc	1	1	1
Group II			
Business Law, Ag Ec 41ab		5	
Statistical Methods, Ag Ec 141ab	3	3	
Financial Organization, Ag Ec 48		4	
Group III			
English Literature, Engl 22abc	2	2	2
Other English Elective	3		
Group IV			
Types and Classes of Livestock, AH 1	5		
Field Crops, Agr 1		5	
General Horticulture, Hort 1			3
Dairy Cattle and Products Judging, DH 20			3
Group V			
American Government, Hist 44b		4	
Political Parties, Hist 46			4
Modern History, Hist 40c			3
Group VI			
Principles of Education, Ed 40	3		
Educational Psychology, Ed 45		3	
Methods of H.S. Teaching, Ed 47			3
Practice Teaching, Ed 74	5		
Electives, to total 23 credits			
Group VII			
Rural Sociology, RS 31			3
The Family, RS 168			3
Crime and Punishment, RS 162		3	
The Small Town, RS 165		2	

Departments of Instruction

ART

PROFESSOR CALDWELL, MISS OBER, MISS PETERSON

The courses offered in this department are intended to stimulate an intelligent appreciation of nature and art. They are also designed to develop knowledge of the principles underlying the subjects of design, drawing, color, and the applied arts, and to give skill in their practice.

The following subjects are suggested for a minor in Art: Design, 1abc, 6 credits; Freehand Drawing, 2abc, and Advanced Freehand Drawing, 20abc, 6 credits; Costume Design, 22, 1 1-3 credits; House Decoration 23, 1 1-3 credits; Applied Design, 25 (D), 1 1-3 credits; Applied Design, 26abc, 2½ credits; Art Appreciation, 27abc, 3 credits; Art Appreciation II, 42 a, b, or c, 1 credit—Total 22½ credits.

1abc Design (0, 6, 0) 2 credits each term F, W, S

1a. A general survey of the principles of design with application to definite problems. Nature, abstract lines, geometric forms employed in constructing designs. Lettering and color-theory introduced. Mediums: pencil, ink, water-color, cutpaper. Three two-hour laboratory periods a week. Miss Ober.

Laboratory fee, 50 cents.

1b. An intensive study of color harmony. Designs intended for various crafts developed as patterns for stencil, gesso, pottery, leather. Borders, all-over patterns, cover designs included. Three two-hour laboratory periods a week. Miss Ober.

Laboratory fee, 50 cents.

1c. Poster problems in several mediums. Decorative compositions based on drawings from nature. A study of historic ornament with an application of some period motif. Three two-hour laboratory periods a week. Miss Ober.

Laboratory fee, 50 cents.

2abc Freehand Drawing 1 to 2 credits each term F, W, S

A study of the principles of perspective. Exercises in outline and value from cast, nature forms and still life. Interpretative compositions. Mediums: pencil and pen and ink. Three hours of laboratory work for each credit. Miss Caldwell, Miss Peterson.

Laboratory fee, 50 cents.

3ab Lettering and Theory of Color (0,4,0) 2 credits each term F,W

A study of lettering and layout. Principles of color harmony. Illustrative exercises in pen and ink and water color. The course is designed for pharmacy students. Two two-hour laboratory periods a week. Miss Ober, Miss Peterson.

Laboratory fee, 50 cents.

20abc Advanced Freehand Drawing and Composition

1 to 2 credits each term F, W, S

A study from cast, pose and still life of the construction of heads and figures, the modeling of surfaces and the effects of light. Imaginary compositions. Mediums: pencil, charcoal, pen and ink. Three hours of laboratory work for each credit. Miss Caldwell, Miss Peterson.

Laboratory fee, 50 cents.

21 Principles of Design and Color Harmony (0, 4, 0) 1⅓ credits F

A technical course to give the student practice in the application of the fundamental principles of design and color. A basis for commercial art. Two two-hour laboratory periods a week. Miss Peterson.

22 Costume Design and Fashion Illustration (0, 4, 0) 1⅓ credits F

Commercial rendering in color and black and white. Costumes and accessories built on design principles with use of research material. P, 1ab or 21 and 2. Two two-hour laboratory periods a week. Miss Peterson.

Laboratory fee 50 cents.

23 House Decoration (0, 4, 0) 1⅓ credits S

Technical rendering of design plates in color and in black and white. Special consideration of scale, color, texture, and composition in relating interior furnishing to architectural features. P, 1abc or 21. Two two-hour laboratory periods a week. Miss Peterson.

Laboratory fee 50 cents.

24abc Drawing and Design (0,6,0) 2 credits each term F,W,S

The principles of perspective and their application to object drawing. Exercises in lettering and layout. Principles of design and of color harmony with problems to illustrate their use. The course is designed for students of printing. Three two-hour laboratory periods a week. Miss Ober.

Laboratory fee, 50 cents.

25 Applied Design (Normal) (0, 4, 0) 1⅓ credits F

The planning and construction of various articles which involve designing for definite materials and tools, and for definite space. Many problems, such as stenciling, book-binding, gesso, stick-printing, and batik will be given as a basis for teaching related art in schools. P, 1abc. Two two-hour laboratory periods a week. Miss Caldwell, Miss Peterson.

Laboratory fee, 50 cents.

26abc Applied Design (Crafts) 1 to 2 credits each term F,W,S

A study of the principles of design as applied to construction and decoration in the various crafts of book-binding, leather tooling, pottery, basketry, weaving, stenciling, batik, block-printing and gesso. Usually the student may choose the craft in which he wishes to work. P, some training in drawing and design. Three hours of laboratory for each credit. Miss Caldwell, Miss Peterson, Miss Ober.

Laboratory fee, 50 cents.

27abc Art Appreciation I (1,0,2) 1 credit each term F,W,S

A study of the great masterpieces of architecture, sculpture,

painting and the minor arts from the standpoint of appreciation of their structural, pictorial and decorative qualities. An illustrated text will be used. Each student will be expected to own a small collection of prints. Miss Caldwell, Miss Peterson.

40abc Painting (0,3,0) 1 credit each term F,W,S

A study of color and its properties. Exercises in mixing and harmonizing color in painting in oil, water color and pastel. P, Freehand Drawing. Miss Caldwell.

42abc Art Appreciation II (1,0,2) 1 credit each term F,W,S

A study, somewhat in detail, of the style and work of some School of Art, as The Italian Primitives, The Barbizon Painters, Modern American Art. A different topic will be chosen each term. Illustrated by pictures. Each student will be expected to own a small collection of prints. Miss Caldwell, Miss Ober.

BOTANY, PLANT PATHOLOGY, AND BACTERIOLOGY

PROFESSOR MILLER, MR. SNYDER, MR. BATSON, MR. MATTESON, MR. RETHKE, MR. PHELPS

The recognition of two kinds of human interest in the field of science has determined the content and method of the courses offered to students in this department. One of these interests, which is cultural in nature, is non-technical; the other is professional and necessarily technical.

The introductory courses in botany and bacteriology meet the needs of both interests since the courses are of the survey type, broad in scope, and varied in application. Advanced courses lay the technical groundwork for preparation to teach in the secondary schools, or for advancement into the field of scientific research, or for direct application to the variety of fields represented by vocational divisions in the college.

Both major and minor sequences are offered. Anyone electing either of these should confer with the department head not later than the beginning of his junior year.

BOTANY

1abc General Botany (3,0,6) 3 credits each term F,W,S

lab, Botany of seed plants; a consideration of those problems which plants must solve if they are to develop successfully from seed to maturity; problems of germination, nutrition, growth, adjustment, reproduction and dispersal.

1c, Botany of the plant kingdom; a rapid survey of plant groups more primitive than seed plants. The purpose is to gain a systematic acquaintance with the variety of plant types.

This is a lecture and demonstration course without laboratory. Although it is open to all students, it is recommended especially for those

who desire only a cultural acquaintance with their plant environment. Three lectures a week. Mr. Miller, Mr. Snyder, Mr. Rethke.

2abc General Botany (2,3,4) 3 credits each term F,W,S

While this course covers the same informational field of botany as the preceding, it employs a very different method and has a different aim. It is a laboratory course designed especially for those students who expect to go farther into science than its mere elements, and who need the technique and discipline which only experimentation and first-hand observation can give. Open to all students. Two lectures and three hours of laboratory work a week. Mr. Miller, Mr. Snyder, Mr. Rethke.

Laboratory fee $3.00 a term.

21 The Local Flora (1,6,2) 3 credits S

Fundamental principles of taxonomy and the identification of plants in the vicinity of Brookings. The chief aim is to develop accuracy and facility in the use of field manuals. P, 2abc. One lecture and six hours of work in the field or laboratory a week. Mr. Miller, Mr. Snyder.

Laboratory fee $1.00.

26 Plant Microtechnique (2,6,4) 4 credits F

Collection of plants and the preparation of their organs and tissues for critical study with the microscope. P, 2abc. Two lectures and six hours of laboratory work a week. Mr. Miller, Mr. Rethke.

Laboratory fee $4.00

14labc Plant Morphology (2,9,4) 5 credits each term F,W,S

14la, Morphology of Thallophytes.

141b, Morphology of Bryophytes and Pteridophytes.

14lc, Morphology of Spermatophytes.

A detailed comparison, in matters of life history and development, of representative forms chosen from the principal orders of the great plant groups. Evolutionary trends are studied in order to understand the origin, present status, and possible future of the world's vegetation. P, 2abc. Two lectures and nine hours of laboratory work a week. Mr. Miller.

Laboratory fee $4.00 a term.

146abc Plant Physiology (2,3,4) 3 credits each term F,W,S

146ab, A study of water relations in plants, and of constructive and destructive metabolism; the latter including various syntheses, digestion, respiration, secretion and excretion.

146c, A study of growth, movement, reproduction, seed germination and death in plants.

P, 2abc and Chemistry 1abc. Two lectures and three hours of laboratory work a week. Mr. Snyder.

Laboratory fee $3.00 and deposit $2.00 a term.

161 Mycology (3,6,6) 5 credits F

Classification of the fungi and a detailed study of their life histories. Special emphasis is laid on those which cause disease in other plants. P, 2abc. Three lectures and six hours of laboratory work a week. Mr. Snyder.

Laboratory fee $4.00

162ab Plant Pathology (3,6,6) 5 credits each term W,S

162a, Diseases of fruit and vegetable crops.

162b, Diseases of cereal and forage crops.

A study of diseases among cultivated plants from the standpoints of symptoms, casual agents and control practices. Technique is acquired in the isolation of pathogenic organisms and also in the inoculation of plants to produce disease. P, 161. Three lectures and six hours of laboratory work a week. Mr. Snyder.

Laboratory fee $4.00 a term.

171 Botanical Problems Credit arranged F,W,S

The solution of individually assigned projects in botany, making practical use of techniques which have been acquired in the background courses. Introduction to botanical photography and the illustration of scientific papers. P, adequate background for the assigned problem. Individual conferences and laboratory or field work. Mr. Miller, Mr. Snyder.

Laboratory fee, $2.00 a credit hour.

172 Seminar (1,0,2) 1 credit S

Presentation and criticism of projects and of original or contemporary research. P, two years of botany work of collegiate standing. One lecture a week. Staff members and advanced students of the department.

242abc Anatomy of Vascular Plants (2,9,4) 5 credits each term F,W,S

242a, Anatomy of the plant axis.

242b, Anatomy of stem appendages.

242c, Anatomy of fruits.

A study of the minute organization of plants and an interpretation of their structure in terms of plant evolution, adaption and economic importance. Open only to graduate students. P, 21, 26, and 141. Two lectures and nine hours of laboratory work a week. Mr. Miller.

Laboratory fee $4.00 a term.

276 Graduate research Credit arranged F,W,S

Open to graduate students whose previous training and personal qualifications equip them for serious work with a minimum of supervision. Admission upon recommendation of the research director. Mr. Miller, Mr. Snyder.

Laboratory fee $2.00 a credit hour.

Summary

	Fall	Winter	Spring
Freshman Year			
General Botany, 1abc	3	3	3
General Botany, 2abc	*3	*3	*3
Sophomore Year			
The Local Flora, 21			*3
Plant Microtechnique, 26	*4		
Junior and Senior Years			
Plant Morphology, 141	5	5	5
Plant Physiology, 146	3	3	3
Mycology, 161	5		
Plant Pathology Research, 162ab		5	5
Botanical Problems, 171 (credit as arranged)			
Seminar, 172			1

Graduate

Anatomy of Vascular Plants, 242	5	5	5
Graduate Research, 276 (Credit as arranged)			

Major and Minor Requirements

The number of credits in botany for a major in this field is twenty-four above the beginning course, or a total of thirty-three credits. Of this number sixteen must be earned in the specified courses marked thus (*) in the above summary. The remaining seventeen may be elected from other offerings of the department. It is strongly urged that botany majors present credits also in Zoology 42 and 60.

For a minor in botany at least fifteen credits are required above the beginning course, or a total of twenty-four credits. Courses 2abc and 21, with a total of twelve credits, are specifically required; the remaining twelve credits may be elected from offerings of the department.

BACTERIOLOGY

31 General Bacteriology (2,4,6) 4 credits F or W or S

Principles of microbiology and microbiological technique. Consideration of groups of organisms and their relation to their environment. Methods of isolation and study of cultural and morphological characteristics. Separate courses are offered to students of Agriculture, Home Economics, Engineering and General Science, stressing those phases of the field which are pertinent to the respective interests. P, sophomore standing. Two lectures and four hours of laboratory work a week. Mr. Batson, Mr. Matteson, Mr. Phelps.

Laboratory fee $3.00; deposit $2.00.

41 Elementary Bacteriology (3,4,8) 5 credits F

More comprehensive than the preceding course, adding to it principles of enzyme action, a study of biochemical activities, and classification of bacteria, with a special study of the important groups. Designed especially for students of pharmacy, nursing education, pre-medical students and others who will do advanced work in this field. P, Chemistry 20. Three lectures and four hours of laboratory work a week. Mr. Batson, Mr. Matteson.

Laboratory fee $3.00; deposit $2.00.

142 Principles of Infection and Immunity (3,4,8) 5 credits W

An introduction to medical bacteriology. The pathogenic action of bacteria; resistance of the host to infection; the human blood groups; the hypersensitive states; preparation and use of biologicals in diagnosis, prophylaxis and therapeutics. P, 41. Three lectures and four hours of laboratory work a week. Mr. Batson.

Laboratory fee $3.00; deposit $2.00.

143 Bacteriology of Disinfection and Sanitation (3,4,8) 5 credits S

Theoretical and practical study of the action of physical and chemical agents on bacteria. Methods of measurement of sterilization and disinfection. The bacterial flora of water, sewage and dairy products and methods of bacteriological analysis. P, 41. Three lectures and four hours of laboratory work a week. Mr. Batson.

Laboratory fee $3.00; deposit $2.00.

151 Pathogenic Fungi and the Lower Bacteria
(3,4,8) 5 credits F

The morphology, pathogenicity, diagnosis and epidemiology of the more important pathogenic fungi. Introduction to the lower bacteria; filterable viruses and the Rickettsiae. Isolation and study of the properties of bacteriophage. Parasitic protozoa. P, 142. Three lectures and four hours of laboratory work a week. Mr. Batson, Mr. Phelps.

Laboratory fee $3.00; deposit $2.00.

152 The Pathogenic Bacteria (3,4,8) 5 credits W

A detailed study of the more important pathogens. Practical laboratory diagnosis by the isolation and identification of bacteria from body exudates; observation of morbid condition in experimentally inoculated animals. P, 142. Three lectures and four hours of laboratory work a week. Mr. Batson, Mr. Matteson.

Laboratory fee $3.00; deposit $2.00.

153 Immunology and Serology (3,4,8) 5 credits S

Theoretical consideration of immunological reactions. Principles of herd infection and herd immunity. Preparation and use of immunological reagents. Agglutination, precipitation, complement fixation, allergic and toxin-antitoxin reactions. P, 142. Three lectures and four hours of laboratory work a week. Mr. Batson, Mr. Matteson.

Laboratory fee $3.00; deposit $2.00.

168 Bacteriological Problems Credit arranged F,W,S

The solution of individual problems in bacteriology, mycology or immunology. This is to give advanced and dependable students an opportunity to work more independently than in formal classes, and to introduce subject matter and techniques which are more detailed than can be presented in classes. Admission upon recommendation of the instructors. Mr. Batson, Mr. Matteson.

Laboratory fee $2.00 a credit hour.

170 Seminar (1,0,2) 1 credit W

Presentation of original bacteriological research or discussion of topics related to the field of bacteriology. One lecture a week. Admission upon recommendation of the instructors. Staff members and advanced students.

275 Graduate Research Credit arranged F,W,S

Open to graduate students who have had adequate training in bacteriological technique to enable them to pursue an independent problem with a minimum of supervision. Preparation of a thesis drawn from laboratory investigation, is required. Admission upon recommendation of instructors. Mr. Batson.

Laboratory fee $2.00 a credit hour.

Summary

	Fall	Winter	Spring
Sophomore Year			
General Bacteriology, 31	4 or	4 or	4
Junior Year			
Elementary Bacteriology, 41	*5		
Principles of Infection and Immunity, 142		*5	
Bacteriology of Disinfection and Sanitation, 143			*5
Senior Year			
Pathogenic Fungi and Lower Bacteria, 151	5		

The Pathogenic Bacteria, 152	*5	
Immunology and Serology, 153		5
Bacteriological Problems, 168 (credit as arranged)		
Bacteriological Seminar, 170	1	
Bacteriological Research, 275 (credit as arranged)		

Major and Minor Requirements

Twenty-four credits are required for a major in this field. Of these, twenty credits are to be earned in the specific courses marked thus (*) in the above summary. The remaining four or more hours may be elected from other bacteriology courses.

A minor of fifteen credits must include courses 41, 142 and 143.

CHEMISTRY

PROFESSOR DUNBAR, ASSOCIATE PROFESSOR BINNEWIES, ASSISTANT PROFESSOR GUSS,* MR. BURR, MR. LONG MR. WEBSTER

It is the aim of this department to give the student a general training in the elementary principles of the science, to help to prepare him to deal successfully with the problems that arise in the study of agriculture and engineering. Courses are also designed with the view of training students who intend to enter commercial and experimental careers along chemical lines. With these aims in view, the department stresses the practical rather than the theoretical; yet in such fashion as to make the training adaptable to higher investigational courses, should the student incline toward such further study of chemistry. The advanced and elective courses are designed especially for training students who intend to study pharmacy, medicine and food problems, and those who are looking toward technical positions in manufacturing plants or in experiment station work.

To this end opportunity is offered for specializing in the science, extra courses being arranged to suit the special aptitude of students who may desire to make chemistry their major work.

The following subjects are offered:

1ab Inorganic Chemistry (3,3,6) 4 credits each term F,W

General chemical laws. Study of metallic and non-metallic elements. Qualitative properties and tests. P, freshman standing. Three recitations and three laboratory hours a week. Messrs. Dunbar, Binnewies, Guss, Burr, and Long.

Laboratory fee $3.00, deposit $3.00 a term.

1c Inorganic Qualitative Analysis (3,3,6) 4 credits S

Analysis of mixtures of common inorganic compounds. Review of entire subject of Inorganic Chemistry. P, 1ab. Three recitations and three laboratory hours a week. Messrs. Dunbar, Binnewies, Guss, Burr, and Long.

Laboratory fee $4.00, deposit $3.00.

20 Elementary Organic Chemistry (3,6,6) 5 credits F

A general course covering essentials of the subject as applicable to work in home economics and general science. Laboratory work largely qualitative. P, 1abc. Three recitations and six laboratory hours a week. Mr. Binneweis.

Laboratory fee $6.00, deposit $5.00.

* On leave of absence, 1936-37.

21 Elementary Organic Chemistry (3,6,6) 5 credits F or W

A course similar to 20, but directed toward the work of agriculture. P, 1abc. Three recitations and six laboratory hours a week. Mr. Dunbar.

Laboratory fee $6.00, deposit $5.00.

22ab Elementary Organic Chemistry (2,6,4) 4 credits each term F,W

A course covering essential phases of the subject particularly applicable to the study of pharmacy. For pharmacy students only. P, 1abc. Two recitations and six hours of laboratory work a week. Mr. Binnewies.

Laboratory fee $6.00, deposit $5.00 a term.

23 Quantitative Analysis (2,6,4) F or W

Gravimetric manipulation of inorganic types. P, 1abc. Nine laboratory hours a week, one of them lecture or conference hour. Mr. Dunbar or Mr. Burr.

Laboratory fee $5.00, deposit $4.00.

24 Volumetric Analysis (2,6,4) 4 credits S

Commercial and volumetric analysis of common inorganic materials. P, 1abc, 23. Two hours of recitation and six laboratory hours a week. Mr. Dunbar or Mr. Burr.

Laboratory fee $5.00, deposit $4.00.

25 Food Analysis (1,6,2) 3 credits W

Quantitative analysis of food materials; a continuation of 20 dealing with carbohydrates, fats and proteins. P, 1abc; 20 or 21. One recitation and six laboratory hours a week. Mr. Binnewies.

Laboratory fee $5.00, deposit $5.00.

43 Industrial Chemistry (3,0,6) 3 credits W

Fundamental role of chemistry in the nation's industries. Survey of inorganic industries. Principles, processes and typical application. Three hours of recitation and lecture work a week. P, 1abc; 20 or 21. Mr. Guss or Mr. Dunbar. Given in alternate years; given in 1936-37.

45 History of Chemistry (3,0,6) 3 credits F

Survey of the history of Chemical Science from the early periods of its study to the present time. Three lecture periods a week. P,

1abc; 20 or 21, or 22. Mr. Dunbar or Mr. Guss. Given in alternate years; given in 1937-38.

46 Chemistry of Toxic Gases (2,0,4) 2 credits S

Two lecture-periods a week. P, 1abc; 20, 21 or 22. Mr. Dunbar. Given in alternate years; given in 1936-37.

160ab Advanced Organic Chemistry (3,6,6) 5 credits each term F,W

Intensive study of aliphatic types. Synthetic methods. Course aimed toward industrial application. P, 1abc; 20, 21 or 22. Three recitations and six laboratory hours a week. Mr. Webster.

Laboratory fee $6.00, deposit $5.00 a term.

160c Advanced Organic Chemistry and Organic Analysis (3,6,6) 5 credits S

Aromatic types, with special reference to dyes. Qualitative work in identification of organic groups. P, 1abc; 20, 21 or 22; 160b. Mr. Webster. Three recitations a week. Given in alternate years not given in 1936-37.

Laboratory fee $6.00, deposit $5.00.

161 Water Analysis (0,6,0) or (0,9,0) 2 or 3 credits F,W or S

Sanitary or complete analysis of water, to determine potability or value as boiler water. Preparation of reports of such analysis. This course should be preceded or accompanied by a course in bacteriological analysis of water. P, 1abc; 20, 21 or 22; 23, 24. Six or nine laboratory hours a week. Mr. Dunbar.

Laboratory fee $5.00, deposit $5.00.

162 Physiological Chemistry (3,6,6,) 5 credits S

Metabolism, ferment action, digestive processes, nutrition, urine analysis, and like physiological phases of chemical application. An advanced course for students preparing for medical work and for advanced students in home economics. Three recitations and five laboratory hours a week. P, 1abc; 20, 21 or 22. Mr. Binnewies.

Laboratory fee, $6.00, deposit $5.00.

163abc Physical Chemistry (3,6,6) 5 credits each term F,W,S

Special chapters of general chemistry, from the physical point of view. Three recitations and six laboratory hours a week. P, Chemistry 1abc; 20, 21 or 22; Math 25, Phy 20abc or 21 abc. Mr. Long.

Laboratory fee $5.00, deposit $5.00 a term.

170 Advanced Inorganic Chemistry (3,0,6) 3 credits W or S

Particularly intended for major students. A study of special phases of Inorganic Chemistry. This course may well be accompanied by 171. P, 1abc, 23, 24, 163. Three recitations a week. Mr. Long.

171 Inorganic Preparations (0,6,0) 2 credits W or S

Laboratory work in advanced inorganic chemistry. Adapted to Chem 170 as laboratory adjunct. Six hours of laboratory work a week. P, 1, 23, 24. Mr. Dunbar or Mr. Long.

180 The Chemistry of Colloids (3,0,6) 3 credits W or S

Principles of colloidal state of matter. Study of properties and industrial applications. P, 1abc; 20, 21, or 22. Three recitations a week. Mr. Dunbar or Mr. Long.

190ab Chemistry Seminar (1,0,2) 1 credit F,W

Presentation by members of the group of suggested and original topics, based on library research. P, 1abc; 20, 21, or 22; 160 abc, 163abc. One hour a week. Mr. Long.

261 Proximate Organic Analysis (1,12,2) 5 credits W

Quantitative analysis of cereals, dairy products, beverages, fungicides, insecticides, food adulterants. P, 1abc; 20, 21 or 22; 23, 24. One recitation and twelve laboratory hours a week. Mr. Dunbar or Mr. Burr.

Laboratory fee $5.00, deposit $5.00.

262 Thesis 5 to 10 credits F, W or S

Required of all graduate students in Chemistry. Topic to be assigned. Fifteen to thirty laboratory hours a week. P, depending upon nature of work assigned. Mr. Dunbar or Mr. Webster.

Laboratory fee $1.00, deposit $1.00 a credit hour.

263 Problems and Research 3 to 5 credits F,W, or S

Special problems and phases of chemistry, for graduate students interested in a particular line of investigation.

Laboratory fee $1.00, deposit $1.00 a credit hour.

270abc Analysis of the Rare Elements (0,9,0) 3 credits F,W,S

Analysis, quantitative and qualitative, of the rare metals and non-metallic elements. Any one of these terms of work may be taken independently as unit courses. P, 1abc; 20, 21 or 22, 23, 24. Nine laboratory hours a week, one of them devoted to conference. Mr. Dunbar or Mr. Burr.

Major and Minor Requirements

In the following list of subjects, those marked thus (*), totaling 24 credits are required for a major; twelve additional credits must be earned in the remaining subjects.

For a minor, Chem 1abc, 20 and 23 are required, with an additional three or four credits to be selected from the remaining subjects.

	Fall	Winter	Spring
Freshman Year			
Inorganic Chemistry, 1abc	*4	*4	*4
Sophomore Year			
Elementary Organic Chemistry, 20	*4		
Quantitative Analysis, 23		*4	
Volumetric Analysis, 24			*4
Junor and Senior Years			
Industrial Chemistry, 43		3	
History of Chemistry, 45	3		
Chemistry of Toxic Gases, 46			2
Advanced Organic Chemistry, 160abc	5	5	5
Water Analysis, 161			2 or 3
Physiological Chemistry, 162			5
Physical Chemistry, 163abc	5	5	5
Advanced Inorganic Chemistry, 170		3	or 3
Inorganic Preparations, 171		2	or 2
Chemistry of Colloids, 180		3	or 3
Chemistry Seminar, 190ab	1	1	

EDUCATION AND PSYCHOLOGY

PROFESSOR WISEMAN, ASSISTANT PROFESSORS KLEIN, EDWARDS, McARTHUR, AND BENTLEY, MR. MARTIN, MR. DANIELS, MISS WALKER, MISS BUSHNELL

The department of Education has for its chief purpose the training of teachers of agriculture, home economics, industrial arts, and other lines.

The College has been approved by both the State and Federal Boards of Vocational Education for training teachers in Agriculture and Home Economics in accordance with the Smith-Hughes Act, which provides federal aid for such work. Groups of subjects which qualify teachers for Smith-Hughes positions in Agriculture and Home Economics may be found in their respective divisions. Students desiring to prepare to teach should consult the Department of Education for advice in selecting their curricula.

By the action of the Regents of Education, students who are not above freshman rank are not permitted to pursue subjects in this department.

A placement service for graduates and former students of the College who are prepared to teach is provided in the Bureau of Recommendations in the Department of Education. At the same time the Bureau serves local school officers in finding qualified teachers. An annual fee of $1.00 is collected for registration or re-registration in the Bureau. Other expense for telephone calls, telegraph messages and special delivery costs are to be borne by the applicant.

Students interested in graduate work in the various fields of education should consult the section devoted to graduate study.

The School Code for South Dakota provides for two kinds of certificates for teachers in high schools; viz., the High School General Certificate and the High School Special Certificate.

Essentially the High School General Certificate qualifies the holder to teach academic subjects. The certificate states the major and minor subjects or subject groups. The High School Special Certificate qualifies the holder to teach in the

special fields of agriculture, home economics, industrial arts, commercial subjects, physical education, music, fine arts, and trades and industries, and is stamped with the specific field. Holders of this certificate may teach those academic subjects in which they have made adequate preparation.

The above certificates are issued by the State Superintendent of Public Instruction upon evidence of completion of courses of study at State College approved by the State Superintendent of Public Instruction. He also issues special vocational certificates to teachers engaged exclusively in the field of vocational education.

Curricula for High School Special Certificates

For teachers of vocational agriculture and teachers of industrial arts refer to Division of Agriculture and for teachers of home economics refer to Division of Home Economics.

The Curriculum for the General High School Certificate

This certificate requires the completion of approved courses in subject or group majors and minors in which the student expects to teach and a minimum of 22½ term credits in Education, of which 14 are prescribed and 9 are elective. The Education and Psychology subjects are distributed by years and by terms as follows:

	Fall	Winter	Spring
Sophomore Year			
[1]Elementary Psychology 25	3 or	3 or	3
Junior Year			
Principles of Secondary Education, 40	3		
Educational Psychology, 45		3	
Methods of Teaching in High School, 47			3
Senior Year			
[2]Supervised Student Teaching in Major or Minor, 74	5		
[1]Electives in Education (9 credits)			

Description of Courses

EDUCATION

40 Principles of Secondary Education (3,0,6) 3 credits F

Study of the American Secondary School and the Rural High School. Its organization, beginnings, aims, and functions. Sociological and educational data on the Secondary School population. The teaching

staff, the curriculum, including vocational studies, and extra-curriculum. Relation of high school to elementary school and to the college including the Junior High School. Required for certification. P, junior standing. Mr. Wiseman, Mr. Edwards.

41 Principles of Vocational Education (3,0,6) 3 credits F

Survey of the whole field of vocational education. Required of prospective teachers of agriculture and of industrial arts. Open to prospective teachers in all fields. P, junior standing. Three recitations a week. Mr. Bentley.

45 Educational Psychology (3,0,6) 3 credits W

Nature of learning in man, learning curves, economical learning, rates and limits of improvement, the retention of experience, differences in learning capacity, transference and interference. Required for certification. P, 25, junior standing. Three recitations a week. Mr. Edwards, Miss Klein.

47 Methods of Teaching in High School (3,0,6) 3 credits S

A general methods course for prospective high school teachers. Deals with the problems of class room teaching. Selection and arrangement of subject matter, economy in class room management, teaching types providing for individual differences, supervised study, the use of books, laboratory methods, questioning and measuring the results of teaching. Required for certification. P, 40, 45. Three recitations a week. Mr. Wiseman, Miss Klein.

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[1] Elementary Psychology will not be counted as a part of the 22½ credits in Education.

[2] Any term.

[3] May be elected during senior year from courses other than those listed above.

In order to complete the above schedule in the regular four-year course it is necessary for students to declare their intention of securing a teaching certificate upon graduation not later than registration day of the spring term in the sophomore year.

51ab, 52 Special Methods in Home Economics

(See Home Economics Division)

54 History of Education (3,0,6) 3 credits S

Any one of three types of material given: (a) a survey of education in ancient, medieval and modern times; (b) an intensive course in the history of education in the United States; (c) the history of modern education. P, Junior standing. Three recitations a week. Miss Klein.

62 The Teaching of Social Studies (3,0,6) 3 credits F

For any students with majors or minors in social studies who may be assigned to teach the social studies either alone or in connection with teaching technical work. Aims, the materials and equipment, the organization of the subject matter, and the specific methods for teaching the social studies in the secondary schools. P, 40, 45, 47, and minor in social studies. Three recitations a week. Miss Klein.

63 The Teaching of Science (3,0,6) 3 credits W

Deals with the methods for classroom procedure in teaching of science. For science majors or minors and teachers of agriculture, home making and others who can qualify for teaching science. Topics include: (1) aims and values in sciences teaching, (2) selection and use of textbooks, (3) pupil activities, (4) basic recitation techniques, (5) construc-

tion of drill and test materials, (6) laboratory technique, and (7) laboratory and demonstration equipment. P, 40, 45, 47, minor in science group. Three recitations a week. Mr. Edwards.

73 Supervised Student Teaching in Vocational Agriculture
5 credits F,W, or S

P, 41, 45, 47, 170. Required of seniors for certification in Agricultural Education. Mr. Bentley, Mr. Daniels.
Fee, $3.00.

74 Supervised Student Teaching in Junior and Senior High School
5 credits F,W, or S

P, 40, 45, 47. Required of seniors for certification. Mr. Wiseman, Miss Klein, Mr. Martin.
Fee, $3.00.

75 Supervised Student Teaching in Industrial Arts
5 credits F,W or S

P, 41, 45, 47, major in Industrial Arts. Required of seniors for certification. Mr. Bentley, Mr. Bonell, Mr. Martin, Mr. Hubbell.
Fee, $3.00.

78 Supervised Student Teaching in Home Economics
(See Home Economics Division)

124 Rural Education (3,0,6) 3 credits S

Needs of rural education and examples of new type of rural schools in the light of rural conditions and organization. P, junior standing. Three recitations a week. Mr. Bentley.

137 Educational and Vocational Guidance (3,0,6) 3 credits S

Deals with both educational and vocational guidance. Needs, aims and functions, means and methods. Considerable attention to testing and counseling. Study of principles and practices. Study of programs of guidance in junior and senior high schools. P, 40 or 41, 45, 47. Three recitations a week. Mr. Wiseman.

161 Principles of Supervision (3,0,6) 3 credits Su

Problems in the scientific supervision of teachers; the planning and organization of supervision; studies of supervisory functions; classroom visitation and conference; the improvement of teachers in service; rating of teachers, principals and supervisors; the scientific study of supervision. P, 40, 45, 47, senior in education. Three recitations a week.

163abc Educational Administration (3,0,6) 3 credits F or W or Su

Any one of three aspects of the subject may be considered: (a) General Public School Administration; (b) High School Organization and Administration; (c) Business Administration of Schools. P, 40, 45, 47.

164 Educational Measurements (3,0,6) 3 credits W

Test movement in education and the principal tests designed to measure achievement in elementary and secondary school subjects. The value of educational measurements to administrators, teachers, to other school officers and to the public. P, 40, 45, 47. Three recitations a week. Mr. Edwards.
Fee, $1.00.

168 Educational Statistics (3,0,6) 3 credits Su

Methods of dealing with quantitative educational data. Exer-

cises in tabulation, graphical representation, and in the calculation of statistical constants, measures of dispersion and correlation. Illustrative material from school costs and school census, retardation and standard achievement tests will be used. May be given in alternate years. P, 40, 45, 47, senior in education.

169 Curriculum Construction (3,0,6) 3 credits S or Su

Nature and purpose of the curriculum in American public schools; principles governing its re-making and their application to present day enterprises. The local program and procedure in curriculum building. P, 40, 45, 47, senior in education. Three recitations a week. Mr. Edwards.

170 Special Methods of Teaching Vocational Agriculture (3,0,6) 3 credits F

Deals particularly with teaching vocational agriculture in Smith-Hughes schools. Aims, course of study, selection and ordering of subject matter, methods in field, laboratory and class room. Special attention given to the home project as type of supervised practice work and evening school classes. Lectures, required readings, discussions, reports, observations and laboratory work. Required of agricultural students for certification. P, 41, 47. Mr. Bentley.

171 Organization and Management of Vocational Agriculture (2,0,4) 2 credits W

Application of the principles of vocational analysis to the work of the teacher of vocational agriculture. Some dozen or fifteen phases or jobs of the vocational agriculture teacher such as recruiting students, collecting of specimens, organizing the bulletins and references, preparing for contests, organizing publicity, developing Future Farmer organization, making the course of study, etc., are taken up for analysis and for constructing a program. Lectures, readings, discussions, visitations. P, 41, 45, 47, 170. Required for certification of teachers of agriculture. Two recitations a week. Mr. Bentley.

175 Education Seminar 2 credits W or S or Su

Reviews of scientific investigations of problems of education. Problems for investigation and research may be assigned to students. Open to seniors and graduate students in education by permission of instructor.

176 Seminar in Agricultural Education 2 credits W or S

Specific problems dealing with instruction in vocational agriculture will be chosen; such as project work, course of study, farm enterprises analysis, the local survey, etc. Readings, and the work is actually carried out, recorded and reported. P, 73, 170, 171. Mr. Bentley.

220 Organization & Administration of Elementary Education (3,0,6) 3 credits Su

Deals with the problems of the superintendent in organizing and administering the work of the elementary school. P, graduate standing. Five recitations a week for six weeks.

277 Curriculum in Vocational Agriculture 3 credits Su

For teachers and administrators of vocational agriculture. Survey of scientific studies and literature in the field. Principles and procedures in curriculum building as applied to vocational agriculture. Considerable time in outlining and developing teaching units in the field of agriculture. For graduate students. Mr. Bentley.

283 Measurement in Vocational Agriculture 3 credits Su

For teachers and administrators of vocational agriculture. Application of known scientific measures to achievements in vocational agriculture. For graduate students. Mr. Bentley.

285 Thesis

287 Research in Education

288 Research in Agricultural Education

A course for graduate students in Agricultural Education—special assignments to research problems.

PSYCHOLOGY

25 Elementary Psychology (3,0,6) 3 credits F,W, or S

Covers the material laid out in the late text books in elementary psychology. Includes such topics as the nature and methods of psychology and psychological basis of mind, the mental processes, the affective and volitional aspects of consciousness and the self. Not counted towards 22½ credits required in Education. Three recitations a week. P, sophomore standing. Mr. Edwards, Miss Klein.

165 Intelligence Tests (3,0,6) 3 credits F

Analysis will be made of intelligence and of the principles of intelligence testing. Students will have opportunity to gain first-hand acquaintance with the best individual and group tests and will be given some practice in using them. P, 25, 45. Three recitations a week. Mr. Edwards.

Fee, $1.00.

166 Applied Psychology (3,0,6) 3 credits S

Practical application of the facts, principles and techniques of psychology to various aspects of human activity such as industry, commerce, art, medicine, law, athletics and social work. Attention to such problems as selection and placement of workers—advertisements—vocational guidance. P, 25, junior standing. Does not count as Education credit. Three recitations a week.

167 Social Psychology (3,0,6) 3 credits F

Careful consideration is given to the nature and evolution of social behavior, the major traits of personality, theories of the origin and development of language, and to such topics as sympathy, imitation, suggestion, laughter, social facilitation, rivalry, crowd behavior, social consciousness and social progress. P, 25. Senior elective. Three recitations a week. Mr. Edwards.

ENGLISH

PROFESSOR SMOCK, ASSISTANT PROFESSOR OVERTON, MR. LIMPUS, MR. RICHARDSON, AND MR. GIDDINGS

The required courses in English aim to give the student that command of the English language and literature which every educated person should have. They are not intended to

qualify students to be teachers of high school English. Those who intend to teach English along with their technical work, or who wish to elect a minor in the department, should take 22abc in the sophomore year and then elect in the junior and senior years 20abc and six additional hours chosen from 60, 65, 70, and 75. Any student who wishes to do more than the required work in English should consult the head of the department for advice.

1abc Rhetoric (3, 0, 6) 3 credits each term F, W, S

The main purpose of this course is to familiarize the student with the principles of rhetoric and to enable him to use them effectively in composition. To this end written work is demanded constantly and is carefully criticized both in the class room and in conferences between the instructor and the individual student. The work is supplemented with reading, in the choice of which the student is allowed considerable latitude. Required of all freshmen. Three recitations a week.

2ab General Literature (2,0,4) 2 credits each term W,S

The design of this course is to acquaint the student with some of the great works of non-English authors; the material used is in English translation. Among the authors read are Tolstoi, Turgenev, Hugo, Ibsen, Goethe, Dante, Homer, and Sophocles. The work is so arranged that a student may secure credit for four terms. For freshmen and sophomores; if taken by juniors or seniors, 1½ credits a term are allowed. Two recitations a week.

20abc American Literature (2,0,4) 2 credits each term F,W,S

This course is similar to English 22abc. Either this course or English 22abc must be taken by every sophomore unless some other arrangement obtains in his division. P, 1abc. Two recitations a week.

22abc English Literature (2,0,4) 2 credits each term F,W,S

A survey course, covering the whole field. This is the basic course and must be taken by those who expect to make elections in English. Either this course or English 20abc must be taken by every sophomore unless some other arrangement obtains in his division. P, 1abc. Two recitations a week.

30 The Short Story (3, 0, 6) 3 credits S

This is primarily a course in short story writing, but in addition to the work in writing it requires extensive reading in modern fiction. The aim of the course is cultural, not professional.

31 The Literature of the Middle West (3, 0, 6) 3 credits S

This course will include the study of the literature which found its backgrounds in the experiences of those who settled, and of those who developed in the middle west. Three recitations a week. Not given in 1937-38.

34 Appreciation of Poetry (2,0,4) 2 credits S

This course is designed as an introduction to poetry—its understanding and enjoyment.

40 Junior English (2,0,4) 2 credits S

This is a course in advanced composition for students of junior standing. It is designed to supplement the work of the freshman year. Each term is complete in itself. Two recitations a week.

41 Advanced Composition (3,0,6) 3 credits F,W

This is a course in the writing of business letters and technical exposition. Open to Engineers only. P, 1abc. Three recitations a week.

60 Shakspere (3, 0, 6) 3 credits F

In this term will be read a dozen of the plays of Shakspere; enough other material will be presented to give the student a knowledge of the development of the drama down to the close of the theater in 1642. P, 22abc (by permission 20abc); elective. Three recitations a week.

65 Modern Literature, The Drama (3,0,6) 3 credits W

Ibsen and his English followers; the American Drama. Three recitations a week.

70 The Nineteenth Century in English Literature

(3, 0, 6) 3 credits F

The aim of this course is to come to some understanding of the Nineteenth century by reading its poets, novelists, and essayists. Particular attention wil be given to the industrial development and to the scientific and artistic interests of the greater writers. Writers included will be Tennyson, Browning, Arnold, Carlyle, Kingsley, Newman, Huxley, Ruskin, and Morris. Among the books read will be Felix Holt, Alton Locke, Mary Barton, and John Inglesant. P, 22abc. Offered in alternate years. Not given in 1937-38.

75 Great Novelists of the Nineteenth Century

(3,0,6) 3 credits W

The novelists studied in this course include the following: Austen, Scott, Dickens, Thackeray, Eliot, the Brontes, Hardy, Conrad, and Galsworthy.

FOREIGN LANGUAGES

PROFESSOR MacLAGGAN, MISS WENTE

The methods employed in this department are intended to establish a broad and thorough foundation for literary and linguistic study. Constant reference is made to the relation between English and foreign languages. Thus a more perfect comprehension of our own English language is obtained.

Merely to acquire a good reading knowledge of a modern language or study a living language from the standpoint of grammar alone no longer suffices in this day and age, when we are advancing more and more towards internationalism.

Our entrance into world affairs compels us to meet and

know our neighbors across the sea, as well as those of this continent. Without a knowledge of their languages and customs, an appreciation of these people, their literature, their music, their art, is almost impossible. Likewise are business relations most difficult.

The time is not far distant when many Americans will be accepting positions in foreign lands, or positions in this country involving foreign business relations, with its consequent need for some knowledge of a modern language.

To meet this need the following courses are offered:

FRENCH

1abc French (4,0,8) 4 credits each term F,W,S

The formation of French sounds. Lectures, with drill in the use of the symbols of the International Phonetic Association. A systematic study of the rules of French pronunciation. Careful drill in inflection, in reading, and writing. Elements of French grammar with oral and written exercises. Memorizing of poetry and prose selections. Texts: Standard French Grammar, Fraser and Squair-Carnahan; Le Petit Chose, Daudet; New French Reader, Ford and Hicks; Le Courrier des Etats Unis.

21abc French (3,0,6) 3 credits each term F,W,S

Review of grammar and special study of irregular verbs and phonetics. Advanced work in oral and written composition. Sight reading and memorizing of idiomatic French prose. Outside reading of material of particular interest to the individual student and reports. A systematic study of French pronunciation continued. Texts: Standard French Grammar, Fraser and Squair-Carnahan, continued. The reading of several novels and plays, newspapers, magazines, business letters, etc.

31abc French (3,0,6) 3 credits each term F,W,S

Advanced composition and intensive study of the French grammar as a whole including a thorough review of all irregular verbs and their compounds. Idiomatic French, oral and written drill. The reading of prose and poetry of standard French authors. Conversation and the presentation of short plays and dialogues. Intensive drill in pronunciation together with the use of the phonograph for corrective purposes and personal conferences with the instructor. Outside reading of novels and reports. Texts to be chosen to meet the requirements of the class as a group.

SPANISH

1abc Spanish (4,0,8) 4 credits each term F,W,S

The elements of Spanish grammar with abundant oral and written exercises. Intensive study of the pronunciation and the memorizing of songs, poetry and prose. Individual and group readings of selections pertaining to the geography, customs and life of Spain, Central and

South America. Texts: The Essentials of Spanish, House and Mapes; Gil Blas Santellana, Padre Isla; La Vida de un Picaro; El Echo, etc.

21abc Spanish (3,0,6) 3 credits each term F,W,S

Review of grammar and special study of irregular verbs. Advanced work in oral and written composition, conversation, memory selections, and sight reading. The outside reading of short stories and articles of interest to the individual student or a novel. Some time given to commercial correspondence. Texts: Novels and plays of representative writers. Articles from Spanish newspapers and magazines. Business letters, including banking and shipping terms, etc.

31abc Spanish (3,0,6) 3 credits each term F,W,S

Advanced oral and written composition. Conversation and memorizing of poetry and prose selections. Sight reading. Commercial correspondence. Reading of modern prose and drama with some time given to the writers of the "Golden Age". Outside reading of a novel and report. A thorough review of grammar as a whole including all verbs. Intensive drill in pronunciation and the presentation of short plays and dialogues. Texts: To be chosen to meet the requirements of the class as a group.

GERMAN

1abc German (4,0,8) 4 credits each term F,W,S

Elements of German grammar with abundant oral and written exercises. Intensive reading of selections pertaining to German life and culture. Memorizing of poetry and idiomatic prose. Extensive reading in various fields of particular interest to the individual student. Texts: Vocabulary Building German for Beginners, Thurnau; Graded German Readers, Hagboldt, Purin, and Morgan; Popular German Stories, Lieder.

21abc German (3,0,6) 3 credits each term F,W,S

Review of the grammar with special emphasis on the subjunctive mode. Oral and written compositions. Intensive reading of modern prose. Memorizing of poetry and idiomatic prose. Extensive reading in various fields of particular interest to the individual student. Texts: Essentials of German Reviewed, Hagboldt; Favorite German Readings, Zeydel; Still and Bewegt, Diamond and Rosenfeld; Minna von Barnhelm, Lessing; Wilhelm Tell, Schiller.

31abc German (3,0,6,) 3 credits each term F,W,S

Selected readings in prose and poetry from standard German authors, with practice in composition. Texts: German Grammar Review with Composition, Baerg; Deutsches Literature—Lesebuch, Fleissner and Fleissner; From Novalis to Nietzsche, Liptzin.

HISTORY AND POLITICAL SCIENCE

PROFESSOR HARDING, ASSOCIATE PROFESSOR YOUNG, MISS VOLSTORFF, MR. JARCHOW

The courses offered in this department aim to introduce the student to historical studies which, in addition to their cultural

values, will stimulate his interest in the problems of the present, and make him better prepared to understand and appreciate the institutions in the midst of which he lives and of which he is a part.

The courses in the field of political science are designed to familiarize him with the political institutions, practical politics, and international relations of the leading European states as well as America. An intelligent understanding of the organs and functions of government should be an essential part of the educational equipment of those who expect to go out into positions of responsible leadership.

The courses in Economic History are designed primarily to meet the needs of technical students.

HISTORY

1 Medieval Civilization (4,0,8) 4 credits F

Foundation course. European civilization from the Roman Empire to the Renaissance; the foundation of the modern nation states; expansion of the Christian Church and the economic organizations of the Middle Ages. Primarily for freshmen. P, college standing. Four recitations a week. Mr. Jarchow.

2ab English History (4,0,8) 4 credits each term W,S

A foundational survey of the constitutional, political, economic and social history of England from the earliest times to the present. The origin and growth of such institutions as Kingship, parliament, the courts, and the Church. The Tudor absolutism; the Puritan revolt; development of the British Empire; the agricultural and industrial revolutions; political and social reforms; growth of the Cabinet system; liberalism and the World War. Imperial policies receive due attention. Open to freshmen. Credit for less than both terms not allowed toward graduation. Four recitations a week. Mr. Jarchow.

20abc Modern History (3,0,6) 3 credits each term F,W,S

20a, Political, social and economic history of Europe from 1500 to the French Revolution; analysis of the European background to 1500; special attention to the commercial revolution, the policies of the Hapsburgs, the rise of Prussia, the French expansionist movements, and the entanglements of Europe with the Orient.

20b, The French Revolution; the Napoleonic period; the age of Metternich, revolutionary unrest from 1815 to 1870; foundations of modern Germany and Italy; special study of the history of Russia during this period.

20c, History of Germany, France, Italy, the Balkans and Russia from 1870 to 1914 with emphasis upon economic imperialism and the diplomatic background of the World War. For majors in Social Science this course will be given as 19th Century Europe, with development of the social and economic factors expressed in the rise of nationalism and democracy, democratic and realist Europe, and the nationalistic, economic

and imperialistic competition culminating in the World War. P, sophomore standing. Three recitations a week. Miss Young.

23abc American History (3,0,6) 3 credits each term F,WS

23a, Survey of the colonial background; brief study of the problems of the American Revolution; careful study of the foundation and formation of the constitution; history of the new government from 1789 to 1816, with stress upon the developing interpretations of the constitution and upon the problems of neutrality.

23b, The new nationalism, the Monroe Doctrine, the new democracy, the sectional conflict, involving the question of state or federal power; the United States from 1816 to 1860.

23c, The Civil War; reconstruction; the business and social expansion of the United States to 1898; special inquiry into the causes of agrarian discontent, and the increasing demand for federal regulation of business. P, sophomore standing. Three recitations a week. Miss Young.

26ab Economic History of the United States
(3,0,6) 3 credits each term F,W

26a, The imperial frontier; production and commerce in the British colonies; land policies in state and nation; agricultural conquest of the West; the economics of slavery; the decline of foreign commerce; the rise of domestic commerce; manufactures and expanding markets; the formation of the laboring class. Period covered, approximately to 1860.

26b, Economics of the Civil War; the railroad age; the industrial state; concentration in the twentieth century; the farmer in the machine age; the opposition to big business; transformed economic positions of the United States. P, sophomore standing. Three recitations a week. Mr. Harding and Mr. Jarchow.

27 Economic History of Europe (4,0,8) 4 credits S

Development of the economic institutions of Europe, with major emphasis upon the period since 1700. An ancient and medieval basis will be laid for the later period. The subject will be arranged both by topics and by countries. Agriculture, industry, commerce, banking and economic policy are the major topics treated. P, sophomore standing. Four recitations a week. Mr. Jarchow.

28ab History of Agriculture in Europe and the United States
(3,0,6) 3 credits each term W,S

28a The development of agrarian and agricultural organization from the Ancient Mediterranean period until the end of the Napoleonic era in Europe and the close of the War of 1812 in the United States. The physical basis of European and United States agriculture; contributions of primitive man; the Ancient World; the manor; Enclosures; the Physiocrats; England and the Continent; the 18th century revolutions; agricultural contributions of the American Indian; colonial agriculture.

28b Westward movement in the United States to 1865; U. S. land policies to 1865; England, 1815-1873; France and Germany, 1815-1871; other continental countries; agricultural revolution in the U. S. before 1860; transportation and later western development; England and the Continent, 1873-1914; the World War and after; the agricultural depression. P, sophomore standing. Three recitations a week. Mr. Jar-

chow.

140 Recent American History (4,0,8) 4 credits F

A background survey of the twentieth century United States and a special investigation by each student of some one of the problems of recent American development. P, junior standing and one year of college history. Desirable antecedent 23abc. Four periods a week. Miss Young.

141ab American Diplomacy (3,0,6) 3 credits W
4 credits S

A survey of the relations between the United States and other nations from the beginning to the present. The principles embodied in American foreign policies are stressed. Emphasis upon such policies as the Monroe Doctrine and its changing interpretations, the rights of neutrals; Far Eastern policies; America's attitude toward the World War and post-war relations with Europe. P, three courses in history and junior standing. Three recitations a week. Mr. Harding. Not given in 1937-38.

142abc Contemporary Europe (4,0,8) 4 credits each term F,W,S

A study of the World War, the peace, and the New Europe; special attention to war diplomacy, the treaty of Versailles and the reorganization of Europe. A political, diplomatic and economic survey of post-war Europe including studies of Bolshevism, Fascism, Nazism, present day dictatorships and important world conferences. P, junior standing and one year of college history which should include either 20c or 42c or special consent of the instructor. Four periods a week. Miss Volstorff.

143ab Latin America and the United States

(4,0,8) 4 credits each term W,S

143a, Natural resources, racial backgrounds, Spanish economic and cultural influences in Mexico, Central America and South America. Emergence of the independent states. Experiments in government. Present civilizations. Influence of the political ideas of the United States.

143b, The international relations of Latin America. The Monroe Doctrine. The British-United States naval rivalry. The commercial and cultural rivalries of France, Germany, Japan, England, the United States and Spain in Latin America. Latin American influence in the League of Nations and in the Pacific area. P, sophomore standing and one year of college history. Four periods a week. Miss Young.

POLITICAL SCIENCE

44a American Government (4,0,8) 4 credits F, W, or S

44a, The National government: genesis of American federalism; the Constitution, its formation, principles and development; party organization and activities; the President as chief executive; the Cabinet, growth of executive influence, executive departments; independent establishments and their reorganization; congress-structure, organization and procedure; the national judiciary; national finance; federal centralization. P, sophomore standing. Mr. Harding, Mr. Jarchow.

44b State and Local Government (4,0,8) 4 credits W

The states and the nation; constitutional basis of state govern-

ment; organization, functions and popular control; county, city and township organization. Emphasis upon South Dakota constitution and government. P, sophomore standing. Four recitations a week. Mr. Harding.

46 Political Parties (4,0,8) 4 credits S

A study of American political parties and practical politics; history of political parties, party machinery, party morality, party problems, the suffrage, the spoils system, civil service reform, practical politics in legislative bodies, reform of the party system. Readings, class discussions, reports. P, 44a or 23ab. Four recitations a week. Mr. Harding.

160ab Comparative Government (4,0,8) 4 credits each term F,W

160a, A comparative study of the governments of the leading modern nations. The first course is a study of British political institutions and problems, both national and imperial, in comparison with our own.

160b, The political systems of France, Germany, Switzerland, Italy, with a brief survey of the governments of Soviet Russia and the Succession States.

P, 44ab and junior standing. Four recitations a week. Mr. Harding. Not given in 1937-38.

161 International Law (4,0,8) 4 credits F

A study of the rules and principles controlling the relations between nations. The law of nations in relation to peace, war and neutrality. P, junior standing and twelve hours of political science and history Alternates with 171. Given in 1937-38. Four recitations a week. Mr. Harding.

162ab International Relations (3,0,6) 3 credits W

(4,0,8) 4 credits S

162a, An examination of the political and economic reasons that motivate nations in their relations with one another; the human side of world politics; modern nationalism; economic nationalism and imperialism; public opinion in world affairs; war in world of nations; the problem of racial minorities.

162b, The growth of international organization and the methods of settling international disputes; the family of nations, the legal basis of world life, the foreign relations of nations, pre-war international organization; post-war international organization; the League of Nations; armament limitation, security and the outlawry of war; international justice.

P, junior standing and one year of college history. Alternates with Hist 141 ab. Given in 1937-38. Three recitations a week. Mr. Harding.

171 American Political Theory (4,0,8) 4 credits S

The economic, political, social and intellectual background of each period in the development of American political thought. Interpretation of political thinking in the light of this background. In large part, this course consists of a study of material from the writings of outstanding political thinkers which illustrate the types of political thought that grew out of each period; emphasis upon the relationship which ex-

ists between ideas and realities of human life. P, junior standing and 12 hours of political science and history. Not given in 1937-38.

The following majors are suggested:

	Fall	Winter	Spring
Modern History, 20abc	3*	3*	3*
American Government, 44ab	4*	4*	4
Economic History, 26ab, 27 or American History, 23ab	3*	3*	3
Political Parties, 46			4
Medieval Civilization, 1 and English History, 2ab	4	4	4
Recent American History, 140	4		
Economic History of Europe 27			4
History of Agriculture, 28ab		3	3
American Diplomacy, 141ab	3	3	
Contemporary Europe, 142ab	3	3	
Latin American History, 143ab		4	4
International Law, 161	4		
International Relations, 162ab		4	4
American Political Theory, 171	4		
Comparative Government, 160ab	4	4	

Subjects marked (*) totaling 23 credits are required for a major; thirteen additional credits must be made up from the remaining subjects.

The requirements for a minor may be satisfied by the following: Modern History 20abc or American History 23abc, American Government 44a, and at least 10 addtional credits.

LIBRARY STUDY

MR. STALLINGS

While the instruction in the use of the Library is not organized into a department, the following courses are offered in this field:

1 Library Use (1,0,2) 1 credit F

This course, designed to give such familiarity with the library as to make its use easy in connection with the work in other departments, includes some reading and the preparation of a list of references connected with the reading done. One recitation a week. Required of General Science freshmen.

2 Science Biography (1,0,2) 1 credit W

This course is planned to follow Library 1. A good deal of reading is required in connection with the lives of the founders of sciences. Each student reads a biography of one of these men and prepares a list of supplementary reference material. One recitation a week.

20 Library Practice (1,0,1) ½ credit W

This course is designed primarily for those who are working in

the library. It covers the essential practices in making books available to the public. P, 1. One recitation a week.

60 School Libraries (1,0,1) ½ credit S.Su

This course is designed for those teachers who may be asked to take charge of the school library. The simplification of processes for a small library is stressed. Open only to prospective teachers. P, 1. One recitation a week.

MATHEMATICS

PROFESSOR BROWN, ASSISTANT PROFESSORS MacDOUGAL AND WALDER, MISS WENTE, MR. McMILLAN, MR. MEHLENBACHER

The general work of this department is planned to cultivate habits of systematic and accurate thinking, as well as facility in making calculations. Independent effort is encouraged to the greatest possible extent, the solutions of problems and original demonstrations forming an important part of each course.

General Science students who have unusual ability in mathematics should take courses 14, 15 and 16 rather than 10, 11, and 12 in the freshman year.

2 Solid Geometry (2,0,4) 2 credits S

Required of freshman engineering students who enter without high school credit in the subject. Not counted towards graduation in the engineering courses.

3 Algebra (advanced high school) (5,0,10) 5 credits F

Required of freshman engineering students entering with credit in only two semesters of algebra. Not counted towards graduation in the engineering courses. Not open to other students.

NOTE: At the end of four or five weeks those students who have sufficient ability will be allowed to go into course 14. Also, those students in course 14 who do not have sufficient knowledge of high school algebra may be required to take course 3.

7abc Business Mathematics (3,0,6) 3 credits each term F,W,S

A review of high school algebra with emphasis on the fundamental operations, fractions, exponents, solution of linear equations, exchange, trade discount, profit and loss, simple interest and bank discount; progressions, logarithms, compound interest, annuities, sinking funds, amortization schedules, bond valuation, depreciation, and probabilities with applications to life annuities and life insurance. Required of students of pharmacy and of the two-year trades course in printing.

NOTE: Students will not be allowed credit towards a degree for both 7abc and College Algebra. Neither may 7abc be substituted for Trigonometry or Analytic Geometry in courses in which these subjects are required.

10 College Algebra (for General Science students)
(5,0,10) 5 credits F

A review of the fundamental operations, factoring, highest common divisor, least common multiple, and solutions of linear simultaneous equations; study of quadratic equations, exponents, radicals, logarithms, etc.

11 Trigonometry (for General Science students) (5,0,10) 5 credits W

The principles of plane trigonometry and their application to the solution of triangles, inverse functions, solutions of trigonometric equations, De Moivre's theorem. P, 10, or equivalent.

12 Analytic Geometry (for General Science students) (5,0,10) 5 credits S

Co-ordinates, loci, the straight line, circle, ellipse, parabola and hyperbola. P, 10, 11, or equivalent.

13 College Algebra (for students of Agriculture) (5,0,10) 5 credits S

A review of high school algebra, a treatment of functions and their graphs, graphical representation of statistical data, equations of the line, quadratic functions and equations, maxima and minima, binomial expansion, logarithms, progressions, interest, discount, annuities, sinking funds, farm loans, and amortization schedules.

14 College Algebra (5,0,10) 5 credits F or W

Elementary topics, functions and their graphs, review of the quadratic equation, complex numbers, theory of equations, permutations and combinations, partial fractions, logarithms and determinants. P, three semesters of high school algebra. Five recitations a week. Required in freshman engineering course. This subject may be taken in place of 10 by general science students of unusual mathematical ability.

15 Plane Trigonometry (5, 0, 10) 5 credits W or S

The functions of acute angles, the solution of the right triangle, the solution of the oblique triangle, general applications of trigonometry. P, one year of plane geometry and one and one-half years of high school algebra. Five recitations a week. Required in freshman engineering, elective in general science and agricultural courses.

16 Analytic Geometry (5, 0, 10) 5 credits F or S

Co-ordinate systems, loci, the straight line, the general equation of the second degree. P, 14, 15. Five recitations a week. Required in freshman engineering, elective in general science and agricultural courses.

23 Descriptive Astronomy (5, 0, 10) 5 credits S

An introductory course dealing with the fundamental facts and principles of astronomy. P, a knowledge of plane trigonometry.

25 Differential Calculus (4, 0, 8) 4 credits F or W

Formal differentiation with applications to engineering and science. P, 12 or 16. Four recitations a week. Required in engineering, elective in other courses.

26 Integral Calculus (4, 0, 8) 4 credits W or S

Formal integration with applications. P, 25. Four recitations a week. Required in engineering, elective in other courses.

27 Applied Calculus (4, 0, 8) 4 credits S or F

Applications of the calculus to maxima and minima, series, areas, surfaces, volumes, centroids and moments. P, 26. Four recitations a week. Required in engineering, elective in other courses.

141 Theory of Equations and Determinants (3, 0, 6) 3 credits F

A study of the theory of determinants, complex numbers, DeMoivre's Theorem, cubic and biquadratic equations. P, 16.

144 Solid Analytic Geometry (3, 0, 6) 3 credits W

The application of coordinate systems to geometry of three dimensions. P, 16. Three recitations a week. Offered primarily for students who are interested in advanced mathematical study and graduate work.

146 Mathematical Statistics (5, 0, 10) 5 credits W

The analysis of data by certain elementary principles; includes such topics as curve fitting, measures of correlation, and the meaning and calculation of a number of statistical constants. As far as possible, the exercises will be adapted to the individual student's field of interest. P, college courses in algebra and trigonometry.

148 Differential Equations (3, 0, 6) 3 credits S

A study of differential equations with application in the fields of mechanics and physics. Elective in all courses. P, 26.

161ab Mathematics of Finance (3, 0, 6) 3 credits W

(2, 0, 4) 2 credits S

The application of algebra to problems in interest, annuities, amortization, the valuation of bonds, sinking fund and depreciation, building and loan associations, theory of probability and problems in life insurance. P. 14, 15, or 10, 11.

162ab Projective Geometry (3,0,6) 3 credits each term W,S

A development of the fundamental notions of projective geometry mainly from the purely synthetic standpoint. P, 25. The course is very desirable for prospective teachers of geometry and advanced engineering students. Alternates with 164abc; given in 1937-38.

164abc Advanced Calculus (3,0,6) 3 credits each term F,W,S

This course is offered for seniors and graduate students. The material covered will be based on such texts as "Advanced Calculus" by William F. Osgood and "Advanced Calculus" by Edwin Bidwell Wilson. P, 25, 26, 27. Alternates with 162ab; not given in 1937-38.

Major and Minor Requirements

In the following list of subjects, those marked (*), totaling 27 credits, are required for a minor; these together with those marked (†) and three additional credits from the list, form a major.

Freshman Year

	Fall	Winter	Spring
College Algebra, 10 or 14	*5		
Trigonometry, 11 or 15		*5	
Analytic Geometry, 12 or 16			*5

Sophomore, Junior, Senior

Differential Calculus, 25	*4		
Applied Calculus, 27			*4
Theory of Equations, 141	†3		

Differential Equations, 148			†3
Solid Analytic Geometry, 144		3	
Mathematics of Finance, 161ab		3	2
Projective Geometry, 162ab		3	3
Advanced Calculus, 164abc	3	3	3
Mathematical Statistics, 146		5	

Those planning to teach mathematics are advised to elect course 162ab.

MILITARY SCIENCE AND TACTICS

MAJOR LEWIS, MAJOR HARRIS, CAPTAIN VESEY, SERGEANTS SCHULTZ AND BOND

The Morrill Act passed by Congress July 2, 1862, provides in general among other things that a college, to come under its provisions, should include Military Tactics among the branches of learning to be taught. The National Defense Act of 1916, as amended in 1920, authorizes the Federal Government to furnish trained instructor personnel, material and supplies to institutions of learning offering courses in Military Science and Tactics, provided the institutions satisfy certain requirements as to number of students taking the courses, the hours devoted to the subject, equipment, class rooms, etc. In order to comply with the Morrill Act and to measure up to the standard required by the Federal Government before it will furnish the trained instructors, personnel, material and supplies, and on account of the intrinsic value of the courses offered, three hours of basic military training are required weekly of all physically fit male students of college rank, ordinarily given during freshman and sophomore courses.

Inasmuch as the primary object of this military training is to provide trained Reserve Officers and non-commissioned officers for a major emergency, and because the very nature of military training demands systematic organization, the entire body of students undergoing the training together with the personnel engaged in their training is termed the Reserve Officers Training Corps.

In addition to the purely military phase of the training, there is the all-round development of each individual, physically, and the continuation of his training in citizenship.

The course in command and leadership is designed primarily to promote teamwork among groups of men and to develop

the latent ability of each student to lead and command other men. This training has proved most valuable to graduates in their commercial, industrial and professional careers.

The Reserve Officers Training Corps maintained at this college is made up of two divisions, both infantry—a Senior Division for Collegiate students, and a Junior Division for students of the secondary School of Agriculture.

There are two courses in the Senior Division, namely, Basic and Advanced. The training in the Junior Division, extending over four years, is basic in nature, and corresponds generally to the basic course (two years) of the Senior Division.

The basic military training for college students is given during the freshman and sophomore years.

The Advanced Course, Senior Division, is selective and elective. It is limited to students who have completed the basic course satisfactorily, and whose mental and moral qualities warrant the belief that, with training, they may become satisfactory officers of the Army of the United States. Such students, selected by the President and the Professor of Military Science and Tactics as eligible for the Advanced Course, are allowed to elect it. Those admitted to the Advanced Course are required to enter into a contract with the government to devote five (5) hours a week to military subjects during their junior and senior years and to attend a camp of six weeks' instruction on completion of the junior year. During these years they are paid commutation of rations by the Federal Government, a sum not to exceed the cost of subsistence for a soldier in the regular Army—the exact amount being prescribed by the Secretary of War.

In order to enroll in the advanced Military course the student must have completed sufficient work, including the basic R. O. T. C. work, to enroll as a junior, and while enrolled in the work he must carry a reasonably heavy classification each term at an average grade. Exceptions to this rule may be made only by action of the President of the College.

Members of the Advanced Course may be appointed Cadet officers. They wear a distinctive uniform, which is paid for by the Federal Government, and which becomes their personal

property upon the completion of the two years of training required.

Students may be transferred from the Junior to the Senior Division with proper credit for military training received.

Proper credit is allowed students for military training received at other institutions.

A deposit of $10.00 is required of each student taking military training, to take care of losses or damage to uniforms and equipment. Each student is required to provide himself with a pair of black leather shoes, army last. They may be purchased locally at $3.50 to $4.00 and are suitable for ordinary wear about the campus. Additional equipment at a total cost of approximately $1.00 in value, is purchased under supervision of the Military Department upon enrollment in basic course.

Each student should also provide himself with a pair of woolen or cotton gloves. These may be had for 15 cents locally.

The uniform, including olive drab woolen army shirt, trousers, tie, cap and blouse, is furnished each student and is suitable for ordinary wear while in college. It is smart looking and comfortable.

OUTLINE OF COURSE OF SENIOR DIVISION BY YEARS SHOWING HOURS ALLOTTED EACH TOPIC

1abc Military Science 1 credit each term F,W,S

First year basic course. The following topics are studied:

	hrs.
Orientation, National Defense Act and R. O. T. C.	2
Obligations of Citizenship	2
Military History and Policy	5
Current International Situation	4
Military Discipline, Courtesies and Customs of Service	4
Military Sanitation and First Aid	6
Military Organization	6
Map Reading	16
Leadership	36
Weapons, Rifle and Rifle Marksmanship	15
	96

20abc Military Science 1 credit each term F,W,S

Second year basic course. The following topics are studied:

	hrs.
Military History	4
Leadership	36
Automatic Rifle	12

Characteristics of Infantry Weapons	2
Combat Training:	
a. Scouting and Patrolling	10
b. Function of Platoon Scouts	3
c. Combat Principles	16
d. Musketry	13
	96

40abc Military Science 3 credits each term F, W, S

First year advanced course. The following topics are studied:

	hrs.
Aerial Photograph Reading	12
Leadership	36
Weapons:	
a. Machine Guns	28
b. Howitzer Company weapons	15
c. Pistol	4
d. Rifle Marksmanship	5
Combat Training	60
	160

60abc Military Science 3 credits each term F, W, S

Second year, advanced course. The following topics are studied:

Military History and Policy	30
Military Law	14
Company Administration	18
Officers' Reserve Corps Regulations	2
Leadership	36
Weapons	6
Combat Training	44
Combat Intelligence	4
Infantry Signal Communication	6
	160

MUSIC

PROFESSOR CHRISTENSEN, ASSOCIATE PROFESSOR PETERSON, ASSISTANT PROFESSOR KOHLER*, MR. BOUGHTON, MR. BEERY

The study of music is an important factor which should not be overlooked in any scheme of intellectual development. A practical knowledge of music has very frequently been the deciding qualification which has resulted in the election of our graduates to good positions.

In recognition of its desirability for students in the technical courses, the Regents have provided for both private and group instruction in the various musical arts.

A resolution of the Regents, adopted March 18, 1933, provided that students may study music for college credit if at the same time they pursue an equal number of hours in some other subjects unrelated to music.

With the exception of the head of the department, the members of the music staff are employed part time by the College and are free to give to any person individual lessons which do not carry college credit.

In addition to individual lessons, excellent training is afforded in the following student organizations: A Cappella Choir, Symphony Orchestra, Military Band and the Concert Band which includes both men and women.

The choir presents an annual concert, and forms a nucleus for the State Choir Festival held during Commencement week. The orchestra of sixty pieces gives an annual concert and appears frequently at assemblies and other college gatherings. The Military band, of about one hundred pieces, gives a formal annual concert, also outdoor concerts in the Sylvan theatre, and in other ways makes a large contribution to college life.

The Concert Band of about thirty pieces gives an annual concert and also plays on other occasions.

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* On leave of absence 1936-37.

The following subjects are offered by the department:

Harmony (1, 0, 2) 1 credit F, W, S

Harmony is offered, one credit each term, throughout four years as follows:

a. Scales, intervals, principal and secondary triads, melody writing, chords of the seventh and dominant ninth. Mr. Peterson.

b. Second dominant forms; dominant forms of principal and secondary triads; altered chords, modulation, and non-essential tones. Mr. Peterson.

c. Counterpoint, single and double; canon, invention, and fugue. Mr. Peterson.

d. Composition in various forms, waltz, march, rondo, and sonata. Mr. Peterson.

In classes of 4 or more, 2 half hour lessons per week, $5.00 each term.

2 Music History (3, 0, 3) 2 credits F, W, S

Primitive attempts, ancient systems, early Christian influence, origin of contrapuntal methods, medieval secular folk music, beginnings of opera and homophonic structure, development of the symphony and string quartette, biographies, operas, the Wagner Leit-motif, and modern tendencies. Three one-hour classes per week. Mr. Peterson. No fee.

3 Sight Singing and Ear Training (2, 0, 1) 1 credit F, W, S

A course designed to develop, through singing, a recognition of melodic groups, in various rhythmic structures, involving intervals in major and minor modes, chromatics, modulations, individual and class group siging of melodies and part songs. Writing from dictation in all major and minor keys in any rhythmic pattern. Mr. Kohler.

In classes of 4 or more, 2 one-hour lessons per week, each term $5.00.

4 Choral Technique and Interpretation, Vocal Groups
(2, 0, 0) 1 credit W,S

a. The understanding of voices in choral groups is the basis of good choral siging. Voice classification, principles of singing, positive breath control, and diction. Mr. Kohler.

b. Voice instruction is rapidly becoming an important part of the music training in our high schools. It supplements the work in choral singing. The course embodies phonetic spelling, tone symbols, and analysis of song material suitable for such groups. Mr. Kohler.

In classes of 4 or more, 2 one-hour lessons per week, each term $5.00.

5 Conducting, Orchestration and Teaching of Instrumental Groups
(2, 0, 1) 1 credit F, W, or S

a. Technique of the baton, various tempi, pick-up notes, pauses, transpositions, tempo rubato, use of the left hand, expression, interpretation, and score reading. Mr. Christensen.

b. A study of the pecularities and possibilities of the different instruments, their effectiveness in various combinations and groups; arranging for orchestra and band from piano score or original manuscript. Mr. Christensen.

c. The study of the different string, wind and percussion instruments, with the idea of forming a general acquaintance with the methods used in playing and teaching them. Mr. Christensen.

In classes of 4 or more, 2 one-hour lessons per week, each term $5.00.

In addition to the subjects listed in the above courses, private lessons in Voice, Piano, Organ, Violin and other instruments may be arranged by payment of the following special fees for private lessons per term carrying college credit:

Mr. Christensen, Mr. Peterson, Mr. Boughton, Mr. Kohler

Two half-hour lessons per week	$24.00
One half-hour lesson per week	12.00

Practice Pianos may be rented at the following rates:

One hour per day per term	2.50
Two hours per day per term	4.00
Organ practice per hour	.20

PHYSICAL EDUCATION

PROFESSOR THRELFALL, ASSISTANT PROFESSOR KENDALL, MR. HECKER, MR. ARNDT

The importance of physical training is fully recognized by the College, and all students are encouraged to participate in the various athletic activities. All freshmen, both men and

women, are required to take a physical examination and any physical defects they may have are brought to their attention.

Men

The Student Association furnishes uniforms to the candidates for the teams in football, basketball and track. The gridiron, the tennis courts, the basketball courts, the hockey rink, the baseball field, and the cinder track offer splendid facilities for training and exercise in the various sports. Intramural competition is used to help foster interest. Special courses are open to young men who plan to enter the educational field as athletic coaches. These courses consist of practical demonstrations, lectures, and drills, in addition to actual practice coaching in football, basketball and track.

41 Football Coaching (2, 4, 3) 3 credits F

Open to juniors and seniors. Each student will be required to purchase a rule book, text book and note book. A thorough study will be made of the rules and the theory of both offensive and defensive team play and strategy; the correct technique and the execution of the fundamentals of the game. Three lectures. Mr. Threlfall.

42 Basketball Coaching (2, 4, 3) 3 credits W

Open to all juniors and seniors who intend to coach or teach. A thorough study of both the theory and practice of individual and team plays; the proper technique for the extension of the fundamentals of basketball; the theory of offensive and defensive team plays. Three lectures. Mr. Threlfall.

43 Track Coaching (2, 4, 3) 3 credits S

Open to all juniors and seniors who intend to coach or teach. The course will consist of text book work, lectures, practice drills and demonstrations of each of the track and field events. Two lectures and four drill and demonstration periods a week.

Women

Young women below the junior year are required to take physical training as indicated below. Students taking this work may purchase uniforms at local stores.

1abc Physical Education (0, 3, 0) 1 credit each term F, W, S

20abc Physical Education (0, 3, 0) 1 credit each term F, W, S

This course of two years' work, which is required of all women below junior standing, consists of Danish gymnastics, including light hand apparatus and corrective stall bar exercises, games, folk dancing, clogging and development of rhythm as a translation of musical construction and note values into bodily movement. Interclass tournaments are played in basketball, hockey, golf, archery and tennis. Two hours a week. Miss Kendall.

40abc Physical Education (0, 3, 0) 1 credit each term F, W, S

The theory and practice of organized play. Two hours a week. Miss Kendall.

PHYSICS

ASSISTANT PROFESSORS REINHART AND JOHNSTON

From the fact that physics is a foundation science and that a knowledge of its laws is necessary to every student seeking a scientific training the department has been well supplied with appliances and facilities for instruction. The following courses are offered:

1abc Elementary Physics (3,3,6) 4 credits F,W,S

This course is designed to be an elementary course in physics suitable for students with little mathematical background. Since the subject matter is to be presented in an elementary manner, the course is open to freshmen. The course is to be offered in general to all students outside the engineering groups. General topics in mechanics, heat, sound, electricity and light will be considered. P, high school algebra and plane geometry.

Laboratory fee $2.00 per term.

21abc General Physics (3,3,6) 4 credits each term F,W,S

Mechanics of solids and fluids; sound; heat; electricity; magnetism, and light. P, Math 11 or 25. Three recitations and three hours of laboratory work a week each term.

Laboratory fee, $2.00 per term.

43 Household Physics (5,0,10) 5 credits S

A general review of physics. Emphasis is laid upon the practical application of physical principles in the home. Five recitations a week.

135ab Modern Physics (3,0,6) 3 credits each term F,W

This course is designed to follow the usual first year's work in college physics and is intended to acquaint the student with those fascinating and interesting parts of physics which are either in the process of active formation or which have just recently been developed. Some of the topics considered are: electro magnetic theory of radiation, electron theory, the photo electric effect, the Bohr theory of spectra, radioactivity and the transmutation of elements. P, 1c or 21c, Math 25.

50abc Advanced General Physics (3,0,6) 3 credits F,W,S

This course is designed as a second year's work in general physics. General topics in the fields of mechanics, heat, electricity, sound, light and modern physics are considered. P, 1c or 21c and Math 26.

140 Heat (3,3,6) 4 credits F

Advanced theory, measurement of high temperatures, resistance and thermo-electric pyrometry, black body temperatures and radiation. P, 21b, Math 25.

Laboratory fee, $2.00.

141 Sound (3,3,6) 4 credits W

An advanced course in sound for those specializing in physics. P, 21b, Math 25. Three recitations and three hours of laboratory work a week.

Laboratory fee, $2.00.

142 Light (3,3,6) 4 credits S

Extension of work in light given in Physics 21c. Optical instruments. Principles of color, optics of natural phenomena, and recent advances in field of light. P, 21c, Math 20.

Laboratory fee, $2.00.

150ab Intermediate Mechanics (3,0,6) 3 credits FW

An intermediate theoretical course in mechanics. Topics considered are: Mass force, work and energy, center of gravity, moments of inertia, statics of a particle and of rigid bodies, Laws of motion under various force fields, Generalized coordinates. P, 21c or 1c and Math 26.

169 X-Rays (3,0,6) 3 credits S

An introduction to x-rays with special emphasis on their applications in chemistry, metallurgy, crystal structure, and industrial problems. P, 21c, Math 25.

275 Thesis 7 to 10 credits F,W,S

The following major is suggested:

	Fall	Winter	Spring
Sophomore			
Elementary Physics, 1abc or General Physics, 21abc	*4	*4	*4
Junior and Senior			
Heat, 140	4		
Electricity and Magnetism, EE 141	5		
Sound, 141		4	
Light, 142			4
Modern Physics, 135ab	3	3	
X-Rays, 169			3
Intermediate Mechanics, 150ab	3	3	
Adv. Gen. Physics, 50abc	*3	*3	*3

Subjects marked (*) are required as a part of the major. Twelve additional credits must be made up from the remaining subjects.

PRINTING AND RURAL JOURNALISM

PROFESSOR DONELSON, MR. SUTTON, MR. HEPNER, MR. HARDING, MR. HOLLEN, MR. EVENSON, MRS. KORSTAD, MR. BALES

The courses listed in this department are planned to serve three classes of students: those majoring in printing and journalism; those taking short courses in printing; and those specializing in agriculture, home economics, pharmacy, engineering, or general science who wish to train themselves to be able

to present information to the public through the medium of the press and the printed page.

Students who elect a major in Rural Journalism under the department and who wish to specialize in writing will take courses 24, 25, 51, 52, 65, 66, 68.

Students who elect a major in Rural Journalism under the General Science division must include in their major six credits of work in basic courses in typography and press to be taken preferably the first year.

The mechanical equipment in the printing laboratory is modern and up-to-date in every respect, including cylinder and platen presses, Kluge automatic feeder, modern type cabinets and composing-room equipment, saw-trimming machines, Boston stitcher, Cleveland folding machine, Intertype and Linotype composing machines, and other materials and equipment found in the average commercial printing plant.

PRESS WORK

11abc Platen Presswork (0,3,0) 1 credit each term F,W,S

Types of platen presses; oiling; feeding; overlay, interlay, underlay; running plain type forms; scoring and perforating rules; makeready and running of complicated forms, zinc etchings and halftones; elementary study of printing inks and papers. Limited Credit. Mr. Evenson.

Laboratory fee, $1.50.

14 Bindery Operations (0,3,0) 1 credit W

Actual shop practice in general bindery operations including hand folding, stitching, padding, trimming, jogging, counting and cutting paper stock. Limited credit. Mr. Evenson.

32abc Cylinder Presswork (0,3,0) 1 credit each term F,W,S

Types of presses; oiling; feeding; makeready and running plain type forms; complicated forms; zinc etchings; halftones; four-color process; hand-cut and mechanical overlays. P, 11abc. Limited credit. Mr. Evenson.

Laboratory fee, $1.50

72abc Advanced Presswork (0,3,0) 1 credit each term F,W,S

Practice in makeready and running of actual production jobs of every description on both platen and cylinder presses; operation of the Kluge automatic feeder. P, 11abc and 12abc. Limited credit. Mr. Evenson.

Laboratory fee, $1.50.

74abc Presswork Problems (1,0,2) 1 credit each term F,W,S

Problems confronting a pressman, including a study of paper and inks. P, 32ab. Mr. Evenson.

TYPOGRAPHY

12abc Principles of Typography (1,3,2) 2 credits each term F,W,S

Craftsmen's contributions in early stages of printing; elements of hand composition; use and care of composing room equipment; a study of type faces; principles of display and imposition. Limited credit. Mr. Hollen.

Laboratory fee, $1.50

31abc Display Typography (1,6,2) 3 credits each term F,W,S

Elementary art principles applied to printing; special departments in the newspaper composing room; elements of proofreading; illustrations and how they are made; business printing; applied art principles in display and use of color in printing. P, 12abc. Limited credit. Mr. Hollen.

Laboratory fee, $3.00.

73abc Advanced Typography (0,3,0) 1 credit each term F,W,S

Special problems in book printing; posters, law briefs, tabular composition and production problems in setting, makeup and lockup. P, 31abc. Mr. Hollen.

Laboratory fee, $1.50.

COMPOSING MACHINES

23 Introductory Composing Machines (1,3,2) 2 credits W,S

An introduction to Linotype and Intertype composing machines; fundamentals of the touch system of keyboard operation, with practice exercises on live machines; mechanical details and appreciation for machine. P, 12a. This course is offered in the Winter term for two-year students, and is repeated in the Spring for four-year students. One recitation and three hours of laboratory work a week. Limited credit. Mr. Harding, Mr. Sutton.

Laboratory fee, $2.50.

41abc Technical Theory of Composing Machines

(1,0,2) 1 credit each term F,W,S

A technical course in Linotype and Intertype machines, designed especially for women. A textbook course embracing care and everyday maintenance of composing machines with emphasis on problems that present themselves to operators in work. Designed to allow "front office" worker to appreciate the problems of the machine worker. Mr. Harding.

42abc Keyboard Operation and Machine Appreciation

(1,6,2) 2 credits each term F,W,S

A course in Linotype and Intertype keyboard operation and machine appreciation designed to meet the needs of women students. Straight matter composition, intricate composition, newspaper advertisement composition, and general shop methods are stressed. Minor emphasis is placed on mechanical details and adjustments. P, 12abc. 13 Six hours of laboratory work a week. Limited credit. Mr. Harding.

Laboratory fee, $5.00.

43abc Composing Machine Operation and Mechanism (0,6,0) 2 credits each term F,W,S

A course in which the fundamentals of composing machine mechanism are given considerable attention; designed particularly for men students. Keyboard operation includes straight matter composition and basic principles of intricate composition; the more complicated forms are withheld until the student enrolls in advanced work. P, 12abc, 13. Six hours of laboratory work a week. Limited credit. Mr. Harding, Mr. Sutton.

Laboratory fee, $5.00.

44abc Composing Machine Problems (2,0,4) 2 credits each term, F,W,S

A textbook course covering various models of Intertype and Linotype machines, stressing particularly an understanding of the functioning of a machine when in perfect repair. Consideration also is given to scientific diagnosis of machine troubles and their proper remedies. Designed especially for men. Mr. Harding.

71abc Advanced Composing Machines (1,3,2) 2 credits each term F,W,S

Further study and practice in keyboard operation and actual shop methods of production. Practical problems in composing machine mechanism and adjustment are encountered by the student, as well as machine maintenance details. P, 33abc or 34abc. One recitation and three hours of laboratory work a week. Limited credit. Mr. Harding.

Laboratory fee, $2.50.

SHOP ADMINISTRATION

16abc Typewriting (0,5,0) 1 credit each term F,W,S

Graded exercises to learn "touch method" are first given. Care of machines; correspondence and various forms; billing and tabulating; manifolding and mimeographing. Five or ten hours a week. Mrs. Korstad.

Fee, $1.00 for each five practice periods a week per term.

18abc Shorthand (5,0,10) 5 credits each term F,W,S

This course continues throughout the year. The Gregg system is taught. P, freshman standing. Five recitations a week. Mrs. Korstad.

19 Advanced Shorthand (5,0,10) 5 credits F

An intensive review of shorthand with special emphasis on dictation and development of speech. P, 18abc or one year shorthand.

20 Applied Secretarial Practice (5,0,10) 5 credits each term W,S

A course presenting practical instruction in modern office procedure, including filing, mimeograph and dictaphone operation and office ethics. P, 18abc or consent of instructor.

53 Publishing and Office Management (3,0,6) 3 credits F

This course covers main points in financing, organization, location, equipment, revenue, circulation, advertising and audits. Three recitations a week. P, 50a. Mr. Hepner.

54ab Cost and Estimating (1,3,2) 1 credit each term W,S

Bookkeeping and cost systems and their place in the small and large plant. Estimating covers a working knowledge of the U.T.A. Estimating, Franklin Price List, and a study of other methods of pricing printing. Mr. Sutton.

57abc Newspaper Composition and Makeup
(0,6,0) 2 credits each term F,W,S

The course consists of practical work in printing the Industrial Collegian, the college paper. Under supervision of the instructor, students lay out and set advertisements, make up the forms and do the presswork. The course is required of senior printing and journalism students. It is offered two-year students during the second year. Six hours of laboratory work a week. Mr. Sutton, Mr. Evenson.

58ab Photography (1,2,3) 2 credits each term W,S

A study of the general elementary principles of photography and visual discussion. The course will give actual practice in taking, developing, printing and enlarging pictures, and in making lantern slides and other visual aids. One hour lecture and two hours laboratory work a week. The class will be limited to fifteen students. Mr. Bales.

Laboratory fee, $2.00.

RURAL JOURNALISM

24 Newswriting (3, 0, 6) 3 credits F

The beginning course in journalism. Includes a study of news sources and news values; actual practice in gathering and writing news is emphasized. Three recitations a week. Mr. Donelson.

25 Newspaper Editing and Makeup (3,0,6) 3 credits W

A course giving practice in elementary copy reading and headline writing. Also includes make-up methods for weekly and daily papers. P, 24. Three recitations a week. Mr. Donelson.

26 News Reporting (3, 0, 6) 3 credits S

This course puts into active practice of campus reporting the information obtained in 24 and 25. P, 24, 25. Three recitations a week. Mr. Donelson.

27abc Journalism Laboratory (Collegian editorial)
(1,0,2) 1 credit each term F,W,S

In this course, students write and edit news for the Industrial Collegian under the guidance of the instructor and the editor of the paper. P, 24. Mr. Hepner.

50ab Advertising (3,0,6) and (2,3,4) 3 credits each term W,S

The course deals with the history, principles, psychology and practice of advertising. The plan covers advertising for a retail business concern for one year, including making an advertising budget, selecting media, writing and laying out advertisements, etc. Includes study and use of type. Three recitations a week. Mr. Hepner, Mr. Hollen.

51 Feature Writing (2, 0, 4) 2 credits F

A course covering the writing of news features and special feature articles. Includes gathering material, organizing it, and preparing it for publication. Particular emphasis placed on methods of popularizing scientific material. P, 24. Two recitations a week. Mr. Donelson.

52 Editorial Writing (3, 0, 6) 3 credits S

A study of the theory and practice of editorial writing. Includes an analysis of editorial policies as well as the actual preparation of editorials. P, 24. Three recitations a week. Mr. Hepner.

55 Advertising Salesmanship (2,0,4) 2 credits S

A study of current methods of cultivating new business for the weekly or daily newspaper or commercial job printing plant, fitting the student for practical salesmanship specifically with cooperative advertising, promotion pages and special editions. P, 50a. Mr. Hepner.

64 Advanced Reporting (3, 0, 6) 2 credits W

Intensive instruction in the writing of all types of news stories. Students are given definite assignments and prepare copy for various papers in the state. P, 24. Three recitations a week. Mr. Hepner.

65 Public Relations (3, 0, 6) 3 credits W

A study in the relations between industry, business or public institutions and the general public through the medium of the written and spoken word. This is a foundation course for 66, although either course may be taken alone. P, 24. Three recitations a week. Mr. Donelson.

66 Publicity Methods (3, 0, 6) 3 credits S

A course for students expecting to become county agents, home economics leaders, 4-H club leaders, or vocational teachers. Newswriting. agricultural advertising, bulletin and booklet making and writing of agricultural sales letters. P, 24. Three recitations a week. Mr. Donelson.

68 History of Printing and Journalism

(2, 0, 4) 2 credits W

A study of the development of printing, and of journalism in the United States. Includes ethics of the profession of journalism. Two recitations a week. Mr. Hepner.

The courses that follow are for students specializing in agriculture, engineering or home economics, and who desire to take a major in rural journalism. Those wishing to take a minor may select courses with the advice of the dean of his division and the head of the department of Printing and Rural Journalism.

Students electing a major in rural journalism under general science should take the same journalism subjects as those electing the course under agriculture, engineering or home economics, with the addition of principles of typography and platen presswork, preferably taken in the freshman year.

The following major is suggested:

	Fall	Winter	Spring
News Writing, 24	3		
News Editing, 25		3	
News Reporting, 26			3
Advertising, 50ab		3	3
Feature Writing, 51	2		
Editorial Writing, 52			3
Public Relations, 65		3	
Publicity Methods, 66			3

History of Printing and Journalism, 68		2	
Principles of Typography, 12ab	2	2	
Platen Presswork, 11abc	1	1	1

SPEECH

PROFESSOR McCARTY, MR. JAMES

The department of Speech seeks to give assistance to the individual in perfecting his speech, and in aiding him toward effectiveness in presenting his thougth to others whether in public or private. To this end the following courses are offered:

10 Argumentation and Debating (2,0,4) 2 credits F

The nature, kinds and tests of evidence; structure, brief-drawing. Text book. The analysis of public questions. Practice in debating. The aim is to cultivate power of analytical and constructive thinking and skill in extemporaneous speech. Attention is given to developing a simple, forceful style of delivery. May be substituted to fulfill the requirements of 21abc by special permission. Open to all students. Two recitations a week. Mr. McCarty.

11 Intercollegiate Oratory and Extempore Speaking (2,0,4) 1 or 2 credits W

Open to students who become eligible thru competitive activity in oratory and extempore speaking. One or two hours credit upon recommendation of the Instructor in charge. Mr. McCarty.

12 Intercollegiate Debating (2,0,4) 1 to 3 credits W

An intensive study of the debate questions chosen for intercollegiate competition. Practical experience in speaking on these questions, in a variety of audience situations. Open to all students who qualify in a preliminary local debate tournament. From one to three credits given on the basis of individual achievement. Two recitations a week. Mr. McCarty.

13 Elements of Acting (2,0,4) 2 credits F

The course is designed to set forth the basic principles of acting and stage deportment, with the main emphasis placed upon the understanding and mastering of certain fundamental techniques.

14abc Play Production (2,0,4) 2 credits each term F,W,S

For those interested in producing plays in high schools, colleges or in community centers. Special attention given to all details of a well acted and well produced play. Each student is expected to select, coach and present one play under the supervision of the instructor. Open to all students. Two recitations a week. Mr. James.

16 Parliamentary Procedure (1,0,2) 1 credit F

A study and application of the rules governing the conduct of deliberative assemblies. Open to juniors and seniors and to others by special arrangement. One recitation a week. Mr. McCarty.

21abc Extempore Speaking (1,0,2) 1 credit each term F,W,S

To assist the student in acquiring an effective oral style—simple, clear, direct. Attention to the selection, organization and presentation of material. P, Engl 1abc. One recitation a week. Mr. McCarty, Mr. James.

23abc Oral Reading and Interpretation of Literature
(2,0,4) 2 credits each term F,W,S

The expression of thought and emotion based upon literary forms. Intended to develop skill in the oral interpretation of emotional and imaginative literature. Two recitations a week. Mr. James.

41 Advanced Extemporaneous Speaking (2,0,4) 2 credits F

Principles of practical effective speech. Application of these principles in original speeches on subjects of current interest. P, 21. Hours to be arranged. Two recitations a week. Mr. McCarty.

42 American Orators and Oratory (2,04) 2 credits W

The life of the orator, his relation to the age in which he lived, and the elements of his power as a public speaker. The Revolutionary Period, the Civil War Period, and the Reconstruction Period. Contemporary Oratory. P, 21. Two recitations a week. Given in alternate years. Not offered in 1936-37. Mr. McCarty.

43 Public Address; Speech Composition (2,0,4) 2 credits S

The various forms of public address—Oratory, Eulogy, Political Address, After-Dinner Speech, the Occasional Address. The purpose here is to determine the elements of persuasive spech. Original work by members of the class. P, 21. Two recitations a week. Given in alternate years. Offered in 1936-37. Mr. McCarty.

Graduate Study*

ORGANIZATION

The graduate work of the College is administered by a graduate committee of seven members in accordance with the general policy which is determined by the Graduate Faculty. The Graduate Committee is appointed by the President from the Graduate Faculty, which is composed of the deans of the five divisions, the heads of departments which offer graduate courses, and the staff members who are recommended by the heads of departments and approved by the Graduate Committee.

GRADUATE WORK

Persons who hold bachelors' degrees or higher degrees from standard colleges are admitted to the College as graduate students upon the presentation of their transcripts of undergraduate credit, and may enroll in any subjects which carry graduate credit, provided the prerequisites to these subjects have been completed.

A student who at the beginning of a term does not have more than 9 credits to complete for the degree of Bachelor of Science, may with the approval of the Graduate committee be admitted with partial enrollment in graduate work, carrying it simultaneously with work for the completion of his undergraduate course.

THE MASTER'S DEGREE

The College confers the degree of Master of Science for graduate work done in the various scientific and technological departments. It does not confer the degree of Master of Arts and Doctor of Philosophy.

Admission to Candidacy

Admission as a graduate student does not imply approval of the student as a candidate for the Master's degree. For such candidacy there are (a) general requirements, and (b) departmental requirements.

A. General Requirements for Candidacy. Since the degree

* Further details concerning the Master's degree and Professional degrees in Engineering may be obtained by writing to the Registrar for bulletin concerning Graduate Study.

of Master of Science is the only advanced degree the College confers, the student should have completed a course leading to the degree of bachelor of science in this College, or a similar course in some other institution of standing. Students who hold baccalaureate degrees other than the degree of bachelor of science (for instance, bachelor of arts) must of necessity have done considerable work in the natural sciences as part of their undergraduate courses, in order to be eligible. If the preliminary work necessary for entrance upon the work for the master's degree has not been completed as a part of the undergraduate course, it may be possible for the student to complete the remaining work in this College. The graduate committee cannot pass definitely upon this and other details before seeing the transcript of the student.

In general, one year of graduate work in residence at the College is required for the master's degree. However, in special cases arrangements may be approved by the Graduate Committee to provide for the transfer of graduate credit earned in residence in other approved schools.

Residence requirements may be satisfied by attendance at the College during four summer sessions of six weeks each, provided full time is given to graduate work during that time. However, if the requirements are not completed within a period of six years, a reconsideration of the student's plan of study will be necessary.

B. Departmental Requirements for Candidacy. The student must have completed the prerequisites to the graduate major and minor of the departments in which he wishes to study for the master's degree. (See following pages.)

A student who wishes to become a candidate for this degree should make application to the Graduate Committee, naming the departments in which he wishes to major and minor.* If his application is approved by the Committee, with the help of the Committee and departments concerned he should outline the scheme of study which he is to pursue. If, after one term's study, his work is found to be satisfactory, he will be admitted to full candidacy.

* In general a graduate student is not admitted to candidacy for the Master's Degree unless, or until his record shows evidence of ability to do thorough and satisfactory work of the grade required for a graduate degree.

Examinations

The candidate must pass a satisfactory oral examination in all the work which has been taken for credit for the degree, and may be required to pass a satisfactory written examination on all work not taken in regular classes at this institution.

Majors and Minors

A full year of work consisting of forty-five credits is required for the master's degree. These may be divided into a major and a minor of approximately 30 and 15 credits respectively. A departmental major or minor may include subjects outside the departments in which the major or minor is chosen if the subjects are closely related to the major or minor fields.

A thesis, which deals with some original problem related to the major subject, is included in the major, and is counted at from 7 to 10 credits.

Additional regulations concerning the thesis and the specifications as to form may be obtained from the Committee on Graduate Study.

The major should include one course each term in addition to the thesis, from the subjects which are designated as "primarily for graduates."

All other credit submitted for the degree, in addition to that for the thesis, must be in subjects designated as "advanced undergraduate and graduate," or "primarily for graduates."

Credit may not be counted towards the master's degree unless it has been earned after the student has been formally admitted to graduate standing, and has indicated that the subject is being taken for graduate credit. No work will be given credit towards the degree if the grade received is below "C," and all work offered for the degree must average "B."

Credit for work done by correspondence or in group study courses will not be accepted towards the master's degree. However, students may, with the approval of the head of the department concerned, make up any prerequisite by such study.

Following is a list of departments that offer graduate work, with statements as to the prerequisites in each for entrance

upon a major and a minor, in connection with the degree of Master of Science.

Purposely these statements are for the most part rather general, inasmuch as undergraduate schemes of study in different institutions vary a great deal in their specific requirements.

The subjects that carry graduate credit may be found in the catalogue, those numbered above 200 being primarily for graduate students, and those numbered from 100 to 199 being open to either graduates or undergraduates. In the latter group graduate students are required to do about twenty-five percent more work than undergraduates.

Departments Offering Graduate Work and Prerequisites

AGRICULTURAL ECONOMICS

For a graduate major: 30 credits in the Social Sciences of which 19 must be in the field of Economics.

For a graduate minor: 15 credits in the Social Sciences of which 9 must be in the field of Economics.

AGRICULTURAL ENGINEERING

No graduate major offered.

For a graduate minor: Prerequisites to subjects elected.

AGRONOMY

For a graduate major: An undergraduate major in either Soils or Crops.

For a graduate minor: An undergraduate minor in either Soils or Crops.

ANIMAL HUSBANDRY

For a graduate major: An undergraduate major in Animal Husbandry.

For a graduate minor: An undergraduate minor in Animal Husbandry.

BOTANY

For a graduate major: An undergraduate major, amounting to 33 credits including 1abc, 21, 26a, and 172.

For a graduate minor: An undergraduate minor of not less than 24 credits which must include 1abc. Remaining credits should be selected with respect to major field.

CHEMISTRY

For a graduate major: An undergraduate major in Chemistry or a minimum of 34 credits in Chemistry. These credits should include General Inorganic Chemistry, Elementary Organic Chemistry, Quantitative Analysis, Qualitative Analysis, and Elementary Physical Chemistry.

For a graduate minor: 22 credits in Chemistry which should include General Inorganic Chemistry, Elementary Organic Chemistry, Qualitative Analysis.

CIVIL ENGINEERING

For a graduate major: Bachelor of Science degree in Civil Engineering or equivalent.

For a graduate minor: Mathematics through Integral Calculus, Mechanics and Materials, General Physics (1 year), and Inorganic Chemistry.

DAIRY HUSBANDRY

For a graduate major: An undergraduate major in Dairy Husbandry.

For a graduate minor: An undergraduate minor in Dairy Husbandry.

EDUCATION

For graduate major or minor:

(a) The certificate to teach in South Dakota High Schools.

(b) It is strongly recommended that candidates should have had successful experience in teaching.

(c) In exceptional cases persons who have completed the Education courses prescribed for the teaching certificate may enroll for graduate work in education.

ELECTRICAL ENGINEERING

For a graduate major: Bachelor of Science degree in Electrical Engineering or equivalent.

For a graduate minor: Mathematics through Integral Calculus, Mechanics and Materials, General Physics (1 year), and Inorganic Chemistry.

ENTOMOLOGY

For a graduate major: An undergraduate major or equivalent including General Agricultural Entomology (20), Field Crops Entomology (40), Taxonomy of Insects (44ab), and Veterinary Entomology (60).

For a graduate minor: An undergraduate minor or equivalent, including General Agricultural Entomology (20), Field Crops Entomology (40), Taxonomy of Insects (44ab), and Veterinary Entomology (60).

HISTORY AND POLITICAL SCIENCE

For graduate minor: An undergraduate minor in History or Political Science, according to the field chosen for a minor.

HOME ECONOMICS

For a graduate major: Prerequisites to subjects giving graduate credit.

For a graduate minor: Same as for the graduate major.

HORTICULTURE

For a graduate major: Bachelor of Science in Agriculture and the prerequisites to subjects pursued.

For a graduate minor: Courses in Botany, Entomology, and other subjects which are related to the work taken up in Horticulture.

MATHEMATICS

In special cases a graduate major may be chosen in Mathematics, provided the student's undergraduate work has been satisfactory and if it is possible to arrange a satisfactory schedule.

For a graduate minor: Prerequisites to the subjects giving graduate credit.

MECHANICAL ENGINEERING

For a graduate major: Bachelor of Science degree in Mechanical Engineering or equivalent.

For a graduate minor: Mathematics through Integral Calculus, Mechanics and Materials, General Physics (1 year), and Inorganic Chemistry.

PHYSICS

For a graduate major: An undergraduate major in Physics or equivalent.

For a graduate minor: An undergraduate minor in Physics or equivalent.

RURAL SOCIOLOGY

For a graduate major: 36 credits in the Social Sciences, of which 17 credits must be in Sociology.

For a graduate minor: 24 credits in the Social Sciences, of which at least 11 must be in Sociology.

PHARMACY

For a graduate major: The Bachelor of Science degree in Pharmacy or equivalent.

For a graduate minor: Prerequisites to graduate subjects desired.

POULTRY HUSBANDRY

For a graduate major: Poultry Husbandry 20, 41, 155, 156, 157, 159 or equivalent, and such other courses as are required, according to the branch in which the student wishes to specialize.

For a graduate minor: An undergraduate major or minor in Poultry Husbandry.

Non-Degree Courses

The College offers the following special and secondary courses:

The School of Agriculture Course.

The Special Winter Short Course in Agriculture.

The Three-Month Creamery Course.

The One-Year Course for Managers of Cooperative Associations.

The Two-Year Course for Printers.

Summer Shop Courses for Printers.

The Two-Year Course in Aviation Mechanics.

The Summer School.

THE SPECIAL WINTER SHORT COURSE IN AGRICULTURE

January 4 to March 24, 1938

Students who wish to attend the College only during the winter term of the year (January, February, and March) and take practical training in agriculture and farm operations, may have the privilege of enrolling as special students in work of this kind which is regularly offered.

High school graduates may enroll in subjects of collegiate grade, others may select work in the School of Agriculture.

It is the plan of the faculties of both the Division of Agriculture and the School of Agriculture to concentrate on as many of the especially practical courses during the winter months as feasible.

Those interested in such special work should write to the Dean of Agriculture for additional information.

SCHOOL OF AGRICULTURE

October 21, 1937 to March 24, 1938

The School of Agriculture was organized in 1908. The School is a part of the Division of Agriculture of the South Dakota State College of Agriculture and Mechanic Arts. It is governed by the Regents of Education.

PURPOSE

The School of Agriculture has been planned and carefully organized to furnish a practical education to young men and women and secure a maximum amount of practical knowledge in the shortest possible time. A four year course (given during the winter months) of intensive work gives the students a large amount of valuable information and preparation for useful citizneship.

The School of Agriculture offers educational advantages:

1. To the young men and women who do not have an opportunity for advanced work in their own communities.

2. To the young men and women whose high school work has not yet been finished.

3. To the young men and women who have had high school training and who wish some practical work in agriculture, farm mechanics and home economics.

4. To the young men and women who must earn their own way and can spend only a few months in college each year.

5. To the young men and women on the farms of South Dakota who are needed at home during the busy farming season and can spend only the winter months in college.

6. To the young men and women who want special training for rural leadership.

7. To the young men and women who wish to finish their college entrance credits.

8. To the young farmer who needs special training in some line of agriculture or mechanics.

9. To the young woman who needs practical work for nurse's training, the rural school room, the store, the office or special salesmanship of wearing apparel or home furnishings.

ADMISSION

Students who expect to enter the School of Agriculture should send for admission blank. After being filled out, this blank should be signed by the Secretary and the President of the local school board, and presented by the student to the college authorities in order that the home school may pay the student's tuition to the School of Agriculture. Students who

fail to bring this blank, properly signed, will be required to pay their tuition ($45) at the time of registration.

Minimum Age.—Applicants for admission to the School of Agriculture must be at least fifteen years of age and of good moral character. Students whose fifteenth birthday comes during the school year may be admitted. Applicants who have had one year of high school training are exception to this rule.

Prospective students whose homes are in Brookings high school district must make application for admission in writing to the Dean of Agriculture.

Preparation.—Students who have completed the eighth grade or its equivalent in the common schools are admitted without examination. They should write to the Principal for certificate of admission.

Special Students.—Applicants of mature years who cannot meet the requirements for admission will be admitted for special programs. Such students cannot graduate until the requirements are met.

Credit for High School Work.—Students will be accepted from approved high schools and credit given towards graduation in the School of Agriculture. Equivalent high school courses will receive full credit in the School of Agriculture.

REQUIREMENTS FOR GRADUATION

The diploma of the School of Agriculture is granted on the following conditions:

1. A satsisfactory standing in deportment.
2. Junior R.O.T.C. military training, 2 credit hours for each year of resident work.
3. The completion of the prescribed course of study, including all of the required work and sufficient electives to make a total of ninety credit hours. For men, forty credit hours must be in agriculture and mechanics. For women, forty credit hours must be in agriculture and home economics.
4. Men must have two or more years of practical experience in farm work. Women must have two or more years of practical experience in home work.
5. Men and women must complete one or more years in home project work. Students who graduate with two years of resident work must complete one year of home project work.
6. Two years of resident work at State College is required for graduation. Students who have completed two or more years of high school work, may apply same for two years non-resident work.

SPECIAL BULLETIN

For special bulletin, giving outlines of four-year secondary courses for young men and women, and other information, write to the Principal of the School of Agriculture, South Dakota State College, Brookings, South Dakota.

THE ONE-YEAR COURSE FOR TRAINING MANAGERS OF COOPERATIVE ASSOCIATIONS

September 15, 1937 to June 9, 1938

A one year course designed to provide training in the management of cooperative associations will be outlined for men of mature years who may wish such work. For information concerning the work of the course, the tuition, and other details write to the Dean of Agriculture of the College.

THE THREE-MONTH CREAMERY COURSE

January 4 to March 24, 1938

This course is especially designed for young men who desire to fit themselves for various positions connected with the dairy industry, such as helpers, buttermakers, ice cream makers and managers.

Prospective students are urged to get at least six months of practical experience in a creamery before taking the course. It is found that much greater benefit is derived from the work by those students who have had previous creamery experience.

The more general application of scientific principles to the manufacturing industries as well as the increasing competition on all sides demands a more thorough training in scientific and business methods than heretofore. This is no less true with regard to the creamery industry; and while the practical work of the school is by no means neglected, special pains are taken to teach the underlying principles and the "reason why"

for many of our dairy operations. The increasing interest in dairying in South Dakota is creating a demand for men well trained along dairy lines and requests for men at excellent salaries are constantly being received. Worthy students may count on the cooperation of the dairy department in helping them to secure positions at the completion of their course. The work is as follows:

Buttermaking, 3 hours recitation work per week.
Ice Cream Making, 2 hours recitation work per week.
Cheese Making, 1 hour recitation work per week.
Laboratory work for the above courses consists of practical work in creamery, 18 hours per week.
Creamery Calculations and Bookkeeping, 3 hours per week.
Testing Milk and its Products, 4 hours per week.
Dairy Bacteriology, 2 hours per week.
Creamery Mechanics, 2 hours per week.
Dairy Cattle Management, 3 hours per week.
Poultry Husbandry, 3 hours per week.

Tuition is $23.00 ($34.50 for non-resident students) for the three months' term with a small additional fee for laboratory expenses.

Students of this course are also required to pay a health fee of $2.50 for the term.

A certificate of standing will be issued to all students passing satisfactory examinations in the above subjects.

Address the Dairy Husbandry Department for information concerning this and other courses in the Dairy Department.

SPECIAL COURSES IN PRINTING AND RURAL JOURNALISM

Short Course in Printing and Rural Journalism

September 15, 1937 to June 9, 1938

In addition to the four-year collegiate course in printing and rural journalism, the department offers a short course in the same subject designed primarily for those who are not prepared or lack the time to pursue the four-year course. The short course affords an all-around and well balanced training that will be of great value in giving young men and women a good foundation for following the work of a country news-

paper office and print shop. The student receives adequate shop practice in presswork, typography, and composing machines.

The course covers a resident study of two years, but is so arranged that the student can complete a definite unit of the work in the first year in the event that he should be compelled to leave before completing the course.

Although high school graduation is not required for entrance, applicants should have had at least two years of high school work or its equivalent before entering the short course in printing and rural journalism.

Students registering for this course will be required to carry out the complete course as it is outlined.

Students and men in the printing trades desiring to specialize in presswork, typography, or composing machines should enroll for the courses offered during the summer session.

The regular college tuition fee of $70.00 a year is charged for this short course ($105.00 for non-resident students). Small laboratory fees to cover the cost of materials and breakage are charged in the different subjects, ranging from $1.50 to $2.50 per credit.

Each student is charged a health fee of $7.50 for the year ($2.50 for each term).

TWO-YEAR COURSE IN PRINTING AND RURAL JOURNALISM

This course meets the requirements for trade students set up under the Smith-Hughes law.

First Year

	Fall	Winter	Spring
Business Mathematics, Math 7abc	3	3	3
Typewriting, PRJ 16a	1½		
Rhetoric, Engl 1abc	3	3	3
Newswriting, PRJ 24	3		
News Editing, PRJ 25		3	
News Reporting, PRJ 25			3
Platen Press, PRJ 11abc	1	1	1
Principles of Typography, PRJ 12abc	2	2	2
Bindery Operations, PRJ 14			1
	13½	14	13

Second Year

	Fall	Winter	Spring
Display Typography, PRJ 31abc	3	3	3
Cylinder Presswork, PRJ 32abc	1	1	1
Drawing and Design, Art 23abc	1	1	1
Composing Machines, Mechanism and Operation, PRJ 33abc	2	2	2
Presswork Problems, PRJ 74abc			1
Composing Machine Problems, PRJ 75abc	2	2	2
or			
Technical Theory of Composing Machines, PRJ 76abc	1	1	1
Feature Writing, PRJ 51	2		
Editorial Writing, PRJ 52			3
Newspaper Composition and Makeup, PRJ 57abc	2	2	2
	14	12	16

Summer Shop Course for Printers

June 14 to July 23, 1937

Special trade courses are offered by the Department of Printing and Rural Journalism in presswork, typography, and composing machines, during the summer sessions for ambitious men in the printing trades who wish to broaden their experience and develop their skill in the various phases of printing. Compositors often desire to learn the operation of printing presses and composing machines. Composing machine operators often wish to learn the fundamentals of typography and presswork. The courses are designed to afford these opportunities. They are conducted by proficient instructors who are specialists in their respective branches.

Applicants may register for one or all of the courses given.

Shop courses are offered in the summer session for teachers of printing. These courses aim to develop right lesson analysis and operation outline, proper method of instruction and the accepted trade techniques in each branch. Instruction in all operations is based on production demands of saving time but doing work well.

The only entrance requirement is considerable experience as a printer. The usual tuition fee of $15.00 ($22.50 for non-resident students) will be charged with a small laboratory fee for each course. The total fees will not exceed $30.00.

The course offers an excellent opportunity for taking a six

weeks' vacation from one's regular work and at the same time spending the time profitably in self-improvement. For further information about the special courses for printers, write to the Department of Printing and Rural Journalism.

THE TWO-YEAR COURSE IN AVIATION MECHANICS

A two-year vocational course is offered for men who wish to prepare themselves for work as licensed aviation mechanics. This course includes specific shop training in wood working and metals, especially welding. It progresses as rapidly as possible to the repairing and rebuilding of planes and engines. Details are described in a special leaflet to be obtained from the Dean of Engineering.

THE SUMMER SCHOOL

June 14 to July 23, 1937

The work of the Summer Session is planned to meet the needs of the various classes of students. Subjects are offered in Agriculture, Engineering, Home Economics, Printing, the Industrial Arts, the Natural and Social Sciences, Education and Psychology, Mathematics, English and Speech, and Music. One of the principal functions of the College is to train teachers along vocational lines, its shops, laboratories, experimental plots and livestock being available for this purpose.

In addition to members of the regular college staff, special instructors and lecturers are employed for the Summer Session.

Tuition is $15 for the term of six weeks for students who are residents of the state, $22.50 for non-resident students. Small additional fees are charged in the laboratory subjects to pay for material used.

Good rooms at reasonable rates can be obtained by men students in the city and by women students in the college dormitories. Board can be obtained at reasonable rates near the college campus. For further information write to the Registrar for the Summer School Bulletin.

Student List 1936-1937

The following abbreviations are used to indicate the different lines of study students are pursuing: Ag—Agriculture; AE—Agricultural Engineering; IA—Industrial Arts; PreF—Pre-Forestry; CE—Civil Engineering; EE—Electrical Engineering; ME—Mechanical Engineering; Eng—Engineering; HEc—Home Economics; Pha—Pharmacy; NEd—Nursing Education; GS—General Science; PRJ—Printing and Rural Journalism.

COLLEGIATE

POST GRADUATES

Arndt, Alfred, Brookings ---------- GS
Bender, Lyle, Bradley ---------- Ag
Bowe, Ruth, Huron ---------- GS
DeLong, Henry, Brookings ---------- AE
Engstrom, Irene, Brookings ---------- GS
Eversull, Evelyn, Huron ---------- HEc
Finley, Moody R., Brookings ---------- GS
Harding, E. B., Brookings ---------- PRJ
Harker, Nannette, Kimball ---------- HEc
Hecker, Fred, Brookings ---------- GS
Hepner, Harold, Brookings ---------- GS
Herreman, Dermont, Brookings ---------- GS
Herold, Roy, Brookings ---------- GS
Hollen, G. Lynn, Brookings ---------- PRJ
Hollister, Ruth, Huron ---------- GS
Kendall, Richard, Brookings ---------- Pha
Kohnke, Florence, Hecla ---------- HEc
Lauster, Lloyd, Brookings ---------- Ag
Larson, Delia, Brookings ---------- GS
Loomer, Charles, Pierre ---------- GS
MacDonald, Oriette, Brookings ---------- GS
Martin, John, Brookings ---------- GS
Matteson, Richard, Brookings ---------- GS
McCarty, George, Brookings ---------- GS
McDonald, Guy, Brookings ---------- Ag
McMartin, Wallace, Brookings ---------- Ag
Mesick, David, Gettysburg ---------- GS
Miller, Harold, Mapleton, Minn. ---- Pha
Mitchell, Robert, Brookings ---------- CE
Moxon, Alvin, Brookings ---------- Ag
Nelson, Dorothy, Brookings ---------- Pha
Norby, Thomas, Brookings ---------- GS
Olson, Oscar, Sioux Falls ---------- Ag
Overton, Harold, Webster ---------- PRJ
Phelps, Allen, Brookings ---------- GS
Rethke, Roland, Milbank ---------- GS
Revell, Frank, Brookings ---------- GS
Richardson, Evelyn, Brookings ---------- GS
Richardson, William, Brookings ---------- GS
Sandals, Kirk, Mobridge ---------- GS
Selvig, Howard, Brookings ---------- GS
Simonson, Marlin, Brookings ---------- Ag
Sorensen, Elise, Brookings ---------- GS
Staley, Newton, Salem ---------- GS
Stallbaum, Herman, Brookings ---------- GS
Straw, Windsor, Brookings ---------- GS
Towers, Jack, Brookings ---------- GS
Ullman, Vernon, Brookings ---------- Ag
Williams, Marvis, Artesian ---------- GS
Williams, Perry, White ---------- GS

SENIORS

Abbott, Edward, Tyndall ---------- Pha
Abel, Ray, Selby ---------- PRJ
Anderson, Everett, Brookings ---------- CE
Anderson, Harlan, Brookings ---------- GS
Ashley, Paul, Vale ---------- Pha
Bates, Dorothy, Mitchell ---------- PRJ
Bell, Thomas, Flandreau ---------- PRJ
Berg, Bernard, Aberdeen ---------- Pha
Beste, Donald, Toronto ---------- Pha
Bibby, Mary Ellen, Brookings ---------- HEc
Bowles, Donald, Groton ---------- ME
Brown, Charlotte, Brookings ---------- GS
Brown, Earl, Henry ---------- GS
Burr, Ella, Brookings ---------- GS
Busey, Lois, Watertown ---------- GS
Carlton, Gerald, Ethan ---------- GS
Cheadle, Norman, Salem ---------- EE
Christensen, Gertrude, Huron ---------- HEc
Clarin, Arthur, Brookings ---------- Ag
Comstock, Carol, Britton ---------- GS
Conway, Helen, Ft. Pierre ---------- HEc
Cottle, Frank, Rapid City ---------- PRJ
Crosby, Avis, Orient ---------- GS
Crothers, Lucille, Brookings ---------- HEc
Dalke, Frank, Hurley ---------- Ag
Dobbs, Donald, Flandreau ---------- CE
Eastby, Marcus, Sinai ---------- EE
Eidem, Dorothy, Brookings ---------- HEc
Emerson, Clifford, Brookings ---------- GS
Evans, Allen, Mitchell ---------- Ag
Fauske, Ingebert, Quinn ---------- GS
Fenner, Victor, Milbank ---------- Ag
Ferguson, Fern, Powell ---------- HEc
Foster, Clifford, Murdo ---------- ME
France, William, Canistota ---------- Pha
Frandsen, Hugh, Plankinton ---------- Ag
Glidden, Keo, Willow Lakes ---------- Pha
Graves, Harold, Raymond ---------- ME
Gray, Gordon, Madison ---------- IA
Gross, Dan, White ---------- GS
Gulbrandsen, George, Brookings ---------- GS
Gunsalus, Anna, Brookings ---------- HEc
Haas, Phillips, Volga ---------- GS
Haggar, Thomas, Sioux Falls ---------- Pha
Hanson, Agnes, Brookings ---------- GS
Hartman, Jack, Barnard ---------- Ag
Healey, Mark, Chamberlain ---------- Ag
Heath, Helen, Sioux Falls ---------- HEc
Heinzen, Percy, Rockham ---------- Ag
Herbert, Richard, Flandreau ---------- ME
Hokanson, Max, Morristown ---------- ME
Holdridge, Dale, Brookings ---------- PRJ
Hutton, Robert, Egan ---------- Ag
Johnson, Charles T., Hetland ---------- EE
Johnson, Mae, Hayti ---------- HEc
Johnson, Oscar, Conde ---------- CE
Johnston, Jesse, Bryant ---------- Pha
Joy, Edgar, Cottonwood ---------- Ag
Kendall, Nathaniel, Brookings ---------- GS
Knight, Robert, Brookings ---------- GS

Kuhns, Dale, Canton ---------- GS
Kumlien, Margaret, Brookings ------ HEc
Lang, Rolland, Brookings ---------- CE
Leach, Bennie, Fort Pierre ---------- GS
Lichty, Wayde, Tracy, Minn. ------- Pha
Lienhart, Edward, Winner ---------- GS
Longrie, Leverett, Brookings ---------- CE
Lyngstad, Anders, Aberdeen -------- ME
Mall, Don, Brookings ---------- GS
McGibney, Isabel, Pierre ---------- HEc
McGovern, Julia, Aberdeen ---------- HEc
McLoughlin, Dorothy, Mitchell ------ HEc
Morgan, Lloyd, Sioux Falls ---------- Pha
Moseson, Norman, Howard ---------- GS
Munson, Anna Lou, Brookings ------ HEc
Murphy, Francis, Rapid City -------- GS
Norby, Ruth, Brookings ---------- HEc
O'Connell, Mary, Madison -------- PRJ
Odell, Luther, Montrose ---------- CE
Owings, Kenneth, Wagner ---------- Pha
Paddock, Mary, Centerville ---------- GS
Padmore, Mitchell, Woonsocket ------ Pha
Peterson, Allan, Brookings ---------- GS
Peterson, Stanley, Virgil ---------- GS
Pike, Dorothy, Aurora ---------- HEc
Quigley, Winifred, Huron ---------- GS
Radeke, Robert, Milbank ---------- Ag
Rockwell, Dorothy, Kidder ---------- GS
Rolfe, William, Flandreau ---------- Pha
Royer, Norma, Huron ---------- Pha
Rumple, Norman, Arlington -------- PRJ
Sand, Harold, Brookings ---------- EE
Sanders, Robert, Garretson -------- PRJ
Sanderson, Cecil, Aurora ---------- Ag
Satter, Grace, Vermillion ---------- HEc
Scanlon, Eileen, Howard ---------- GS
Scheibel, Tesse, Brookings -------- GS
Sisson, Lewis, Belle Fourche ---------- GS
Sorensen, Marjorie, Nisland ---------- HEc
Spicer, Glen, Miller ---------- Ag
Spies, Kenneth, Valley Springs ------ CE
Stensland, Joe, Madison ---------- GS
Thompson, Haddon, Brookings -------- EE
Thompson, Tyrus, Tabor ---------- Ag
Thue, Ruth, Lake Norden ---------- HEc
Tittle, Lillian, Rapid City ---------- HEc
Ustrud, Herbert, Brookings -------- CE
Vick, Maurice, Quinn ---------- ME
Von Wald, Burke, Redfeild ---------- GS
Walseth, Tracy, Clear Lake -------- CE
Weiseth, Mildred, Colman ---------- GS
Weiseth, Olga, Colman ---------- HEc
Weydt, Charles, River Falls, Wis. -- Pha
Wick, Robert, Brookings ---------- GS
Woodruff, Joyce, Brookings ---------- GS
Wyman, Ruth, Brookings ---------- HEc
Zuber, Marcus, Hoven ---------- Ag

JUNIORS

Anderson, Arlene, Brookings -------- HEc
Anderson, Wendell, Canton --------- PRJ
Askew, Marion, Brookings ---------- HEc
Baddeley, Donald, Watertown -------- GS
Bartling, George, Brookings ---------- GS
Bartling, Lawrence, Brookings -------- CE
Beattly, John, Brookings ---------- GS
Bentson, Robert, Alpena ---------- ME
Blagen, William, Madison ---------- GS
Bonell, William, Brookings ---------- CE
Boswell, Leland, Anna, Illinois ------ Pha
Boyd, William, Henry ---------- CE
Brady, Harold, Mitchell ---------- GS
Brewster, Helen, Woonsocket ---------- GS
Bunn, Radie, Pierre ---------- PRJ
Callihan, Clinton, Van Metre -------- Pha
Callihan, Marcella, Van Metre ------- HEc
Caroon, Kathaleen, Sioux Falls ------ GS
Christensen, Alphus, Milbank -------- GS
Christianson, Walter, Sioux Falls ------ IA
Clark, Duane, Worthing ---------- Ag
Clark, Marian, Worthing ---------- GS
Cleveland, Charles, Hetland ---------- PRJ
Cleveland, Parker, Platte ---------- IA
Cochrane, Maynard, Gary ---------- Ag
Cone, Ballard, Sioux Falls ---------- ME
Conway, James, Fort Pierre ---------- CE
Culhane, Margaret, Brookings -------- GS
Davis, Arthur, Belle Fourche -------- EE
Davis, Wilmer, Wessington Springs -- Ag
Dawson, Milton, Wagner ---------- Pha
Deily, George, Emery ---------- GS
Deily, Phillip, Emery ---------- GS
Delker, Lloyd, Chester ---------- PRJ
Delmage, Floyd, Rutland ---------- Ag
Dexheimer, Donald, Spencer ---------- Pha
Dodds, Wellesley, Faulkton ---------- GS
Dragash, Nick, Chicago, Illinois ------ IA
Dyball, Wayne, Brookings ---------- Pha
Dyste, Howard, Brookings ---------- GS
Eells, Robert, Brookings ---------- GS
Ekberg, Leonard, Garretson ------ PRJ
Fawkes, David, Madison ---------- Pha
Fleming, Francis, Montrose ---------- Pha
Frick, Gerald, Gettysburg ---------- EE
Friedrich, Victor, Parkston ---------- EE
Getty, George, Brookings ---------- GS
Goldman, Joe, Madison ---------- Pha
Griffith, Sylvia, Avon ---------- HEc
Guthrie, Bernie, Murdo ---------- GS
Hagen, Herman, Florence ---------- CE
Hagen, Justin, Hendricks, Minn. ----- Pha
Haggar, David, Sioux Falls ---------- Pha
Hardy, James, Clark ---------- ME
Hart, Seward, Fedora ---------- GS
Hartung, Cecil, Oldham ---------- GS
Hasche, Howard, DeSmet ---------- EE
Henrichsen, Melvin, Altamont -------- GS
Henry, David, Volga ---------- Ag
Hermanson, Walter, Garretson ------- Ag
Hill, Marian, Aberdeen ---------- HEc
Holcomb, Robert, Langford ---------- Pha
Holmes, Herbert, Brookings ---------- Ag
Hoover, Eleanor, Columbia ---------- GS
Hoy, Dwight, Brookings ---------- GS
Hughes, James, Howard ---------- Ag
Isaksen, Laurena, Springfield, Minn. HEc
Jacobson, Max Volin ---------- Ag
Jensen, Norman, Sutherland, Iowa --- GS
Johnson, Edwin, Onida ---------- GS
Johnson, Eunice, Brookings ---------- GS
Jones, Emerson, Bruce ---------- Ag
Jones, Roberta, Milbank ---------- HEc
Jorgensen, Berl, Viborg ---------- Ag
Kelsey, Hagen, Fedora ---------- Ag
Kelton, Robert, Brookings ---------- Ag
Kloster, Martin, Clark ---------- AE
Knutson, Clarence, Brookings -------- GS
Koenig, Helen, White ---------- HEc
Kratz, Fred, Murdo ---------- ME
Larsen, Herluf, Arlington ---------- CE
Larson, Fred, Webster ---------- AE
Lassen, Ralph, Aurora ---------- Ag
Lee, Everett, Volga ---------- EE
Leir, Merle, Canton ---------- Ag
Light, Edgar, Roscoe ---------- Pha
Lintvedt, Maynard, Vivian ---------- EE
Manley, Clifford, Arlington ---------- GS

Manson, Marjorie, White River ____ HEc
Mark, Constance, Brookings ____ HEc
Marvin, Lennice, Brookings ____ GS
McCormick, Leonard, Brookings ____ CE
McKie, Ruth, Altamont ____ HEc
Meck, Galen, Garretson ____ GS
Meinicke, Merton, Madison ____ GS
Mernaugh, Ralph, Letcher ____ Ag
Miles, Donald, Fulton ____ CE
Miller, Burton, Brookings ____ Ag
Milner, Mary, Kimball ____ HEc
Myers, Max, Dallas ____ Ag
Niedermeier, Leo, Wagner ____ Pha
Nielsen, Owen, Viborg ____ Ag
Noble, Robert, Woonsocket ____ CE
O'Connor, Monica, Bruce ____ HEc
Olson, Gladys, Claremont ____ HEc
Olson, Richard, Flandreau ____ Pha
Othmer, Richard, Flandreau ____ EE
Otterness, Ruth, Brookings ____ GS
Overton, Ralph, Webster ____ PRJ
Patridge, Eileen, Milbank ____ PRJ
Peters, Nelson, Midland ____ EE
Peterson, Frances, Arlington ____ GS
Purdy, Betty, Brookings ____ GS
Rames, Jess, Brookings ____ GS
Rehorst, Howard, Belle Fourche ____ Ag
Rembold, Harold, Scotland ____ GS
Rhian, Morris, Elkton ____ Ag
Rich, Milton, Rapid City ____ Ag
Rietz, Amy, Salem ____ HEc
Ringsrud, Ronald, Elk Point ____ IA
Robinson, Jesse, Madison ____ ME
Ruden, Elliott, Brookings, ____ GS
Rusch, LuVern, Raymond ____ Ag
Ryan, John, Brookings ____ PRJ
Sanderson, Elmer, Brookings ____ Ag
Scandrette, Cudley, Brookings ____ GS
Schmidt, Helen, Sioux Falls ____ HEc
Schmierer, Elmer, Wessington Springs PRJ
Schulte, Oscar, Frankfort ____ EE
Shurtleff, Iva, Brookings ____ GS
Simmons, Mary Elizabeth, Fulton ___ PRJ
Simonson, Conrad, Hot Springs ____ Ag
Snethen, Elbert, Canova ____ AE
Sorensen, Audrey, Brookings ____ GS
Spicer, Erma, Miller ____ GS
Stanford, George, Midland ____ Ag
Stangland, Glenn, Sioux Falls ____ EE
Steele, Rolland, Lake Norden ____ Ag
Steffes, Robert, Turton ____ PRJ
Stein, Henry. Eureka ____ IA
Steinborn, Don, Brookings ____ GS
Stoen, Margaret, Watertown ____ GS
Stoner, James, Huron ____ ME
Stout, Howard, Cavour ____ Ag
Teigen, Oscar, Grenville ____ AE
Telkamp, Orella, Brookings ____ GS
Test, Raeburn, Frederick ____ AE
Testerman, Florence, Wessington ___ GS
Thompson, Edw. Sleepy Eye, Minn. Pha
Thompson, James, Brookings ____ Ag
Thoreson, Robert, Pierre ____ CE
Trygstad, Marie, Brookings ____ GS
Tupper, Lenore, Wessington Springs GS
Wade, Wayne, Miller ____ Ag
Wake, Selmer, Pierpont ____ PRJ
Wallace, Douglas, Britton ____ Ag
Walter, Cathryn, Ethan ____ HEc
Wanless, Kenneth, Strool ____ Ag
Webbenhorst, Charles, Wentworth ___ GS
Webber, Dorothy, Sioux Falls ____ HEc
Webster, Barbara, Eden ____ Pha
Webster, Herbert, Woonsocket ____ CE
Wedell, Marjorie, Colman ____ HEc
Wentzy, Woodrow, Kimball ____ PRJ
Wilson, Ruth, Traer, Ia. ____ PRJ
Wiseman, Gordon, Brookings ____ EE
Wismer, Gretchen, Britton ____ GS
Witcher, Frederic, Bison ____ GS
Witcher, Maxine, Bison ____ GS
Woodruff, Ellen, Brookings ____ GS
Wright, Elizabeth, Brookings ____ HEc
Yunker, Charles, Aberdeen ____ Ag

SOPHOMORES

Abernathy, Milam, Gann Valley ____ Eng
Albrecht, Ruth, Brookings ____ GS
Anderson, Marion, Badger ____ GS
Anderson, Murray, Lake Andes ____ AE
Anderson, Rex, Brookings ____ GS
Arms, Ralph, Flandreau ____ PreF
Arneson, Frances, Watertown ____ NEd
Asmussen, Erwin, Mt. Vernon ____ Ag
Austin, Don, Brookings ____ GS
Bailey, Arletta, Cattaraugus, N. Y.__ HEc
Bailey, Edward, Sioux Falls ____ Ag
Baldwin, William, Faulkton ____ Eng
Barber, Alvin, Owanka ____ Ag
Barber, Glen, Owanka ____ Eng
Barber, Mark, Alpena ____ Eng
Bard, Robert, Watertown ____ Eng
Bartelt, Mary Louise, Brookings ___ HEc
Bartholomew, George, Philip ____ Pha
Becker, Beryl, Brookings ____ HEc
Beelman, Glenn, Gann Valley ____ Eng
Beller, Geneva, Raymond ____ GS
Bennett, Jack, Clark ____ Eng
Bentson, George, Faulkton ____ GS
Bihlmeyer, Louis, Elk Point ____ Ag
Blum, Maxine, Parkston ____ Pha
Boekelheide, Leone, Chelsea ____ GS
Borgen, Jennings, Sioux Falls ____ Pha
Bosler, Robert, Brookings ____ GS
Boyd, James, Brookings ____ AE
Brakke, Annabelle, Presho ____ HEc
Brandriet, Raphael, Waverly ____ Ag
Brecht, Fred, Yankton ____ Pha
Brill, Arden, Aberdeen ____ Ag
Brooking, James, Onida ____ Ag
Brown, Lon, Belle Fourche ____ Pha
Brown, Margery, Philip ____ HEc
Brown, Robert, Doland ____ GS
Buck, John, Mitchell ____ Eng
Cadle, Dorothy, Brookings ____ GS
Callihan, Henry, Huron ____ Eng
Cameron, Kenneth, Pierpont ____ GS
Cameron, William, Pierpont ____ AE
Casperson, Peter, Lake Benton, Minn. Pha
Chester, Virginnia, Brookings ____ HEc
Christiansen, Charles M., Gettysburg Pha
Christianson, George, Sioux Falls ____ GS
Christoffersen, Lee, Centerville ____ GS
Clark, Wayne, Armour ____ Ag
Clemmens, VaLois, Huron ____ HEc
Clubine, Irene, Rapid City ____ PRJ
Cochrane, Donald, Gary ____ PreF
Coe, Sheldon, Brookings ____ GS
Colby, Burton, St. Onge ____ Eng
Collins, Elizabeth, Brookings ____ HEc
Cooper, Harold, Mobridge ____ Pha
Coxe, Keith, Redfield ____ Eng
Croghan, William, Brookings ____ Eng
Curnow, Margery, Lead ____ GS
Dale, Eleanor, Montrose ____ HEc
Darr, Glenn, Brookings ____ GS
Dawson, Unalda, Colton ____ Pha
DeBuhr, Delmar, Winner ____ Pha

DeHaan, Leigh Anna, Geddes ..... GS
Deming, George, Humboldt ..... Eng
Dierks, Ernest, Flandreau ..... PreF
Dobberstein, Ervin, New Effington ... Ag
Dolan, Leo, Beresford ..... GS
Doucette, John, Willow Lake ..... Eng
Doughtery, Eleanor, Gary ..... HEc
Dragsten, Palmer, Wallace ..... Eng
DuBois, Kenneth, Pierre ..... Pha
Dunton, Jeanne, Redfield ..... GS
Dyson, John, Haynes, N. D. ..... Eng
Economy, Charles, Huron ..... GS
Ellingson, Paul, Flandreau ..... AE
Ellis, Marvin, Brookings ..... AE
Ely, Mason, DeSmet ..... PRJ
Fath, Rosalie, Marvin ..... GS
Felty, Alice, Faith ..... HEc
Feser, Winston, Claremont ..... Ag
Fick, Lenore, Miller ..... HEc
Fisk, Robert, Flandreau ..... Pha
Fletcher, Roland, Akron, Ia. ..... Eng
Flittie, David, Brookings ..... Ag
Flory, Diane, Aberdeen ..... HEc
Forbes, James, Butler ..... Ag
Franklin, Roger, Brookings ..... GS
Frantz, Betty, Watertown ..... GS
Frazier, Pearl, Wood ..... HEc
Frederickson, Charles, Clark ..... Ag
French, Roscoe, Meriden, Ia ..... PreF
Friess, Lorraine, Arlington ..... HEc
Fullenkamp, Bernard, Burbank ..... Pha
Fuller, Ruth, Huron ..... HEc
Funk, Leo, Lake Preston ..... PRJ
Gerloff, Harry, Sioux Falls ..... Eng
Gilbert, Nathelle, Brookings ..... GS
Gilman, Stanley, Mission Hill ..... Ag
Grady, Mary, Sioux Falls ..... HEc
Green, Paul, DeSmet ..... GS
Gross, Guilford, Bowdle, ... Pha
Gustafson, Erland, Veblen ..... Ag
Hallauer, Donna Sue, Watertown ..... GS
Hammerquist, Mildred, Rapid City .... GS
Hanlon, Frank, Emery ..... GS
Hanna, Delbert, Carpenter ..... GS
Hansen, Clarence, Sinai ..... AE
Hansen, Viola, Brookings ..... GS
Hardy, Scott, Beresford ..... Eng
Harrison, Duane, Clinton, Minn. ... Pha
Harvey, Gwen, Valley Springs ..... GS
Hatch, Raymond, McLaughlin ..... PRJ
Hegg, William, Bruce ..... AG
Helder, Ronald, Montrose ..... Pha
Henden, Arvid, Howard ..... Eng
Hensel, Harold, Wagner ..... Ag
Herron, John, Parker ..... Eng
Hesby, Idor, Lake Preston ..... Ag
Hilton, James, Onida ..... Pha
Hoch, Frank, Tyndall ..... Pha
Hoffert, Valeria, Rapid City ..... GS
Holm, Oral, Volga ..... Ag
Hopkins, Elizabeth, Arlington ..... HEc
Hoyer, Bernard, Wagner ..... GS
Hubbard, Phyllis, Brookings ..... GS
Hughes, Evan, Brookings ..... Pha
Ingalls, James, Lennox ..... Ag
Jackson, Eugene, Bradley ..... Eng
Jamison, Robert, Woonsocket ..... GS
Johnson, Morse, Brookings ..... Eng
Jones, Clayton, Bruce ..... Eng
Jones, Kenneth, Brookings ..... GS
Jones, Mack, Miller ..... Pha
Jornlin, Francis, Brookings ..... Ag
Joy, Louis, Midland ..... Ag
Kaiser, Leo, Lake Andes ..... Ag
Kane, Robert, Lead ..... GS
Keck, Robert, Flandreau ..... Eng
Keck, Wayne, Brookings ..... Ag
Keller, Kenneth, Faulkton ..... Ag
Kettering, Leslie, Brentford ..... PreF
Kies, Kenneth, Emery ..... PRJ
Kingman, Charles, Rapid City ..... PreF
Kluck, Mildred, Columbia ..... HEc
Kluthe, Harold, Lake Andes ..... PRJ
Knox, Catherine, Salem ..... HEc
Kolar, Anton, Wagner ..... Eng
Koop, Elmer, Mitchell ..... Ag
Koupal, Raymond, Dante ..... Ag
Krieger, Herman, Gregory ..... Ag
Kristensen, Raymond, Midland ..... Ag
Kurtz, Ervin, Bushnell ..... Ag
Lambert, Darleen, Fedora ..... HEc
Lampson, Margery, Brookings ..... HEc
Lane, Cameron, Brookings ..... Eng
Lang, Helen, Sioux Falls ..... HEc
Lang, Luella, Brookings ..... HEc
Lange, Keith, Murdo ..... PreF
Lardy, Henry, Roslyn ..... Ag
Larsen, Albert, Brookings ..... PreF
Larsen, Leo, Colman ..... Eng
Larson, Arthur, Brookings ..... PRJ
Larson, Lorys, Brookings ..... Eng
Lassen, Walter, Brookings ..... Ag
Lathrop, Carl, Nebraska City, Neb. ... GS
Lee, Donald, Volga ..... Pha
Lee, James, Brookings ..... AE
Lees, Grace, Brookings ..... HEc
Lerud, Edward, Pollock ..... Ag
Lombard, Norma, Brookings ..... GS
Longstreet, Robert, Flandreau ..... GS
Lower, Robert, Howard ..... Pha
Lowthian, Robert, Watertown ..... Ag
Marvin, Altha, Rapid City ..... HEc
Masson, Roy, Groton ..... Ag
McCann, Loyal, Springfield ..... Pha
McCollum, Audrey, Watertown ..... HEc
McCormick, Robert, White Lake ..... Eng
McPhee, George, Arlington ..... GS
Mensch, Margaret, Colman ..... GS
Meyer, Robert, Carthage ..... Pha
Miller, Doris, Watertown ..... HEc
Moen, Elmo, New Effington ..... Ag
Moritz, Adolph, Brookings ..... GS
Mueller, Jim, Watertown ..... Eng
Mullaney, Vivian, Sioux Falls ..... GS
Mullinix, Beeman, Canton ..... Ag
Nash, Carleton, Lake Andes ..... HEc
Nelsen, Norma, Colman ..... GS
Nelson, Klayton, Woonsocket ..... Ag
Nelson, Louis, Colman ..... Ag
Noordsy, Vernon, Marion ..... Ag
Nuessle, Gerald, Springfield, Minn. ... GS
Oliver, Mildred, Viewfield ..... HEc
Olson, Bette, Eldora, Ia ..... HEc
Olson, Leslie, Lake City ..... Pha
Olson, Lloyd, Midland ..... GS
Olson, Ruby, Brookings ..... GS
Otterness, Harlan, Brookings ..... PreF
Otterness, Lyle, Brookings ..... GS
Pasek, Ida Muree, Academy ..... HEc
Pearson, David, Webster ..... Ag
Pease, Laurel, Chamberlain ..... Ag
Pederson, Douglas, Montevideo, Minn. Eng
Pedersen, Wallace, Brookings ..... GS
Petersdorf, John, Mitchell ..... GS
Petersen, LaVerne, Hot Springs ..... GS
Peterson, Marie, Brookings ..... HEc
Peterson, Neal, Artesian ..... Pha
Peterson, Orville, Lake Preston ..... Eng
Pickett, Ruby, Brookings ..... HEc
Plamann, John, Springfield ..... Eng
Ptak, Lloyd, Dante ..... Ag
Puhl, Neil, Devils Lake, N. D. ..... GS
Putnam, Leonard, Artesian ..... Pha
Pylman, Robert, Gettysburg ..... Ag

Rand, Richard, Huron ---------- Eng
Randall, Albert, Watertown ------ PreF
Randerson, Orval, Woonsocket ------- AE
Randerson, Ruby, Woonsocket ------ HEc
Rauch, Ferdinand, Avon ---------- Ag
Reeve, Ralph, Milbank ---------- Eng
Riddell, Robert, Mobridge ---------- Eng
Riley, Francis, Winfred ---------- Eng
Roda, Vern, DeGrey ---------- Eng
Rouleau, Zephirin, Turton ---------- Pha
Rouseff, Walter, Chicago, Ill. -------- IA
Rude, Bert, Brookings ---------- GS
Ruth, Paul, Pierre ---------- PreF
Ryan, Eugene, Promise ---------- Ag
Samco, Russell, Canning ---------- Pha
Sayre, Vinal, Volga ---------- PreF
Schaeffer, Arnold, Tripp ---------- GS
Schipke, William, Roscoe ---------- Pha
Schooler, Harriett, Reliance ---------- GS
Schroeder, Edward, Emery ---------- GS
Schroeder, Harvey, Bruce ---------- Eng
Schultz, Lester, Watertown ---------- Ag
Schwarting, Arthur, Waubay -------- Pha
Schwartz, Milford, Bruce ---------- Pha
Sckerl, Otto, Lake City ---------- Ag
Scott, Wallace, Mt. Vernon ---------- Ag
Searls, Ronald, Brookings ---------- Eng
Seaver, George, Garden City -------- IA
Sebesta, Emil, Bonesteel ---------- GS
Senne, Laurine, Brookings ---------- HEc
Shelp, Lynn, Brookings ---------- GS
Shephard, Margaret, Brookings ---- PRJ
Sherwood, Carl, Clark ---------- GS
Shipley, Wilbur, Belle Fourche ------ Eng
Shirley, Chandler, Madison ---------- Pha
Short, Robert, Mitchell ---------- GS
Shouse, Hiram, Plankinton ---------- Pha
Siedschlaw, Winton, Alpena -------- GS
Siglin, Merrill, Webster ---------- Ag
Smith, Robert, Wheaton, Ill. ------ PRJ
Smith, Virgil, Conde ---------- PRJ
Stark, Kenneth, Madison ---------- GS
Starkey, Olan, Gettysburg ---------- Ag
Steensland, Maurice, Lodgepole ----- PreF
Stenson, Charles, Colome ---------- GS
Stephenson, Estelle, Hartley -------- Pha
Sullivan, Francis, Wagner -------- Pha
Sundstrom, Andrew, Beresford ------- Ag
Sundquist, Vera, Dallas ---------- HEc
Swanson, Keith, Cooper ---------- Ag
Swift, Jeannette, Arlington -------- HEc
Taute, August, Brookings ---------- AE
Taute, Mrs. Gretchen, Brookings --- HEc
Taylor, Frances, Draper ---------- Pha
Thomas, Gordon, Ipswich ---------- GS
Thompson, Donald, Bruce ---------- Ag
Tofteland, Ernest, Luverne, Minn. --- GS
Townsend, Edwin, Brookings -------- AE
Trapp, Clifford, Milbank ---------- GS
Trimmer, Virginia, Madison -------- HEc
Tyrrell, Frank, Bancroft ---------- Ag
Ullman, Doris, Brookings ---------- GS
Vandal, Cecil, Lake Andes -------- PreF
Vandall, Arthur, Lake Andes -------- Ag
VanTassel, Clay, Estelline ---------- Eng
Vickerman, Blair, Colman -------- Pha
Voight, Irene, Lemmon ---------- HEc
Volby, Margaret, Rutland ---------- HEc
Volin, Verlynne, Lennox ---------- Pha
Walder, Marjorie, Thomas ---------- GS
Ware, Earl, Cleghorn, Ia. ---------- GS
Wasser, Lloyd, Hawarden, Ia. -------- Ag
Webster, Florence, Woonsocket ------- GS
Weiseth, Werner, Colman ---------- Ag
Welsh, Clifford, Madison ---------- Eng
Weygint, Phyllis, Brookings ------ PRJ
Weyl, Val, Hot Springs ---------- Ag
Whitehead, Eugene, Canton -------- GS
Whitman, Don, Aberdeen ---------- Eng
Wicks, Reuben, Carpenter ---------- Ag
Wiebelhaus, Virgil, Gregory ------- Pha
Wilkins, Beulah, Trent ---------- HEc
Willey, Harry, Brookings -------- Eng
Williams, Allie, Brookings -------- GS
Wilson, Woodrow, Hazel Run, Minn. Ag
Winters, Vincent, Brentford -------- Eng
Wolfe, John, Clark ---------- AE
Youel, Lloyd, Trent ---------- Ag
Zimmer, Alice, Onida ---------- PRJ

FRESHMEN

Aaberg, Dorothy, Hot Springs ------ HEc
Aaron, Paul, Arlington ---------- Eng
Aarstad, Howard, Willow Lake ------ GS
Adamson, June, Brookings ---------- GS
Alexander, Marien, Delmont ---------- GS
Allan, Richard, Pierre ---------- Eng
Allgier, Gertrude, Aberdeen -------- HEc
Amdahl, Audrey, Jasper, Minn. ----- NEd
Anderberg, Alvin, St. Lawrence ------ Ag
Anderson, Archie, Brookings -------- Ag
Anderson, Donald, Alcester ---------- Ag
Anderson, Walter, Starkweather, N. D. Ag
Andrews, Wendell, Miller ---------- Eng
Andrus, Elna, Rapid City ---------- GS
Aney, Kathleen, Aberdeen ---------- HEc
Antes, Frank, Winner ---------- Pha
Argabrite, John, Watertown -------- Pha
Arneson, Constance, Brookings ----- GS
Asmussen, Raymond, Mt. Vernon ----- Ag
Aus, Richard, Madison ---------- GS
Aus, Robert, Madison ---------- GS
Bach, Helen, Chester ---------- GS
Baer, Tom, Woonsocket ---------- PRJ
Bailey, Albert, Whitewood ---------- Eng
Bailey, Jack, Winner ---------- Pha
Bang, Thomas, Brookings ---------- PRJ
Bankert, Harold, Brookings ------ PreF
Baxter, Harold, Watertown ---------- PRJ
Becker, Jack, Brookings ---------- Eng
Beckwith, Cameron, Willow Lakes --- GS
Bell, Lea, Ipswich ---------- AE
Bergan, Elmer, South Shore ---------- Ag
Bianchi, Willibald, New Ulm, Minn -- Ag
Bidwell, Seymour, Egan ---------- Eng
Biebl, Howard, Gibbon, Minn. ------ Pha
Birdsey, Ernest, Bridgewater ------ Eng
Birks, Ruth, Huron ---------- GS
Blair, Elmer, Geddes ---------- Ag
Blake, Earl, Mellette ---------- PRJ
Boekelheide, Ruth, Cresbard ------ Pha
Boland, John, Chamberlain ---------- Eng
Bonde, John, Arlington ---------- IA
Bonham, Robert, Sioux Falls -------- GS
Bowar, Earl, Miranda ---------- Eng
Bowles, Virginia, Groton ---------- GS
Brehan, Dale, Kimball ---------- GS
Bresee, Marjorie, Castle Rock ----- NEd
Brewer, Max, Aberdeen ---------- Pha
Brickell, Ernest, Watertown ---------- Eng
Bridwell, Arthur, Dupree ---------- AE
Briggs, Donald, Canby, Minn. ------- Ag
Brookman, Jean, Vermillion -------- GS
Brown, Adele, Kadoka ---------- HEc
Browne, LeRoy, Flandreau ---------- PRJ
Brudos, Rex, Miller ---------- Ag
Buchanan, James, Selby ---------- Pha

Buck, Glen, Watertown ---------- GS
Burdett, Mary, Arlington ---------- HEc
Burge, Theodore, Ree Heights ---------- Ag
Burnett, Robert, Tyler, Minn. ---------- Eng
Bush, Clifford, Britton ---------- Ag
Butts, Duane, Vayland ---------- Ag
Campbell, Harold, Garden City ---------- AE
Campbell, Iris, Brookings ---------- HEc
Carlson, Douglas, Clear Lake ---------- PRJ
Carlson, Evan, Beresford ---------- Eng
Carlson, Leo, Albert Lea, Minn. ---------- Pha
Carr, Robert, Brookings ---------- Ag
Carrier, Charles, Aberdeen ---------- PRJ
Castle, Eugene, Bryant ---------- Eng
Chidester, Clifford, Brookings ---------- Eng
Christiansen, Charles L., Madison ---------- GS
Cisar, Raymond, Scotland ---------- GS
Clarin, Helen, Brookings ---------- HEc
Comstock, James, Britton ---------- GS
Cook, Harlan, Elizabeth, Ill. ---------- GS
Cornelius, Lyle, Worthing ---------- Ag
Costlow, Margaret, Madison ---------- GS
Cowhick, Herbert, Cresbard ---------- AE
Cranston, James, Brookings ---------- AE
Crevier, William, Elk Point ---------- GS
Crichton, Scott, Watertown ---------- Eng
Crisp, Lucile, Dell Rapids ---------- HEc
Crosby, Marise, Orient ---------- GS
Curtis, Henry, Strandburg ---------- PRJ
Dale, Clifford, Lynd, Minn. ---------- PreF
DeBoer, John, Lennox ---------- Ag
Dexheimer, Beth, Spencer ---------- NEd
Dirksen, Robert, Madison ---------- AE
Dorman, Wilbur, Goodwin ---------- PRJ
Dornbusch, Shirley, Winfred ---------- GS
Dripps, Vaughn, Brookings ---------- GS
Dungey, Peggy, Belle Fourche ---------- NEd
Dunn, Helen, Mitchell ---------- HEc
Dunn, Jack, Honolulu, Hawaii ---------- Ag
Duvall, James, McIntosh ---------- Eng
Dyball, Wilbur, Brookings ---------- GS
Eastberg, Faye, Lake Norden ---------- GS
Elcock, Harold, Lennox ---------- Ag
Elfrink, Alta, Highmore ---------- GS
Eliason, Warren, Mitchell ---------- Eng
Eller, Cleo, Onida ---------- HEc
Ellis, Evelyn, Canton ---------- HEc
Ellsworth, Marvin, Bruce ---------- GS
Emmerich, James, New Ulm, Minn. ---------- IA
Endres, Norbert, Ethan ---------- Eng
Enright, Dorothy, Brookings ---------- GS
Erickson, Lester, Brookings ---------- GS
Evans, Douglas, Dell Rapids ---------- Ag
Evenson, Alona, Edgerton, Minn. ---------- Pha
Evenson, Norman, Flandreau ---------- Eng
Fassett, Roger, Brookings ---------- Eng
Fehn, Clyde, Watertown ---------- Eng
Feldman, Herbert, White ---------- Ag
Felty, Donald, Faith ---------- Eng
Fergen, James, Parkston ---------- PRJ
Ferguson, Earl, Powell ---------- GS
Feuerhelm, Marietta, Pasadena, Calif. HEc
Ford, Clifford, Luverne, Minn. ---------- Ag
Ford, Clyde, Gregory ---------- Eng
Fox, Raymond, Alexandria ---------- AE
France, Donald, Worthing ---------- Pha
Frazier, Emajean, Wood ---------- HEc
Gaughen, Leroy, Lead ---------- Ag
Gauthun, Elaine, Nunda ---------- HEc
Gehring, Harold, Howard ---------- Ag
Getty, Guy, Brookings ---------- GS
Goddard, Russel, Clear Lake ---------- PRJ
Goodhouse, Innocent, Wakpala ---------- Ag
Gordon, Jule, St. Paul, Minn. ---------- Eng
Gottsleben, Joseph, Clark ---------- Eng
Gould, Carmi, Estelline ---------- Ag
Gould, Harriet, Estelline ---------- GS
Graham, Herbert, Brookings ---------- GS
Grainger, John, Yankton ---------- Eng
Graves, Ivan, Raymond ---------- AE
Gresslin, Gilbert, Sioux Falls ---------- Eng
Grey, Kenneth, Sisseton ---------- GS
Grow, Miriam, Watertown ---------- HEc
Guse, Dean, Bryant ---------- AE
Guse, Jean, Bryant ---------- PreF
Hagen, Elmen, Florence ---------- PRJ
Haines, Willard, Fox Ridge ---------- Eng
Hamilton, William, Somerville, N. J. Ag
Hammer, Kenneth, Sioux Falls ---------- Eng
Hamrick, Joseph, Volga ---------- GS
Hanson, Clinton, Claire City ---------- Ag
Hanson, Vernon, Brookings ---------- GS
Hanson, William, Lead ---------- GS
Harmison, Audrey, Sioux Falls ---------- NEd
Harris, Dorothy, Miller ---------- PRJ
Hartman, Gertrude, Columbia ---------- GS
Hass, William, Chester ---------- Eng
Hasslen, Harland, Ortonville, Minn. ---------- Ag
Hattervig, Bernice, Viborg ---------- NEd
Hayes, John, Aberdeen ---------- PRJ
Hayter, Betty, Brookings ---------- HEc
Heglin, Raymond, Beresford ---------- Eng
Heglin, Russel, Beresford ---------- Eng
Hegnes, John, Sioux Falls ---------- GS
Hellekson, Floyd, Volga ---------- Ag
Hemmingsen, Harry, Brookings ---------- GS
Hiatt, Doris, Huron ---------- HEc
Hicks, Glenn, Brookings ---------- Ag
Hinsey, Burdette, Pierre ---------- Eng
Hodges, Maynard, Manchester ---------- Eng
Holdhusen, Stuart, Ipswich ---------- GS
Holdridge, Carrol, Brookings ---------- GS
Holm, Robert, Cresbard ---------- AE
Holmes, Leslie, Leola ---------- Pha
Horn, Richard, Selby ---------- GS
Horst, Milton, Farifax ---------- PRJ
Hostbjor, Phyllis, Rosholt ---------- HEc
Hove, B. Ivan, Volga ---------- Ag
Hovik, Clifford, Harrisburg ---------- Eng
Huyck, Martha, Mitchell ---------- NEd
Innes, William, Brookings ---------- GS
Jacobson, Miriam, Beresford ---------- GS
Jarding, Walter, Alexandria ---------- Eng
Jarl, Emil, Pierre ---------- Pha
Jenkins, Rush, Pierre ---------- Eng
Jensen, Carl, Pierre ---------- PreF
Jensen, Melvin, Stockholm ---------- Ag
Johnson, Adele, Centerville ---------- HEc
Johnson, Arthur, Brookings ---------- Eng
Johnson, Charles H., Alexandria ---------- GS
Johnson, Irwin, Brookings ---------- PRJ
Johnson, Richard, Onida ---------- Pha
Johnson, Stanford, Pierre ---------- Eng
Johnson, Vernon, Hetland ---------- Ag
Johnston, Ellen, Brookings ---------- GS
Jones, Robert, Milbank ---------- GS
Jordan, Everett, Rosebud ---------- Ag
Judy, Raymond, Forestburg ---------- Ag
Kantowski, Francis, Pierre ---------- Eng
Kaske, Darwin, Chester ---------- AE
Kehrwald, Lawrence, Ramona ---------- AE
Kiehlbauch, Virginia, Avon ---------- HEc
Klebsch, Donald, Brentford ---------- PreF
Kleinsasser, Kurt, Freeman ---------- GS
Klinefelter, Vibert, Brookings ---------- PreF
Klinkel, Vernon, Canistota ---------- GS
Klosterman, Paul, Presho ---------- Eng
Klukas, Frederick, Strandburg ---------- GS
Knight, William, Pierre ---------- Eng
Knorr, Robert, Marion ---------- Pha
Knox, Dale, Canistota ---------- Ag
Koehler, Earl, Watertown ---------- Pha
Kotas, John, Tripp ---------- AE
Kretchmer, Raymond, Mitchell ---------- PreF

Kuhle, Marc, Sioux Falls ---------- Eng
Kumlien, Ruth, Brookings ---------- HEc
Kvam, Carlyle, Estelline ---------- GS
Larsen, Jules, Elk Point ---------- Ag
Larson, Geraldine, Bryant ---------- HEc
Larson, Harriet, Brookings ---------- HEc
Lauters, Leonard, Brookings ---------- GS
Lembke, Melvin, Chamberlain ---------- Eng
Lemon, Hazel, Beresford ---------- HEc
Lentz, Mary, Brookings ---------- HEc
Leonard, Claude, Oldham ---------- PRJ
Lewis, Norma, Brookings ---------- PRJ
Lewis, Robert, Lake Preston ---------- PRJ
Lien, Ray, Platte ---------- AE
Livermore, Lucille, Van Metre ---------- GS
Lombard, Robert, Brookings ---------- Ag
Low, John, Watertown ---------- GS
Lueders, James, Henning, Minn. ---------- Pha
Lundy, Hildur, Brookings ---------- HEc
MacDougal, Gladys, Hamilton, Ohio ---------- GS
MacMillan, Horace, Brookings ---------- GS
Malcolm, John, Newell ---------- AE
Mall, Helen, Brookings ---------- HEc
Marras, Tony, Pierre ---------- Eng
Martin, Arlo, Iroquois ---------- Ag
Martin, Edward, Pukwana ---------- Eng
Martin, Marianne, Watertown, ---------- GS
Martin, Norman, Pukwana ---------- Ag
Martin, Ormie, Lead ---------- PreF
Martinson, Eugene, Brookings ---------- AE
Marvin, Delpha, Brookings ---------- PRJ
Mattison, William, Brookings ---------- GS
Maxwell, Lucille, Mitchell ---------- PRJ
May, Helene, Flandreau ---------- HEc
Means, Harold, Brookings ---------- IA
Meeker, Grant, Ithaca, N. Y. ---------- Eng
Mernaugh, Leroy, Letcher ---------- AE
Merritt, Thelma, Rapid City ---------- GS
Miller, Clyde, Frankfort ---------- PRJ
Miller, George, Madison ---------- AE
Mix, Stanley, Brookings ---------- GS
Moritz, Beverly, Ipswich ---------- HEc
Mueller, Arndt, Big Stone City ---------- Ag
Munson, Joyce, Whitewood ---------- HEc
Murphy, Mary Helen, Rapid City ---------- GS
Narum, George, Brookings ---------- GS
Natvig, Gerald, Kimball ---------- Pha
Nearhood, Elvin, Ethan ---------- Eng
Nett, Otto, Webster ---------- GS
Newell, Lloyd, Alcester ---------- Ag
Newell, Marion, Brookings ---------- GS
Newman, Donald, Lake Preston ---------- Ag
Nielsen, Eleanor, Huron ---------- GS
Noonan, John, Watertown ---------- Ag
Norby, Walter, Brookings ---------- GS
Nysven, Lonnie, Fort Pierre ---------- GS
O'Connell, Camila, Madison ---------- HEc
Oddy, Robert, Woonsocket ---------- PRJ
Olsen, Estel, Deadwood ---------- HEc
Olson, Edward, Brookings ---------- GS
Olson, Ernest, Lake Norden ---------- AE
Olson, John, Volga ---------- GS
Oppelt, Alexander, New Ulm, Minn. ---------- GS
Ordung, Franklin, Luverne, Minn. ---------- Eng
Orms, Harriette, Sioux Falls ---------- NEd
Ott, Bernice, Parkston ---------- HEc
Overgaard, Carol, Centerville ---------- HEc
Overgaard, Lloyd, Centerville ---------- Ag
Parkinson, Carroll, Highmore ---------- Ag
Paterson, David, Lake Preston ---------- Ag
Perso, Ralph, Brookings ---------- Ag
Peterson, Donald, Arlington ---------- GS
Peterson, Pearl, Centerville ---------- GS
Peterson, Vernon, Brookings ---------- GS
Peterson, Willard, Beresford ---------- Eng
Pfaender, George, Brookings ---------- GS
Pflueger, Clayton, Ortonville, Minn. ---------- Ag
Pickup, Leone, Randolph, N. Y. ---------- Ag
Pietz, Emil, Tripp ---------- AE
Pilgram, William, Brookings ---------- Eng
Pittenger, Vance, Brookings ---------- Eng
Pitzen, Claire, Fort Pierre ---------- Pha
Polack, Virginia, Hiawatha, Kan. ---------- GS
Potter, Richard, Andover ---------- Eng
Pratt, Charles, Sioux Falls ---------- Eng
Price, Jack, Milbank ---------- PRJ
Punnell, William, Flandreau ---------- Eng
Purcell, Richard, Kimball ---------- Pha
Quast, Anita, Menno ---------- GS
Rath, Norman, Madison ---------- Ag
Rath, Robert, Madison ---------- Ag
Ray, Vivian, Brookings ---------- Pha
Rea, Glenn, Garden City ---------- Ag
Reed, George, Pierre ---------- Ag
Reeve, John, Pittsfield, Mass. ---------- Eng
Rehorst, Donald, Belle Fourche ---------- PreF
Risch, Lester, Elkton ---------- Ag
Ristvedt, Norval, Florence ---------- Ag
Roderick, Delbert, Arlington ---------- Eng
Roggeveen, Leonard, Sioux Falls ---------- Eng
Ronan, Marvin, Ft. Pierre ---------- Pha
Rosengren, Norval, Brookings ---------- PreF
Rude, Vernon, Brookings ---------- GS
Rumple, Genevieve, Arlington ---------- GS
Ruth, Thomas, Pierre ---------- Eng
Ryan, John W., Kimball ---------- PRJ
Sarver, Haskell, Brookings ---------- Pha
Schanck, George, Bryant ---------- Ag
Schladweiler, Clarence, Farmer ---------- Ag
Schmid, Bernita, Beresford ---------- HEc
Schoenwether, Helen, Brookings ---------- GS
Schraudenbach, Frank, Sioux Falls ---------- Ag
Schroeder, Allen, Aberdeen ---------- PRJ
Schroeder, Leo, Bridgewater ---------- Eng
Schroeder, Martin, Bridgewater ---------- PRJ
Schultz, Thomas, Brookings ---------- Eng
Schwartz, Ella, Wolsey ---------- HEc
Seim, Ellsworth, Vienna ---------- Ag
Severson, Curtis, Brookings ---------- GS
Sharp, Daniel, Brookings ---------- Eng
Shea, Peggy, Brookings ---------- HEc
Shenk, Dorothy, Clark ---------- HEc
Shinnick, Lloyd, Brookings ---------- Ag
Shubeck, Fred, Centerville ---------- Ag
Simmons, Robert, Fulton ---------- Eng
Simpson, Verne, Madison ---------- GS
Sisson, Lowell, Belle Fourche ---------- Eng
Skow, Wayne, Westport ---------- AE
Smith, Donald, Belle Fourche ---------- Ag
Smith, Maxine, Lemmon ---------- Pha
Smith, Shirley, Flandreau ---------- GS
Soderlind, Marj. Lake Benton, Minn. ---------- HEc
Solem, Elroy, Astoria ---------- Ag
Sorensen, Harold, Brookings ---------- PreF
Sorenson, Kenneth, Madison, Minn. ---------- GS
Spear, Dale, Flandreau ---------- Eng
Stablein, Jerry, Aberdeen ---------- GS
Stalhiem, Ole, Sherman ---------- GS
Stene, Evelyn, Alcester ---------- Pha
Stevens, Donald, Ipswich ---------- GS
Stevens, Ralph, Amherst ---------- Ag
Stevens, Roland, Amherst ---------- Ag
Stewart, Earl, Brookings ---------- GS
St. John, Roger, Kyle ---------- Eng
Streeter, Robert, Huron ---------- GS
Sundstrom, Leslie, Beresford ---------- Eng
Swanson, Kenneth, Brookings ---------- PRJ
Swenson, Gordon, Brookings ---------- Eng
Talley, Dee, Forestburg ---------- Ag
Teare, Iona, Rosholt ---------- GS
Terkelsen, Orville, Volga ---------- GS
Theisen, Orval, Erwin ---------- Eng
Thielsen, Marvin, Egan ---------- Ag
Thompson, Lloyd, Bruce ---------- Ag

Thompson, Wendell, Brookings ------ Eng
Thomsen, Rose, Lake Preston ------- GS
Tilley, Jean, Spencer ------- Ag
Thornton, Loren, Harrisburg ------- Ag
Tobin, Martin, Mobridge ------- PRJ
Touw, Clarence, Platte ------- Eng
Trantina, Ernest, Wagner ------- Pha
Tripp, Francis, Nemo ------- PreF
Trippler, Francis, Canova ------- Pha
Trotter, Hazel, Junius ------- HEc
Troupe, Lorene, Colman ------- GS
Tystad, Wilda, Howard ------- PRJ
Vrooman, Milford, Eagle Butte ------ Ag
Wagner, Lloyd, Garden City ------- Pha
Walter, Emogene, Ethan ------- PRJ
Walton, Lucille, Brookings ------- GS
Waltz, Rex, Brookings ------- Eng
Walz, Alvin, Revillo ------- Ag
Warne, Maynard, Blunt ------- GS
Warne, Walter, Pierre ------- GS
Webster, Keith, Woonsocket ------- Eng
Weidenbach, Waldo, Parkston ------ Eng
Welch, Helen, Ethan ------- HEc
Wells, Marguerite, Watertown ------ GS
Wennblom, Evelyne, Hudson ------- HEc
Wentz, Raymond, Emery ------- Eng
Werts, Jack, Hartley, Ia. ------- Pha
Weter, Winifred, Zenda, Wis. ------ GS
Wetterburg, Avis, Brookings ------- HEc
Weyl, Richard, Hot Springs ------- Pha
Wheaton, Iva, Watertown ------- GS
Whitney, Robert, Huron ------- PRJ
Wild, Wayne, Woonsocket ------- Eng
Wilson, Beatrix, Wessington Springs HEc
Wilson, Charles, Brookings ------- Eng
Wilson, Winston, Brookings ------- Ag
Wintrode, Virgil, Parker ------- PreF
Wood, Anne, Redfield ------- PRJ
Wrenn, Elden, Dell Rapids ------- Ag
Wulff, Frank, Brookings ------- Ag
Wulff, Marcus, Kimball ------- Ag
Wylie, Delbert, Frederick ------- AE
Young, Jim, Lennox ------- Ag
Young, Leroy, Aurora ------- Eng
Young, Rex, Brookings ------- PreF
Zard, Gifford, Alexandria ------- Ag
Zebell, Marvin, Estelline ------- GS
Zehnpfennig, Louis, Parkston ----- PRJ

SPECIALS

Abel, Oscar, Brookings ------- PRJ
Anderson, Pearl, Brookings ------- GS
Anderson, W. P., Brookings ------- PRJ
Antoine, Aline, Brookings ------- GS
Bonhorst, Leonard, Van Metre ------ AE
Byg, Cecil, Hartford ------- GS
Church, Lilebelle, White Lake ------- GS
Donelson, Lorna, Brookings ------- GS
Doner, Cameron, Brookings ------- PRJ
Ford, Mary, Redfield ------- GS
Hendrickson, Florence, Brookings ---- GS
Jensen, Edith, Brookings ------- GS
Korstad, Esther, Brookings ------- GS
Korzan, Gerald, Kimball ------- Ag
Larsen, Hazel, Brookings ------- GS
Larson, Theodore, Platte ------- Ag
LeGeros, Katherine, Brookings ------ GS
Maher, Louella, Brookings ------- GS
Martelle, Lester, Brookings ------- Ag
McKibben, Dorothy, White ------- HEc
McKnight, Rolland, Brookings ------ GS
Miller, Leila, Canova ------- GS
Mitchell, Arthur, Brookings ------- GS
Nachicas, Angeline, Minneapolis, Minn. GS
Norby, Marcia, Brookings ------- GS
Olson, Lorraine, Brookings ------- GS
Olson, Francis, Virgil ------- GS
Potas, Roy, Brookings ------- GS
Selvig, Edna, Brookings ------- GS
Shearer, Mildred, Brookings ------- HEc
Sievers, Glenn, Wessington ------- Ag
Weygint, Peggy, Brookings ------- GS

UNCLASSIFIED

Pfaender, Emily, Brookings ------- GS

SCHOOL OF AGRICULTURE

FOURTH YEAR

Abelseth, Harold, Ralph
Anderson, Helen, Clark
Balo, Kenneth, Spearfish
Byg, Erma, Hartford
Edwards, Earl, Bachus, Minn.
Erlandson, Earle, Ellingson
Espeland, Gladys, Glenham
Gilles, Charles, Viewfield
Hadeler, Helen, Ree Heights
Hanson, Robert, Bison
Hoefer, Guy, Strool
Hook, William, Oelrichs
Jensen, Hazel, Erwin
Kasuske, Beatrice, Twin Brooks
Kurtz, Kennith, Bushnell
Klukas, Albert, Strandburg
Larson, Curtis, Gettysburg
Lebert, Marvin, Grover
Lebert, Howard, Grover
Loftsgard, Kermit, Sorum
Lundquist, Kenneth, Beresford
Menzel, Lyle, Morristown
Miller, Gordon, Lodgepole
Millett, Harold, Reva
Moxon, Duane, Brookings
Nielsen, John, Bruce
Olson, Arthur, Huron
Palmer, Earl, Strool
Rossel, Merle, Lake Preston
Sagness, Vernon, Sherman
Samuelson, Albert, Faith
Schuelke, Everett, Mud Butte
Scofield, Howard, Sorum
Schwartz, George, Huron
Shrader, Gussie, Chalk Butte
Simons, Dennis, Victor
Stainbrook, Alice, Stoneville

Stene, Arnfin, Canton
Sorenson, Roy, Arlington
Stenson, Leslie, Oldham
Thomas, Pearl, Strandburg
Vander Does, Adrian, Twin Brooks
Workman, George, Brookings

THIRD YEAR

Arbogast, Adeline, Miller
Baake, Arla, Nunda
Berge, Marvin, Wagner
Bly, John, Brandon
Biggerstaff, Dale, Huron
Born, Maynard, Hazel
Bockman, William, Springfield
Brixely, Norris, Strool
Carter, Verna May, Goodwin
Caldow, Adam, Huron
Christianson, Arne, Sioux Falls
Christensen, Raymond, Twin Brooks
DeHaan, Andrew, Geddes
DeJong, Lue, Eagle Butte
Dunn, Kenneth, Harding
Ehlert, Donald, Goodwin
Etbauer, John, Ree Heights
Glover, Virginia, Porcupine
Glover, Robinia, Porcupine
Goodelk, Phillip, Wakpala
Grieme, Lyle, Elkton
Hale, Edmond, Clough
Halstead, Genevieve, White
Hay, Everett, Lake Preston
Hay, Lois, Lake Preston
Herrick, William, Ipswich
Janssen, Francis, Goodwin
James, Lyle, DeSmet
John, Naomi, Norris
Johnson, Lyle, De Smet
Kelly, Lloyd, Strool
Kennedy, Oran, Bushnell
Klatt, Elton, Clark
Lamport, Vanlew, Hecla
Levisen, John, Stockholm
Liemohn, Lillian, Estelline
Massey, Bruse, Jefferson
McKeown, Gordon, Bushnell
Meals, Hazel, Bridger
Menzel, Arnold, Morristown
Motter, Ruth, Scenic
Nagel, Ann, Gettysburg
Neil, Arnold, Midland
Nelson, Myron, Lake Preston
Norris, Lathan, DeSmet
Olson, Clement, Glenham
Papousek, George, Spearfish
Peterson, Leonard, Bison
Polzin, Orville, Hazel
Polzin, Winfred, Hazel
Raymond, Clinton, Chalk Butte
Rossel, Florence, Lake Preston
Sanders, William, Pactola
Schumaker, Peter, Aberdeen
Serck, Francis, Altamont
Snook, Harry, Elm Springs
Sweeny, Mike, Twin Brooks
Sweeny, Teresa, Twin Brooks
Terca, Leo, Presho
Trapp, Vernon, Milbank
Updike, Robert, Conata
Van DeMark, Margaret, Union Center
Vander Does, Marian, Twin Brooks
Wammen, Dorothy, Gill
Wammen, William, Gill
Wellhouse, Christine, Clear Lake
Wendschuh, Ella, Marshall, Minn.
Wendschuh, Elsie, Marshall, Minn.
Woodhouse, Carl, Hazel
Workman, Anna, Brookings
Zimprich, Eugene, Grover

SECOND YEAR

Allen, Alvin, Wessington
Bates, Mary, Brookings
Benedickt, James, Kyle
Bitner, Ralph, DeSmet
Buck, Charlotte, Arlington
Coughlin, Robert, Elkton
Culhane, John, Elkton
Danielson, Leslie, Lake Preston
Dillon, Ivan, Harding
Dillon, Vernon, Harding
Docter, Rhowena, Brookings
Enger, Patrick, Ree Heights
Giles, Richard, Lake Preston
Gunderson, Alice, Renner
Hauser, Arlene, Faith
Helsel, Mabel, Rumford
Howard, I. T. Jr., Miller
Johannesen, Ella, Quinn
Johannesen, Esther, Quinn
Johnson, Mathilda, Sorum
Jorgenson, Waldo, Hoover
Klatt, Arretta, Clark
Leger, Marion, Harding
Leger, Marjorie, Harding
Lenerville, Reta, Cash
Leraas, Russell, Colman
Lohan, Willard, Arlington
Luttman, Gerhard, Flandreau
Miller, Viola, Coal Springs
Neil, Thurston, Midland
Norris, Melvin, DeSmet
Olson, Irving, Hermosa
O'Rourke, Raymond, Highmore
Palmer, LaVerne, Strool
Richards, Ernest, Ipswich
Schultz, Marvin, Tulare
Snook, Clair, Elm Springs
Sorenson, Frances, Arlington
Thomas, Ruth, Strandburg
Thompson, Lloyd, Lodgepole
Tollgaard, Roymnd, Ward
Tryon, Robert, Hoover
Wahl, Elsie, Clough
Wahl, Evelyn, Clough
Watt, Allan, Estelline
Wendschuh, Kurt, Marshall, Minn.
Wenzel, Dorothy, Bixby
White, Rita, Scenic
Willey, Orman, Strool

FIRST YEAR

Abernathy, Franklin, Gann Valley
Abernahty, Jerrold, Gann Valley
Bachand, Earl, Sturgis
Bear, Harold, Mission Ridge
Berge, Elden R., Wagner
Bjerke, Gordon, Reeder, N. D.
Dunlavy, Russell, Arlington
Etbauer, Loretta, Ree Heights
Etbauer, Marian, Ree Heights
Foster, Ruth, Meadow
Gilbert, Keith, Hitchcock
Giles, Eugene, Lake Preston
Halstead, Wanita, White
Harrison, Mabel, Scenic
Hopkins, Donald, Faith
Huiner, Henry, Ellingson
Johnson, Gladys, Altamont
Johnson, Harold, Altamont
Johnson, Irene, Altamont
Kary, William, Kary
Kellogg, Warren, Haydraw
King, John, Gann Valley
Klukas, Arline, Strandburg
Kverne, Palmer, Clark
Kuhlman, Martin, Grover
Lamport, Bonnie Rae, Hecla
Larson, Vernon, Gettysburg
Luttman, Benhard, Flandreau
Madsen, Maurice, White
Miller, Dale, Elkton
Muhm, Virgil, Oelrichs
Murphy, R. C., Cash
Mustar, Russell L., Hartford
Nelson, Maurice, Lake Preston
O'Rourke, Charles, Highmore
Parsley, Ralph, Brookings
Peterson, Gertrude, Lodgepole
Peterson, Stella, Bison
Randall, Jack, Chance
Rhody, Mervin, Toronto
Runge, Royal H., Blunt
Runge, Richard, Blunt
Schultz, Henry, Jr., Bruce
Scofield, Dale, Sorum
Swenson, Merle, Garretson
Tvedt, William H., Brandt
Updike, I eo, Conata
Warner, Margaret, Lodgepole
Weiss, Edgar, Hetland
Williams, George, Piniele, Mont.
Workman, Vida, Brookings

AVIATION MECHANICS

Barber, Edgar, Owanka
Blackford, Robert, DeSmet
Bloker, Darwin, Wentworth
Cline, Wilfred, Canova
Duck, LuVerne, Faith
Forsyth, Thomas, Fort Meade
Hoyer, Bernard, Wagner
Johnson, Clarence, Brookings
Martin, Ormie, Lead
Meyer, Gustav, Spencer
Ronan, Marvin, Fort Pierre
Seeley, Donald, Whitewood
Smaagaard, John, Madison, Minn
Smith, Homer, Bend
Tosch, Orville, Groton
Turner, Bill, Faulkton

CREAMERY SHORT COURSE

Eddy, Clifford, Flandreau
Gaughen, Leroy, Lead
Hansen, Virgel, Wakonda
Keane, C. A., Watertown
Pickup, J. Leone, Randolph, N. Y.
Schultz, Melvin, White
Sommerfeld, Herbert, Tripp
Sunset, Randolph, Wallace
Tompkins, Wesley, Langford

EVENING TRADE SCHOOL

EVENING TRADE SCHOOL—
Baker, Leslie, Bruce
Balo, Kenneth, Spearfish
Cook, Chet, Bruce
Envoldson, Ernest, Brookings
Green, John, Brookings
Hansen, Clarence, Sinai
Hansen, Robert, Bison
Johnson, Wilbur, Brookings
Jones, Loren, Brookings
Lee, Oscar, Volga
Mittan, Fred, Bushnell
Moe, Dr. C., White
Papousek, George, Spearfish
Peterson, V., Brookings
Prussman, Ralph, Brookings
Starksen, Dr. A. F., Brookings
Sween, Alfred, Brookings
Taken, J. R., Bruce
Taken, Leroy, Bruce
Tilja, Paul, Bruce
Traner, Gwen, Brookings
Wells, Cassius, Brookings
Wright, Walter, Wentworth

RURAL PASTORS SHORT COURSE

Arnot, J. K., Willow Lake
Bennett, L. V., Eagle Butte
Chord, Robert, Loyalton
Cobb, C. M., Farmingdale
Doolittle, G. A., White
Ewing, J. E., Brookings
Haun, Ray A., Zell
Helsman, F. B., Brookings

Hill, T. O., Whiterock
Holland, A. J., Scotland
Houghton, A. V., Buffalo
Houghton, Mrs. A. V., Buffalo
Juell, H. C., Aberdeen
Juell, Mrs. H. C., Aberdeen
Jurgensen, Wm, Trout
Machamer, E. O., Gary
Mercier, H. A., Badger
Mercier, Mrs. H. A., Badger
Nowell, Thomas, Bryant
Olson, Ole, Union Center
Page, F. C., Clark
Prewitt, W. E., Viborg
Ross, G. J., Estelline
Russell, W. W., Humboldt
Stevenson, W. J., Bruce
Torbert, James, Camp Crook
Warkentin, J. D., Wood
Warkentin, Mrs. J. D., Wood
Wegner, R. W., Clear Lake
Whiteside, E. E., Howard
Wilkenson, J. E., Doland
Wilson, Mark, Elk Point
Wilson, N. G., Herrick
Wold, H. S., Witten

SUMMER SCHOOL, 1936

Albrecht, Ruth, Brookings
Anderson, Arlene, Brookings
Askew, Marguerite, Brookings
Austin, Guy, Newell
Baddeley, Donald, Watertown
Bankert, Zetta E., Brookings
Bartelt, Robert H., Brookings
Bartholomew, George, Philip
Bender, Lyle, Bradley
Berg, Iver C., Holmquist
Bibby, Mary Ellen, Brookings
Bietz, Emil, Redfield
Bietz, Mrs. Emil, Redfield
Blasdell, Melvin G., White
Bortnem, L'Vera, Volga
Boughton, George G., Brookings
Bromberg, Nick, Sioux Falls
Brown, Ada, Trent
Brown, Dona, Brookings
Brown, Earl J., Henry
Brudvig, N. A., Lyons
Bunday, Ray A., Brookings
Bunkers, Irene, Colman
Burke, Lillian, Sturgis
Burr, Ella, Brookings
Callihan, Marcella, Van Metre
Callihan, Welland, Van Metre
Carlton, Gerald, Ethan
Carpenter, Osmer, Brookings
Cauley, Virginia, Brookings
Claussen, Mildred, Brookings
Cochrane, Maynard, Gary
Coffey, Robert E., Brookings
Cool, A. Helene, Redfield
Coulson, A. A., Lake Preston
Coulson, Charalette, Lake Preston
Crothers, Lucille, Brookings
Cunningham, Bernard, Highmore
Cunningham, Beryl, Estelline
Dahlen, Bernard, Oldham
Daniels, E. J., Brookings
DeHaan, Leigh Anna, Geddes
DeLong, Henry, H., Brookings
DeMers, Mettel C., White Lake
Dietzman, Burton D., Wessington Springs
Dokken, Charlotte, Brookings
Eberle, Gretchen, Brookings
Eidem, Dorothy, Brookings
Elliott, Evelyn, Frederick
Englert, Anna, Milbank
Fick, Lenore, Miller
Finley, M. R., Brookings
Forby, Mary, Onaka
France, Wm. G. Canistota
Frothinger, Helen, Garden City
Gilbertson, Gurina, Brookings
Grattan, George W., Huron
Gray, Gordon, Madison
Greeno, Kenneth, Britton
Gross, Dan, White
Gullickson, Lillian E., Flandreau
Gunsalus, Anna, Brookings
Guptill, Eva C., Springfield
Haber, Donald L., White
Hauff, Lucille, Brookings
Hepner, Harold, Brookings
Herman, Robert, Aberdeen
Herold, Roy, Brookings
Hertz, Gerhart, Colman
Hesby, Jeanette, Arlington
Hill, Arley, Brookings
Hill, Marian, Aberdeen
Hoffelt, May, Estelline
Hofstad, Louise, Clark
Holland, Ann, Scotland
Hollen G. Lynn, Brookings
Holmes, Leslie, Brookings
Horrigan, Lester D., Brookings
Huff, Wendell R., Elkton
Hume, David, Brookings
Hutton, Gladden, Brookings
Hutton, P. M., Delmont
Isaksen, Laurena, Brookings
Janssen, Elane, Castlewood
Johnson, Florence V., Bruce
Johnson, Mae, Hayti
Johnson, Morse, Brookings
Johnson, Norman, Sinai
Jones, Mark, Brookings
Joy, Edgar, Cottonwood
Karstens, Emil, White
Keenan, Agnes, Flandreau
Kenzy, Sam, Iona
Klukas, Frederick, Strandburg
Knutson, Achsah (Mrs.), Brookings
Koop, Elmer, Mitchell
Korstad, Esther, Brookings
Lombard, Norma, Brookings
Lansing, Luadda, Brookings
Lees, Grace, Brookings
Lentz, Ruth, Brookings
Longrie, Leverett, Brookings
McCue, Myrtle, Flandreau
McGibney, Isabel, Pierre
McGovern, Julia, Aberdeen
McLoughlin, Dorothy, Mitchell
Madsen, Emil, Dell Rapids
Mann, Pauline, Springfield
Marvin, Lennice, Brookings
Mayland, Nathelle, Brookings
Megard, Kathryn, Astoria
Metcalfe, Melvern, Sioux Falls
Mettle, Maree, Wagner
Meyer, Raymond, Carthage
Miller, Clyde W., Frankfort
Miller, Paul, Platte
Minard, Adah E., Watertown
Muller, N. T., Dell Rapids

Munson, Anna Lou, Brookings
Murphy, Celesia, Brookings
Nelson, Arthur L., Colman
Nesset, Gladys, Amherst
Newell, Marion, Brookings
Norby, Ruth, Brookings
Norby, H. Thomas, Brookings
O'Connor, Monica, Bruce
Olson, Clarence, Doland
Olson, Richard, Flandreau
Overvaag, Genevieve, Dell Rapids
Patridge, Eileen, Milbank
Peirce, Gloria, Sioux Falls
Perley, Deloris, Flandreau
Petheram, Vera, Rutland
Pickett, Ruby, Brookings
Pike, Dorothy, Aurora
Pilling, Harriet, Flandreau
Pitcher, Fay L., Artesian
Price, Joe, Opal
Purdy, Betty Anne, Brookings
Rawlins, R. E., Pierre
Relf, Esther, Colman
Rewey, Kathryn, White
Richardson, Marion, White
Rosenstock, Edna, Parade
Rusch, Alice M., Bancroft
Ruth, Wesley H., Pierre
Sample, Gene, Brookings
Sanderson, E. Elmer, Brookings
Scanlan, Eileen, Howard
Scanlan, Louis, Volga
Schaefer, Cathryn, Brookings
Scheibel, Tesse D., Brookings
Shuck, O. A., White
Simon, Verna M., Brookings
Simonson, Marlin, Brookings
Slocum, James F., Colman
Smith, Dorothy P., Conde
Sorenson, Audrey, Brookings
Spillum, Mildred, Brookings
Staley, Newton C., Canova
Staudenraus, Clara, Brookings
Steffes, Robert, Turton
Swift, Jeanette, Arlington
Taft, Burns E., Chamberlain
Tedin, Kenneth, Rosholt
Terpening, Kathryn, Huron
Thompson, Tyrus, Tabor
Thormodsgaard, Noble P., Irene
Thue, Ruth, Lake Norden
Tisher, Mildred, Amherst
Tjostem, Marvin, Lidgerwood, N. D.
Tobiassen, Aileen, Draper
Torguson, Thelma, Sioux Falls
Uken, Irene, Springfield
Ullman, Doris, Brookings
Vanden Berg, Bernice, Volga
Van Tassle, Charles, Holabird
Voss, Fordyce, Clark
Wake, Selmer, Pierpont
Watt, A. L., Redfield
Webster, Kathryn, Brookings
Weiseth, Mildred, Colman
Wicks, Reuben, Carpenter
Williams, Anne, Bison
Wilson, Ruth, Brookings
Woodruff, Ellen, Brookings
Woodruff, Joyce, Brookings
Woodward, H. W., Emery
Wright, Elizabeth, Brookings

SUMMARY 1936-37

Academic Year 1936-37	Men	Women	Total	Grand Total
Post Graduates	39	11	50	
Seniors	78	39	117	
Juniors	127	45	172	
Sophomores	226	79	305	
Freshmen	310	102	412	
Specials	13	19	32	
Total	739	295	1088	
Summer Session 1936				
Collegiate	85	101	186	1274
Total Collegiate June 1936 to June 1937				
Non-Collegiate	0	2	2	2
Total Summer Session 1936	85	103	188	
Unclassified	0	1	1	1
School of Agriculture (four-year secondary)				
Fourth year	34	9	43	
Third Year	50	21	71	
Second Year	28	21	49	
First Year	38	13	51	
Total	150	64	214	214
Short Courses				
Aviation Mechanics (72 weeks)	16	0	16	16
Creamery Short Course (12 weeks)	9	0	9	9
Evening Trade School (18 weeks)	23	0	23	23
Rural Pastors' Short C'rse (2 weeks)	30	4	34	34
Junior Short Course (1 week)	86	150	236	236
Grand Total	1192	617	1809	1809
Names Repeated	29	40	69	69
Net Total	1163	577	1740	1740

Extension Service		
Enrollment in Boys' and Girls' 4-H Clubs	11,657	
Attendance at 4-H Club Camps	2,767	
Enrolled in Leaders' Training Courses	1,989	
Number participating in monthly program service for Rural Organization	8,586	
Enrollment in Home Extension Demonstration Series	16,349	
Attendance at meeting held by Home Extension Agents	66,885	
Attendance at meetings held by County Extension Agents	129,098	
Enrolled in the Cow Testing Associations	44	
Total Extension Service	237,375	
Grand Total		239,115

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