

2-1954

College Catalog 1953-1954

Iowa State Teachers College

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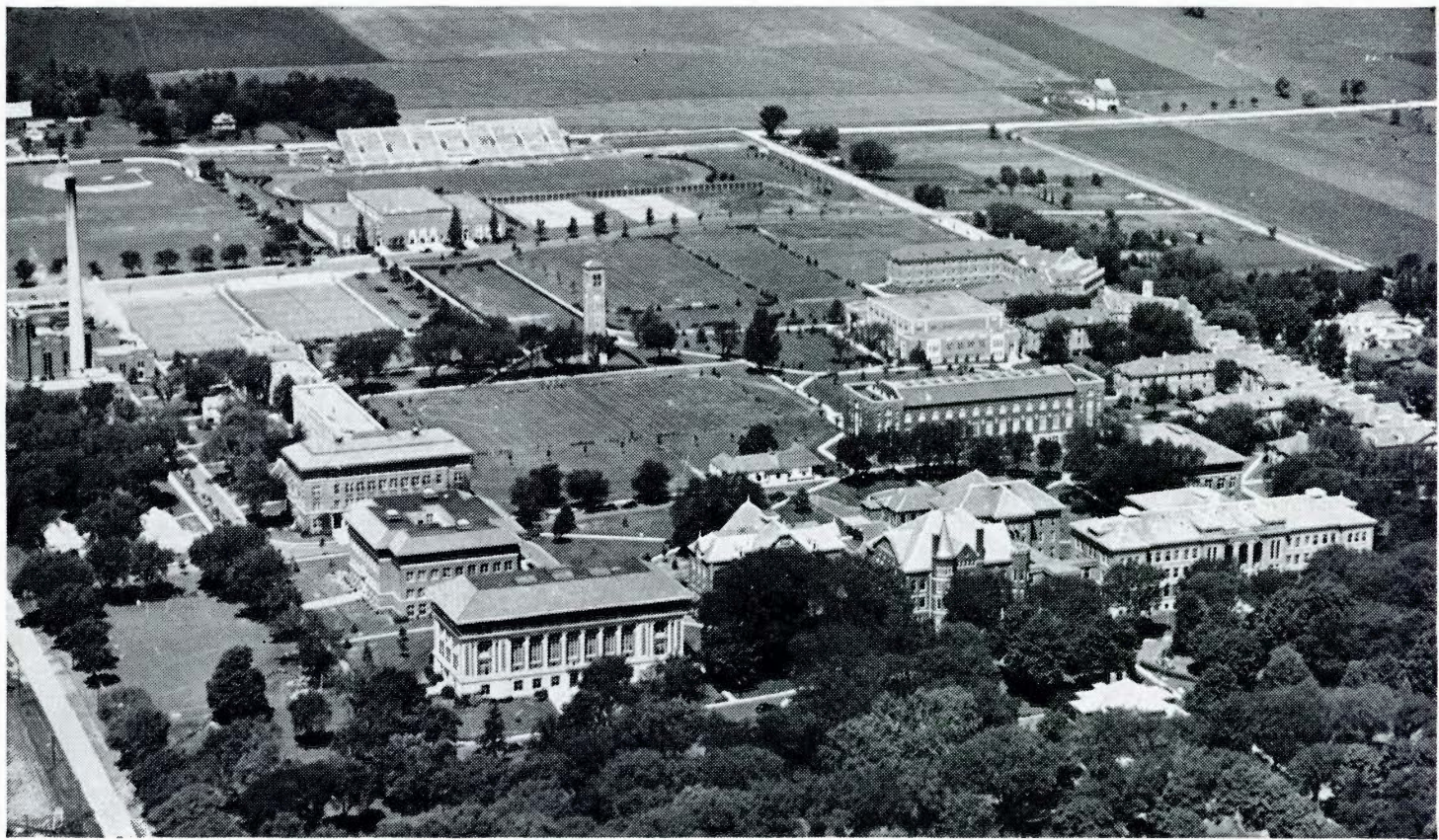
Bulletin

OF THE
IOWA STATE TEACHERS
COLLEGE

CATALOG ISSUE



FEBRUARY 1954 . . . CEDAR FALLS, IOWA



IOWA STATE TEACHERS COLLEGE, CEDAR FALLS, IOWA

BULLETIN OF THE
I O W A
State Teachers
C O L L E G E

CATALOG ISSUE
1953-54

INCLUDING ANNOUNCEMENTS FOR 1954-55



Issued Quarterly. Published by the Iowa State Teachers College. Entered as second-class mail matter, August 31, 1912, at the post office at Cedar Falls, Iowa, under the Act of August 24, 1912.

VOL. LV, No. 2

FEBRUARY, 1954

"There never has been in the world's history a period when it was more worthwhile to be a teacher than in the twentieth century; for there was never an age when such vast multitudes were eager for an education, or when the necessity of a liberal education was so generally recognized."—WILLIAM LYON PHELPS.

To educate its students adequately for responsible positions in the public schools; to assist its graduates effectively in securing such positions; to work with the public schools on professional problems; to advance educational method by retaining what is proven while testing what is new; and to stimulate enthusiasm and respect for the important profession which it serves.

These are the objectives to which the Iowa State Teachers College is dedicated.

To Our Future Students

The Iowa State Teachers College realizes that a college catalog is hard to understand and difficult to use. It hopes that this page and those immediately following will help you find the information that you seek.

Steps in Preparing for Admission

1. Application for Admission

Fill in form below and mail to the REGISTRAR.
See page 37.

2. Transcripts

Have your high school principal send a Certificate of High School Credits to the REGISTRAR. If you attended a high school outside of the State of Iowa, write to the REGISTRAR and ask for a certificate blank for your high school principal to use. If you have attended another college, have an official transcript of your college credits sent to the REGISTRAR.

3. Room Reservations

All students write to the Dean of Students and ask for room reservation information and a reservation card.

1954

IOWA STATE TEACHERS COLLEGE Cedar Falls, Iowa

C { Mr. ☐ Date.....195.....
H {
E { Mrs. ☐
C {
K { Name { Miss ☐

Street and No. or RFD.....City.....
County..... State.....

I am considering entering Teachers College () FALL Quarter () WINTER
() SPRING () SUMMER

Please send me: An application for admission and Health Record Blank . ()
Information on housing ()
A Summer Bulletin ()
A Graduate Bulletin (issued only in even-numbered years) . ()

I would like additional information concerning.....



First Class
Permit No. 29
Sec. 34.9 P. L. & R.
Cedar Falls, Iowa

BUSINESS REPLY CARD

No Postage Required If Mailed in United States

POSTAGE WILL BE PAID BY—
IOWA STATE TEACHERS COLLEGE
CEDAR FALLS
IOWA

Office of the Registrar



Iowa State Board of Education

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DAVID A. DANCER, Secretary

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RICHARD H. PLOCK, Burlington		

MRS. WILLARD ARCHIE, Shenandoah	}	Terms expire July 1, 1957
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Building and Business Committee

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MRS. WILLARD ARCHIE CLIFFORD M. STRAWMAN

C. L. FREDRICKSEN

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Calendar, 1954-55

Summer Session, 1954

June 10, Thursday	—Registration, 8:00 a. m. to 4:00 p. m.
June 11, Friday	—Instruction begins, 8:00 a. m.
July 5, Monday	—Holiday
Aug. 18, Wednesday	—Session ends, 5:00 p. m.

Fall Quarter, 1954

Sept. 7, 8, 9, Tuesday, Wednesday, Thursday	—Orientation and registration of new students, 8:00 a. m.
Sept. 9, Thursday	—Registration of former students, 8:00 a. m. to 4:00 p. m.
Sept. 10, Friday	—Instruction begins, 8:00 a. m.
Nov. 24, Wednesday	—Thanksgiving recess, begins 12:00 noon
Nov. 29, Monday	—Instruction resumes, 8:00 a. m.
Dec. 3, Friday	—Quarter ends, 5:00 p. m.

Winter Quarter, 1954-55

Dec. 6, Monday	—Registration, 8:00 a. m. to 4:00 p. m.
Dec. 7, Tuesday	—Instruction begins, 8:00 a. m.
Dec. 17, Friday	—Christmas recess begins, 5:00 p. m.
Jan. 3, Monday	—Instruction resumes, 8:00 a. m.
Mar. 10, Thursday	—Quarter ends, 5:00 p. m.

Spring Quarter, 1955

Mar. 14, Monday	—Registration, 8:00 a. m. to 4:00 p. m.
Mar. 15, Tuesday	—Instruction begins, 8:00 a. m.
April 8, Friday	—Good Friday Holiday
May 30, Monday	—Memorial Day Holiday
June 3, Friday	—Quarter ends, 5:00 p. m.

Summer Session, 1955

June 13, Monday	—Registration, 8:00 a. m. to 4:00 p. m.
June 14, Tuesday	—Instruction begins, 8:00 a. m.
Aug. 5, Friday	—Session ends, 5:00 p. m.

Officers of Administration, 1953-54

GENERAL ADMINISTRATIVE OFFICERS

A single date following the title indicates the beginning of service at this college. If two dates are given, the first indicates the incumbent's first appointment to a position and the second (in parentheses) the beginning of service in present capacity.

J. W. MAUCKER, B.A., Augustana College; M.A., Ph.D., State University of Iowa
President of the College, 1950

MARTIN J. NELSON, B.A., Luther College; M.A., Ph.D., University of Wisconsin
Dean of the Faculty, 1924 (1934)

PAUL F. BENDER, B.A., State University of Iowa; M.A., Columbia University; Ed.D., New York University
Dean of Students, 1921 (1952)

MARIAN McBRAIR, B.A., Carroll College; M.A., Northwestern University; Ed.D., Columbia University
Associate Dean of Students, 1953

PHILIP C. JENNINGS, B.S., M.S., Iowa State College
Business Manager, 1942 (1945)

MARSHALL R. BEARD, B.A., Marion College; M.A., Ph.D., University of Wisconsin
Registrar, 1930 (1942)

JOSEPH B. PAUL, B.A., Indiana University; M.A., Ph.D., University of Wisconsin
Director of the Bureau of Research, 1916 (1934)

RAYMOND J. SCHLICHER, B.A., Iowa Wesleyan College; M.A., Ph.D., State University of Iowa
Director of the Placement Bureau, 1949 (1951)

HAROLD E. BERNHARD, B.A., Carthage; B.D., Chicago Lutheran Theological Seminary; Ph.D., University of Chicago
Director of the Bureau of Religious Activities, 1949

GEORGE H. HOLMES, B.A., M.A., University of Michigan
Director of the Bureau of Public Relations and Information Services, 1929 (1949)

JOSEPH H. GAMET, B.S., M.D., Loyola University
Health Director, 1949

ELDON E. COLE, B.S., Iowa State College
Superintendent of Buildings and Grounds, 1930 (1931)

PAUL C. KELSO, B.A., Northeast Missouri State Teachers College; M.Ed., D.Ed., Missouri University
Coordinator of Student Counseling, 1948 (1949)

DARYL PENDERGRAFT, B.A., Buena Vista College; M.A., Ph.D., State University of Iowa
Curriculum Coordinator, 1946 (1950)

JAMES L. BAILEY, B.B.A., M.A., University of Minnesota
Assistant Business Manager, 1950

V. D. FRENCH, B.S., Drake University; M.D., Rush Medical College
Assistant Health Director, 1952

MERRILL F. FINK, B.A., Central Michigan State Teachers College;
M.A., University of Michigan
Assistant Registrar, 1946 (1949)

H. V. HAKE, B.A., Central Wesleyan College; M.A., State University of Iowa
Associate Professor of Radio Education and Director of Radio and Television, 1938 (1947)

DONALD A. KELLY, B.A., M.A., State University of Iowa
Assistant in Charge of Publications, 1951 (1953)

MILO LAWTON, B.A., Iowa State Teachers College
Assistant in Charge of Alumni Affairs, 1953

CAROLYN J. LADD, B.A., State University of Iowa
Assistant, Public School Relations, 1952

HERBERT M. SILVEY, B.S., Central Missouri State Teachers College;
M.A., D.Ed., University of Missouri
Assistant Director of Research, 1947

TOM A. LAMKE, B.A., Iowa State Teachers College; M.A., University of Cincinnati; Ph.D., University of Wisconsin
Research Specialist, (1947-49) 1951

See pages 189 to 208 for other college personnel.

Questions Most Frequently Asked By Prospective Students

1. What does it cost to attend Iowa State Teachers College?
The over-all cost for fees, room, board, and books is approximately \$700 for the academic year. The cost of each item is indicated below.
 - a. For the academic year, the college fee is \$40 per quarter or \$120 per year. A student who wishes to take applied music (private lessons) is asked to pay a fee of \$10 per quarter hour. All fees are subject to change by the State Board of Education. Two quarter hours of applied music are required each quarter if the student's major is music.
 - b. The cost for a room in the residence halls in 1953-54 varied from \$45 to \$53 per quarter depending on the dormitory in which one lived. Stadium Hall (freshman men)—\$40, Bartlett Hall (freshman women)—\$53, Lawther Hall (sophomore women)—\$50, Baker and Seerley Halls (sophomore, junior, and senior men)—\$50, Campbell Hall (junior and senior women)—\$53. The charge for rooms is subject to change.
 - c. The non-profit college food-service rates are determined before each quarter opens on the basis of current food costs. The current average has been about \$120 per quarter.
 - d. Ordinarily \$20 per quarter should be ample for books and supplies.
2. What are the opportunities for self-support?
A number of part-time jobs are available both on the campus and in the Cedar Falls-Waterloo community. The majority of the on-campus jobs are in the food service. Approximately 35 percent of the men students and 20 percent of the women students earn money to defray part of their expenses. Students seeking part-time employment should address their inquiries to the Dean of Students or the Associate Dean of Students.
3. Must a student go to college for four years to be able to teach?
No. Four years of college and a bachelor's degree are required to teach in Iowa high schools, but a student may be certified to teach in an elementary school with only two years of college. The person with four years of college is not only better prepared and able to enter teaching with greater confidence but he finds that he has more job opportunities and ordinarily receives considerably more salary than the teacher with only two years of college.

4. Can a student enroll for the first time during the winter, spring, or summer quarters? Yes.

5. What is the difference between quarter and semester hours of credit?

Many colleges operate on the quarter plan, which means that courses continue for about twelve weeks. Nearly as many colleges operate on the semester plan, in which all courses run for about eighteen weeks. Under the quarter plan, a quarter hour of credit is based upon one hour per week for twelve weeks. Under the semester plan a semester hour of credit is based on one hour per week for eighteen weeks. Thus, a quarter hour is equal to two-thirds of a semester hour, or a semester hour is equal to one and one-half quarter hours; 3 quarter hours are equivalent to 2 semester hours; 5 quarter hours are equivalent to 3 $\frac{1}{3}$ semester hours; 6 quarter hours are equivalent to 4 semester hours, and 9 quarter hours are equivalent to 6 semester hours. The Iowa State Teachers College operates on the quarter plan and all credits are given in quarter hours.

6. Where may textbooks be secured?

Students are required to provide their own textbooks. Ordinarily the cost of these books will be \$15 or \$20 a quarter. The following book stores located just across from the campus sell both new and second hand books: Cross Book Store, 2220 College Street

Latta School Supply House, 909 West 23rd Street

A correspondence student may order his textbook by mail from one of the above firms.

7. How many hours of credit are needed to renew or reinstate a certificate?

Renewal and reinstatement requirements are established by the Iowa State Board of Educational Examiners and are subject to change by this body at any time. The college assumes no responsibility in determining the amount of credit or the type of work needed for certificate renewal or reinstatement. The Board of Examiners distributes information concerning all changes in certification requirements to city and county superintendents and to the teacher-education institution. Information concerning the renewal or reinstatement requirements may be obtained from:

The Executive Secretary,
Board of Educational Examiners,
Des Moines, Iowa

8. Are scholarships available? Yes. See page 25.

General Information

Foreword

The Iowa State Teachers College has long been recognized as a leading institution in the field of teacher education. It is accredited by the North Central Association of Colleges and Secondary Schools and by the American Association of Colleges for Teacher Education.

By act of the Iowa General Assembly the institution opened on September 6, 1876, in the building now known as Central Hall. This structure, located on a forty-acre tract of land, had previously housed the orphaned children of Civil War soldiers. From this single building and forty-acre campus, the college has grown until it now has a faculty of approximately 300 and a student body which in the past six years has averaged more than 2500. Originally named the Iowa State Normal School, the institution was renamed the Iowa State Teachers College when the State Board of Education was created in 1909.

This institution is a single-purpose institution for the education of people for the profession of teaching. It is the only teachers college maintained by the State of Iowa and is one of three public institutions for higher learning in Iowa. Together with the State University of Iowa, and the Iowa State College of Agriculture and Mechanic Arts, the Iowa State Teachers College is governed by the State Board of Education.

Buildings and Grounds

The campus of the Iowa State Teachers College contains 244 acres of elevated land at the southwestern limits of the city of Cedar Falls. An additional 35 acres of land, located south of the Stadium, was purchased in 1953 for possible future campus expansion. The principal buildings used for administrative, instructional, and other purposes are of brick with trimmings of Bedford stone. They are surrounded by lawns and by ornamental trees and shrubs of many varieties and are arranged in the form of an inner and outer quadrangle.

The Administration Building, situated on the east side of the inner quadrangle, was erected in 1895. Its dimensions are 75 feet by 105 feet. On the first floor are the offices of the President, the Dean of the Faculty, the Business Manager, the Coordinator

of Student Counseling, and the Registrar; and on the second floor, the offices of the Placement Bureau, the Curriculum Laboratory, and the Bureau of Research. On the third floor are the offices and recitation rooms of the Department of Business Education.

Gilchrist Hall, situated in the inner quadrangle southwest of the Administration Building, was erected in 1882. Its dimensions are 78 feet by 114 feet. On the first floor are the offices of the Dean of Students and the Associate Dean of Students and the offices of the Bureau of Extension Service. On the second and third floors are the Faculty Room, the Bureau of Alumni Service, the Bureau of Public Relations and Information Services, the offices of the **College Eye** and the **Old Gold**, Gilchrist Chapel, and practice rooms of the Department of Music.

The Auditorium Building, situated north of the Administration Building, was erected in 1900. A considerable addition was made in 1952 by the construction of a drama shop and additional dressing rooms. In the center of the building is the College Auditorium with a seating capacity of 1,400. On the third floor are the offices and classrooms for the departments of Social Science and Languages, and the radio studios. On the second floor are located the offices and classrooms of the Department of Education. The offices and classrooms of the Department of English and Speech occupy the first floor and part of the basement. The Bureau of Religious Activities, the speech clinic, and the clinic for special education are located in the basement of this building.

Central Hall, adjacent to the Administration Building and to the Auditorium Building, was erected in 1868. Its dimensions are 40 feet by 85 feet with an extension of 34 feet by 40 feet. It contains the offices and instruction rooms of the Department of Music and a specially equipped practice room for band and orchestra.

For convenience of intercommunication, the Administration Building, Gilchrist Hall, the Auditorium Building, and Central Hall are connected by means of corridors.

The Science Building is on the north side of the inner quadrangle and was erected in 1906. Its dimensions are 65 feet by 113 feet. It houses offices, recitation rooms and laboratories for work in agriculture and the physical sciences.

The Vocational Building is at the southwest corner of the inner quadrangle and was erected in 1915. Its dimensions are 62 feet by 144 feet. It contains offices, recitation rooms, and laboratories for the work in home economics, biological science, and mathematics.

The Arts and Industries Building, completed in 1949, is of a modern fireproof design, two stories, 240 feet long by 60 feet wide with a triangular projection to the north of 60 feet forming the main entrance.

The building is located directly south of the present campus school building on the triangle between 27th Street and Highway 57. The main axis of the building is parallel with the highway.

The Department of Industrial Arts occupies the first floor and the Department of Art the second floor.

The Campus Laboratory School Buildings. The laboratory school is at present housed in two buildings. The elementary school, including nursery school through the sixth grade, is located in the new Campus Laboratory School situated on Nineteenth and Campus Streets. This building was first occupied in September 1953. The elementary wing is L shaped, facing the east, and extends 336 feet paralleling Campus Street and 154 feet paralleling Nineteenth Street. Construction is of brick, concrete, and steel with stone trim. The basement houses the kitchen, lunch, and service rooms while the first floor and second floors contain classrooms, offices, conference rooms, auditorium and library. Funds have been appropriated for the construction of the secondary school wing of this building and it is hoped that by the fall of 1955 it will be completed. The secondary wing is to be adjoined to the west of the elementary wing.

Until the new secondary school wing is completed, the Teachers College six-year high school will continue to occupy the old Campus Laboratory School located on the south side of the inner quadrangle. This building was constructed in 1912. Its dimensions are 115 feet by 137 feet. It contains a small auditorium, offices and classrooms and laboratories for the six-year high school. Certain rooms are used for college classes.

The Library, situated at the southeast corner of the inner quadrangle, was erected in 1911. It is a four-story building. The periodicals, the periodical reading room, and the juvenile library are on the first floor, where the library science classes are also held. The main reading room with accommodations for 275 readers, the loan desk, and the stacks are on the second floor. The walls are decorated with mural paintings by William DeLeftwich Dodge. The fine arts library and the documents are on the third floor; and the college museum is on the top floor. Classrooms for library science are on the lower floor and for earth science on the second floor.

The Library contains more than 150,000 carefully selected volumes and it receives more than 600 current periodicals. It is a designated depository for United States documents.

The art collection, housed in the library, is of special interest. There are more than 450 framed pictures, excellent reproductions of masterpieces, and 5,500 small prints.

The library force consists of ten professional librarians, four clerical workers, and 30 student assistants.

Library hours are: Monday-Thursday, 7:30 a.m. to 9:30 p.m.; Friday, 7:30 a.m. to 8 p.m.; Saturday, 8:00 a.m. to 5 p.m.; Sunday, 2:00 p.m. to 5:00 p.m., except special rooms. Special rooms close at 5:00 p.m. Monday through Friday.

The Women's Gymnasium, situated at the northwest corner of the inner quadrangle, was erected in 1903 and remodeled in 1939. Its dimensions are 68 feet by 230 feet. The main building has a basement and three stories containing offices and recitation rooms, an examining room and a dark room, four fully-equipped exercise rooms, three basketball courts, a baseball diamond, an indoor archery range, a dancing studio, lockers, dressing rooms, and storerooms. The swimming pool addition, completed in 1938, is connected to the Women's Gymnasium on the west. It is a fire-proof structure with exterior of red brick and large stone ornamental panels of Indiana limestone. The addition is 145 feet long and extends 96 feet west from the gymnasium. The main room of the addition is 116 feet long by 65 feet wide with an average ceiling height of 28 feet and contains a tile-lined swimming pool 36 feet by 90 feet and also bleachers to accommodate 500 spectators. The walls are lined with buff-colored Mankato stone and haydite blocks. Between the two passages which connect the pool room with the Women's Gymnasium is a large shower and dressing room for students. The space under the concrete bleachers is occupied by locker and dressing rooms for both men and women of the faculty. There is also office space for the instructors. The second floor contains an office and lounge on both the north and south ends from which balconies with ornamental rails overlook the pool.

Connected with the Women's Gymnasium are athletic fields for hockey, soccer, baseball, volleyball, and other field sports; an archery range; 10 Laykold tennis courts; a driving range and a putting green for practice in golf.

The Men's Gymnasium, situated on the west side of the outer quadrangle, was erected in 1925. Its dimensions are 170 feet by 202 feet. It is a two-story building containing a main gymnasium (90 feet by 124 feet) and a smaller gymnasium (40 feet by 88 feet), offices and recitation rooms, basketball courts and handball courts, a wrestling room, a first-aid room, a team room, a club room, a swimming pool, showers, dressing rooms, and storage rooms.

Connected with the Men's Gymnasium is an athletic field con-

taining four football fields, four baseball fields, eight tennis courts, and a quarter-mile track.

The O. R. Latham Stadium, which was dedicated in 1940, is 300 feet by 76 feet. It has a bleacher capacity of 5,000 with press and broadcasting booths. Enclosed under the bleachers are two large locker rooms, coaches' room, equipment room, training room, and an indoor running track. Accommodations for housing 110 men have been arranged within the building through the construction of 24 large rooms.

The President's Home, situated in the outer quadrangle east of the Administration Building, was erected in 1908.

The Home of the Dean of the Faculty, which is situated in the outer quadrangle north of the president's home, was erected in 1890.

The Home Management House situated in the outer quadrangle north of the Auditorium Building was erected in 1906. It was remodelled for use in the Department of Home Economics in 1953.

Bartlett Hall is in the outer quadrangle north of the Women's Gymnasium. The first unit was erected in 1914 and the last unit in 1924. Its dimensions are 41 feet by 525 feet with four wings, each 41 by 125 feet. It is a fireproof building equipped with modern conveniences. In its single and double rooms it accommodates 520 women students.

Anna B. Lawther Hall, erected in 1939, is north and west of The Commons in line with Bartlett Hall and of similar construction. Its dimensions are 41 feet by 253 feet with two wings, each 41 feet by 125 feet. In its single and double rooms it accommodates 294 women students. An addition of the same design and construction extends 154 feet west with a wing of 114 feet and was completed in 1948. It contains 89 double rooms, 22 single rooms, director's suite, nurse's suite and office, and a recreation room.

Sadie B. Campbell Hall, occupied for the first time in the fall quarter, 1952, is on the northwest corner of Campus and Twenty-third Streets, directly north of Lawther Hall. It is a three-story structure, with a wing 236 feet long, paralleling Campus Street, a diagonal main entrance, and a wing 154 feet long, paralleling Twenty-third Street.

Construction is of concrete, steel, and brick with stone trim. It includes 135 double and 26 single rooms, housing 296 women students. It also includes service rooms, director and nurse's suites, office, living and recreation rooms, and a complete kitchen and dining room service for 300 persons. The dining room is a one-story projection on the west side of the north wing.

The George T. Baker Hall for Men, a dormitory housing 111 students, was completed in 1936. It is situated in the outer quadrangle south of the Campanile. Its dimensions are 40 feet by 190 feet with a solarium 12 feet by 48 feet. It is a three-story building with a basement and contains 46 double rooms, 19 single rooms, 3 guest rooms, a matron's suite, a housekeeper's suite, an office, a lobby, lounge, recreation room, pressing room, and kitchenette.

The Homer H. Seerley Hall for Men, a dormitory housing 119 students, was completed in 1938. It is situated in the outer quadrangle south and east of the Campanile, directly east of the George T. Baker Hall. In design it is similar to Baker Hall and its dimensions are the same. It is a three-story, fireproof structure with full basement and contains 53 double rooms, 18 single rooms, an office, a lobby, lounge, recreation room, pressing room, director's and housekeeper's rooms, and kitchenette.

The Commons, situated in the outer quadrangle northwest of the Women's Gymnasium, was erected in 1933. Its dimensions are 124 feet by 178 feet. It is designed to provide social education and recreational training for the members of the student body. It is a two-story building with basement. On the second floor are the student lounge, the recreational hall, and the lobby lounge, which, together with the mezzanine lounge, comprises the central portion of the building. In addition, there are faculty men's lounge, the faculty women's lounge; the offices of the Director of The Commons, of the Student Council, and of the Women's League; the fountain room; and two activity rooms. On the first floor are located the dining rooms, the kitchen, and the office of the Director of Foods. The basement contains service rooms essential for the operation of the building.

The General Hospital, the Nurses Home with the office of the Health Director, and the Isolation Hospital are located on the south side of the campus west of the Vocational Building. The General Hospital was erected in 1912 and enlarged in 1925. Its dimensions are 33 feet by 60 feet. It has an operating room, an X-ray room, and beds for twelve patients.

A Storeroom for the Department of Buildings and Grounds, situated at the center of the inner quadrangle, was erected in 1904

Heating and Power Plant. This supplies the whole institution with heat, light, and power. It is located south and west of Baker Hall. The original plant was completed in 1932. The equipment consisted of two 500 horsepower and two 300 horsepower boilers and two steam turbine units, with total generating capacity of 1,500 kilowatts of alternating current. The growth of the college resulted in the expansion of the plant in 1951. The new

equipment consists of a 1,000 horsepower boiler with spreader stoker and a 1,500 kilowatt condensing turbine, cooling tower, new switch gear, and necessary piping and controls. The original concrete stack, which is 195 feet above the boiler room floor, continues to serve the expanded plant.

The Shops and Garage Building, located east of the Heating and Power Plant and adjacent to it, contains the office of the Superintendent of Buildings and Grounds, shops for electricians, plumbers, steam fitters, carpenters, and painters; supply rooms and locker rooms; and a garage for the college trucks and busses.

The original building was completed in 1932. The superintendent's office was enlarged in 1950. Additional space was acquired by building over the garage. The new addition contains two private offices, a conference room, a printing and storage room, and general office space. The original office has been made into a drafting and work room.

The Greenhouse Units, which are laboratories for study in animal and plant biology, were completed in 1938 and are located directly south of the Vocational Building. There are three curved-eave units in the east, the center of which is 31 feet by 42 feet with a high roof for tropical plants. The end units are each 25 feet by 33 feet and are used for display purposes as well as for the starting of campus flowers. The west wing consists of a tile service house, the dimensions of which are 36 feet by 38 feet. The first floor contains a work room, a supply room, an office, and a laboratory; while the basement contains a bulb room, service rooms, and a room for animals. The northwest and southwest units are of the commercial type and are each 28 feet by 50 feet.

The Campanile, standing at the center of the campus, was erected in 1926. The main tower is 20 feet square and 100 feet high. It is built of rug-faced brick with trimmings of Bedford stone and rests on a granite foundation. The fifteen bells of the Campanile chimes range in weight from 225 pounds to 5,000 pounds. The chimes are played at stated times throughout the day by the chime master and his assistants. The Fasoldt clock, presented to the institution in 1925, sounds the chimes on the hour. The Campanile was donated to the institution by the alumni, faculty, students, and other friends of the institution as a memorial to the founders and builders of the Iowa State Teachers College.

The Recreation Park, including the college golf course, is located half a mile east of the campus just outside the southern limits of the city in Rownd's Field, a tract of 40 acres donated to the institution in 1925 by Charles A. Rownd. The golf course has a well-

kept nine-hole course of standard length with natural and artificial hazards.

Separate from the campus on the east, the college has a tract of seven acres in which it is developing a horticultural garden and a botanical garden. These gardens already contain a large collection of Iowa trees, shrubs, and herbaceous plants.

South of the main campus, temporary buildings have been erected for instructional use. An adjacent area contains the temporary housing facilities for veterans, known as Sunset Village. Nearby a driving range has been developed for instruction in highway safety and for driver training.

The Residence of Women Students

All undergraduate women students who do not live in their own homes must live in college residence halls or in rooming houses approved by the Associate Dean of Students. During their first three quarters of attendance, if not living with their parents or legal guardians, all undergraduate women students are required to live in college residence halls, unless given special permission to live in private homes. All special permissions must be obtained from the Associate Dean before registration day.

Application for Rooms in Residence Halls. The application for a room reservation in one of the residence halls is made to the Associate Dean of Students and must be accompanied by a deposit fee of \$10. If an applicant for whom a room has been reserved finds it necessary to cancel her reservation, the deposit fee is refunded only if the cancellation notice reaches the dean's office ten days before the opening day of the quarter.

Assignments of rooms are made in the order in which applications are received, except that students in residence during the academic year have the privilege of reserving their rooms for their own use during the summer quarter if the request is filed before April 15. All rooms not thus reserved are assigned in order of application. Definite assignments are made and notices are mailed two weeks before the opening of a quarter.

A pamphlet describing facilities accompanies the notice of room assignment.

Occupancy. Residence halls will be open for occupancy one day before enrollment day and must be vacated by noon of the day following the close of the quarter. Reservations will not be held after registration day unless arrangements have been made for later occupancy.

Rates and Payment. The rental rates in the Women's Residence Halls for the academic year 1952-1953 were \$50 or \$53 per quarter

depending on the particular residence hall. These rates are subject to change. The entire rental fee for each quarter is payable at the time of registration. No refunds of room rent are made after the second Friday of a quarter.

Bartlett Hall. This residence hall is reserved for women students during their first three quarters of attendance. The hall, a fireproof building, houses 550 students and contains attractive living rooms, browsing rooms, spread rooms, recreation rooms and complete office facilities for the administration of the various personnel functions. Pressing rooms and service rooms for each corridor unit add to the convenience of living in the building. Student rooms have hot and cold water, a clothes closet for each occupant, study table, floor lamp, dresser, and single beds equipped with excellent inner spring mattresses and mattress pads. Each student furnishes her own bed linen and towels. Bedspreads and draperies are furnished by the college. Living conditions are supervised by a trained staff which includes the director, a resident nurse, the director of social life, and the housekeeper.

Anna B. Lawther Hall. This residence unit is reserved for sophomore women. Its facilities and conveniences include the best features of present-day student residence halls. Living conditions are supervised by a trained staff. Each student furnishes her own linens for bed and bath.

Sadie B. Campbell Hall. This residence hall, occupied for the first time in the fall of 1952, was built with the needs of junior and senior women in mind. Its facilities include student government offices, committee rooms, library, lounges, informal recreation rooms, sun deck, outdoor patio, and dining facilities, in addition to the usual conveniences. Each student furnishes her own towels and bed linen only. There is a residence staff including the personnel director, nurse, dietitian and housekeeper who help the girls in the development of the program of individual and group living.

Food Service. Freshman, sophomore and junior students living in college residence halls are required to eat in the college food service department. Transfer students living in college residence halls are required to eat in the college food service department the first three quarters enrolled regardless of classification and thereafter will conform to the regulation governing their classification.

Accredited Rooming Houses. A list of accredited rooming houses will be furnished upon request to those students eligible to live outside the college residence halls. In all rooming houses students furnish their bedding and linens. The college is not a party to agreements made between students and landlords, although certain housing standards are enforced by the college.

The Residence of Men Students

All undergraduate men students who do not reside at the home of a parent or guardian must live in one of the residence halls for men or in rooming houses approved by the Dean of Students. Exceptions to this regulation are made only in special instances.

Application for Rooms in Residence Halls. The application for a room reservation is made to the Dean of Students and must be accompanied by a deposit fee of \$10. If an applicant for whom a room has been reserved finds it necessary to cancel his reservation, the deposit fee is refunded only if the cancellation notice reaches the Dean of Students' office ten days before the opening of the quarter.

Former dormitory residents are given precedence in the assignment of dormitory rooms. The remaining accommodations are assigned in the order in which the application is received.

Occupancy. Residence halls will be open for occupancy one day before enrollment day and must be vacated by noon of the day following the close of the quarter. If a reserved room is not occupied on the opening day of the quarter and arrangements have not been made for later occupancy, the reservation may be cancelled at the discretion of the Dean of Students.

Rates and Payments. The rental rates in the men's residence halls for the academic year 1953-54 were \$45 or \$50 per quarter depending on the particular residence hall. These rates are subject to change. The entire rental fee for each quarter is payable at the time of registration. No refunds of room rent are made after the second Friday of the quarter.

The George T. Baker Hall for Men and the Homer H. Seerley Hall for Men. The George T. Baker Hall for Men and the Homer H. Seerley Hall for Men normally accommodate 230 students. The buildings are fireproof and are equipped with every facility for the comfort and convenience of the residents. Lobby, lounge, solarium, recreation rooms, pressing room, and showers are provided. Student rooms are furnished with single beds, mattresses and mattress pads, pillows, blankets, bedspreads, straight chairs, easy chairs, built-in study tables with shelves, built-in clothes closets, bedside stands, and waste-paper baskets. Every room is equipped with hot and cold running water and adequate lighting facilities. Each student living in the men's dormitories is required to furnish four single sheets, size 63 by 99 inches, three pillowcases, size 42 by 36 inches, six hand towels, and four bath towels. Living conditions are supervised by the director and the housekeeper.

Stadium Hall for Men was opened for the first time in September, 1947. This unit consists of 24 rooms which were constructed in the football stadium in order to provide additional housing accommodations for men. One of the rooms provides accommodations for the director of the hall, and one is equipped with adequate facilities for study. The building, which is fire-proof, normally houses 110 men and is equipped with showers and a lounge area. The student rooms are furnished with double-deck beds, mattresses, pillows, blankets, straight chairs, study tables, chests of drawers, and clothes racks.

Each student living in Stadium Hall is required to furnish four single sheets, size 63 by 99 inches; three pillowcases, size 42 by 36 inches; six hand towels, and four bath towels. Living conditions are supervised by the director and the housekeeper.

Food Service. Since 1949 all freshman, sophomore, and junior students living in college residence halls have been required to eat in the college food service department. Transfer students living in college residence halls are required to eat in the college food service department the first three quarters enrolled regardless of classification and thereafter will conform to the regulation governing their classification.

Accredited Rooming Houses. A list of accredited rooming houses for men students will be furnished upon request, after the student has been admitted. In all rooming houses students furnish their bedding and linens. The college is not a party to agreements made between students and landlords, although certain standards are enforced by the college.

Accommodations for Married Students. A limited number of housing facilities for married students are available. Veterans are given preference, but applications from non-veterans will be accepted and assignments will be made (in order of priority of application) to those housing units that remain after the veterans have been accommodated. If interested, write to the Dean of Students for details and application blank.

The Commons

The Commons houses recreational facilities as well as the central food service department. Included in these facilities are the ball room, student lounge, faculty lounges, and club rooms. All of these rooms are completely equipped to carry on the program of social education which is a distinctive part of campus life at Iowa State Teachers College.

Food Service

There is no food service on the campus other than that maintained for regular boarders. Plans for board are made at the time of registration. All freshman, sophomore, and junior students living in college residence halls are at present required to eat in the college food service department. Transfer students living in college residence halls are required to eat in the college food service department the first three quarters enrolled regardless of classification and thereafter will conform to the regulations governing their classification. Board payments for each quarter are payable in the college business office at the time of registration. The charge will be based on the prices then in effect.

Employment

Many students earn a part of their expenses while attending college. The offices of the Dean of Students and the Associate Dean of Students will give all possible help to students who need to secure part-time employment. However, until the class schedule has been arranged on registration day and the hours that the student will have available for work are known, definite employment arrangements cannot be made. No fee is charged for this service, but the student is required to maintain the college standards as to health and scholarship. Appointments are made for one quarter and must have the approval of the department supervisors for renewal.

A student is cautioned not to attempt much outside work during the first quarter of residence. Full time is needed to make adjustment to the new environment, to engage in extracurricular activities, and to attain a high standard of excellence in scholarship. Fifteen hours a week of outside work is considered the maximum. If outside work in excess of fifteen hours a week must be done, the number of credit hours carried should ordinarily be reduced accordingly. A student should inform his adviser of his outside work since this information will help in arranging a suitable schedule.

Student Loan Funds

The college maintains a loan fund for worthy students who are in need of such assistance. Four-year students who have completed two years of college work and students on the two-year plan who have completed one year of college work may apply for

loans. In order to be eligible for a loan, the applicant must have earned at least two times as many grade points as hours of credit. Application for loans must be on file with the secretary of the loan fund committee at the office of the Business Manager at least one month before the loan is to be needed.

The Seerley Foundation was organized by The General Alumni Association of the Iowa State Teachers College and incorporated under the laws of Iowa in 1928. Among other services, The Seerley Foundation has maintained a loan fund for students whose scholastic standing, college classification, and financial requirements are approved. Full information covering the loans available from the Seerley Foundation can be obtained on application to the Bureau of Alumni Service, Gilchrist Hall.

Scholarships

Partial Fee Exemption scholarships are granted each year to 300 or more young people who need aid in financing their college education. Approximately nine-tenths of these scholarships are awarded to recent high school graduates who have not attended college, while one-tenth is granted to those who have had some college work. At the present time, a partial fee exemption scholarship reduces the amount a student pays for tuition and fees (except for music fees) to \$11 a quarter or \$33 a year.

To be considered, applicants must possess those qualities of character, personality, and intelligence essential for a successful career in teaching. Ordinarily, the recipient of a partial fee exemption is expected to have been in the upper one-fourth of his high school graduating class and to have made scores on standardized tests that give promise of success in college. Scholarship tests are given cooperatively with the Iowa State College and the State University in approximately forty centers located in every section of Iowa. Notices of the dates and locations where these tests will be given are mailed to the schools in February. A student interested in a scholarship should plan to take these tests.

With the exception of those students who live in their own homes while attending college, those who receive a partial fee exemption scholarship are expected to live in a college residence hall and to eat at the college food service.

The partial fee exemption scholarships are awarded by the president of Iowa State Teachers College. The awards are of two types: County Council Scholarships, and Regular Partial Fee Exemption Scholarships. The former are awarded by the president on the recommendation of the County Councils of the Iowa State Education Association. The County Council scholarships are awarded only to those students who plan to become elementary

teachers and provide for a partial fee exemption for two academic years. Information regarding the County Council Scholarships may be secured from your superintendent or from the county superintendent.

The Regular Partial Fee Exemption Scholarships are awarded by the president on the direct application by the student. Explanatory materials and application forms for these scholarships are mailed to the school superintendents or principals in January. Additional copies of the application blanks may be secured by writing to the president of the college. These awards are for four consecutive academic years or twelve quarters and are not restricted to prospective elementary teachers. The awards cannot be used for work beyond the bachelor's degree. A student interested in one of these awards should discuss the matter with the superintendent, principal, or counselor and, if he is willing to recommend, should file application not later than March 15. Applications received after that date will be considered in case all available grants have not been awarded. A student who has made application prior to March 15 will be notified ordinarily by May 1 whether he has been awarded the scholarship or not.

The recipient of either a County Council or a Regular Partial Fee Exemption Scholarship may use the award during a summer session if he chooses.

The Elmer E. Bartlett Debate Award—This award is granted to a student of sophomore or junior standing who plans to continue actively in debate. It is awarded for excellence and continued interest in debate and is available only to students who have earned a high scholastic average.

The Brindley Debate Scholarship—This award is made each year by the college to the winners of the Brindley debate tournament. It entitles the recipient to partial exemption from student fees for a period of four years, provided satisfactory scholarship is maintained.

The C. A. Boehmler and Katherine S. Boehmler Memorial Scholarship—A fund of approximately \$18,000 has been received by the college and the income from this amount is used for some needy student of Cedar Falls, Iowa, who is desirous of pursuing an education.

The Fisher Foundation Scholarships—These scholarships result from a grant by the Fisher Foundation which has been established by the Fisher Governor Company of Marshalltown. The scholarships are awarded to six undergraduate students on the basis of excellency in scholarship, leadership, and promise of becoming a superior teacher. Each scholarship amounts to a sum adequate to cover fees and books for three quarters.

The Alice O. Gordon Bequest—The income from a fund of approximately \$2,300 is available for providing a scholarship to be given a deserving student in the primary department of this college. The student selected must be a major in kindergarten-primary education with a grade point average of not less than 3.00 for at least 45 quarter hours of college work on the campus. The award is available for only one year for any one student.

The Imogene B. Emery Home Economics Scholarship—This scholarship is granted annually to a junior or senior home economics major. This grant comes from the junior membership of the Iowa Daughters of the American Revolution. It is awarded to a student who is partially self-supporting and who shows promise of becoming a good homemaker. She must have above-average scholarship and show leadership ability.

The Furniss and Mary W. Lambert Scholarship Fund—The income from a fund established by the children of Furniss and Mary W. Lambert as a memorial to their parents is available to a man and woman of the junior class who have shown the most all-around development during their college life. The income from this fund approximates \$20 for each recipient.

The Bertha Martin Memorial Scholarships—For the purpose of "perpetuating the ideals and artistic endeavor exemplified by the life and work of Bertha Martin," the Bertha Martin Memorial Foundation was created in 1930. The foundation makes available from the dramatic arts fund two scholarships in the amount of the student fees for one academic year. These scholarships are awarded to junior students for use in the senior year.

The Merchant Scholarships—Through the bequest of Dr. Frank I. Merchant and Miss Katherine Matilda Merchant, scholarships have been made available to honor and provide financial assistance to those graduates of Iowa State Teachers College who wish to pursue graduate studies. The amount of the award is ordinarily sufficient to enable the recipient to study at any institution in this country or in a foreign country. The award is made through application to the Merchant Scholarship Committee and further details concerning the application may be secured from Dr. Henry Van Engen, chairman of the committee. Applications must be filed by March 1.

The Anna M. Nielsen Music Scholarship—In accordance with the bequest of Miss Anna M. Nielsen, the income from a \$5,000 fund is "to be used for scholarships to the Iowa State Teachers College for students of said college of Danish extraction and residing in the city of Cedar Falls."

The Phi Mu Alpha Sinfonia Scholastic Award—The Beta Nu Chapter of Phi Mu Alpha Sinfonia Fraternity presents a certifi-

cate and an award of ten dollars to the active member of the chapter who during the previous three quarters attained the highest grade point average. The award is made at the spring commencement.

The Sigma Alpha Iota Scholarship Award—The Sigma Alpha Iota Music Fraternity awards at each spring commencement an honor certificate to the graduating senior who is an active member and "whose average is the highest, based on all work taken in college."

The Theta Alpha Phi Alumni Award is made annually to a sophomore, junior, or senior student who shows marked ability in the field of dramatics and a genuine interest in encouraging dramatic excellence. The customary award is ninety-six dollars.

The Purple and Old Gold Awards—For the purpose of stimulating scholarly attainment in the major fields of study, and of encouraging conspicuous achievement in certain other lines of student endeavor, the college each year makes available seventeen twenty-five dollar awards to graduating seniors. The recipient of the award in each field is chosen by a faculty committee and the presentations are made at the spring or summer commencement.

Awards and Scholarships by State or Local Organizations—The State Board for Vocational Education provides assistance to persons of employable age residing in Iowa who have disabilities preventing satisfactory employment without additional education. The college cooperates with the Rehabilitation Division in providing teacher-education for those who are potentially employable as teachers and who otherwise meet the standards for admission to and retention in the college.

A considerable number of the students at the Iowa State Teachers College have received assistance in the form of grants or scholarships from such groups as the Farm Bureau, P. E. O., and various business, professional, and social clubs and organizations.

Extracurricular Activities

At the Iowa State Teachers College extracurricular activities are planned and fostered because of the significant contribution they can make to the education of the student. Experience in extracurricular activities not only aids materially in achieving the objectives of general education but, since all teachers are expected to aid in the extracurricular program of the public schools, there is considerable professional value in participating in such activities. In recognition of this fact this college maintains an extensive

program of extracurricular activities including athletics, dramatics, forensics, music, social life, lecture-concert series, student organizations, and interest groups. Faculty advisers help the individual student to plan a program of extracurricular activities that will supplement the curricular program so that each student may make maximum use of the opportunities the college has to offer.

Athletics—A wide variety of intramural and intercollegiate sports is available at the Iowa State Teachers College. Women students do not compete in intercollegiate sports but for both men and women extensive programs of intramural sports are conducted.

This college engages in intercollegiate athletic competition in football, basketball, baseball, track, wrestling, tennis, and golf. In all intercollegiate sports, the Iowa State Teachers College abides by the rules of the National Collegiate Athletic Association and of the North Central Conference to which it belongs. Intercollegiate athletics are under the control of the Athletic Board, an eight-member faculty committee appointed by the president. The athletic program at the Iowa State Teachers College exists because of the contributions it makes to the total educational program. For the non-participant in intercollegiate sports, it provides recreational value. For the participant, it provides general educational values and constitutes a laboratory for the preparation of future high school athletic coaches.

Dramatics—A college play is produced each quarter, including the summer session, and any student is eligible to try out for a part in these productions. The Department of English and Speech sponsors the plays but membership in this organization is not a requisite for participation.

Forensics—The forensics program includes debate, discussion, and extemporaneous speaking. Participants engage in several meets with representatives of other colleges. This program is sponsored by the Department of English and Speech and it welcomes participation of all students.

Music—Musical activities include the marching band, the concert band, the symphony orchestra, various instrumental ensembles, the a cappella choir, the chorus, the women's chorus, the madrigal singers, and an annual opera. Although these activities are sponsored by the Department of Music, any student may be eligible for participation.

Social Life—The Social Life at Iowa State Teachers College is an everchanging, flexible program designed to meet the current interests and needs of the student body and the college community.

Although there are some traditional events, each year new activities are added. The opportunities for social education are offered in many forms, including teas, dances, community service projects, a talent bureau, all-college play nights, student-faculty mixers, fashion shows, and social usage forums. Many of these activities take place in the Commons which is the center of campus social life.

The Social Life committee, a sub-committee of Student League Board, has as its purpose "to sponsor, integrate, and expand the social, cultural, and recreational activities of the campus." To accomplish these goals the committee sponsors such events as the traditional Christmas festivities, the Old Gold Beauty Dance and Tea, parties for the married students, the All-College Auction to raise funds for charitable organizations, the All-College Sing, the Mardi Gras Carnival to raise funds for campus organizations, sponsorship of student art exhibits, social dance instruction, and many other activities.

Student Government—Almost every student participates to some extent in student government. The student government organizations include the Student League Board, the Association of Women Students, the Men's Union, and the various associations of housing units.

The Student League Board—An administrative group composed of the presidents of all housing units, president of the Association of Women Students, president of the Men's Union, the chairmen of the Social Life Committee, the Organizations Committee, the Lecture-Concert Committee, The Faculty-Student Relations Committee, and the president who is elected from the student body at large, the Student League Board endeavors to promote cooperation between students and faculty, to seek solutions to student and college problems, and to represent the entire student body in matters affecting student interest. It carries on a program of work which give students an opportunity to participate in the life of the college in such a way as to make it an experience in democratic living. The Student League Board sponsors the selection of outstanding seniors for the Purple Key honor awards.

The Association of Women Students—An organization composed of all women students on the campus, this association is interested in promoting the intellectual and social growth of its members. This association makes an invaluable contribution by its programs for the enrichment of student life in organizing the work of the senior counselors, helping create wholesome attitudes toward dormitory life, keeping students informed of campus activities, encouraging participation in extracurricular activities, sponsoring recreational activities, helping freshman women to acquire effective study habits, and helping each girl gain social acceptance.

The Men's Union—An organization comprising all men regularly enrolled in college, the Men's Union tries to assist the students in a continuing adjustment to college responsibilities and to emphasize the importance of social development in the preparation of prospective teachers. The attainment of these objectives is sought through coordinated group participation in the solution of problems common to the men students of this college. Men's Union sponsors two programs for recognizing outstanding men students: the Hall of Recognition honor award to freshmen, sophomores, and juniors for achievement in extracurricular activities and scholarship, and the Hall of Scholarship for all men for superior achievement in scholastic endeavor.

There are five **Women's Housing Units** which are organizations of all the students living in the three women's residence halls and separate units for those who live in Cedar Falls or in Waterloo. Each unit has its own council and each has for its purposes the promotion of the ability to live together, the development of loyalty to the college, and the encouragement of participation in campus activities. Each of these units is represented on the Student League Board and on the executive committee of the Association of Women Students bringing about an integration of effort and providing the means for unified action.

There are six **Men's Housing Units**, one for each of the three men's dormitories, one each for the men students living in Waterloo and Cedar Falls, and one for the students living in Sunset Village. The organizational pattern and the objectives of the **Men's Housing Units** are very similar to those of the women's units. A representative of the council of each unit is a member of the Student League Board and each unit has a representative on the executive committee of the Men's Union.

Interest Organizations—Interest organizations are maintained in order to stimulate interest in various major lines of work and to acquaint students with new ideas in the different fields. They are as follows: **Art**—Art Club; **Business Education**—Future Business Leaders of America; **Education**—(Elementary), Elementary Ki, Beta Alpha Epsilon; (Kindergarten-Primary), First Year Kindergarten-Primary Club, Second Year Kindergarten-Primary Club; Kappa Pi Beta Alpha; (Rural), Community Leaders; Future Teachers of America (open to all those who are interested in teaching as a profession); **English and Speech**—(Drama), College Players; (Speech), Speech Activities Club; **Foreign Languages**—Foreign Language Club; **Home Economics**—Ellen Richards Club; **Industrial Arts**—Industrial Arts Club; **Mathematics**—Mathematics Club; **Music**—College Symphony Orchestra, College Band, College Chorus, A Cappella Choir, Music Educators National Conference, and various ensemble groups; **Physical Education, Women**—The

Marlins, Orchesis, Physical Education Club, Women's Recreation Association; **Science**—Sigma Gamma Kappa; **General**—Campus 4-H, Library Students Association, League of Women Voters, Tau Chi Eta, College High Twelve Club (Masonic); **Service**—Alpha Phi Omega.

Religious Organizations—The on-campus organization is the Student Council of Religious Activities which provides a program and a fellowship that is open to every student in the college. The adviser to this organization is the Director of the Bureau of Religious Activities. The Council of Religious Activities is composed of a representative from each of the religious groups most of which maintain student centers near the campus. Baptist—Baptist Student Center, Roger Williams Fellowship, Theta Epsilon; Catholic—Newman Club; Christian—Disciple Student Center; Congregational—Plymouth Club, Sigma Eta Chi; Lutheran—Lutheran Student Association, Gamma Delta; Methodist—Sigma Theta Epsilon, Wesley Foundation, Kappa Phi; Presbyterian—Presbyterian Fellowship, Phi Chi Delta; Inter-varsity Christian Fellowship, Unitarian Fellowship.

Honor Organizations—Superior achievement in various lines of educational work is recognized by membership in the following honor organizations: Alpha Phi Gamma (Journalism), Beta Beta Beta (Biology), Delta Sigma Rho (Debate), Epsilon Pi Tau (Industrial Arts), Gamma Theta Upsilon (Geography), "T" Club (Men's Physical Education), Junior Chimes (Junior Women), Kappa Delta Pi (Education), Kappa Mu Epsilon (Mathematics), Lambda Delta Lambda (Chemistry and Physics), Phi Mu Alpha Sinfonia and Sigma Alpha Iota (Music fraternities for men and women respectively), Pi Gamma Mu (Social Science), Pi Omega Pi (Business Education), Purple Arrow (local scholastic honor group for first- and second-year women), Sigma Alpha Eta (Speech Correction), Social Science Honors Society, Theta Alpha Phi (Drama), Theta Theta Epsilon (Home Economics), Torch and Tassel (local honor group for senior women).

Social Organizations—There are nine local sororities: Delta Delta Phi, Kappa Theta Psi, Nu Sigma Phi, Phi Sigma Phi, Pi Phi Omega, Pi Tau Phi, Pi Theta Pi, Tau Sigma Delta, Theta Gamma Nu. These sororities all cooperate through the Inter-sorority Council.

There are four fraternities: Alpha Chi Epsilon, Lambda Gamma Nu, Phi Sigma Epsilon, and Sigma Tau Gamma. The activities of the fraternities are coordinated through the Interfraternity Council.

Student Publishing Association—The Student Publishing Association is governed by the Board in Control of Student Publi-

cations consisting of five students and four members of the faculty. The *College Eye*, weekly newspaper, and the *Old Gold*, student annual, are edited by students under the supervision of the Director of the Bureau of Public Relations and the Board in Control of Student Publications.

Lecture-Concert—Each year the college brings a number of nationally famous musicians and lecturers to the campus to appear on the lecture-concert series. A student-faculty committee determines the program for each year and attempts to arrange a variety of performances. In planning the program this committee keeps in mind the interests of the students and their general education needs. Students obtain season tickets for the lecture-concert series at a greatly reduced price.

Special Services

Placement Bureau. The placement bureau is an integral part of the teacher education program at the Iowa State Teachers College. The primary function of the office is to assist graduates and former resident students of the college in obtaining teaching positions. Consultative services are provided to aid students in securing current information on a variety of placement problems, such as salaries, working conditions, crowded and uncrowded fields, major and minor combinations, qualifications of good teachers, and opportunities for placement and professional advancement.

Prospective graduates from the college are required to register with the placement bureau within the first six weeks of the quarter of graduation or prior to this time. There is no fee charged either for initial or subsequent registrations. Registrants provide the bureau with necessary data regarding their personal qualities, academic training, and employment experiences. School officials are supplied confidential information related to prospective candidates' character, personality, scholarship, success in student teaching, or in other teaching experience. Former graduates and former students of the college who expect to make use of the bureau's services are urged to complete their re-registration prior to February 15.

Student Health Service. The Student Health Service is organized to afford educational and preventive health care to the student body and does not compete with private medical services. Its provisions apply, as a rule, to acute conditions only, and students with chronic ailments or conditions for which expensive,

prolonged, or special treatment is indicated will be referred to competent private physicians.

The Health Service maintains a well-qualified staff of physicians who will be available to all students between 8:00 a.m. and 5:00 p.m., Monday through Friday.

Emergency medical care is available 24 hours daily. The college hospital is staffed with registered nurses and is sufficiently equipped to take care of the usual illnesses. Non-student relatives are not entitled to service from the college Health Service. For the convenience of dormitory women, a nurse keeps scheduled office hours in the dormitories.

All students are given the Mantoux Tuberculin skin test once a year, and chest X-rays are made of those who react. A small fee is charged for all X-rays to cover the actual cost involved.

Students are tested for immunity to small pox and diphtheria and if found susceptible are immunized free of charge. A small charge is made for any other immunization which a student may wish to receive. No charge is made for Wasserman tests or for transcriptions of health records.

Any student with special physical handicaps or in need of a special diet may consult the Health Service at any time with respect to such special arrangements as may be needed. The Health Service wishes to cooperate with the student's family physician at all times.

Certain services are not available at the Health Service. Major surgery is not undertaken. Students and their families are at liberty to select the surgeon of their choice and are solely responsible for his fee and hospital expenses. The Student Health Center offers no dental service of any nature.

Conferences, Workshops, and Exhibits. Throughout the year a series of conferences and workshops are held. Nationally known leaders in the various fields of teacher education are brought to the campus for these events and many teachers and school administrators are invited to participate. College instructors are frequently invited to bring their classes to certain sessions and many students attend during the periods they do not have classes. College credit may be earned in some of the workshops that are conducted during the summer session.

Exhibits of art and instructional materials are held periodically. Certain departments of the college sponsor special days for high school students with particular interests.

The Curriculum Laboratory consists of two major areas: one containing printed curriculum materials, the other audio-visual materials. The Curriculum Materials Center has available courses

of study, educational bulletins, and printed materials, textbooks, workbooks, a professional educational library, educational tests, and numerous other kinds of instructional materials. The Audio-Visual Center contains films, film-strips, recordings, and all the types of audio-visual equipment that might be found in the typical school situation.

All instructional materials housed in the Curriculum Laboratory are available for study and use by the students, faculty, and teachers throughout the state. Facilities for study, group conferences, previewing of audio-visual materials, and practice in use of equipment are available during the entire day.

Iowa Teachers Conservation Camp. Iowa State Teachers College in collaboration with the State Department of Public Instruction and the State Conservation Commission conducts a field laboratory in conservation each summer for teachers at Springbrook State Park, Guthrie Center, Iowa.

Sessions are three weeks in length during each of which five hours of college credit can be earned. Field and laboratory work is given in conservation of soils, water, forests, and wild life. Emphasis is placed upon the adaptation of materials for teaching.

The park and surrounding areas furnish ideal facilities for field studies. Students and instructors live in cabins in the park and meals are furnished at the Camp Dining Hall. Further information may be secured by writing to the Science Department, Iowa State Teachers College, Cedar Falls, Iowa.

Iowa Lakeside Laboratory. The three institutions, Iowa State Teachers College, State University of Iowa, and Iowa State College, jointly maintain a field laboratory station on Lake Okoboji. A scientific advisory board made up of a representative from each of the three state institutions has charge of the program. Unusual opportunities for field biological studies are available for students and teachers of biology, botany, and zoology. A variety of courses open to undergraduates and graduates is offered during the summer in two sessions of five weeks each. The Lakeside Laboratory Bulletin, available about March 1, lists the courses to be offered the following summer. Registration is made through the Registrar's office at the Iowa State Teachers College upon approval of the Head of the Department of Science.

Radio Education. Through a program of radio and television education the Iowa State Teachers College provides the schools of Iowa with significant services. Programs originating in the studios are carried by telephone lines to Ames and Iowa City for broadcast over stations WOI and WSUI and are heard in school-

rooms throughout the state. Requests for manuals and study guides used in connection with the daily broadcasts indicate an approximate weekly audience of 30,000 children in rural and urban schools. This educational service has been maintained without interruption since 1942. Through the cooperation of WOI-TV in Ames, weekly television programs have been prepared on sound film since 1950 and a series of regularly scheduled TV appearances by college personnel in the WOI-TV studios was inaugurated in 1952.

Saturday and Evening Classes. As a service to teachers in the vicinity of Cedar Falls, the college offers a program of Saturday and evening classes. While some of these classes are for graduate students, others are open to undergraduate students. Information in regard to evening and Saturday classes may be secured by writing to the Registrar.

"If I had a child who wanted to be a teacher, I would bid him Godspeed as if he were going to a war. For indeed the war against prejudice, greed and ignorance is eternal, and those who dedicate themselves to it give their lives no less because they may live to see some fraction of the battle won. They are the commandoes of the peace, if peace is to be more than a short armistice. As in a relay race, our armed men have handed victory to those who dare not stand still to admire it, but must run with it for very life to a further and larger goal."—JAMES HILTON.

College Policies

I. Admission Procedures

A. Applying for Admission and Health Record

Every applicant must make formal application for admission and submit a health record signed by a physician. A card to be used in requesting blanks for application and health record appears on page 3 of this bulletin.

B. Submitting High School Record

Every applicant must have his high school principal or the superintendent of schools send to the Registrar a certificate of high school credits. A certificate should be furnished from each high school attended unless the high school from which the student was graduated furnishes a complete listing of all high school credits. The date of graduation must be noted on the certificate. These certificates should be mailed several weeks before the time of enrollment. The high school principal or the superintendent will ordinarily have the blanks for this certification; but out-of-state students may need to secure the proper form by writing the Registrar of this college.

C. Submitting Transcripts of College Records

In addition to the above, a student who has attended other colleges must have sent to the Registrar a transcript of his record at each college attended. These should be mailed to the Registrar a month or more before the time of enrollment since all such records are required before an admission card can be issued.

College credit earned at other approved colleges is accepted and entered on record here. It is used in meeting the requirements for graduation **in so far as it applies to the curriculum selected by the student.** For an explanation of the college policy in regard to curriculum adjustment for transfer students, see page 65.

II. Admission Policies for Undergraduate Students

As a professional school for the education of teachers, the Iowa State Teachers College recognizes an obligation to prospective students, to the public schools, and to the state to consider carefully each applicant for admission. The college recognizes

that scholarship, health, character, personality, and potential leadership qualities are all essential factors in the development of a good teacher and all these factors are considered by the Admissions Committee in determining an applicant's fitness for admission.

Students are, of course, encouraged to visit the campus prior to admission to discuss their prospective college program. If sufficient evidence is not available for the Admissions Committee to make a decision in a specific case, an applicant may be invited to come to the campus for an interview or additional information may be requested. It may be necessary in some instances for the college to deny admission to an individual who does not give reasonable promise as a college student and as a prospective teacher.

Each candidate for admission will fall into one of the following categories:

- A. **Graduate of approved high school**—A graduate of an approved high school who meets the requirements of health, personality, character, and potential leadership will be admitted if it appears from his certificate of high school credits, scores on standardized tests, and other pertinent information that he is competent to do college work.
- B. **Graduate of unapproved high school**—A graduate of an unapproved high school will be admitted if he meets the requirements of health, personality, character, and potential leadership qualities and if he demonstrates competence to do college work by satisfactory scores on standardized tests administered by the college and is recommended as a good prospective teacher by the appropriate school officials.
- C. **Applicants who are not high school graduates**—An applicant who is not a high school graduate may be admitted if he meets the requirements of health, personality, character, and potential leadership qualities and if he demonstrates, through standardized tests and statements of school officials or faculty members of this college, his competence to do college work. This provision is made in recognition of the fact that the background which is essential to pursue satisfactory study at the college level may be acquired independently as well as by the usual and generally more satisfactory method of attending high school. Occasionally, a student with unusual ability, who is physically, mentally, and socially more mature than the typical high school student, may find that his educational needs will be more satisfactorily met in college than in high school. Such a student must be at least seventeen years of age.

- D. Transfer students from other colleges**—An applicant who has taken work at another accredited college who meets the requirements of health, personality, character, and potential leadership qualities will be admitted if he has an average or better-than-average scholarship record in the college previously attended. In exceptional cases a student with a below-average record in another college may be admitted on probation if it is demonstrated that an improved quality of work may be expected in the future.
- E. Special cases**—A person who does not wish to become a candidate for a degree or to have this institution recommend him for a teaching certificate and who does not meet the entrance requirements may be admitted as a special student to pursue such subjects as he is competent to undertake. Evidence of adequate educational background and approval of the Dean of the Faculty are required of such applicants.

III. Admission Policies for Graduate Students

A graduate of a college or university accredited by the American Association of Colleges for Teacher Education or by the North Central Association of Colleges and Secondary Schools or a corresponding regional agency will be granted admission to graduate study if his application for admission has been approved by the registrar. A graduate of a college or university that is not accredited may, in certain cases, be granted conditional admission. For a more detailed description of the policies and procedures of admission to graduate study see page 165 of this bulletin.

Preparation for College

For admission to Iowa State Teachers College one does not need to have chosen a particular course in high school. However, it is expected that the student seeking admission should have:

1. Completed a balanced program of studies designed to insure a well-rounded background of knowledge in basic fields;
2. Developed proficiency in reading, writing and speaking English;
3. Acquired proficiency in basic mathematical skills;
4. Developed effective study skills and work habits;
5. Developed adequate intellectual, physical, and social maturity;
6. Developed a sincere interest in further formal education.

It is realized that a student may attain the above attributes in

many different ways. However, the following suggestions may be helpful to a prospective college student in planning his high school program.

1. English. Since the ability to write clearly and to read with understanding and appreciation is essential, it is highly desirable that the student complete three or four units in English.*

2. Mathematics. Not only as a tool to further learning but as basic education, mathematics has much to offer. Two years of such study would be profitable. A student planning to specialize in the sciences should complete two and one-half or three units in mathematics in high school.

3. Social Studies. Social studies, such as history, civics, government, economics, sociology, and geography, are basic to the understanding and solution of contemporary problems in the community, in the nation, and in the world. From two to four units may well be devoted to this area by the prospective college student.

4. The Sciences. This field is rich in possibilities for understanding the world. Two units in science might well be completed. For one who plans to emphasize science in college, three units would be helpful.

5. Foreign Languages. Foreign languages, both modern and classical, will form a good background for college work.

6. The Fine Arts. This field offers opportunity for development which can contribute much toward individual growth.

7. Other Subjects. None of the foregoing statements should be interpreted as meaning that other subjects, agriculture, business subjects, home economics, industrial arts, speech, etc., should be avoided by the student who is planning to attend college. These subjects, when properly studied, contribute materially to the education of the individual and prepare him for continued study as well as for the activities of living.

Enrollment and Registration

Organization by Quarters—This college operates on the quarter system. This means that the work during the academic year is divided into three quarters of approximately twelve weeks each.

Summer Session—The length of the summer session for 1954 is ten weeks and that of the summer session of 1955, eight weeks.

College Office Hours—During June, July, and August the college administrative offices are open from 7:30 a.m. to 4:30 p.m. on

*A semester "credit" equals one-half "unit."

Mondays to Fridays inclusive. During the other months the offices are open from 7:50 a.m. to 4:50 p.m. on Mondays through Fridays.

Students and their parents are invited to come to the campus to make arrangements for college entrance. Such visits should be made on **Mondays through Fridays only**, since all college offices are closed on Saturday and Sunday.

Enrollment Days—Dates of enrollment are given on page 7. A fee of \$2 is charged for late enrollment. The opening days of the fall quarter are set aside for the orientation of students enrolling at this college for the first time. All such students, whether freshmen or upper classmen, should be present at 8:00 a.m. on Tuesday, September 7. Students who have previously been enrolled at this college will enroll and register on Thursday, September 9. On the first day of the winter quarter, the spring quarter, and the summer quarter all students enroll and register if they have not registered during the advance registration period. A new student may enroll on the designated registration day at the start of any quarter. An undergraduate who has not previously been enrolled in this college is not permitted to register at a time of advance registration.

Specific directions on the steps of enrollment and registration are furnished each student when he reports to the college. Each student is assigned to a faculty counselor who will advise him in the registration process and other matters throughout the freshman year. At the end of the freshman year, each student is assigned to a faculty adviser in the particular area in which he wishes to specialize.

Physical Examination—Each student enrolling for the first time or after an absence from school for two or more consecutive quarters is required to have a physical examination by a college physician. This examination is made by appointment during the first quarter of enrollment at a time designated by the Health Director. Subsequent examinations are made as indicated by the student's health record or at the student's request. Health examination before graduation is recommended.

Student Fees—All fees are assessed by the office of the Registrar and paid at the office of the Business Manager. Student fees are \$40.00 per quarter. Those who are permitted to enroll for less than 10 hours may pay at the rate of \$4.00 per quarter hour, with a minimum fee of \$12.00. The fee for late enrollment is \$2.00. The fee for persons enrolled as visitors is \$3.00 per week. Student fees, dormitory room rent, board, and music fees are payable at the time of enrollment. All fees are subject to change by the State Board of Education. Other fees are indicated below.

If a student withdraws from the college the student fee is refunded as follows: If the student has been in attendance 2 days or less, 100 per cent of the fee is refunded; 3 to 5 days, 90 per cent; 6 to 10 days, 80 per cent; 11 to 15 days, 70 per cent; 16 to 20 days, 60 per cent; 21 to 25 days, 50 per cent; 26 to 30 days, 40 per cent. If a student is in attendance six weeks or more there is no refund.

Music Fees—Students enrolled in the college pay a fee of \$10 per quarter for one thirty-minute lesson each week. The fee for one thirty-minute lesson per week for one quarter (10 lessons) for sub-collegiate students is \$15. The fee for one thirty-minute lesson per week for one quarter for adults who are not students in this college is \$20. Rent for auditorium organ or studio organ is \$3 a quarter. No rental charge is made for other practice studios or instruments. Practice pianos are available for music students.

Miscellaneous Fees—A fee of \$1 per credit hour is charged in any case in which a student is permitted to earn credit by examination.

A fee of \$1 is charged for transcript of a student's record except that one transcript is furnished without cost upon graduation from a curriculum.

Locker Fees—Corridor lockers are rented to students at 25 cents a quarter. Each student furnishes his own padlock.

Medical Service and Hospital Fees—Medical advice and treatment are provided students by the Health Director and his assistants without additional cost since a portion of the student fee is set aside for the purpose of defraying the expenses of this service. The Health Director or his assistant may be consulted in the offices of the Health Director at stated hours. In case of emergencies the services of the Health Director or of an assistant are available at other hours. Every case of illness should be reported promptly to the Dean of Students or the Associate Dean of Students. If no physician is in charge of the case, the head nurse will visit the student and give advice.

The college maintains a hospital for the benefit of its students. No specific hospital charge is made to a student for the first five days in the hospital in any quarter. After five days the charge is \$2 a day. The fee for a private nurse is paid by the patient. Any regularly authorized physician may be employed at the patient's expense.

Change of Registration Fee—A charge of \$1.00 is made for a change of registration unless such a change is requested by the appropriate college officials.

Academic Program—The registration of every student is subject to the approval of his counselor.

The regular work of an undergraduate student for the fall, winter, or spring quarters consists of 16 or 17 hours.

An undergraduate student may not register for less than 10 hours without special permission from the Dean of the Faculty.

During the academic year an undergraduate student who has a cumulative grade index of at least 2.5 may register for a maximum of 18 hours. An undergraduate student who has a grade index of at least 3.0 may register for a maximum of 20 hours. No student may be enrolled for more than 20 hours. Teachers in service may not register for more than 5 quarter hours of academic work during any quarter.

The regular work of an undergraduate student for the ten-week summer session consists of 14 or 15 hours; for the eight-week summer session, 12 hours.

For each hour of credit for which a student is enrolled, he may expect to devote three hours a week in class or study.

Classification of Students—For purposes of classification, a student who has less than 48 quarter hours of credit is considered to be a freshman, and one who has from 48 to 95 hours is classified as a sophomore. A student who has earned from 96 to 143 hours is classified as a junior, and one who has 144 or more hours is classified as a senior.

Veterans—Veterans may be excused from the required activity courses in physical education upon filing a copy of discharge and separation papers with the Registrar.

College credit may be assigned for certain types of specialized training. A maximum of 12 quarter hours of credit for basic military training may be assigned but not in addition to credit for specialized training.

Absences and the Making up of Work—Work lost by late enrollment may not be made up for credit except with the consent of the Dean of the Faculty.

Work lost by change of registration after the first three days of classes in any quarter may not be made up for credit without the consent of the Dean of the Faculty unless the change was due to a notification of error in registration.

To receive credit for the work a student is required to be in attendance for the full quarter. Exceptions to this rule are rarely made.

Courses dropped more than four weeks after the opening of a quarter are indicated on the student's record by WF (withdrawn failing) or WP (withdrawn passing).

Work left incomplete at the end of a quarter will be reported as a Failure unless permission is obtained from the Dean of the Faculty to have it reported as Unfinished. If a course is reported as Unfinished, this does not prevent the student from registering for another course for which the unfinished course is prerequisite. Work reported as Unfinished may not be completed after the expiration of six months from the time at which the report was made. If the work reported as Unfinished is not made up within six months, it is automatically entered as a Failure on the student's record.

Undergraduate students are expected to attend all classes for which they are scheduled unless prevented by illness or other valid reason. Lost work amounting to more than one-fifth of the course may not be made up for credit.

Marks and Grade Points

The marks A, B, C, D, F (Failed), and U (Unfinished) are used in indicating quality of work. Courses dropped more than four weeks after the opening of a quarter are indicated WF (withdrawn failing) or WP (withdrawn passing).

Grade points are awarded as follows: For each hour of credit work marked A, 4 grade points; B, 3 grade points; C, 2 grade points; D, 1 grade point; F, 0 grade points.

A freshman student who maintains a grade-point average of less than 1.65 will ordinarily be placed on probation.

A sophomore, junior, or senior student may be placed on probation any time his grade-point average is less than 2.00. A freshman student whose grade-point average is less than 1.33 at the end of the second quarter or 1.65 at the end of the third quarter will ordinarily be suspended. A sophomore, junior or senior student who is on academic probation may be suspended if in the opinion of the Professional Screening Committee he is not making sufficient progress toward fulfilling the requirements for graduation.

Any student who does not receive a passing mark in at least five hours of work in any quarter is subject to suspension.

Suspensions may be for two quarters or for an indefinite period. A student re-admitted after a period of suspension is automatically on probation and must show satisfactory progress or the suspension becomes permanent.

Transfer students who are admitted on probation must make a 2-point average for the period specified at the time of admission.

The Professional Screening Committee assumes responsibility

for students whose work is below average at the end of the freshman year or who have been referred to the committee by any member of the faculty. The committee may place students on probation for scholarship or other reasons and is specifically instructed to consider the suitability of candidates for the teaching profession.

Independent Study

Senior students of outstanding ability and achievement may be permitted to earn not more than ten quarter hours of credit by independent study.

This method of study follows the pattern of an investigation undertaken by a graduate student, although in miniature form. It involves independent thinking, the drawing of conclusions, the summarizing of evidence, or creative work. Whenever possible, the result of the investigation is summarized in a scholarly paper or report, prepared and documented in approved fashion.

Independent study should not involve work available through regular college courses; neither should it be confused with individual instruction, or the tutorial method. Individual instruction is provided on rare occasions for instruction in a college course not currently being offered.

Application for independent study should be made to the head of the department in which the student is pursuing a major during the last quarter of the junior year and not later than the middle of the first quarter of the student's senior year. The student's program of independent study will be under the immediate supervision of one or more faculty members and under the general supervision of the Committee on Independent Study.

From time to time and especially during the summer quarter opportunities are offered for earning credit under the workshop plan.

General Requirements

Residence and Residence Credit—Three-fourths of the credit required for the completion of a curriculum leading to the bachelor of arts degree must be earned in residence. The last 15 quarter hours of credit earned before graduation must be earned in residence in Cedar Falls.

For a bachelor's degree a student must be in residence at this college for at least thirty-six weeks earning in such residence not less than 48 quarter hours of credit.

A minimum of 60 hours in courses numbered 400 or above is required for graduation.

For the completion of the two-year plan, a student must be in residence for at least twenty-four weeks earning in such residence not less than 32 quarter hours of college credit.

For details of the total requirements for each curriculum see pages 51 to 65 of this catalog.

A student on a degree curriculum is required to pursue work in Physical Education 01 each quarter in residence until six quarter hours of credit have been earned. Requirements for the two-year plan will be found on page 63. Release from part or all of this requirement may be granted by the Dean of the Faculty. A student who is teaching in a rural demonstration school or who is enrolled for marching band practice in the fall quarter may defer Physical Education 01 for that quarter.

A student may receive not to exceed one quarter hour of credit for Physical Education 01 in any quarter and not more than a total of six quarter hours of credit will apply towards meeting the requirements for graduation from any curriculum. Two or more courses in Physical Education 01 may be pursued during any one quarter but credit may be earned in only one such course. The registration card must indicate the course in which credit is desired.

The course, Physical Education 113, Physical Education for Elementary Grades, may be used to satisfy three hours of 01 requirement. A student may earn credit in Physical Education 113 in addition to six hours in 01 courses except that when this course is taken in the same quarter as an 01 course, the 01 course will carry no credit.

No course in Physical Education 01 may be repeated for credit more than once except with the specific approval of the head of the department having charge of the course. Three quarters of the required work in Physical Education 01 must consist of courses requiring three periods a week and should be completed during the freshman year. **During one of the first four quarters enrolled, a man student who has not passed the swimming test must enroll for a course in swimming.** Proficiency in swimming is a graduation requirement for all men students.

A temporary release from Physical Education 01 for a quarter or part of a quarter does not release the student from any part of the total requirement in Physical Education 01.

To graduate from a degree curriculum the student must demonstrate competence in typing and in the use of duplicating machines. For the student who has had one or more semesters of typing in high school or college this competency is assumed.

All other students must register at some time before graduation for Business Education 145-Personal Use Typewriting.

Listing of Candidates for Graduation—A student may be listed as a candidate for graduation at the end of a quarter if the completion of the work for which he is registered would meet all the requirements for graduation exclusive of grade points, and if the grade points to be earned do not exceed the number which could be earned for the hours for which he is registered.

Scholarship Requirement—To be recommended for graduation or to be certified as having completed the two-year plan a student must earn two times as many grade points as hours attempted in residence and by extension work at this institution. If part of the credits were earned at another college with an average scholarship mark which is below C, the scholastic average here must be sufficiently high to insure an average scholarship mark in all college work attempted of not less than C.

If a student has failed to be recommended for graduation or has failed to have been certified as having completed the two-year plan because of his scholastic average, the deficiency may be removed only by work taken in residence.

A student who expects to be graduated or to complete the two-year plan at the end of a quarter should make written application at the opening of the quarter. This application is filed in the office of the Registrar.

“ . . . the benevolence, which earnestly longs for the good of the pupils, and never tires; the kindness which wins affection; the authority which secures obedience; the dignity which insures respect; the accuracy which inspires confidence; the zeal which awakens enthusiasm; and the learning which compels admiration.”—DENISON OLMSTEAD.

Teachers Certificates

Every person employed in Iowa as an administrator, supervisor, or teacher must hold an Iowa teachers certificate which is valid for the type of teaching position for which he is employed. To receive a teachers certificate of any kind a person must be at least eighteen years of age.

Iowa State Certificates

All state certificates are issued by the State Board of Educational Examiners, and the curricula of the Iowa State Teachers College are planned to meet the requirements specified by that Board. The State Department of Public Instruction also makes certain requirements for the approval of schools and in so far as these requirements apply to the teacher they are provided for in the curricular requirements of the college. The North Central Association of Colleges and Secondary schools makes additional requirements for member schools and these too are provided for in the curricular requirements of the college.

To receive an Iowa teaching certificate the student must complete either an approved teacher education curriculum or the two-year plan. In addition, he must be recommended by the teacher education institution.

Standard Elementary Certificate. Completion of the two-year plan at Iowa State Teachers College and the recommendation of this institution make a student eligible to receive the Standard Elementary Certificate. This is a five-year certificate, valid for teaching in the kindergarten and grades one to eight inclusive.

Standard Secondary Certificate. A student who completes an undergraduate curriculum at the Iowa State Teachers College in a field other than elementary education and who is recommended by this institution is eligible for a Standard Secondary Certificate. This certificate is valid for a term of five years for teaching in the seventh and eighth grades and in one or more subjects in high school.

Advanced Elementary Certificate. A student who completes an undergraduate curriculum at this college for teaching either in the upper grades or lower grades of the elementary school and who is recommended by this institution is eligible for an Advanced Elementary Certificate. This certificate is valid for a term of five

years for teaching in the kindergarten and grades one to eight inclusive.

Advanced Secondary Certificate. This certificate may be issued to any person who is eligible for a Standard Secondary Certificate, and who, in addition, holds a master's degree. The holder of this certificate is entitled to teach for a term of five years in the seventh or eighth grades, in a high school, and in a public junior college.

Elementary Principal's Certificate. This certificate may be issued to any person who is eligible for the Advanced Elementary Certificate and who, in addition, has completed two years of successful teaching experience in the elementary school, has had administrative experience under the supervision of the teacher education institution, and has earned a minimum of 30 quarter hours of graduate credit including work in certain prescribed areas.

Secondary Principal's Certificate. The requirements for this certificate include eligibility for the Standard Secondary Certificate, two years of successful teaching experience, administrative experience under the supervision of the teacher education institution, and a minimum of 30 quarter hours of graduate credit which must include work in certain prescribed areas.

Elementary Supervisor's Certificate. The holder of this certificate is entitled to serve as a supervisor or teacher in the elementary-school field. To obtain this certificate one must have eligibility for the Advanced Elementary Certificate, four years of successful teaching experience, supervisory experience under the supervision of the teacher education institution, and a minimum of 30 hours of graduate work including certain prescribed work.

Superintendent's Certificate. The holder of a superintendent's certificate is entitled to serve as county superintendent, superintendent, principal, or teacher in any elementary or secondary school. The requirements for this certificate include eligibility for an advanced elementary or standard secondary certificate and a master's degree with work in both elementary and secondary school administration, additional work in elementary and secondary school education, and administrative experience under the supervision of the teacher education institution.

Special Teaching Certificate. There are numerous other teaching certificates in Iowa including various supervisory certificates. Information concerning these certificates may be secured at the Office of the Registrar.

Renewal or Reinstatement of Certificates. The requirements for renewal and reinstatement of certificates were considerably revised effective January 1, 1953. The latest regulations for the

renewal of certificates or for the reinstatement of lapsed certificates are published regularly and these may be obtained by writing to the State Board of Educational Examiners, Des Moines 19.

Certificates in Other States

Graduates of degree curricula are qualified to receive appropriate certificates in other states if they have made careful use of their elective privileges. It is wise to communicate with the Department of Public Instruction of the state under consideration in order to secure the exact current requirements. The student's program can thus be made to fit the individual state's requirements.

Completion of the two-year plan will qualify a student to teach in the elementary schools of a few states in addition to Iowa.

*" . . . But masters, strong and wise
Who teach because they love the teacher's task,
And find their richest prize
In eyes that open and minds that ask."—HENRY VAN DYKE.*

*"If we work upon marble, it will perish,
If we work upon brass, time will efface it.
If we rear temples, they will crumble to dust.
But if we work upon men's immortal minds,
If we imbue them with principles,
We engrave on these tablets something which no time can efface,
And which will brighten and heighten to all eternity."—DANIEL WEBSTER.*

Curricula

The primary purpose of the Iowa State Teachers College is to prepare its students adequately for teaching and for other responsible positions in the public schools of Iowa. In order to offer a superior program of teacher education this college attempts to provide a well-qualified staff dedicated to the education of teachers, ample equipment and facilities, a curriculum specifically designed to educate teachers; and to make adequate provision for such significant things as residence hall life, guidance and counseling, student health and diet, extracurricular activities, and placement services. Adequate preparation entails the development of the student in the areas of general education, professional education, and education in an area of specialization. The curriculum is the main device by which the college seeks to attain its chief objective.

Through its program of general education, the college seeks to develop competent citizenship. This includes the development of an understanding of present day problems, of the cultural heritage, and of one's physical environment. It includes also the development of the ability to understand the ideas of others and to express one's self effectively; to enjoy literature, art, music, and other cultural activities; and to maintain and improve one's health. This college actively attempts to develop those moral, ethical, and spiritual qualities that are so necessary for a happy and successful life. Hence, this college is interested in the development of such attributes as integrity, self-discipline, a sense of responsibility both to one's self and to society, faith in man and in the future, an appreciation of the value of teamwork, tolerance, and gratefulness for divine beneficence. The college seeks not only to develop these attributes in its students but to imbue them with both the desire and the skill for instilling these virtues in others.

The purpose of general education in the curriculum is to help the student to understand himself, the society in which he lives, and the natural world so that he may live and more fully participate as a citizen in a democracy.

Through the work in professional education, the Iowa State Teachers College seeks to enhance the student's interest in teaching, to build a spirit of professional loyalty and the desire for continuous professional growth, and to develop the attitudes, skills, techniques, and understandings necessary for good teaching.

The student's choice of an area in which to concentrate also receives a great deal of attention so that the future teacher will

have an adequate fund of information and skill in that area and its closely related fields.

The Iowa State Teachers College offers the Graduate Curricula and the Undergraduate Curricula.

I —The Graduate Curricula. These lead to the Master of Arts in Education degree, the minimum requirement for which is 45 quarter hours of credit. On the master's degree curricula, students are prepared for the following areas:

- 1—Elementary school teachers.
- 2—Elementary school principals.
- 3—Elementary school supervisors.
- 4—Guidance and Counseling.
- 5—Secondary school principals.
- 6—School superintendents.
- 7—Secondary school and special teachers of art, business education, English, mathematics, music, science, social science, and speech.

For a description of the graduate curricula see pages 170 to 177. Those who are interested in graduate study should write to the Registrar for the **Graduate Study Bulletin** and the necessary blanks for application.

II—Undergraduate Curricula. These lead to the Bachelor of Arts degree, the minimum requirement for which is 196 quarter hours of credit. On the degree curricula, students are prepared for the following areas:

- 1—Secondary teachers of agriculture, art, business education, earth science, English, foreign languages, home economics, industrial arts, mathematics, music, physical education, science, social science, speech; and school librarians.
- 2—Special teachers of agriculture, art, industrial arts, music, physical education, speech correction; and school librarians.
- 3—Elementary teachers for nursery school, kindergarten, lower grades, and upper grades; and school librarians.
- 4—Junior high school education in all usual areas of instruction.

III—Two-Year Plan. This leads to the Standard Elementary Certificate. A student interested in teaching after only two years of college enrolls on an undergraduate curriculum for either the lower grades or the upper grades of the elementary school and indicates his intentions of following the two-year plan.

Undergraduate Curricula

All students will choose one of the following patterns not later than the beginning of the sophomore year.

I—Preparation for teaching in the **secondary school** or in **special subjects**.

	Quarter Hours
General education.....	64
Common professional sequence.....	33
Physical education 01.....	6
Major, Minor, Electives.....	93
	<hr/>
	196

II—Preparation for teaching in the **junior high school** (grades 7, 8, and 9).

	Quarter Hours
General education.....	64
Common professional sequence.....	33
Physical education 01.....	6
Additional specified requirements.....	45
Subject-matter field.....	20
Electives	28
	<hr/>
	196

III—Preparation for teaching in the **upper grades of the elementary school** (grades 4, 5, and 6).

	Quarter Hours
General education.....	64
Common professional sequence.....	33
Physical education 01.....	3
Additional specified requirements.....	62
Subject-matter field.....	20
Electives	14
	<hr/>
	196

IV—Preparation for teaching in the **lower grades of the elementary school** (kindergarten, and grades 1, 2, and 3).

	Quarter Hours
General education.....	64
Common professional sequence.....	33
Physical education 01.....	3
Additional specified requirements.....	57
Subject-matter field.....	20
Electives	19
	<hr/>
	196

The requirements for graduation from the Undergraduate Curricula include in addition to the completion of one of the five patterns outlined above the following: (1) At least 45 hours of credit earned in the junior and senior years in courses at this college, (2) At least 30 hours of credit earned in the junior and senior years in residence at this college, (3) At least 60 hours of credit earned in courses numbered 400 and above, (4) At least 20 hours of the work of a major in courses numbered 300 and above and at least 10 hours in courses numbered 400 and above, (5) The work in Physical Education 01 for women students must include Activities for Social Recreation except that a student whose major is art or speech or music may take Beginning Modern Dance instead of Activities for Social Recreation, (6) The demonstration of competence in typing and the use of duplicating machines. Students who cannot demonstrate this competency will complete a one-hour course in Personal Use Typewriting or its equivalent. (7) Men students must either demonstrate competency in swimming or complete a course in beginning swimming.

For the completion of any undergraduate curriculum or of the two-year plan the student must have earned credit in student teaching in this college. Ordinarily, the student will be required to have 12 quarter hours credit in student teaching at this college. However, an undergraduate student with 3 or more semester hours credit in student teaching at the same level in another college may be released from as much as 7 quarter hours of student teaching.

A student who has completed a two-year course of teacher education at the Iowa State Teachers College will **not** be held for additional work in student teaching if he desires to complete a major in the field of elementary education. However, credit in Teaching 408 will be required if the student majors in an area other than the field of elementary teaching.

A student must make application for student teaching at least one quarter in advance of the time when the work in student teaching is to be taken. Opportunity for student teaching in the summer session is limited to those students who are candidates for graduation at the end of that summer session.

No more than 15 hours of credit in observation and student teaching may be used toward graduation.

To receive a second baccalaureate degree a student must meet all the requirements for the second degree including at least 36 weeks of residence after receiving the first degree and not less than 48 hours of credit in addition to that required for the first baccalaureate degree.

Completion of any one of the Undergraduate Curricula leads to the Bachelor of Arts degree. A student who completes the requirements for teaching in the secondary school or in such special

fields as art, industrial arts, music, physical education, speech correction, and library science will, on the recommendation of this college, be eligible for the Standard Secondary Certificate. A student who majors in one of the special fields just mentioned may also qualify for a Special Certificate in this field. A student who completes the requirements of the junior high school education curriculum is qualified, on the recommendation of this college, to receive both the Standard Secondary Certificate and the Advanced Elementary Certificate. Completion of the curriculum for teaching in the upper grades of the elementary school or the curriculum for teaching in the lower grades of the elementary school, and the recommendation of this institution, qualify a student to receive the Advanced Elementary Certificate.

The General Education Requirements

All candidates for a bachelor of arts degree on any curriculum are required to take the following courses unless competency has been demonstrated to the satisfaction of the department offering the course.

Quarter Hours

Communications

English 1. English I	4
English 100. English II	4
Speech 20. Fundamentals of Speech	4
Students who demonstrate high level proficiency on the English placement tests will be released from English I and begin with English II. These students will then take	
English 114. Mass Communication	4

Mathematics

Mathematics 94. Mathematics for General Education	4
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Science

Science 116. The Physical Sciences	5
Science 117. The Biological Sciences	4
Science 118. Human Biology	3
Science 119. World Resources	3

Social Science

Social Science 116. Basic Forces and Economic Problems	5
Social Science 117. Governmental Problems	4
Social Science 118. Problems of Society	3

Humanities

Humanities 111. Ancient Times to the Renaissance	4
Humanities 112. The Renaissance through the French Revolution	4
Humanities 113. The Nineteenth and Twentieth Centuries	4
Art 101. Man and Materials	3
Music 130. Exploring Music	3
Either Philosophy 406. Introduction to Philosophy or Religious Literature 426. The Heritage of the Bible	3

General Education total	64
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The Common Professional Sequence

Any candidate for a bachelor of arts degree on any curriculum is required to take the courses in the common professional sequence as outlined below.

	Quarter Hours
Education 105. Exploring the Teaching Profession	3
Education 211. Fundamentals of Teaching I	5
Education 212. Fundamentals of Teaching II	5
Education 213. Fundamentals of Teaching III	5
*Teaching 4—Student Teaching	12
Education 503. Problems of Teachers	3
*Course number in Teaching denotes area in which experience is gained: 402, 404, 406, 407, 408, 510	
	Total 33

The Freshman Schedule

Each freshman is assigned a faculty adviser at the time of enrollment and this adviser helps the student plan his program of classes. Except for the students on the two-year plan, all prospective teachers take in their freshman year: English 1, English 100, Speech 20, Humanities 111, 112, 113, Education 105, and Physical Education 01 or 06. Other courses that are commonly included in the typical freshman program are: Mathematics 94, Art 101, Music 130, and Science 116, 117, 118 or 119. Most students during their first year in college take at least one or two foundational courses in the particular area in which they plan to specialize.

The program for the freshman on the two-year plan permits very little room for free electives. The first year of this program ordinarily includes: English I, Speech 21, Biology 10, Science 18, Music 10, Education 105, Education 211, Art 101, Art 110, Social Science 117, Social Science 118, Humanities 111, and Physical Education 01.

Undergraduate Majors and Minors

Each student preparing to teach in the secondary school or in a special subject will choose not later than the beginning of the sophomore year one major and at least one minor, or two majors. If the student has a single major, two or more minors are frequently recommended in order that the student may be prepared for teaching in several fields. The majors and minors will be chosen from the fields listed below. The specific requirements of each will be found at the beginning of the appropriate department's section in the chapter entitled **Courses of Instruction** beginning on page 67.

Majors

Agriculture	Library Science
Art	Mathematics
Business Education	Music
Earth Science	Physical Education (Men)
English	Physical Education (Women)
French	Science
Home Economics	Social Science
Industrial Arts	Spanish
Latin	Speech

Minors

Agriculture	Home Economics
Art	Industrial Arts
Biological Sciences	Latin
Business Education	Library Science
Chemistry	Mathematics
Earth Science	Music
Economics and Sociology	Physical Education (Men)
English	Physical Education (Women)
French	Physics
German	Safety Education
Government	Spanish
History	Speech

Major in Junior High School Education

In addition to the work in general education, the common professional sequence, and physical education, the student who chooses a major in junior high school education completes the following:

Quarter Hours

I—Additional Requirements

Education 136. Reading and Language Arts I	5
Education 538. Remedial Reading.....	5
Education 568. The Junior High School.....	5
English 110. English III.....	4
Speech 482. Speech Problems of Children....	2
Mathematics 408. Teaching of Arithmetic II	3
Science 518. Physical Science for Elementary Grades II.....	3
Science 515. Biological Science for Elementary Grades II.....	3
Earth Science 366. Geography of North America or elective in geography.....	5
History 14. American History to 1865.....	5
History 304. American History since 1865...	5

Total 45

II—A Subject-Matter Field

The list of subject-matter fields is given on page 60. Care should be exercised to choose material common to the junior high school. The special methods course in the field chosen must be included as a part of the subject-matter field.

Major in the Upper Grades of the Elementary School

(Grades 4, 5, and 6)

In addition to the work in general education, the common professional sequence, and physical education, students who choose a major in this area complete the following.

Quarter Hours

I—Additional Requirements

Education 136. Reading and Language Arts I	5
Education 30. Children's Literature.....	3
Education 332. Teaching the Elementary Curriculum I.....	4

Education 439. Teaching the Elementary Curriculum II.....	4
Education 536. Reading and Language Arts II	3
Elective in Education or Psychology.....	5
Art 110. Arts for Elementary Grades I.....	3
Art 122. Arts for Elementary Grades II....	2
Speech 482. Speech Problems of Children....	2
*Mathematics 111. Arithmetic: Principles and Teaching	5
Mathematics 408. Teach of Arithmetic II.....	3
Music 10. Elements of Music.....	2
Music 12. Music for Elementary Grades....	2
Science 518. Physical Science for Elementary Grades II.....	3
Science 515. Biological Science for Elementary Grades II.....	3
Earth Science 366. Geography of North America or elective in geography.....	5
History 11. Social and Economic History of the United States.....	5
Physical Education 113. Physical Education for Elementary Grades.....	3

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II—A Subject-Matter Field

This will be chosen from the list on page 60.

Major in the Lower Grades of the Elementary School

(Kindergarten and Grades 1, 2, and 3)

In addition to the work in general education, the common professional sequence, and physical education, students who choose a major in this area will complete the following:

I—Additional Requirements	Quarter Hours
Education 136. Reading and Language Arts I	5
Education 30. Children's Literature.....	3
Education 363. Teaching the Kindergarten-Primary Curriculum I.....	4
Education 464. Teaching the Kindergarten-Primary Curriculum II.....	4

Education 536. Reading and Language Arts II	3
Education 542. Literature for Kindergarten- Primary Children.....	5
Education 310. Early Childhood Education..	3
Art 110. Arts for Elementary Grades I.....	3
Art 122. Arts for Elementary Grades II...	2
Speech 482. Speech Problems of Children..	2
*Mathematics 111. Arithmetic: Principles and Teaching	5
Music 10. Elements of Music.....	2
Music 12. Music for Elementary Grades....	2
Science 518. Physical Science for Elementary Grades II.....	3
Science 515. Biological Science for Elemen- tary Grades II.....	3
History 11. Social and Economic History of the United States.....	5
Physical Education 113. Physical Education for Elementary Grades.....	3
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II—A Subject-Matter Field

This will be chosen from the list given below.

Subject-Matter Fields

Students choosing majors in junior high school education, the upper grades of the elementary school, or the lower grades of the elementary school complete a subject-matter field in one of the following areas. A subject-matter field consists of at least 20 hours of credit in the designated field in addition to the work required in the general education program and the specific course requirement of the curricula in junior high school education, the upper grades of the elementary school, or the lower grades of the elementary school. In the four starred (*) fields indicated below special patterns for the subject-matter field have been organized. For all the remaining subject-matter fields any elective work in the appropriate department may be used as part of the 20-hour requirement.

Art and Industrial Arts
English
Speech
Home Economics
Library Science
Mathematics

Music
Biological and Physical Science
Earth Science
Social Science
Nursery School*
Special Education*

Community Leadership*
Recreation*

Physical Education
and Health

Nursery School. This subject-matter field consists of the following:

Quarter Hours

Education 550. Parent Education.....	5
Education 582. The Nursery School.....	3
An advanced course in psychology.....	5
Electives in courses applicable to this area....	7

Special Education. This subject-matter field has four subdivisions, each leading to a special state certificate. These fields are longer than most subject-matter fields in order to meet specific certification requirements. The certificates will be good only at the elementary level. If it is desired to make them good at all levels, an additional 15 quarter hours in secondary school professional education will be necessary. All students selecting this area as their subject-matter field will take:

Quarter Hours

Education 538. Remedial Reading.....	5
Education 544. The Exceptional Child.....	3
Education 555. Educational Tests for the Elementary School.....	2
Education 556. Achievement Testing.....	1
Education 558. Mental Tests.....	3
Education 559. Mental Testing.....	1
Psychology 508. Personality Growth of Children	3
Psychology 512. Mental Hygiene.....	2

In addition, the students choosing special education as their subject-matter field will select one of the four following areas of emphasis in special education and complete the requirements in that particular area:

Quarter
Hours

(a)—Emphasis on Education Retardation. Required:

Mathematics 585. Clinical Practice in Arithmetic	5
Speech 385. Speech Correction.....	5
(May omit Speech 482—required on junior high school, upper, and lower grade curricula)	

(b)—Emphasis on Mental Retardation. Required:

Mathematics 585. Clinical Practice in Arithmetic	5
Speech 385. Speech Correction.....	5
(May omit Speech 482—required on junior high school, upper, and lower grade curricula)	

- Education 505.** The Retarded Child..... 3
- (c)—Emphasis on the Physically Handicapped. Required:
- Education 509.** The Physically Handicapped.... 3
- (d)—Emphasis on the Gifted Child. Required:
- Education 507.** The Gifted Child..... 3

Community Leadership. This subject-matter field consists of a minimum of 20 quarter hours selected from the following courses:

	Quarter Hours
Psychology 512. Mental Hygiene.....	2
Psychology 520. Social Psychology.....	5
Education 550. Parent Education.....	5
Speech 110. Public Speaking.....	5
*Speech 335. Group Discussion.....	3
Speech 375. Dramatic Production.....	5
Home Economics 551. Problems of Consumers	3
Home Economics 568F. Problems—Adult Education	2-3
Social Science 400. Contemporary Affairs B..	2
Economics 356. Labor Problems.....	3
*Government 134. Parliamentary Law.....	1
Government 532. State and Local Government	5
*Sociology 358. Principles of Sociology.....	5
Sociology 468. The Family.....	3
Sociology 572. Crime and Delinquency.....	5

*Starred courses strongly recommended.

Recreation. For this subject-matter field a minimum of 20 hours must be earned from the following courses. Selections should be made from at least three of the six areas listed.

	Quarter Hours
Art 323. Design and Materials I.....	5
Art 340. Art Metal Work.....	3
*Art 401. Crafts for Recreation.....	3
Art 415. Weaving	3
Art 461. Puppetry	3
Education 543. Story Telling.....	3
Psychology 508. Personality Growth of Children	3
Industrial Arts 130. Introduction to Industrial Arts	3
Industrial Arts 257. Printing	3
*Industrial Arts 357. Photography.....	2

Physical Education 01. Swimming.....	0
Physical Education 01. (Variety of sports and games)	0
*Physical Education 100. First Aid to the Injured	2
*Physical Education for Women 303. Club and Camp Leadership.....	3
Physical Education for Women 305. Play and Recreational Leadership.....	3
Biology 104. Conservation for Elementary Grades B.....	5
Biology 105. Conservation for Elementary Grades A.....	5
Biology 510. Field Biology.....	5
*Speech 321. Dramatics for Elementary Teachers	3
Speech 375. Dramatic Production.....	5
Speech 578. Stagecraft	5

*Starred courses strongly recommended.

Two-Year Plan

A student interested in teaching after only two years of college will enroll on the undergraduate curriculum for teaching either in the **upper** grades of the elementary school or for teaching in the **lower** grades of the elementary school. He will indicate his intention of following the two-year plan.

Completion of the two-year plan and the recommendation of this college qualify a student to receive an Iowa Standard Elementary Certificate.

GENERAL REQUIREMENTS

A minimum of 98 hours of college work is required for the completion of the two-year plan.

The student must make application for teaching at least one quarter in advance of the time when the work in teaching is to be taken.

In the schedule of classes, several of the courses required on the two-year plan are listed with sections labeled "Y" or "Z." Those labeled "Y" are designed primarily for those particularly interested in the lower grades; and those labeled "Z" are intended primarily for those who are chiefly interested in the upper grades.

During the first year, students are required to take a three-

day-a-week activity course in physical education during each quarter.

A student who satisfactorily completes the two-year plan will receive from the college a certificate of completion. In order to receive the certificate of completion a student must have earned at least a 2.00 grade index in all courses attempted and must have completed enrollment with the Placement Bureau. A student who completes the two-year plan must apply for the certificate of completion at least one quarter in advance of the date of issuance. This certificate may be issued at the completion of two years or at the end of any subsequent quarter.

The following courses are required of all students pursuing the two-year plan.

	Quarter Hours
Art 101. Man and Materials.....	3
Art 110. Arts for Elementary Grades I.....	3
*Biology 10. Biological Science for Elementary Grades I.....	5
Education 30. Children's Literature.....	3
Education 105. Exploring the Teaching Pro- fession	3
Education 136. Reading and Language Arts I	5
Education 211. Fundamentals of Teaching I	5
English 1. English I.....	4
English 100. English II.....	4
History 11. Social and Economic History of the United States.....	5
Humanities 111. Ancient Times to the Renais- sance	4
**Mathematics 111. Arithmetic: Principles and Teaching	5
Music 10. Elements of Music.....	2
Music 12. Music for Elementary Grades....	2
Physical Education 01.....	3
Physical Education 113. Physical Education for Elementary Grades.....	3
Science 18. Physical Science for Elementary Grades I.....	3
Science 118. Human Biology.....	3
Social Science 117. Governmental Problems.	4
Social Science 118. Problems of Society....	3
Speech 21. Speech for Elementary Teachers..	3

*Biological Science 104 or 105 taken at the Conservation Camp may be used in place of Biological Science 10.

**Not to be taken by a student with credit in Mathematics 11 or 322.

Teaching 302, 304, 305, or 306.....12

Total87

Additional requirements for a student on the curriculum for teaching in the **lower** grades of the elementary school.

Education 310. Early Childhood Education.. 3

Education 363. Teaching the Kindergarten-

Primary Curriculum I..... 4

Electives* 4

Total98

Additional requirements for a student on the curriculum for teaching in the **upper** grades of the elementary school.

Education 332. Teaching the Elementary Curriculum I..... 4

Science 119. World Resources..... 3

Electives* 4

Totals98

*Electives to make a total of at least 98 hours may be chosen from any of the courses required on the degree curriculum for which the student is registered. In addition to required courses on the undergraduate curriculum, such courses as Social Science 10, Library Science 110, Applied Music, Business Education 145, and Education 121 will be acceptable. A student who tests out of one or more of the required courses on the two-year plan will choose an equivalent number of hours of work from among any other courses on his specified curriculum or in his chosen subject-field.

Curriculum Adjustments for Transfer Students

I—A student transferring two or more full years of college work, and who is a candidate for a bachelor's degree, is assumed to have completed a program satisfying all of the requirements of the first two years at Iowa State Teachers College except Fundamentals of Teaching I, II, III. If the student has not taken a course in American government in an Iowa college, he must take one at this college. It should be understood that piecemeal work in several different institutions or an irregular pattern in a single institution does not meet these requirements.

- II—In determining the requirements for graduation, students transferring credit for two or more years of college work to a Bachelor of Arts curriculum, are required to have:
- 1—196 quarter hours of work less the number of hours accepted by transfer.
 - 2—All courses in education, psychology and teaching, except Education 105.
 - 3—All general education courses numbered 400 and above.
 - 4—All work of the major and minors, excluding such specific requirements as may have been met by accepted transfer courses, and including specific courses of the first two years or prerequisites for advanced courses where no acceptable transfer courses are presented.
 - 5—If courses equivalent to one or more of the three Fundamentals of Teaching courses can be determined, these may be accepted in lieu of like courses at this college. However, in all cases, the transfer student is required to take Education 213, as a prerequisite to Student Teaching, on this campus.
 - 6—The same plan is followed in accepting credit for students who have completed a two-year program for teaching in the elementary school before transferring, except that they are not held for the professional courses of the first two years, if this requirement has reasonably been met.
 - 7—Transfer students are required to take the speech check and if they cannot pass this test, they are required to take Speech 20.
 - 8—Proficiency in swimming is required of all men students.
 - 9—Transfer students who do not meet certain standards on the English placement tests are held for certain work in the communications area.
 - 10—Proficiency in typing and in the use of duplicating machines is required on all degree curricula.
- III—Students transferring 90 or more quarter hours, taken piecemeal in many institutions, may be held to all or part of the specific requirements of the first two years.
- IV—Students transferring less than 96 quarter hours may be held for all specific course requirements of the first two years not met by specific transfer courses.

Courses of Instruction

Explanation of Course Numbers and Classification of Students

Courses with 0 prefixed, open to students in any year of residence.

Courses 1- 9, open to freshmen only.

Courses 10- 99, open to freshmen and sophomores.

Courses 100-199, open to freshmen, sophomores, and juniors.

Courses 200-299, open to sophomores and juniors.

Courses 300-399, open to sophomores, juniors, and seniors.

Courses 400-499, open to juniors and seniors.

Courses 500-599, open to juniors, seniors, and graduates.

Courses 600-699, open to graduates only.

A student who has less than 48 quarter hours of credit is classified as a freshman and one who has from 48 to 95 hours is classified as a sophomore. A student who has earned from 96 to 143 hours is classified as a junior and one who has 144 hours or more is classified as a senior.

Art

Harry G. Guillaume, Ed.D., Associate Professor of Art and
Head of the Department

Corley Conlon, M.A., Associate Professor of Art

Marjorie D. Campbell, M.A., Assistant Professor of Art

Clayton V. Fowler, Ph.D., Assistant Professor of Art

Clifford H. Herrold, M.A., Assistant Professor of Art

*Joseph A. Bolinsky, M.A., Instructor in Art

Jack Burgner, M.A., Instructor in Art

William P. Daley, M.A., Instructor in Art

David Delafield, Ph.D., Instructor in Art

David F. Driesbach, M.F.A., Instructor in Art

Paul R. Smith, M.F.A., Instructor in Art

Robert von Neumann, M.S., Instructor in Art

*On leave.

An undergraduate major in art includes not less than 47 hours of art. The courses will be selected with reference to the needs and interests of the student as determined in conference with the student's adviser. A well-rounded experience in art would include Art 101, 104, 108, 353, 381, 450, 454, and 490. The remaining hours may be taken in a concentrated area or may be used to take additional work in several areas and may include 5 hours in the department of industrial arts.

A minor in art consists of at least 23 hours of art. It should include Art 101, 104, 353, 454, and 490.

A double major in art and home economics consists of 96 quarter hours. The requirements for each separate major should be completed except that 9 hours chosen from the following may count in both areas: Art 330, 401, 415, and Home Economics 411, 416, 460, and 568D.

Three patterns exist by which a student who majors in art may also be certified as an elementary teacher. Students interested in the possibility of such dual certification should consult the Head of the Department of Art. Requirements for a graduate major in art are described in the section on Graduate Study, pages 171 to 174.

101. Man and Materials—3 hours. Designed for general education in the field of art. Experimentation with materials to foster an understanding of the interaction between man and such materials as paint, ink, chalk, wood, stone, and metal. Emphasis upon contemporary art forms. Six periods a week.

104. Basic Art—5 hours. Composition and the development of techniques in a variety of drawing media. Ten periods a week.

108. Figure Drawing—3 hours. Graphic interpretation of the human figure. Six periods a week.

110. Arts for the Elementary Grades I—3 hours. Individual and group activities using a variety of art and industrial arts tools and materials with specific emphasis on their relation to the physical, mental, and emotional growth of elementary school children. Attention will be given materials for their expressional, esthetic values and their significance in a democratic industrial society. Six periods a week.

117. Ceramics I—3 hours. Introduction to the creative use of clays and glazes for pottery and ceramic sculpture. Six periods a week.

122. Arts for the Elementary Grades II—2 hours. Continued consideration of a unified arts program for the elementary curriculum. Prerequisite: Art 110. Four periods a week.

305. Painting I—5 hours. Not to be taken if student has credit

in Art 307. Experience in water color, oil, tempera, encaustic, and mixed media. Ten periods a week.

309. Art and the Child—2 hours. Evaluation of the art of children at the elementary level. Continued manipulation of materials. It is recommended that Art 110 precede this course. Four periods a week.

317. Ceramics II—3 hours. Continued use of clays and glazes with an emphasis on pottery or ceramic sculpture. It is recommended that Art 117 precede this course. Six periods a week.

319. Sculpture—3 hours. Individual expression in various three-dimensional materials: wood, metal, stone, plaster, plastics, and wire. Six periods a week.

323. Design and Materials I—5 hours. An understanding of design as determined by the use of materials such as leather, wood, metals, and fabrics. Ten periods a week.

330. Exhibition Techniques—3 hours. Application of various techniques in poster design, advertising lay-out, and display methods. Six periods a week.

340. Art Metal Work—3 hours. Design and execution of functional and decorative objects with precious and semi-precious metals. Six periods a week.

353. Art Education I—3 hours. Materials, methods and problems of teaching art in the elementary school. Through creative activities, readings, and discussions an attempt is made to develop a personal philosophy of art education appropriate for teaching elementary school children. Six periods a week.

361. Print Making—5 hours. Not to be taken if the student has credit in Art 366. Basic techniques in relief, intaglio, monoplane, and serigraphy with linoleum, wood, and silk. Ten periods a week.

381. History of Art—5 hours. Cultural development of man as expressed through his art up to the middle of the nineteenth century.

401. Crafts for Recreation—3 hours. Development of techniques in various crafts and their application to club, camp, and leisure time activities. Six periods a week.

403. Contemporary Arts—3 hours. Understanding and appreciation of significant concepts of the arts of today.

407. Painting II—5 hours. Advanced work in one medium. Prerequisite: Art 305. Ten periods a week.

415. Weaving—3 hours. The complete weaving process from design to the finished fabric emphasizing color, texture, and mass. Six periods a week.

417. Ceramics III—5 hours. Analysis of individual creative problems based upon an understanding of design, construction, and manipulation of clays and glazes. It is recommended that Art 317 precede this course. Ten periods a week.

419. Advanced Sculpture—5 hours. Advanced work with sculptural materials leading toward a personalized realization of form. It is recommended that Art 319 precede this course. Ten periods a week.

425. Design and Materials II—2 hours. Continued experimentation in the use of materials. It is recommended that Art 323 precede this course. Four periods a week.

450. Contemporary Design—5 hours. Experience in design problems of the home, school, and the community as they pertain to the individual. Ten periods a week.

454. Art Education II—3 hours. Expansion of the student's philosophy of art to the total pattern of human growth and development. The secondary school student and his environment as related to art experiences. Materials and methods for teaching art in the secondary school, doing inservice work in Iowa schools, and initiating adult and recreational programs in art. Prerequisite: Art 353. Six periods a week.

461. Puppetry—3 hours. Construction, manipulation, and staging of various types of puppets and marionettes. Six periods a week.

463. Jewelry—3 hours. Design and execution of jewelry with precious and semi-precious metals and stones; enameling, casting, and lapidary. Six periods a week.

465. Lithography and Etching—5 hours. The lithography, etching, and engraving processes from composition through the finished print. Ten periods a week.

477. Advanced Technical Problems—2 to 5 hours. Credit to be determined at time of registering. Advanced individual problems or projects in graphic, plastic, or structural arts. This course may be repeated for a maximum of ten hours. Before registering for this course the student must secure the approval of the Head of the Department of Art and of the instructor.

490. The Teaching of Art—2 hours. Credit also as a course in education for a student whose major is art. This course ordinarily should precede student teaching.

509. The Art of Children—3 hours. Evaluation of the art of children, chiefly at the elementary level. Psychological, physical, and emotional needs of children as related to their creative ex-

pressions and capacities. A student must consult the Head of the Department of Art before registering for this course. Four class periods weekly with additional independent work.

512. Painting III—5 hours. Development of an independent problem. Research and further experimentation in painting media. Prerequisite: Art 407. Ten periods a week.

520. Independent Study.—See page 45 for conditions applying to credit for independent study.

570. Art Problems—2 to 5 hours. Credit to be determined at time of registering. The students will choose an area of concentration from the following list:

- | | |
|--|--------------------------|
| A. Painting | E. Design and Materials |
| B. Art Metal | F. Exhibition Techniques |
| C. History of Art or Contemporary Arts | G. Weaving |
| D. Ceramics | H. Puppetry |
| J. Jewelry | I. Print Making |

The course may be repeated with concentration in a different area. A student must consult the Head of the Department of Art before registering for this course.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Art before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

634. The Supervision of Art—4 hours. Analysis of teaching problems and prevailing teaching practices relating to the curriculum and to the supervision of art. Emphasis, particularly upon the supervisor as coordinator, resource person, and aid to the teaching and administrative staffs. Observation and participation in the art programs of the public schools.

670. Art Projects—2 to 8 hours. Credit to be determined at time of registering. Opportunity for the mature student to pursue creative work at the graduate level in a medium of his choice.

The student will choose an area of concentration from the following list:

- A. Painting
- B. Art Metal
- C. History of Art or Contemporary Arts
- D. Ceramics

- E. Design and Materials
- F. Exhibition Techniques
- G. Weaving
- I. Print Making
- J. Jewelry

684. Art Forms—5 hours. Art forms and cultural patterns from the period of the cave drawings to Impressionism.

685. Contemporary Art Forms—4 hours. Major movements of contemporary art from impressionism to the present day.

691. Seminar in Teaching Art—3 hours. Specific art education problems relating to the Iowa public schools with emphasis upon continuity of art activity. Analysis of methods of creative art teaching in the light of contemporary philosophical and scientific research in the child's social development. This course satisfies the special methods elective for the professional core.

Business Education

L. V. Douglas, Ph.D., Professor of Business Education and Head of the Department

Myrtle E. Gaffin, M.A., Assistant Professor of Business Education, Emeritus, part-time service

James T. Blanford, D.Ed., Associate Professor of Business Education

Peter G. Haines, M.A., Assistant Professor of Business Education

Mrs. Katherine Humphrey, M.A., Assistant Professor of Business Education

Agnes Lebeda, M.S., Assistant Professor of Business Education

E. L. Marietta, Ph.D., Assistant Professor of Business Education

Leona Belle Meece, M.S., Instructor in Business Education

An undergraduate major in business education consists of at least 51 hours in business education which shall include Business Education 156 and either 495 or 496. The student must complete a specialized sequence approved by the Head of the Department of Business Education. Recommended sequences are:

Accounting: Business Education 146, 506 or 508, 581, 582.

Distributive education and retailing: Business Education 369, 371, 454, 468, 523, 553, 572, 574.

Secretarial: Business Education 50, 51, 146, 150, 358, 359, 525. It is recommended that a student whose undergraduate major is business education choose a minor in economics and sociology. Economics 354 and 554 are especially recommended.

A minor in business education consists of at least 23 hours in business education. It is recommended that it includes either Business Education 495 or 496. Students who choose minors in business education should consult the Head of the Department of Business Education regarding specific requirements for teaching business subjects.

Requirements for a graduate major in business education are described in the section on Graduate Study, pages 171 to 174.

40. Introduction to Business—3 hours. Develops an understanding of the interrelationships and functions of all phases of the business world.

50. Beginning Gregg Shorthand—4 hours. Principles of the Gregg system. No credit for a student with previous training in Gregg shorthand. Business Education 150 must be completed before credit for this course may be used in meeting the requirements for graduation. Student must be a good typist or be registered for a typewriting course.

51. Intermediate Gregg Shorthand—4 hours. No credit for students who have completed one year of Gregg shorthand in high school or equivalent. Business Education 150 must be completed before credit for this course may be used in meeting the requirements for graduation. Prerequisite: Business Education 50 or equivalent. Student must be a good typist or be registered for a typewriting course.

145. Personal Use Typewriting—2 hours. No credit for students with previous training in typewriting. Develops proficiency suitable for practical everyday use, with special attention to the needs of teachers. Includes touch control of the keyboard, proper technique, horizontal and vertical centering, one common letter style, personal themes, outlines, simple tabulations as used in tests, and the preparation of stencils and masters. Daily.

146. Office Machines I—2 hours. Instruction and practice in operation and care of machines. The place of machines in office work. Prerequisite: Ability to type. Four practice periods.

150. Advanced Gregg Shorthand—4 hours. No credit for students who have completed more than one year of Gregg shorthand in high school or equivalent. Prerequisite: Business Education 51 or equivalent preparation. Student must be a superior typist or be registered for 155 or 156.

154. Basic Typewriting—2 hours. Includes rapid review of technique and typewriter manipulation; development of higher-level speed; desirable work habits in the typing of business letters, simple manuscripts, simple tabulations, stencils and masters for

duplicating. Knowledge and skills basic to the Intermediate Typewriting. Prerequisite: Business Education 145 or one semester of high school typewriting.

155. Intermediate Typewriting—2 hours. Includes perfection of technique, speed level and control; development of a comparable level of speed in the execution of such practical jobs as business letters, business reports, tabulations, manuscripts with footnotes, typing from rough draft, and the preparation of stencils and masters. Prerequisite: Business Education 154 or one year of high school typewriting.

156. Advanced Typewriting—2 hours. Develops skill to vocational level in all phases of typewriting, including speed and control on straight copy, letters, tabulations, manuscripts, and stencils. Student must demonstrate ability to use various makes of typewriters and ability to use such advanced techniques as chain and back-feeding of envelopes, to set up copy for a school newspaper, to prepare a double-fold program, to care for and maintain the typewriter, to apply basic typing principles to new situations, to proofread accurately, and to maintain high qualitative standards in all work. Prerequisite: Business Education 155 or more than one year of high school typewriting.

***354. Business Law I—5 hours.** Basic business law relating to contracts, negotiable instruments, sales, agency, bailments, common carriers, employment, and other selected areas of business law.

355. Marketing—3 hours. A survey of marketing methods, institutions and practices. The subjects of retailing, wholesaling, distribution channels, marketing legislation, cooperative marketing, marketing of agricultural products, price economics, marketing research, and marketing costs are treated from the standpoint of consumers, producers, middlemen, and manufacturers.

358. Shorthand Speed Building—4 hours. Advanced dictation and transcription skill building. A freshman may register for this course if he has the required prerequisite. Prerequisite: Business Education 150 or more than one year of high school shorthand.

359. Advanced Transcription—3 hours. Advanced dictation and transcription of letters and literary matter. Emphasis on the attainment of vocational competence in the transcription of secretarial dictation. A freshman may register for this course if he has the required prerequisite. Prerequisite: Business Education 150 or equivalent. Daily.

*Because these courses were formerly offered for three hours of credit, the student should be sure to consult with the Head of the Department concerning the proper course to take.

***360. Principles of Accounting I—5 hours.** An introductory course in accounting emphasizing the preparation of financial statements, effects of merchandising operations, journalizing, and posting.

***361. Principles of Accounting II—5 hours.** Partnership accounting, the voucher system, accruals, and the valuation reserves. Prerequisite: Business Education 360.

369. Retail Store Operation—3 hours. Fundamentals of establishing and operating a retail store; store location and layout, financing, buying, receiving and marking, sales promotion. Emphasis placed on the small retail store.

371. Directed Work Experience—1 hour. Special studies coordinated with problems related to student's approved work experience; job analysis reports; work experience reports and analyses. This course may be repeated for a maximum of six hours credit. Corequisite: Approved regular part-time employment. Weekly conference arranged.

452. Business Correspondence—3 hours. Preparation and use of business letters and reports. Prerequisite: Ability to type competently.

454. Salesmanship—3 hours. Selling problems of manufacturers, wholesalers, and retailers.

465. Advanced Mimeographing and Duplicating Problems—1 hour. Problems, methods, and techniques of supervising and producing school duplicated materials of all kinds. Practice in the use of various kinds of lettering guides, screen plates, styli, etc. Students will supervise the duplication of departmental and Campus School bulletins and papers. Recommended for business teachers only. A student must consult with the Head of the Department of Business Education before registering for this course. Prerequisites: Business Education 156 or equivalent preparation. Three hours of laboratory a week.

468. Merchandise—5 hours. Not to be taken if student has credit in Business Education 467. Nature, sources, and uses of basic textile and non-textile raw materials; processes of manufacture from raw materials to consumer's goods. Tests and standards to be used in buying and points to be stressed in selling merchandise.

495. Methods in Secretarial Subjects—4 hours. Credit also as a course in education for a student whose major is business edu-

*Because these courses were formerly offered for three hours of credit, the student should be sure to consult with the Head of the Department concerning the proper course to take.

cation. Effective classroom techniques and procedures for developing skills in typewriting, shorthand, transcription, and related areas with appropriate attention to the teaching of office habits, attitudes and information. Prerequisite: Business Education 358 or 359. This course should ordinarily precede student teaching. Daily.

496. Methods in Basic Business Subjects—4 hours. Credit also as a course in education for a student whose major is business education. Effective classroom techniques and procedures in teaching bookkeeping, general business training, business law, and other basic business subjects. Prerequisites: Business Education 354 and 361. This course should ordinarily precede student teaching.

506. Cost Accounting—3 hours. Introduction to the theory and practice of cost accounting with special attention to accounting for factory costs. Prerequisite: Business Education 361.

508. Income Tax—3 hours. Problems related to state and federal income tax. Prerequisite: Business Education 361.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

523. Advertising—3 hours. The place and functions of advertising in our economy. Product and consumer analysis. Evaluation of media such as newspapers, magazines, and radio. Practical applications of the techniques of window display.

525. Office Techniques—5 hours. Techniques of planning and operating filing systems; development of skill in the use of voice-writing equipment and in solving office computational and multiple-copy problems. Prerequisite: Business Education 156 or equivalent.

526. Secretarial Practice—3 hours. Secretarial duties, techniques, and procedures. Emphasis on the secretarial practices which are expected to be performed in addition to the taking and transcribing of dictation. A student must consult with the instructor before registering for this course.

527. Office Supervision and Management—3 hours. The organization, procedures, and problems of managing a modern office. Emphasis on budget, office layout, time and motion study, flow of work, and responsibility. Prerequisite: Business Education 156 or equivalent preparation.

553. Retail Merchandising—3 hours. The merchandising techniques for improving and controlling retailing operations. Includes profit analysis, determining markup, pricing policies, in-

ventory valuation and control, planning sales, planning purchases, planning and controlling expenses, and sales analysis. A student must consult with the Head of the Department of Business Education before registering for this course.

555. Problems in Marketing—3 hours. A case-method study of practical problems in marketing. Includes merchandising policies, distribution policies, forecasting and planning, pricing, and investigative procedures used in solving marketing problems. Prerequisite: Business Education 355.

556. Business Organization and Management—3 hours. Principles, techniques, and responsibilities of management applied to the organization and operation of a business in our modern economy. A student must consult with the Head of the Department of Business Education before registering for this course.

557. Business Law II—3 hours. The law relating to property transactions, partnerships, corporations, and other business problems. Prerequisite: 5 hours credit in business law.

561. Problems in Business Education—3 hours. Field and objectives of business education; organization of curriculum; consumer-business education materials; community surveys and job-analyses; duties of the coordinator; distributive education under the federal laws; trends in business education; and selected current problems. A student must consult with the instructor before registering for this course.

572. Philosophy of Vocational Education—2 hours. Historical foundation of modern business education; development, status and significance of the philosophy underlying vocational business education; present day trends, with special attention to the distributive area.

574. Cooperative Programs in Business Education—2 hours. Organization and supervision of part-time cooperative work programs; advisory committees; records; coordination of class work and work experience; related legal requirements; public relations; job analysis.

581. Intermediate Accounting I—3 hours. Detailed analysis of balance sheet items. A student must consult with the Head of the Department of Business Education before registering for this course.

582. Intermediate Accounting II—3 hours. A continuation of Business Education 581. A student must consult with the Head of the Department of Business Education before registering for this course.

586. Teaching Distributive Education—3 hours. Credit also as a course in education for a student whose major is business education. Techniques, procedures, and instructional materials for teaching distributive education. A student must consult with the Head of the Department of Business Education before registering for this course.

588. Problems in Thomas Shorthand—3 hours. A course offered to non-Thomas shorthand students to enable them to learn the theory and methods of teaching Thomas shorthand. A previous knowledge of Thomas Shorthand is **not** required. Prerequisite: Business education 150 or its equivalent. Daily.

603. Foundations of Business Education—3 hours. A survey of the trends, objectives, curricula, principles, and philosophy of business education. Acquaintance with professional leadership and current research in the field.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Business Education before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

663. Accounting Systems—3 hours. Acquainting business teachers with the practical recording work in small establishments. Field work and opportunity to become familiar with actual accounting systems in use in Iowa businesses.

673. Coordination Techniques—2 hours. Coordination of classroom learning with job experience; job analyses, counseling and personnel work, and relationships between the school and the businesses of the community.

675. Administration of Directed Work Experience—2 hours. Problems of inaugurating, administering, and supervising distributive education, diversified occupations, and non-reimbursible programs; their relative advantages and limitations. Legal aspects of student workers, control of work stations and of enrollees. Public relations aspects of work experience programs.

676. Adult Programs in Business Education—2 hours. Organization and administration of evening school classes; short courses for employed workers and other adult programs; survey of current practices and trends; methods of up-grading workers in the distributive fields; supervising vocational teachers. A student must

consult the Head of the Department of Business Education before registering for this course.

680. Seminar in Business Education—3 hours. Special problems in business education. This course may be repeated for a maximum of nine hours credit.

682. Comparative Shorthand Theory—3 hours. Principles underlying shorthand systems as related to the problems of learning and teaching. A student must consult with the instructor before registering for this course.

690. Improvement of Basic Business Instruction—2 hours.

691. Improvement of Bookkeeping Instruction—2 hours.

692. Improvement of Typewriting Instruction—2 hours

693. Improvement of Shorthand Instruction—2 hours.

Any two of the above four courses may be used to satisfy the special methods elective in the professional core for the master's degree.

Education

Clifford L. Bishop, Ed.D., Associate Professor of Education and
Head of the Department

Amy F. Arey, M.A., Professor of Education, Emeritus, part-time
service

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service

H. S. Buffum, Ph.D., Professor of Education, Emeritus, part-time
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E. C. Denny, Ph.D., Professor of Education

Esther Hult, Ph.D., Professor of Education

Malcolm Price, Ph.D., Professor of Education

H. A. Riebe, Ph.D., Professor of Education

M. J. Wilcox, Ph.D., Professor of Education

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Nellie Hampton, Ph.D., Associate Professor of Education

Frank E. Martindale, Ph.D., Associate Professor of Education

Julia Sparrow, Ph.D., Associate Professor of Education

Oscar E. Thompson, Ph.D., Associate Professor of Education

Rebecca Baker, Ph.D., Assistant Professor of Education

William H. Dreier, Ph.D., Assistant Professor of Education

Howard T. Knutson, Ed.D., Assistant Professor of Education

Gordon J. Rhum, Ph.D., Assistant Professor of Education

Donald R. Scott, Ph.D., Assistant Professor of Rural Education
Wray D. Silvey, D.Ed., Assistant Professor of Education
Bertram L. Woodcock, M.A., Assistant Professor of Education and
Director of Safety Education
Miles V. Zintz, Ph.D., Assistant Professor of Education
Mary Margaret Buswell, Ph.D., Instructor in Education

Undergraduate majors in elementary education are described on pages 58 to 60. Graduate majors in education are described in the section on graduate study, pages 171 and 172.

Psychology

415. Child Psychology—3 hours. Common tendencies and traits of preadolescent children. Individual differences and their significance. Prerequisite: Education 211 or equivalent.

508. Personality Growth of Children—3 hours. Biological and psychological foundations of personality. Recognition of unwholesome tendencies in child behavior. The development of an integrated effective personality free from fear, anxiety, and hostility.

512. Mental Hygiene—2 hours. Nature of mental health in children and adults. Evaluation of adjustment in terms of personal integrity and social living. The mental hygiene movement in the United States.

516. Psychology of Adolescence—3 hours. Changing attitudes and concepts of youth from eleven to eighteen years of age. Mental and physical influences that retard or accelerate mental growth. Individual differences and their significance. Prerequisite: Education 211 or equivalent.

520. Social Psychology—5 hours. Thinking and behavior of people as affected by their association with one another. A course in group psychology. Prerequisite: Education 211 or equivalent.

613. Advanced Educational Psychology—3 hours. Application of psychological principles and experimental findings to the problems involved in teaching and learning. Opportunity for the student to receive help in solving the specific problems of learning that have been encountered.

Education

30. Children's Literature—3 hours. Wide reading of children's books and acquaintance with outstanding authors and illustrators. Emphasis given to classroom use of literature and selection of stories, poems and other materials for children of various ages, abilities, and interests.

105. Exploring the Teaching Profession—3 hours. No credit for a student who has credit in Education 10 or 305. Public education opportunities and problems in the United States; self-appraisal of abilities, interests, and skills needed in teaching at various grade levels and in different subject areas; visitation of classrooms, experiences with children; requirements for entrance and success in the teaching profession; examination of the college curriculum offerings intended to help the student choose his major teaching area. Four periods a week.

121. Audio-Visual Education in the Elementary School—1 hour. Approved techniques for use of audio-visual aids in the elementary school. Special emphasis on the preparation and use of aids other than projected materials. Two periods a week.

136. Reading and the Language Arts I—5 hours. Factors, methods and materials in teaching language, spelling, handwriting and reading. The child and his needs for optimum growth in the language arts.

211, 212, 213.—Fundamentals of Teaching I, II, III—15 hours. No credit in Education 212 for a student who has credit in Psychology 15 or 315. A three-quarter sequence of five hours each quarter with educational psychology as the core of instruction. Areas of emphasis are as follows: 211: Human growth and development comprising study of childhood and youth with application made through guidance, mental hygiene, personality development, etc. 212: Psychology of learning and its applications through evaluation and measurement, pupil management and instruction. 213: The school in society including the school as a social institution, a working philosophy of education, the teacher's ethical responsibilities, and the curriculum in its relationship as an outgrowth of society. Seven periods a week.

310. Early Childhood Education—3 hours. The philosophy and principles underlying the teaching of young children. Emphasis placed upon the organization, equipment, materials and methods for promoting the growth of children four to six years of age. Prerequisite: 10 hours of psychology and education.

332. Teaching the Elementary Curriculum I—4 hours. Role of the content fields in meeting the needs of children in grades 4

through 8; emphasis on developing units of work which integrate school subjects around a core or problems in the content fields; acquaintance with numerous teaching media, techniques, and materials such as texts, manuals, handbooks, pamphlets, and children's encyclopedias. For students on the Two-year Plan, this course ordinarily should accompany student teaching.

363. Teaching the Kindergarten-Primary Curriculum I—4 hours. Emphasis on integrating the content subjects in the field of primary education. Teaching techniques, materials, texts, manuals, handbooks, and pamphlet materials. For students on the Two-year Plan, this course ordinarily should accompany student teaching.

439. Teaching the Elementary Curriculum II—4 hours. Nature of integrated curriculum; major contemporary educational philosophies and their implications for educational practices and procedures in the elementary school; newer trends in the selection and organization of curricular content. Prerequisite: Education 332. For degree-candidates majoring in the upper grades curriculum, this course ordinarily should accompany student teaching.

464. Teaching the Kindergarten-Primary Curriculum II—4 hours. Meaning and development of an integrated curriculum in the field of primary education. Educational philosophy underlying the curriculum. Educational practices, procedures, recent trends in the selection and organization of the curricula content. Prerequisite: Education 363. For degree candidates majoring in the Lower grades curriculum, this course ordinarily should accompany student teaching.

503. Problems of Teachers—3 hours. Opportunities for the study of problems which have been recognized by students; locating and using resource materials in solving teacher problems; practical experience in using fundamentals of research in solution of problems; familiarity with studies and publications of professional organizations. Prerequisite: student teaching. Five periods per week.

505. The Retarded Child—3 hours. Classification of the mentally retarded, the slow learner, the seriously retarded, and the uneducable. Discovering the mentally handicapped and providing the right education to meet their needs. Study of the objectives, curriculum content, and techniques of teaching in the education of mentally retarded. Present educational provisions and newer trends in education of the mentally handicapped. It is recommended that Education 544 be taken before registering for this course.

507. The Gifted Child—3 hours. Identifying the gifted child. Characteristics of the gifted. Methods of adapting the courses of study to meet the needs of the gifted. Present research, follow-up studies, and their implications. Planning sample types of organization for curriculum adjustment to meet individual needs. It is recommended that Education 544 be taken before registering for this course.

509. The Physically Handicapped—3 hours. Including orthopedic, cardiopathic, and epileptic handicapping conditions. Finding physically handicapped; etiology and classification of physical disability; educational provisions; organization and administration of programs. Guidance for the handicapped; special school equipment; adaptation of the curriculum; coordination of educational and medical programs; preparation of case records. It is recommended that Education 544 be taken before registering for this course.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

525. Statistical Methods in Education—2 hours. No credit for a student who has credit for Mathematics 506. Statistical methods in common use without detailed reference to their mathematical foundation. Use of these methods in the construction of tests and the classification of pupils.

534. Methods in Elementary Science—3 hours. Outstanding syllabi, textbooks, collateral reading, and units in elementary school science. Valuable science projects and simple science experiments. The systematic weekly program in science. Integration of science with other areas of the daily program. Observation of the science program in the Campus School.

536. Reading and the Language Arts II—3 hours. Survey of most recent literature in the language arts area. Emphasis on individual and group problems. Prerequisite: Education 136 or equivalent.

538. Remedial Reading—5 hours. Diagnosis of difficulties; plans for remedial treatment; and actual work with pupils who have remedial reading difficulties. Prerequisite: A methods course in the teaching of reading.

541. Social Studies in the Elementary School—3 hours. Materials and methods. Integration of the social studies.

542. Literature for Kindergarten-Primary Children—5 hours. Designed to deepen appreciation of literature suitable for young children, to familiarize student with the style and techniques of

author and illustrators, and to develop criteria for selection and evaluation of children's books.

543. Story Telling—3 hours. Organization of stories for different age levels. Principles underlying successful story telling and practice in the application of these principles. Education 542 or Library Science 440 should accompany or precede this course.

544. The Exceptional Child—3 hours. An introduction to the education of the exceptional child; the philosophy and purposes of special education with principles underlying the education of those who cannot be cared for through usual classroom procedures.

550. Parent Education—5 hours. Problems of cooperation between home and school.

555. Educational Tests for the Elementary School—2 hours. Leading tests in the elementary school field; methods of administering and scoring tests; interpreting and utilizing results; diagnosis of difficulties. Prerequisite: Education 211 or 525.

556. Achievement Testing—1 hour. The student will assist in the giving and scoring of achievement tests and in the tabulation, interpretation, and application of the results. A student must consult the Head of the Department of Education before registering for this course.

558. Mental Tests—3 hours. The Stanford revision of the Binet-Simon tests and the leading group tests of mental ability. Methods of administering and scoring the tests and of tabulating and interpreting the results. Prerequisite: Education 211 or 525.

559. Mental Testing—1 hour. Students assist in the giving and scoring of mental tests and in the tabulation and interpretation of the results. A student must consult the Head of the Department of education before registering for this course.

562. Problems in Reading in Secondary Schools—3 hours. Nature of the developmental reading program, development of vocabulary, skills and interest, reading in the content subjects, and appraisal of reading ability.

568. The Junior High School—5 hours. The junior high school movement; philosophy and current practices. The instructional program with emphasis on integrated and core-type curricula. Unit construction, characteristics and needs of the junior high school student.

570. Elementary School Supervision I—5 hours. Principles underlying present-day supervision. Relationship of classroom teacher to supervisor, principal, and superintendent. Before en-

rolling in this course it is highly desirable that the student have had teaching experience.

572. Secondary School Supervision—5 hours. Principles underlying the improvement of instruction in the high school. Designed for high school supervisors, principals, and teachers. Before enrolling in this course it is highly desirable that the student have had teaching experience.

574. Materials of Instruction—5 hours. Laboratory work in the Curriculum Laboratory to acquaint the student with all types of materials in his field. Especially for majors in supervision; others should consult the Head of the Department of Education before registering for this course.

580. Audio-Visual Education—3 hours. A systematic presentation of approved principles and techniques of audio-visual education; demonstration of the use of audio-visual aids to teaching; operation and care of various types of projection machines; and student preparation and presentation of visual materials. Three period per week. Laboratory periods to be arranged.

582. The Nursery School—3 hours. History and present status of the nursery school. Organization, equipment, and materials needed. Obtaining an understanding of the child of nursery school age and of the best ways to help him develop.

583. Introduction to Guidance and Counseling—3 hours. Basic principles and techniques of guidance practices; methods of counseling; the role of the classroom teacher in guidance.

584. Educational and Occupational Information—3 hours. Consideration of the assistance in occupational orientation needed by junior and senior high school students in investigating occupational possibilities. Survey of educational programs and facilities for training in various occupations.

585. Pupil Personnel Services—5 hours. Guidance needs of children in the elementary school and junior high; adjustment and anecdotal records; attendance problems; the health and safety programs; parental conferences and home visitations.

588. History of Education—5 hours. Educational ideals, ancient and modern. National educational systems. Current educational problems in the light of experience of the past.

604. Educational Research—4 hours. Evaluation, interpretation, and methods of educational research. Value of research to school personnel. Types of research. Preparation of the research report. Features of a good research project; areas of needed research.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Education before registering for this course.

614. Elementary School Supervision II—3 hours. Designed especially for those majoring in elementary school supervision. Emphasis will be on a realistic practical application of the principles of supervision. The supervisor as a coordinator, a resource person for the room teacher, an aid to the principal, a public relations person. Relationship to the county program, the county superintendent and the State Department of Public Instruction. At least one year of teaching experience is required before a student may enroll in this course. A student must consult the Head of the Department of Education before registering for this course.

617. Analysis of the Individual—5 hours. Techniques used in the understanding of the junior and senior high school student in his personal, educational, and vocational planning and adjustment. Use of aptitude tests, personality and interest inventories, case studies, anecdotal records, and rating scales. Prerequisite: Education 583.

618. Organization and Administration of the Guidance Program—3 hours. The function of the guidance program in relationship to the objectives of the school. Planning a school guidance program; evaluation of the program; cooperation with out-of-school agencies. At least one year of teaching experience is required before a student may enroll in this course. A student must consult the Head of the Department of Education before registering for this course.

619. Techniques of Counseling—5 hours. Preliminaries to effective counseling; interpreting inventory data; interviewing techniques; ways of maintaining continuity in counseling. Recent developments in the field.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

624. School and Community Relations—5 hours. Methods used in bringing the school and the community closer together. Working with community groups; public relations; instructional resources of the community; possibilities of the school as a social institution of the community.

631. Curriculum Development in the Secondary School—5 hours. Origins of the secondary school curriculum and modern trends in curriculum development. Methods and essentials of curriculum building; selection of subject matter, grade placement,

and time allotment. Relating curriculum construction to the needs of secondary school youth.

632. Curriculum of the Elementary School Child—5 hours. The elementary school curriculum as it affects the child. Fitting the curriculum to the needs of children and society. Evaluation of teaching materials and various methods of instruction.

675. Principles of School Administration—3 hours. The job of the school administrator and his responsibilities in such fields as instruction, finance, school buildings and equipment, and the extracurricular program; relationship to governmental agencies, students, teachers, and the community. Before enrolling in this course it is highly desirable that the student have had teaching experience.

676. Administration of the Secondary School—5 hours. Functions of the principal, supervisor, and teacher in the administration of the secondary school. Administrative problems of the junior and senior high schools; failure and promotion policy; personnel records; extracurricular activities; the guidance program; the building program. Curriculum planning and making class schedules. The secondary school budget. At least one year of teaching experience is required before a student may enroll in this course. A student must consult the Head of the Department of Education before registering for this course.

677. Administration of the Elementary School—5 hours. The responsibilities of the elementary school principal. In-service programs; the curriculum; special learning aids; pupil accounting. Use and care of school facilities; health and safety measures; the non-teaching staff. The elementary school budget. At least one year of teaching experience is required before a student may enroll in this course. A student must consult the Head of the Department of Education before registering for this course.

680. Seminar in Secondary Education—2 hours. Course content will depend upon the needs and interests of the students enrolled. Emphasis on practical application of research to specific problems of the secondary school. May be repeated once for credit.

681. Seminar in Elementary Education—2 hours. Examination of research and materials of elementary education. Emphasis on practical application to an existing problem. Course content will depend upon the needs and interests of the students enrolled. May be repeated once for credit.

682. Seminar in Special Education—2 hours. Examination and evaluation of research in any of the various areas of special edu-

cation. Scope of course will depend upon the purposes of students enrolled. Recommended for those interested in special education or guidance. May be repeated once for credit.

684. Philosophy of Education—3 hours. Consideration of the more significant philosophies of education. The goal is to assist in the formulation of an educational program consistent with the best theory of present-day civilization.

Credit in the following courses, though counted but once toward graduation, is used in meeting the requirements in education for a student whose major is in the line indicated and is used also in meeting the requirements of the major.

The Teaching of Art (Art 490)—2 hours.

Seminar in Teaching Art (Art 691)—3 hours.

Methods in Secretarial Subjects (Business Education 495)—4 hours.

Methods in Basic Business Subjects (Business Education 496)—4 hours.

Teaching Distributive Education (Business Education 586)—3 hours.

Improvement of Basic Business Instruction (Business Education 690)—2 hours.

Improvement of Bookkeeping Instruction (Business Education 691)—2 hours.

Improvement of Typewriting Instruction (Business Education 692)—2 hours.

Improvement of Shorthand Instruction (Business Education 693)—2 hours.

The Teaching of English (English 490)—4 hours.

Seminar in Teaching English (English 691)—3 hours.

The Teaching of Speech in the Secondary School (Speech 491)—2 hours.

Methods in Speech Correction (Speech 587)—2 hours.

Seminar in Teaching Speech (Speech 692)—3 hours.

Methods in Home Economics (Home Economics 490)—4 hours.

The Teaching of Industrial Arts (Industrial Arts 490)—2 hours.

The Teaching of French and Spanish (Language 490)—2 hours.

The Teaching of Latin (Latin 490)—2 hours.

Teaching the Use of Libraries (Library Science 490)—2 hours.

The Teaching of Secondary Mathematics (Mathematics 490)—4 hours.

Problems in Teaching Arithmetic (Mathematics 691)—3 hours.

Problems in Teaching Junior High School Mathematics (Mathematics 692)—3 hours.

Problems in Teaching High School Mathematics (Mathematics 693)—3 hours.

Psychology of Music (Music 601)—3 hours.

Methods in Physical Education (Physical Education for Men 490)—2 hours

Problems of Teaching in Physical Education (Physical Education for Women 490)—2 hours.

Tests and Measurement in Physical Education (Physical Education 492)—3 hours.

The Teaching of Science (Science 490)—4 hours.

The Teaching of Geography (Earth Science 493)—4 hours.

The Teaching of Agriculture (Agriculture 490)—4 hours.

Seminar in Science Teaching (Science 691)—3 hours.

The Teaching of the Social Studies (Social Science 490)—4 hours.

Problems in Teaching the Social Studies (Social Science 691)—3 hours.

Safety Education

A minor in safety education consists of Science 116; Education 580; five hours in psychology or Education 211; Safety Education 313, 411, 413, 415, and 518; and Physical Education 100 and 411.

313. Educating for Safety—3 hours. Pertinent information for persons who are interested in safety education in schools, social agencies and the whole community. The need of education for safety; safety as a social problem; development of safety skills, habits, attitudes, and ideals; accident causes; responsibilities for safety; study of research in the field.

411. The Teaching of Highway Safety—3 hours. Before a student registers for this course he must have an Iowa Driver's License.

413. Safety Education in Elementary Schools—3 hours.

415. Safety Education in Secondary Schools—3 hours. Swimming and water safety; accident prevention in physical education, school shops, and traffic. Types of visual aids; curriculum materials; tests and measurements in safety education. Emphasis on safety in the home, on the highway, and in industry.

518. Directing the Safety Program—3 hours. Organization of safety programs through the entire school system; administrative

problems of driver education; insurance problems; school liability; evaluation of teaching materials; public relations. Unless the student has taken Safety Education 411 he must consult with the instructor before registering for this course.

English and Speech

H. W. Reninger, Ph.D., Professor of English and Head of the Department

John P. Cowley, Ph.D., Professor of English

W. B. Fagan, M.A., Professor of English

Hazel B. Strayer, M.A., Professor of Speech

Harold E. Bernhard, Ph.D., Associate Professor of Religious Literature

Mrs. Louise C. Turner Forest, Ph.D., Associate Professor of English

Ernest C. Fossum, Ph.D., Associate Professor of Speech

Charles Boyd Guest, Ph.D., Associate Professor of English

Elaine E. McDavitt, Ph.D., Associate Professor of Speech

Norman C. Stageberg, Ph.D., Associate Professor of English

Lillian Rose Wagner, Ph.D., Associate Professor of Speech

Wallace L. Anderson, Ph.D., Assistant Professor of English

Josef W. Fox, Ph.D., Assistant Professor of English

Leo P. Goggin, Ph.D., Assistant Professor of English

Mrs. Mary Wheat Hanawalt, Ph.D., Assistant Professor of English

Alden B. Hanson, M.Ph., Assistant Professor of English

Oliver M. Skalbeck, M.A., Assistant Professor of Speech

Francis Eliot Smith, Ph.D., Assistant Professor of English

M. B. Smith, M.A., Assistant Professor of Speech

Stanley Wood, M.A., Assistant Professor of Speech

Blake D. Anderson, M.A., Temporary Instructor in Speech

Richard R. Braddock, M.A., Instructor in English

James S. Hearst, Visiting Instructor in Creative Writing

Ross Jewell, M.A., Instructor in English

Edwin J. Maurer, M.A., Instructor in English

Thomas H. Thompson, Ph.D., Instructor in Philosophy

An undergraduate major in English consists of at least 57 hours in English which should include Humanities 111, 112, and 113 for which six hours of credit in English are granted; English 1, 100, 115, 117, 325, 462, 490, and 560; either 543 or 545; five hours from 518, 522, 523, and 525. Electives in English particularly recommended for an undergraduate major are: 303, 330, 335, 341, 514, 530, and 554. In addition, at least one quarter before the degree will be conferred, a student whose major is English must demonstrate basic competence, confirmed by examination, in French,

German, or Latin. In French or German, a reading knowledge of simple material employing a vocabulary of about 2,000 words is necessary. In Latin, a working knowledge of the foundational structure and a vocabulary of about 1,500 words are required.

A minor in English consists of at least 30 hours in English which must be distributed as follows: Humanities 111, 112, and 113 for which six hours of credit in English are granted, English 1, 100, 110, 317, 448, and 462.

Requirements for a graduate major in English are found in the section on graduate study, pages 171 to 175.

English I is a prerequisite to all other courses in English.

1. English I—4 hours. Fundamental skills involved in reading and writing expository language. Emphasis upon areas of usage in writing, and language habits appropriate to the occasion.

100. English II—4 hours. No credit for a student who has credit in English 102. More advanced skills involved in reading and writing, with special attention given to writing styles appropriate to the occasion. Training in gathering and organizing source material.

110. English III—4 hours. Preparation for reading imaginative literature. Reading and close analysis of the short story, novel, drama, and poetry. Emphasis on the discussion of human values. Recommended for students who wish to pursue further courses in literature.

114. Mass Communication—4 hours. Communication processes in the mass communication media: newspapers, magazines, radio, motion pictures, television. Analysis of the techniques of creating mass opinion; advertising, publicity, propaganda.

115. Poetry—4 hours. No credit for a student who has credit in English 110. Particular ways in which poetry communicates experience. Examination of the various techniques of poetry in order to assist the student to have the full experience of reading a poem.

117. Narrative and Dramatic Literature—4 hours. No credit for a student who has credit in English 110. The art forms of the short story, the novel, and the drama; critical examination of particular works.

300. Advanced Exposition—3 hours. Advanced specimens of exposition. Application of principles and methods in original work.

303. Contemporary Short Story—3 hours. The structure and meaning of the short story, 1900 to the present.

312. World Literature—5 hours. The world's most representa-

tive authors, exclusive of English. Emphasis on twentieth century writing.

317. Major British Writers—4 hours. The most representative British writers; designed especially to furnish literary perspective. Emphasis on living and usable values.

325. Shakespeare—5 hours. Concentration on selected plays and sonnets; reading of and reports on other works.

330. The American Novel—3 hours. The American novel as an interpretation of the nineteenth-century and twentieth-century life. Reading, reviews, and criticisms.

335. The British Novel to 1900—3 hours. The most significant British novelists from Jane Austen to Thomas Hardy.

341. Contemporary British and American Poetry—3 hours. Examination of the work of the most significant British and American poets since 1914, and of how their poetry arises out of the social and psychological cross currents of the time.

350. Playwriting—2 hours. Critical study of the techniques of writing for the stage. Experience in creative dramatic writing with individual criticism and suggestions. Conducted informally with roundtable discussions and reading of student work. Original one-act plays of merit may be produced.

448. Major American Writers—4 hours. The most representative American writers; designed especially to furnish literary perspective.

452. Creative Writing—2 hours. Conducted as a round-table discussion; instructor acts as chairman; other instructors participate in discussions; no lectures; no formality. Students select their subject matter and literary form; work may be submitted to the college magazine. Designed for students who desire individual criticism for their writing. May be repeated for a total of four hours of credit.

462. The American-English Language of Today—4 hours. An account of present-day American-English grammar and usage, as described in scientific studies of the language, and a study of the symbolic nature of language.

490. The Teaching of English—4 hours. Credit also as a course in education for a student whose major is English. This course ordinarily should precede student teaching.

505. Literature for Adolescents—3 hours. Extensive reading of adult and juvenile literature suitable for adolescents. Theories, techniques, and materials of teaching literature in secondary

schools. Consideration of theoretical and field problems. Relation to the teaching of other communication skills and arts, with emphasis on reading skills. Courses recommended for background: Education 562 and 538.

511. The Continental Novel—3 hours. The continental novel considered as an expression of modern European culture. The works chosen are those which best reflect the spirit of the country and the times in which they were produced.

514. Chaucer—5 hours. Reading of the most representative parts of the *Canterbury Tales*. To be studied primarily as literature, with emphasis on human values.

518. Renaissance Literature—5 hours. The development of Renaissance culture in England as it is reflected in literature, with emphasis upon the most important authors exclusive of Shakespeare. Chronological limits: 1500-1660.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

522. Romantic Literature—5 hours. English poetry and non-dramatic prose from Robert Burns to Thomas Carlyle. Chronological limits: 1798-1832.

523. Eighteenth Century Literature—5 hours. English literature from Dryden to Johnson, as it reflects the rationalistic philosophy in religion, economics, and politics, and in the social manners of the time. Chronological limits: 1660-1798.

525. Victorian Literature—5 hours. English poetry and non-dramatic prose from Alfred Tennyson to Thomas Hardy. Chronological limits: 1832-1900.

530. World Drama—5 hours. The most significant world dramas with an emphasis on English drama.

543. American Literature, 1865 to the Present—5 hours. American culture after the Civil War as revealed in the rise of American realism: in prose, from Twain to Steinbeck; in poetry, from Whitman to MacLeish.

545. American Literature, 1765 to 1865—5 hours. An intensive study of American prose and poetry from Jefferson to Emerson. Emphasis on the Romantic Movement, 1830 to 1865.

554. Milton—5 hours. The major English works of Milton's poetry and prose.

560. Development of the English Language—4 hours. Fundamental concepts of the science of linguistics, developed inductively.

tively from data drawn from comparative philology and from the historical background of present-day English.

606. Bibliography and Methods of Research—1 hour. Kinds, methods, and standard practices of scholarly research in the fields of language and literature.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at the time of registering. May be taken by projected registration only. A student must consult the Head of the Department of English and Speech before registering for this course.

615. Teaching of Literary Forms—5 hours. Advanced literary analysis and evaluation of the short story, novel, drama, and poetry. Principles applied to literature taught in the high schools; designed as a preparation for the teaching of creative literature.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

650. Theory and Practice of Criticism—3 hours. Major problems in creative literature, and the solutions offered by the great critics.

664. Language Problems in the High School—3 hours. An advanced course in language. Latest investigations in the theory of signs and meaning and their application to practical language teaching.

680. Seminar in English Literature—3 hours. Directed, independent investigations by students; synthesizing lectures by the instructor. Approximately one section offered each quarter, selected from (A) Seventeenth Century, (B) Eighteenth Century, or (C) Nineteenth Century, according to the students' needs. May be repeated for a maximum of nine hours credit.

681. Seminar in American Literature—3 hours. Directed, independent investigations by students; synthesizing lectures by the instructor. Section offered will be devoted either to (A) romanticism, or (B) realism, according to the students' needs. May be repeated for a maximum of six hours credit.

682. Seminar in Twentieth Century—3 hours. Directed, independent investigations by students; synthesizing lectures by the instructor.

683. Seminar in Writing—3 hours. An opportunity for the student to pursue critical or creative writing and to participate

in the solution of problems involved in such writing. May be repeated for a maximum of six hours credit.

691. Seminar in Teaching English—3 hours. Readings, discussions, and experiments on field problems in the light of modern research, techniques, and materials. Relation of problems to their philosophical bases. A student must consult the instructor before registering for this course.

School Journalism

310. Journalism I—5 hours. News values; methods of obtaining, verifying, and presenting news; preparation of newspaper copy for publication; newspaper style and make-up.

410. Journalism II—5 hours. The writing of editorials and feature articles for publication. Criticism and writing of newspaper editorials of various types.

513. School Publication Advisement—5 hours. A survey in news writing and editing, photography, staff organization, advertising and circulation, mimeographed and printed reproduction, school public relations. Supervised experience as adviser of school publications and teacher of journalism or work on a staff position on the *College Eye*, or the *Old Gold*. A student must consult the instructor before registering for this course. Conference, 1 hour; laboratory, 4 hours.

Speech

An undergraduate major in speech consists of at least 45 hours of work distributed so that the student will have an emphasis in drama, public speaking, or speech correction. The following indicates the courses that should be taken in each area:

Drama: Speech 20, 110, 120, 340, 375, 385, 453, 458, 491, 570, and 578.

Public Speaking: Speech 20, 110, 120, 335, 336, 367, 375, 385, 491, and 504.

Speech Correction: Speech 20 or 21, 110, 307, 385, 508, 509, 511, 513, 586, 587, and Education 558. Recommended electives: Psychology 512 and Education 544.

A student who chooses a major in speech must also choose a minor in English, unless released by the Head of the Department.

A minor in speech consists of at least 24 hours of work in

speech which must be distributed as follows: Speech 20, 110 or 120, 335, 375, 385, and 491.

Requirements for the graduate major in speech are found in the section on graduate study, pages 171 and 177.

Speech 20 or 21 is a prerequisite of all other courses in speech with the exception of Speech 385.

20. Fundamentals of Speech—4 hours. No credit for a student who has credit in Speech 21. Development of effective communication through the presentation of original speeches and discussion of speech principles with emphasis on voice and articulation.

21. Speech for Elementary Teachers—3 hours. No credit for a student who has credit in Speech 20. Reserved for students preparing to teach in rural and city schools in the elementary grades. Emphasis on teaching the student the recognition, diagnosis, and cure of speech defects in children. Practice in public speaking.

110. Public Speaking—5 hours. The application of the principles of psychology and composition to situations most frequently confronting the public speaker. The study of purpose, audience, analysis, and discovery and arrangement of materials. Style skills. Memory training. Delivery techniques. Practice in impromptu, extemporaneous, manuscript, and memorized speaking. Opportunities to speak before civic groups, professional associations, and radio audiences.

114. Voice and Diction—2 hours. Development of the speaking voice with special attention to the personal, social, and professional needs of the student.

120. Interpretative Speech—5 hours. Individual oral interpretation of selections from various forms of literature. Prerequisite: Speech 20 or 21 or equivalent preparation.

307. Phonetics—5 hours. The science of speech sounds including standards of pronunciation and ear training as a basis for speech correction work.

321. Dramatics for Elementary Teachers—3 hours. Methods of teaching creative dramatics and choral speaking to children. Dramatics as a tool for integration in the curriculum. Emphasis on development of imagination and on social adjustment. Planning of programs suitable for home rooms, school assemblies, and special occasions.

335. Group Discussion—3 hours. Principles, methods, and types of logical inquiry and discussion.

336. Argumentation and Debate—2 hours. Practical experience

in dealing with contemporary problems through the method of discussion and debate. Special emphasis is given to the development of habits of critical thinking.

340. Dramatic Interpretation—5 hours. Dramatic literature as a medium of expression. Development of skills in elementary acting techniques and opportunities for experience in acting. Prerequisite: Speech 120.

367. Radio Survey—3 hours. Basic organization of the radio industry. Demonstrations, class work, and field trips.

368.—Radio Practice—3 hours. Training in announcing, control operation, continuity writing, and selling. Prerequisite: Speech 367.

375. Dramatic Production—5 hours. Fundamentals of producing a play. Basic theories of drama pursued by means of research in theater literature and class exercises.

385. Speech Correction—5 hours. Nature of speech defects; training in the diagnosis of individual cases; methods of dealing with the various kinds of defects.

453. Stage Costuming—3 hours. History and design of stage costume with laboratory practice in execution of costumes for dramatic productions.

458. Stage Make-up—1 hour. A practical laboratory course in the fundamentals of make-up.

482. Speech Problems of Children—2 hours. No credit for a student who has credit in Speech 21 or 385.

491. Teaching of Speech in the Secondary School—2 hours. Credit also as a course in education for a student whose major is speech. Prerequisite: 20 hours of speech. This course ordinarily should precede student teaching.

493. Teaching of Speech in the Elementary School—4 hours. Prerequisite: 14 hours of speech.

504. Persuasion—5 hours. Nature of belief and response; methods of intensifying belief and winning response through speech and writing. The ethics of persuasion. Relation of persuasion to logic and psychology. Motivation, suggestion, attention, and crowd psychology; the particular role of persuasion in teaching and education. Prerequisite: Speech 110.

508. Speech Pathology I—5 hours. A course which provides training in diagnosis and treatment of functional speech disorders.

Clinical practice. A student must consult the instructor before registering for this course.

509. Speech Pathology II—5 hours. The etiology and treatment of disorders of speech including stuttering, maladjustment problems, and organic speech disorders caused by cleft lip and palate, cerebral palsy, aphasia, and hearing loss. A student must consult the instructor before registering for this course.

511. Audiometry—3 hours. Principles of the group and individual audiometers and hearing aids and their use in speech correction and hearing conservation programs. Prerequisite: Speech 307.

513. Speech for the Hard of Hearing—3 hours. The psychology and specific techniques involved in teaching the hard of hearing. A student must consult the instructor before registering for this course.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

523. Advanced Interpretation—3 hours. Oral reading of poetry and prose with emphasis on analysis and technique of various forms.

537. Advanced Argumentation—3 hours. An advanced course in the principles, methods, and types of argument. Analysis of classic debates and practice in argumentative speaking.

538. Advanced Discussion—3 hours. Analysis of and practice in various types of discussion. Discussion as a technique for social control.

541. History of the Theater—3 hours. Types and forms of drama and theatrical production from its origins in Greece to modern times.

550. Speech Criticism—2 hours. The history and method of rhetorical criticism. Standards of criticism in public address and methods for their application to rhetoric and oratory.

551. Classical Rhetoric—3 hours. An historical and critical survey of rhetorical theory from about 900 B.C. to 200 A.D. Current theories will be examined in light of the classical period of rhetoric.

552. Methods of Directing Forensics—2 hours. Theory and practice involved in the direction of forensics programs. Laboratory experiences in the field of directing forensic activities.

570. Directing—5 Hours. A detailed study of the contribution

of the director in the production of a play. Each student will direct a one-act play. Prerequisite: Speech 375.

572. Scene Design—3 hours. Advanced work in styles of production with special design and model projects; work on paint crews for productions.

573. Stage Lighting—3 hours. Design of light for the stage; detailed study of control and operation of equipment.

578. Stagecraft—5 hours. Practice in scene construction and scene lighting. Experience in building, painting, and assembling scenery for production.

586. Clinical Practice—2 hours. Clinical examinations for diagnostic purposes. Methods of taking and interpreting case histories. May be repeated for a maximum of six hours credit. Prerequisites: Speech 508 and 509.

587. Methods in Speech Correction—2 hours. Credit also in education for a student whose major is speech. Organization and management of speech correction program, selection and preparation of materials and teaching aids, adaptation of teaching techniques to the needs of the pupils with speech disorders. Practical experience.

606. Bibliography and Methods of Research—1 hour. Kinds, methods, and standard practices of scholarly research in the field of speech.

607. Experimental Research—2 hours. The objective experiment as it has contributed to the area of general speech. An investigation of current and classical experimental designs in the field of speech.

608. Psychology of Speech—3 hours. Origin and development of speech; psychological factors in communication; speech and personality.

610. Field Study—Credit arranged but not to exceed three hours. Credit to be determined at time of registering. May be taken by projected registration only. A student must consult with the Head of the Department of English and Speech before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

653. American Rhetoric and Oratory—3 hours. History and method of American public address from about 1788 to about 1940. An historical and critical treatment of leading American

speakers and their speeches with reference to political, social, and intellectual life in America.

654. British Rhetoric and Oratory—3 hours. Relationship to theories and methods in public speaking. The oratory of some of the more outstanding English speakers, particularly in the eighteenth and nineteenth centuries.

655. Greek and Roman Oratory—3 hours. A critical study of Greek and Roman rhetoric. Modern rhetorical theory compared with the theories of this period. The orators and orations of the period.

680. Seminar in Persuasion—2 hours. Place and function of speech in individual and group social behavior. The psychological aspects of speech both as a stimulus and a response will be studied.

681. Seminar in Voice and Articulation—3 hours. Phonetics and the speech processes, with practical application to the teaching of speech.

692. Seminar in Teaching Speech—3 hours. Emphasis on (1) problems related to organizing and teaching of speech courses in the public schools and (2) directing of extra-curricular speech activities.

Religious Literature; Philosophy

125. The Bible as Literature—5 hours.

360. History of Christianity—5 hours. Survey of the origin of the Christian religion and its penetration into all parts of the world.

362. Problems of Religion—2 hours. Specific religious problems of those enrolled in the course. A substantial introduction to the field of religious thought through use of a textbook, readings, lectures, class discussions.

365. Ethics—3 hours.

402. Religions of the World—5 hours. Study of the great religions which hold sway throughout the world. Credit in this course may be counted as a part of a major in social science.

404. Introduction to Religious Ideas—3 hours. Religious beliefs and the affirmations of the Christian faith in regard to God, Jesus, Bible, Prayer, Immortality.

405. The History of Christianity in America—5 hours. Significance of religions in the development of the American nation; the relation of religion to great turning points in the life of the nation.

***406. Introduction to Philosophy**—3 hours. The basic problems of philosophy presented through reading and discussion. Designed especially to clarify each student's own philosophy of life.

408. Western Philosophy—3 hours. The lives and teaching of significant thinkers from Plato to John Dewey. Credit in this course may be counted as part of a major in social science.

***426. The Heritage of the Bible**—3 hours. Consideration of the primary document of our religious heritage. Both the Old Testament and the New Testament will be considered without imposing any sectarian or particular point of view upon the student.

490. Teaching of Religion—2 hours. Skills and methods in religious education in the local church; also materials for use in small as well as large Sunday Schools.

Home Economics

Elisabeth Sutherland, Ph.D., Professor of Home Economics and
Head of the Department

Ruth A. Allen, M.S., Assistant Professor of Home Economics

Mary Leah Bouldin, M.S., Assistant Professor of Home Economics

Mrs. Edna Anderson Shores, M.A., Temporary Assistant Professor
of Home Economics

Mrs. Olive J. Holliday, M.A., Instructor in Home Economics

A major in home economics consists of at least 45 hours of work in home economics including Home Economics 490. In addition to the 15 hours of science required in the general education program (Science 116, 117, 118, and 119), the student with a major in home economics must elect either 10 or more hours in physical and biological science, or Physical Education 300 and 5 or more hours in physical and biological science. The student should also elect either 3 hours in art in addition to Art 101, or Home Economics 416 or 460.

A minor in home economics consists of 30 hours of home economics. The student should select Home Economics 15 or 470; 116 or 475; 21 or 471; 125 or 472; 300 or 535; 61 or 568G.

*Prospective secondary teachers and teachers of special subjects will take Philosophy 406 or Religious Literature 426 either in the quarter in which they do their student teaching or in a subsequent quarter.

A double major in art and home economics consists of 96 quarter hours. The requirements for each separate major should be completed except that 9 hours chosen from the following may count in both areas: Art 330, 401, 415, and Home Economics 411, 416, 460, and 568D.

Courses 15 or 470, 21 or 471, 60, 61, 112, 115, 122, 300, 450, 460, and 461 are especially recommended for a student who wishes to take elective work in home economics.

15. Clothing I—5 hours. Consideration of personal problems in planning, selection, and care of clothing. Includes practical techniques of clothing construction emphasizing selection and use of patterns and fabrics for the individual. Discussion, three periods a week; laboratory, six periods.

21. Food and Nutrition I—4 hours. Fundamentals of human nutrition applied to the selection of foods for the young adult. Emphasis on methods of food preparation. Planning, preparing, and serving meals suitable for the individual. It is recommended that Science 116 precede this course. Discussion, two periods a week; laboratory, six periods a week.

60. Nutrition of Children—3 hours. Basic food and nutrition knowledge; its use in the elementary school program; methods of interpreting it to children; related activities to interest children; experience in the use of visual aids; study of source materials; and evaluation of nutrition programs.

61. Personal Relationships—2 hours. Understanding our relationships with one another in life situations; recognizing and accepting our immediate problems as normal. Gaining knowledge necessary to develop tolerance and understanding of others and their problems through group discussion.

112. Household Equipment—3 hours. Materials used in household equipment; how equipment is constructed for durability, suitability, and ease of cleaning; the application of principles of electricity, heat, and mechanics to such equipment; recent developments in the equipment field. Opportunity to evaluate various kinds of equipment, such as sauce pans, egg beaters, toasters, washing machines, ironers, vacuum cleaners. It is recommended that Science 116 precede this course. Six periods a week.

115. House Furnishings and Decoration—3 hours. Color schemes; fabric and furniture selection. Laboratory work includes making of draperies and slipcovers, reupholstering and finishing of furniture according to students' interests. It is recommended that Art 101 precede this course. Discussion and laboratory six periods a week.

116. Clothing II—3 hours. Provides additional experience in construction and planning of wardrobe according to student needs. Special emphasis given to individual problem solving, children's clothing, remodeling, fitting, use of machine attachments, and care of equipment. Prerequisite: Home Economics 15. Discussion and laboratory six periods a week.

122. Food Preparation—3 hours. Ways of using simple methods of food preparation in elementary teaching. Organizing the school lunch in the elementary schools with limited space and facilities. Preparing foods to use in the school lunch.

125. Food and Nutrition II—4 hours. Emphasis on the selection of food for family groups. Study of family food habits. Additional standard techniques of food preparation. Problems in planning, preparing, and serving meals adequate for family groups. It is recommended that Home Economics 21 precede this course. Discussion, two periods a week; laboratory, six periods a week.

300. Child Care I—3 hours. Study of the infant through pre-school age with observations in the classroom. No credit for a student who has credit in Home Economics 535. It is recommended that Education 211 precede this course.

402. Advanced Clothing—3 hours. Techniques of tailoring suits and coats. Discussion and laboratory, six periods a week. Prerequisite: Home Economics 116 or 475; 411 recommended.

410. Textiles—3 hours. Consideration of the factors which influence durability, use, and price of fabrics used in the home and in clothing. Includes recognition and analysis of fibers, fabrics, and finishes. Discussion, two periods a week; laboratory, three periods a week.

411. Costume Design—4 hours. Development of dress patterns by drafting, methods of adapting basic patterns, use of dress forms for draping garments, and additional experience in clothing construction. Prerequisite: Home Economics 116 or 475. Discussion and laboratory, eight periods a week.

416. Interior Decoration—3 hours. The field of home furnishings with special emphasis on pictures, lamps, glassware, metals, and other decorative accessories and details according to the interest of particular groups. Laboratory activities include lamp making; picture framing. Prerequisite: Home Economics 115. Discussion and laboratory six periods a week.

450. Home Management—3 hours. Philosophy of homemaking with stress on time and energy, management, housekeeping techniques, and homemaking skills. Field experience in management

problems in homes in this community. Discussion, two periods a week; laboratory, three periods a week.

460. Weaving and Home Crafts—3 hours. Furnishes background experience for handicrafts which may be pursued in the home or laboratory with limited or inexpensive equipment. Emphasis is on individual creative expression and on an interest in a variety of crafts, such as weaving, basketry, needlework, textile decoration, chair caning, and knitting. Discussion and laboratory, six periods a week.

461. Family Finance—2 hours. Money management, budgeting, savings, use of credit, insurance, annuities, investments, taxation, disposing of property, the effect of outside economic conditions on family finances. It is recommended that Social Science 116 precede this course.

466. Home Management House—4 hours. Residence in the house brings together into an integrated whole the understanding, knowledge, and skill gained from the various phases of home economics. Principles of time, energy, and money management are put into practice. Planning and preparing meals, doing the laundry, cleaning and caring for the house, working out ideas in furniture arrangements, and planning and carrying through a variety of entertainments are examples of housekeeping activities rotated among the students. It is recommended that Home Economics 450 and either Home Economics 125 or 471 precede this course. The student should arrange with the Head of the Department of Home Economics to take this course at least one quarter in advance.

470. Textiles and Clothing I—5 hours. No credit for a student who has credit in Home Economics 15, 116, or 410. Designed for the student who does not major in home economics. Consideration of personal problems in planning, selection, and care of clothing. Includes practical techniques of clothing construction emphasizing selection and use of patterns and fabrics for the individual. Discussion, three periods; laboratory, six periods a week.

471. Food for the Family I—3 to 5 hours. No credit for a student who has credit in Home Economics 21, 125, or 522. Designed for students who do not pursue a major in home economics. The essentials of adequate diets for family groups. Food plans to meet these essentials. Application of standard practices of food preparation. Planning, preparing, and serving meals for the average family. Discussion, one to three periods a week; laboratory, six periods a week.

472. Food for the Family II—3 hours. Designed to provide additional experience in food selection and buying; principles of

preparation and the serving of meals. Prerequisite: Home Economics 471. Laboratory, six periods a week.

475. Textiles and Clothing II—3 hours. No credit for a student who has credit in Home Economics 15, 116, 402, 411. A second course in construction and planning of wardrobe for the student who does not major in home economics. Special emphasis given to individual problem solving, children's clothing, remodeling, fitting, use of attachments, and care of equipment. Prerequisite: Home Economics 470. Discussion and laboratory, six periods a week.

490. Methods in Home Economics—4 hours. Credit also as a course in education for a student whose major is in home economics. Planning courses of study; evaluating teaching techniques; planning space and equipment needs; administrative problems including budget, school lunch program, home economics clubs, and adult classes; the place of the home economics teacher in the total school program. This course ordinarily should precede student teaching.

500. Child Care II—2 hours. Provides opportunity for observing emotional development, physical aptitudes and social adjustments of children of pre-school age through actual directed experience in a play school situation. Prerequisite: Home Economics 300 or 535.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

522. Principles of Food Preparation—4 hours. The physical and chemical properties of food nutrients as they affect the preparation of foods; introduction to current literature. It is recommended that Home Economics 125 and Science 116 precede this course. Discussion, two periods a week; laboratory, six periods a week.

523. The School Lunch Program—4 hours. Problems involved in school lunch management; correlation with the total school program; adequate menu planning; use of standardized recipes; quantity buying and preparation of foods; some experience in food service to typical school lunch groups. Problems in quantity food service suitable for use in related activities. Class discussions, two periods a week; laboratory, six periods a week. It is recommended that Home Economics 125 or 471 precede this course.

535. Child Management—3 hours. The child from school age through adolescence. It is recommended that Education 211 and Home Economics 300 precede this course.

551. Problems of Consumers—3 hours. The consumer's role in marketing. Regulations, standards, sources of information, and a detailed study of a few products.

568. Problems—2 to 3 hours. Students having a common interest in advanced work in a given area will be organized into a seminar or laboratory class: (A) foods, (B) nutrition, (C) clothing, (D) housing, (E) home economics education, (F) adult education, and (G) family relationships. The student must consult the Head of the Department of Home Economics before registering for this course.

Humanities

The courses in the humanities which are required in the general education program are not offered by a separate department. Instead several departments join in offering them. Except for courses 111, 112, and 113, they will be found listed elsewhere as well as here. These three courses are offered jointly by the departments of Social Science and English and Speech.

All of the courses listed below are required in meeting the general education requirements of the undergraduate curriculum, with the exception that the student may choose either Philosophy 406 or Religious Literature 426.

Art 101. Man and Materials—3 hours. Designed for general education in the field of art. Experimentation with materials to foster an understanding of the interaction between man and such materials as paint, ink, chalk, wood, stone, and metal. Emphasis upon contemporary art forms. Six periods a week.

Music 130. Exploring Music—3 hours. Designed to introduce the art of music to non-performers. Emphasis on: (1) listening to learn what music is capable of conveying to him, (2) participating chiefly through group singing, (3) understanding the correlation of the historical development of music with the other arts and the place of music in modern society, (4) developing an appreciation of the skill of the composer of music by engaging in the creation of simple melodies.

Humanities 111. Ancient Times to the Renaissance—4 hours.

Humanities 112. The Renaissance through the French Revolution—4 hours.

Humanities 113. The Nineteenth and Twentieth Centuries—4 hours.

This three-quarter sequence has as its central theme: Man

and the great work which form the record of his best efforts. The framework is historical with emphasis upon understanding those periods which have been particularly rich in works of the human spirit. Each of these works is studied against a background of the total culture of the period. For figuring majors and minors and for transfer purposes each quarter of this sequence will count as two hours of history and two hours of English.

Philosophy 406. Introduction to Philosophy—3 hours. The basic problems of philosophy presented through reading and discussion. Designed especially to clarify each student's own philosophy of life.

Religious Literature 426. The Heritage of the Bible—3 hours. Consideration of the primary document of our religious heritage. Both the Old Testament and the New Testament will be considered without imposing any sectarian or particular point of view upon the student.

Industrial Arts

Harold G. Palmer, Ph.D., Professor of Industrial Arts and Head of the Department

Charles H. Bailey, B.S., Professor of Industrial Arts, Emeritus, Part-time Service

Walter E. Ditzler, Ph.D., Assistant Professor of Industrial Arts

Raymond E. Matala, M.A., Assistant Professor of Industrial Arts

Willis H. Wagner, M.Ed., Assistant Professor of Industrial Arts

Edmund D. Crosby, M.A., Instructor in Industrial Arts

Lawrence S. Wright, M.S., Instructor in Industrial Arts

A major in industrial arts must include Industrial Arts 485, 490, and 580 and electives to make a total of not less than 45 hours. The electives may include Art 117 and 323 which count toward the major in industrial arts. It is recommended that the student include Art 323, Industrial Arts 130, and at least one course in each of the following areas: woods, metals, transportation, electricity, graphic arts, and industrial drawing. All of the courses in at least two of these areas should be completed.

The work of a student whose major is industrial arts must include Physics 52.

A minor in industrial arts consists of 25 hours which should include: Industrial Arts 40, 130, 310, 320, 485, and 490; and two of the following courses: 257, 350, 460.

40. Sheet and Art Metal—3 hours. Bending, spinning, forming,

shaping, fastening, and finishing of cold metals by hand and machine methods. Basic information concerning materials and products of the metals industry as applied to the teaching of industrial arts. Laboratory, six periods a week.

130. Introduction to Industrial Arts—3 hours. Exploration in the use of tools and materials in the areas of housing, transportation, communication, and power. Laboratory, six periods a week.

257. Printing—3 hours. Basic process of printing including hand composition, proofing, operation of the platen press and general design in printing. Laboratory, six periods a week.

310. Planning and Drawing—5 hours. Lettering, sketching, and the use of instruments as applied to orthographic and pictorial representation. Preparation of working drawings, specifications, bills of material, and operational analysis for the various areas of industrial arts. Laboratory, ten periods a week.

311. Machine Drawing—3 hours. No credit for a student who has entrance credits for two units of mechanical drawing. Sketching and instrument drawings. Emphasis on detail and assembly drawings of machines, including dimensioning, auxiliary views, sections, conventions and representations. Prerequisite: Industrial Arts 310. Laboratory, six periods a week.

320. General Woodwork—3 hours. Hand tools and machines used in simple construction. Use of materials in industry, in the home, and on the farm. Laboratory, six periods a week.

321. Machine Woodwork—3 hours. Introduction to pattern making, wood turning, and carpentry. Use of common woodworking machinery. Basic problems of design and construction. Laboratory, six periods a week.

341. Hot Metals—3 hours. Gas welding, brazing, burning, and cutting; electric welding, forge, foundry, and heat treating. Materials and products of metal industries as applied to the teaching of industrial arts. Prerequisite: Industrial Arts 40. Laboratory, six periods a week.

350. General Electricity—3 hours. Electrical systems commonly used in industry and in homes. Special attention to electrical problems for industrial arts program. Laboratory, six periods a week.

357. Photography—2 hours. Basic techniques. Types of equipment and materials. Laboratory, four periods a week.

412. Descriptive Drawing—2 hours. Descriptive geometry as applied to problems in orthographic projections, intersections, and developments. Introduction to aircraft drawing. Prerequisite: Industrial Arts 311. Laboratory, four hours a week.

425. Advanced Woodwork—5 hours. Laboratory, ten periods a week. A student must consult the instructor before registering for this course.

460. Auto Mechanics—3 hours. Care and maintenance of engines and automobiles. Laboratory, six periods a week.

462. Aeronautics—2 hours. Aircraft engines, construction, maintenance, and regulations. Prerequisite: Industrial Arts 460. Laboratory, four periods a week.

465. General Farm Mechanics—5 hours.

483. Industrial Arts for the Elementary Schools—3 hours. The use of constructive activities in the elementary program; emphasis on the value of such activities as aids in learning. Laboratory experience in the principal industrial processes used in transforming raw materials to usable goods. Work in wood, metal, ceramics, leather, plastic, and textiles.

485. Organization and Administration of Industrial Arts—3 hours. Objectives of industrial arts for different school levels. Bases of organization. Character of work for different levels and different types of schools. Organization of courses of study and teaching material. Class organization for individual and group work. Prerequisites: Industrial Arts 310, 320, and 321.

490. The Teaching of Industrial Arts—2 hours. Credit also as a course in education for a student whose major is industrial arts. Prerequisite: Industrial Arts 310, 311, 320 and 321. This course ordinarily should precede student teaching.

515. Architectural Drawing—3 hours. Fundamental principles of house planning including the making of sketches, floor plans, elevations, and typical sections. Modern materials, equipment, fixtures, and types of construction. Unless the student has had Industrial Arts 311, he must consult the Head of the Department of Industrial Arts before registering for this course. Laboratory, six periods a week.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

531. Machine Tools—3 hours. Precision layout and measurement, operation of the milling machine, the shaper, the planer, the lathe, and grinding machines. Laboratory, six periods a week.

552. Radio Construction—2 hours. The building of radio receivers. Unless the student has had Industrial Arts 350, he must consult the Head of the Department of Industrial Arts before registering for this course. Laboratory, four periods a week.

558. Advanced Printing—3 hours. Silk screen processes, lithography, and bookbinding. Prerequisite: Industrial Arts 257. Laboratory, six periods a week.

563. Power Equipment—3 hours. Technical problems in power equipment, farm machinery, and aircraft. Unless the student has had Industrial Arts 460 he must consult the Head of the Department of Industrial Arts before registering for this course. Laboratory, six periods a week.

580. The Planning and Equipment of the School Shop—2 hours. Plans for buildings and rooms. Purchase and arrangement of equipment. Suitable equipment for special conditions. The cost of equipment, supplies, and maintenance. Unless the student has had Industrial Arts 310 and 320, he must consult the Head of the Department of Industrial Arts before registering for this course.

Languages

Josef Schaefer, Ph.D., Professor of German and Acting Head of the Department

Ingebrigt Lillehei, Ph.D., Professor of French and Spanish, Emeritus, Part-time Service

Edna O. Miller, M.A., Associate Professor of Latin

This department offers instruction in French, German, Latin, and Spanish. Majors are offered in French, Latin, and Spanish and minors in these three languages and in German.

Course number 103 in each language, or equivalent, must be completed before credit in that language may be used toward graduation. A full year of a foreign language credit earned in another college may be used in meeting the requirements for graduation even though the total credit is less than 15 hours.

490. The Teaching of French and Spanish—2 hours. Credit also as a course in education for a student whose major is French or Spanish. Prerequisite: French 305 and 306 or Spanish 305. This course ordinarily should precede student teaching.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

French

A major in French must include Language 490 and 38 hours of elective work in French except that 10 hours of credit in courses in Spanish numbered 301 to 401 inclusive, and 502 may be counted as part of the 38-hour requirement for a French major.

A minor in French consists of at least 20 hours of work in courses in French which are more advanced than French 101.

Students who have had two years of French in high school or equivalent preparation may take courses from the 300 group in the freshman year and, with the approval of the Head of the Department of Languages, courses numbered 400 and 500 in the sophomore year.

101. French I—5 hours. A course for beginners.

102. French II—5 hours. Prerequisite: French 101 or equivalent preparation.

103. French III—5 hours. Reading of simple plays and stories. Prerequisite: One year of high school French or equivalent preparation.

301. Modern French Prose—3 hours. Selections from fiction and drama. Prerequisite: Two years of high school French or equivalent preparation.

302. Short French Plays—2 hours. Reading of French plays suitable for dramatic production in French classes and clubs. Prerequisite: Two years of high school French or equivalent.

303. French Short Stories—3 hours. Prerequisites: French 301 and 302 or equivalent preparation.

304. French Comedies—2 hours. Prerequisites: French 301 and 302 or equivalent preparation.

305. Rostand's *Cyrano*—3 hours. Prerequisites: French 301 and 302 or equivalent preparation.

306. French Life—2 hours. Study of various phases of French life. Prerequisites: French 301 and 302 or equivalent preparation.

307. French Romantic Novel—3 hours. Prerequisites: French 301 and 302 or equivalent preparation.

308. French Romantic Drama—2 hours. Prerequisites: French 301 and 302 or equivalent preparation.

309. French Realistic Novel—3 hours. Prerequisites: French 301 and 302 or equivalent preparation.

310. French Realistic Drama—2 hours. Prerequisites: French 301 and 302 or equivalent preparation.

401. Contemporary French Drama—3 hours. Lectures with reading of the works of the more recent French dramatists. Prerequisites: French 301 and 302 or equivalent preparation.

402. Contemporary French Novel—2 hours. Prerequisites: French 301 and 302 or equivalent preparation.

403. Composition and Conversation—2 hours. Prerequisites: French 301 and 302 or equivalent preparation.

504. Corneille and Moliere—3 hours. Lectures on the formation and development of the classical formula. Prerequisites: French 301 and 302 or equivalent preparation.

505. Racine and La Fontaine—3 hours. The tragedies of Racine and the fables of La Fontaine. Lectures on the classical period. Prerequisites: French 301 and 302 or equivalent preparation.

506. 18th Century French Literature—3 hours. The continuation of classicism; the philosophical writers; Rousseau and the beginnings of romanticism. Prerequisites: French 301 and 302 or equivalent preparation.

507. Victor Hugo—2 hours. Prose and poetry of Victor Hugo. Prerequisites: French 305 and 306 or equivalent preparation.

510. History of French Literature—3 hours. Readings, reports, and lectures. Prerequisites: French 305 and 306 or equivalent preparation.

German

A minor in German consists of at least 20 hours of work in courses in German which are more advanced than German 101.

Students who have had two years of German in high school or equivalent preparation make take courses from the 300 group in the freshman year and, with the approval of the Head of the Department of Languages, courses numbered 400 and 500 in the sophomore year.

101. German I—5 hours. A course for beginners.

102. German II—5 hours. Prerequisite: German 101 or equivalent preparation.

103. German III—5 hours. Prerequisite: One year of high school German or equivalent preparation.

301. Recent German Prose—5 hours. Prerequisite: Two years of high school German or equivalent preparation.

302. Goethe's Epics—2 hours. Prerequisite: German 301 or equivalent preparation.

303. Schiller's Dramas—5 hours. Prerequisite: German 301 or equivalent preparation.

304. 19th Century German Drama—5 hours. Representative works of Heinrich von Kleist, Grillparzer, Hebbel, Ludwig, and Hauptmann. Prerequisite: German 301 or equivalent preparation.

305. Contemporary German Literature—5 hours. Prerequisite: German 301 or equivalent preparation.

306. German Composition and Conversation—3 hours. Prerequisite: German 301 or equivalent preparation.

401. German Lyrics and Ballads—5 hours. Prerequisite: German 301 or equivalent preparation.

502. Scientific German—5 hours. Selection from literature of chemistry, physics, biology, and other sciences. Prerequisites: German 301 and 302 or equivalent preparation.

503. Lessing—5 hours. Prerequisites: German 301 and 302 or equivalent preparation.

504. Goethe—5 hours. Prerequisites: German 301 and 302 or equivalent preparation.

Latin

A major in Latin must include Latin 490 and 38 hours of elective work in Latin except that 10 hours of credit in courses in French 301 to 510 may be counted as a part of the 38-hour requirement. The Latin courses of a major in Latin must be selected from courses 107, 108, 301, 309, 310, 311, 490, and 501.

All the work of a minor in Latin (20 hours) must be selected from courses 107, 108, 301, 309, 310, 311, 490, and 501.

Students who have met the prerequisites may take courses from the 300 group in the freshman year and, with the approval of the Head of the Department of Languages, 490 and courses numbered 500 in the sophomore year.

101. Elementary Latin I—5 hours. A course for beginners.

102. Elementary Latin II—5 hours. Prerequisite: One year of high school Latin or Latin 101 or equivalent preparation.

103. Elementary Latin III—5 hours. Selections from Caesar's Gallic War. Writing of Latin. Prerequisite: Latin 102 or equivalent.

104. Cicero's Orations I—5 hours. Reading of easy prose and selections from the orations against Catiline. Review of Latin grammar. Prerequisite: Two years of high school Latin or Latin 103 or equivalent preparation.

107. Vergil I—5 hours. Selections from the *Aeneid*. Prerequisites: Three years of high school Latin or Latin 104 or equivalent preparation.

108. Vergil II—5 hours. Prerequisite: Half-year of Vergil in high school or Latin 107.

301. Livy—5 hours. Prerequisite: Latin 309 or equivalent preparation.

309. Cicero's Cato Major—5 hours. Translation with special study of the process of understanding and translating Latin. Review of Latin grammar. Composition exercises involving systematic drill in syntax. Prerequisite: Four years of high school Latin or equivalent preparation.

310. Pliny's Letters—5 hours. Prerequisite: Four years of high school Latin or equivalent preparation.

311. Epodes and Odes of Horace—5 hours. Prerequisite: Latin 309 or equivalent preparation.

490. The Teaching of Latin—2 hours. Credit also as a course in education for a student whose major is in Latin. Prerequisite: Latin 309 or equivalent preparation. This course ordinarily should precede student teaching.

501. Plautus, Terence, Catullus, Cicero's Letters, Vergil's Bucolics, Vergil's Georgics, Satires of Horace, Epistles of Horace, Tibullus, Propertius, the Agricola of Tacitus, The Annals of Tacitus, Juvenal—2 to 25 hours. Credit to be determined at time of registering. Prerequisite: Latin 309 or equivalent preparation.

Spanish

A major in Spanish must include Language 490 and 38 hours of elective work in Spanish except that 10 hours of credit in French in courses numbered 301 to 510 may be counted as a part of the 38-hour requirement.

A minor in Spanish consists of at least 20 hours of work in courses in Spanish which are more advanced than Spanish 101.

Students who have had two years of Spanish in high school or equivalent preparation may take courses from the 300 group in the freshman year and, with the approval of the Head of the Department of Languages, courses numbered 400 and 500 in the sophomore year.

101. Spanish I—5 hours. A course for beginners.

102. Spanish II—5 hours. Prerequisite: Spanish 101 or equivalent preparation.

103. Spanish III—5 hours. Reading of easy prose. Emphasis on understanding spoken and written Spanish. Prerequisite: One year of high school Spanish or equivalent preparation.

301. Spanish Prose—3 hours. Selection from fiction and drama of the nineteenth century. Prerequisite: Two years of high school Spanish or equivalent preparation.

302. Spanish Short Stories—2 hours. Prerequisite: Two years of high school Spanish or equivalent preparation.

303. Modern Spanish Novel—3 hours. Prerequisites: Spanish 301 and 302 or equivalent preparation.

304. Spanish-American Life—2 hours. Lectures on the life and customs of the Spanish people and their contribution to civilization. Prerequisites: Spanish 301 and 302 or equivalent preparation.

305. Contemporary Spanish Drama—3 hours. Plays of Benavente, Martinez-Sierra and Quintero. Prerequisites: Spanish 301 and 302 or equivalent preparation.

307. Contemporary Spanish Authors—2 hours. Representative novels, dramas, and essays selected. Prerequisites: Spanish 301 and 302 or equivalent preparation.

401. Don Quixote—3 hours. The life of Cervantes. Selected chapters of the Don Quixote with reports on additional reading. Prerequisites: Spanish 301 and 302 or equivalent preparation.

405. Galdos—3 hours. Novels and plays of Galdos. Prerequisites: Spanish 301 and 302 or equivalent preparation.

408. The Plays of Benavente—3 hours. The plays and dramatic technique of the leading contemporary dramatist of Spain. Prerequisites: Spanish 301 and 302 or equivalent preparation.

410. Spanish Composition—2 hours. Prerequisites: Spanish 303 and 304 or equivalent preparation.

412. Romantic Novels and Plays—2 hours. Prerequisites: Spanish 301 and 302 or equivalent preparation.

502. History of Spanish Literature—2 hours. General survey course with emphasis upon important literary movements and writers. Prerequisites: Spanish 301 and 302 or equivalent preparation.

503. Spanish Classical Drama—3 hours. Lope de Vega, Tirso de Molina, and Calderon. Prerequisites: Spanish 303 and 304 or equivalent preparation.

506. Spanish-American Literature—3 hours. A general survey designed to give an idea of the letters of the various countries of Spanish-America. Prerequisites: Spanish 303 and 304 or equivalent preparation.

Courses Presented in the English Language

451. French Drama in English—3 hours. A survey with lectures in English and collateral reading of English translations.

457. Spanish Civilization—3 hours. Social and political background of the Spanish peoples and their contributions to world culture.

459. Spanish Literature—2 hours. Lectures in English with readings from English translations of Spanish classics.

461. Norwegian Literature—3 hours. Literature of the nineteenth and twentieth centuries in English translation. The principal works in fiction and drama of such authors as Ibsen, Bjornson, Garborg, Hamsun, and Undset. Lectures on the historical, linguistic, and cultural background.

553. German Literature—3 hours. A survey revealing characteristics of German language, literature, and peoples. Readings in English of epics, dramas, and novels.

555. History of Latin Literature—3 hours. Survey of Latin literature from its beginnings to the end of the silver age. Contribution of the Romans to world thought. Readings in English of representative authors.

Library Science

Donald O. Rod, B.A. in Lib.Sc., Associate Professor of Library Science and Head Librarian

Lauretta G. McCusker, M.S., Assistant Professor in Library Science

Mrs. Ada McLeod, B.S., Instructor in Library Science

A major in library science consists of at least 36 hours which must include Library Science 110, 320, 323, 330, 332, 435, and 490. Students primarily interested in the elementary school field will also take Library Science 440; those whose interests are chiefly in the secondary school field will take Library Science 450 and 452. The remaining work may be chosen from other courses in library science or from the following: Education 543, 562, or 580; Art 330.

A minor in library science consists of 24 hours which must include Library Science 110, 320, 323, 330, 332, 435 and 490; and either 440, or 450 and 452.

110. Library Orientation—1 hour. The use of the library and its resources. Special emphasis on bibliography and the collection of material for research work.

320. Library Administration I—3 hours. The objectives and functions of the library; development of the school library program; cooperation between libraries and the school librarian; library standards for location and equipment; financial support and publicity.

323. Library Technical Processes I—3 hours. No credit for a student who has credit for Library Science 333. Procedures of organizing the book collection including accessioning, shelf listing, inventory, order work, circulation, filing, and adapting of printed catalog cards. A student taking this course should be able to type.

330. Library Technical Processes II—3 hours. Principles of cataloging and classification according to the Dewey Decimal system; assignment of subject headings and practice in making a dictionary catalog. Adaptation of the Dewey Decimal system to the needs of various sizes and types of libraries. It is recommended that Library Science 323 precede this course.

332. Book Selection Procedures—2 hours. The building of a well-rounded book collection. Evaluative criteria for the selection of library books and other materials; problems of binding, book repair and weeding; examination of standard book lists and reviewing media; study and practice of book reviewing.

435. Reference—5 hours. Study of reference books and tools; compiling and use of bibliographies; use of library materials in reference work; cooperation between the librarian and the subject teacher.

440. Library Materials for Children—5 hours. Reading interests of children; books and periodicals for younger children; useful recordings, films, and pictures. Brief history of children's literature.

450. Book Selection I—3 hours. Literature of the humanities and the social studies. Reading and evaluation of recreational and curricular-enrichment books in the fields of art, music, literature, and the social studies on the secondary level. Examination of audio-visual materials.

452. Book Selection II—2 hours. Literature of science and technology. Reading and evaluation of recreational and curricular-enrichment books in the fields of pure and applied science, industry, and commerce. Examination of audio-visual materials.

462. History of Books—2 hours. The historic development of the library and the influence exerted on it by the development of the alphabet, manuscript writing, and the invention and spread of printing. Emphasis on the relation of the library to social conditions of the various periods studied.

490. Teaching the Use of Libraries—2 hours. Credit also as a course in education for a student whose major is library science. Methods of teaching library skills. Materials for use in preparing class assignments, engaging in extracurricular activities, and pursuing individual interests.

521. Library Administration II—3 hours. Problems in the centralization of classroom libraries; i.e., the basic book collection needed; the determination of library policies; cost of adequate school library service; sources of funds and the library budget; planning and equipping the library quarters. A student must consult the Head of the Department of Library Science before registering for this course.

Mathematics

Henry Van Engen, Ph.D., Professor of Mathematics and Head of the Department

Irvin Brune, Ph.D., Associate Professor of Mathematics

H. C. Trimble, Ph.D., Associate Professor of Mathematics

E. Glenadine Gibb, Ph.D., Assistant Professor of Mathematics

E. W. Hamilton, M.A., Assistant Professor of Mathematics

Fred W. Lott, M.A., Assistant Professor of Mathematics

Lyman C. Peck, Ph.D., Instructor in Mathematics

Augusta L. Schurrer, Ph.D., Instructor in Mathematics

A major in mathematics consists of at least 42 hours of work in mathematics which should include Mathematics 417, 490, and two courses from 304, 306 and 320.

A minor in mathematics consists of at least 23 hours of work in mathematics and must include Mathematics 102 and 306.

Requirements for the graduate major in mathematics are found in the section on graduate study, pages 171 to 175.

Students who have had one year of algebra and one year of geometry in high school, or its equivalent, and who have met the course prerequisites may take Mathematics 415, 416, and 417 in the sophomore year.

General Courses in Mathematics

94. Mathematics for General Education—4 hours. The language of mathematics as an aid to modern living. Thinking in terms of how much and how many. Logical and interpretative analysis.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

553. Mathematics Laboratory—3 hours. The design, construction, and use of visual aids and other instructional materials used in elementary, junior high, and senior high mathematics departments. Six periods a week.

581. Reading in Mathematical Literature—2 hours. Topics selected from current literature, mathematical books, or books related to mathematics which are of value to mathematics majors and minors but not usually considered in routine course work. May be taken several times for credit. A student must consult the Head of the Department of Mathematics before registering for this course.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at the time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Mathematics before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

Courses Designed for Elementary Teachers

111. Arithmetic: Principles and Teaching—5 hours. No credit for a student who has credit in Mathematics 11 or 322. Arithmetic for teachers of elementary grades. Consideration of the place and nature of arithmetic in the elementary school. Learning problems of children and teaching procedures.

322. Teaching of Arithmetic I—3 hours. Place and nature of

arithmetic in the elementary grades; number readiness; rational counting; maturity levels and the corresponding teaching procedures; the meaning of basic concepts; understanding first principles in arithmetic.

408. Teaching of Arithmetic II—3 hours. Place and nature of arithmetic in the upper elementary grades; problem solving; computational procedures; number system; the meaning of basic concepts and basic principles of arithmetic.

532. Special Studies in Arithmetic—2 hours. A detailed consideration of those studies in the field of arithmetic which have influenced arithmetic instruction. Special emphasis on more recent trends. Prerequisite or corequisite: Mathematics 322 or 408.

534. Evaluation in Elementary Arithmetic—3 hours. Standardized tests, their uses and limitations. Teacher-made instruments for diagnosis and measure of meaning.

583. History of Arithmetic—3 hours. The development of the Hindu-Arabic number system and other number systems of historical significance. The historical and social origins of the algorisms of arithmetic and the history of the methods of teaching the subject.

585. Clinical Practice in Arithmetic—5 hours. An opportunity will be given for students to work with clinical cases under guidance; diagnosis, planning and putting into operation an instructional program in arithmetic for a limited number of pupils; evaluation of the program. Prerequisite: Mathematics 322 or 408.

691. Problems in Teaching Arithmetic—3 hours.

Seminar. Students work on individual problems and share findings in group discussion. A student must consult the Head of the Department of Mathematics before registering for this course.

Courses Designed for Secondary Teachers

20. Intermediate Algebra—5 hours. No credit toward a major or minor in mathematics. This course covers those aspects of algebra usually studied in intermediate algebra in the high school. It consists of a study of linear and quadratic functions and their graphs, solution of quadratic equations, linear equations in two unknowns, fractional equations, special products and factoring, irrational and imaginary numbers.

30. Plane Geometry—5 hours. No credit toward a major or minor in mathematics. This course covers the essential features of

a beginning plane geometry course. It includes emphasis on the following concepts: deductive and inductive proof, direct and indirect proofs, converses and their relation to the original proposition. It covers the basic theorems of congruence, parallel lines, quadrilaterals and polygons, similar figures, and properties of special triangles.

100. *College Algebra—5 hours. Prerequisite: Mathematics 20 or competence demonstrated by test.

101. *Trigonometry—5 hours. Trigonometry and continuation of college algebra. Prerequisite: Mathematics 100 or competence demonstrated by test.

102. Analytic Geometry—5 hours. Analytical geometry and allied topics. Prerequisite: Mathematics 101 or competence demonstrated by test.

304. Mathematics of Measurement—3 hours. Principles and operations; field practice in measurement; leveling. Prerequisite: Mathematics 101. Four periods a week.

306. College Geometry—5 hours. Theorems and concepts more advanced than those of high school geometry. Original exercises emphasized. Construction work and generalizations relating to high school geometry. The circle, triangle, and constructions with ruler and compasses. Prerequisite: 15 hours of mathematics.

307. Mathematics of Finance—3 hours. Sinking funds, depreciation, bonds, building and loan associations, and life insurance. Unless the student has had Mathematics 100 he must consult the instructor before registering for this course.

309. Advanced College Algebra—5 hours. Selected topics in elementary theory of equations, determinants, and matrices. Prerequisite: Mathematics 102.

310. Solid Analytic Geometry—3 hours. A continuation of Mathematics 102. Particular attention to transformation and determinants as related to the analytical geometry of three dimensions as well as a further study of coordinate systems. Prerequisite: Mathematics 102.

320. Foundations of Mathematics—3 hours. The postulational approach applied to plane geometry and algebra. Designed to be of value to prospective secondary school teachers. Prerequisite: 15 hours of mathematics.

*Students presenting one-half unit of entrance credit in trigonometry or two units of entrance credit in algebra may be excused from Mathematics 100 or 101 upon furnishing satisfactory evidence of mastery of the basic ideas of trigonometry or algebra. In either case, see your adviser and the Head of the Department of Mathematics.

415. Calculus I—5 hours. Differential calculus with applications. Prerequisite: Mathematics 102.

416. Calculus II—5 hours. Integral calculus. Prerequisite: Mathematics 415.

417. Calculus III—5 hours. Taylor's theorem, series, theorem of the mean, partial differentiation, practical applications, easy differential equations. Prerequisite: Mathematics 416.

490. The Teaching of Secondary Mathematics—4 hours. Credit also as a course in education for a student whose major is mathematics. Student teaching should accompany this course. Prerequisite: 15 hours of mathematics.

505. Differential Equations—5 hours. Differential equations of the first order and linear equations with constant coefficients; emphasis upon forms occurring in mechanics and physics. Prerequisite: Mathematics 417.

506. Statistical Measurements—5 hours. Introduction to the mathematics of statistical methods.

507. History of Mathematics—3 hours. Prerequisite: 15 hours of mathematics.

535. Evaluation in Junior High School Mathematics—3 hours. Standardized prognostic and diagnostic tests, their uses and limitations. Teacher-made devices to measure meaning and understanding.

536. Evaluation in Senior High School Mathematics—3 hours. Standardized tests for high school mathematics. Teacher-made instruments to measure meaning and understanding.

540. Introduction to Modern Algebra—5 hours. The concepts of ring, group, and field are introduced and used to explore selected topics in the theory of numbers and the theory of equations. Designed for mathematically mature students.

573. Philosophy of Mathematics—3 hours. Designed to compare the structure and methods of mathematics with the structure and methods of other fields of study; to note the interaction of developments in mathematics, philosophy, the physical and biological sciences, and other fields, thereby enabling the student better to integrate mathematics with other humanistic pursuits. Designed for mathematically mature or philosophically mature students.

603. Theory of Numbers—5 hours. The basic interrelations of the system of integers.

605. Mathematical Analysis I—5 hours. Review of elementary differential and integral calculus; continuous and discontinuous functions; improper and line integrals; partial differentiation and applications.

607. Mathematical Analysis II—5 hours. Elementary functions of a complex variable; constant term and power series; Cauchy integrals.

660. Modern Geometries—5 hours. Topics from the fields of advanced Euclidean, major non-Euclidean, and elementary projective geometries selected to broaden the student's mathematical outlook.

665. Mathematical Statistics—5 hours. Principles underlying statistical procedures. Sampling distributions, theory of estimation, analysis of variance, testing of hypotheses. Prerequisite: Mathematics 506.

692. Problems in Teaching Junior High School Mathematics—3 hours. Seminar. Students work on individual problems and share findings in group discussion. A student must consult the Head of the Department of Mathematics before registering for this course.

693. Problems in Teaching Senior High School Mathematics—3 hours. Seminar. Students work on individual problems and report the result of their findings to the group. A student must consult the Head of the Department of Mathematics before registering for this course.

Music

Myron Russell, Ph.D., Professor of Wood-wind Instruments and
Head of the Department

Edward Kurtz, D.Mus., Professor of Violin and Composition,
Emeritus, part-time service

Henry Harris, B.Mus., Associate Professor of Piano

Frank W. Hill, M.Mus., Associate Professor of Violin, Viola and
Theory

Harald B. Holst, M.Mus., Associate Professor of Voice

Rose Lena Ruegnitz, M.Mus., Associate Professor of Piano

*Ronald Searight, M.A., Associate Professor of Violoncello and
Conducting

Olive L. Barker, M.A., Assistant Professor of Voice

Russell N. Baum, M.Mus., Assistant Professor of Piano

Jane Birkhead, M.A., Assistant Professor of Voice

*Emil W. Bock, M.Mus., Assistant Professor of Violin

Karl M. Holvik, Ph.D., Assistant Professor of Wood-wind Instruments

William P. Latham, Ph.D., Assistant Professor of Brass Instruments

John W. Mitchell, M.Mus.Ed., Assistant Professor of Music Education

*Willard A. Starkey, M.Mus., Assistant Professor of Instrumental Music

E. Charles Theno, D.Ed., Assistant Professor of Music Education

Ellen M. Aakvik, M.Mus., Instructor in Piano

Betty Jean Barney, M.Mus., Temporary Instructor in Violin

Mrs. Mary Green Beckman, M.Mus., Temporary Instructor in Theory and Harp

Walter B. Coleman, M.Mus., Temporary Instructor in Flute and Cello

David E. Kennedy, M.Mus., Instructor in Brass Instruments and Theory

William Keith Macy, M.Mus., Temporary Instructor in Music

R. Jane Mauck, M.Mus., Instructor in Voice

Mrs. Jvone L. Maxwell, M.Mus., Temporary Instructor in Piano

Arthur L. Redner, M.Mus., Instructor in Music Education

George W. Samson, Instructor in Organ and Piano

An undergraduate major in music must include 24 hours in Applied Music, 39 hours in Music Theory and Literature, 10 hours in Music Methods and Music 502. The student must select a field of applied music (known as the applied major field) for specialization, and must pass an examination including Grade XII in this field. He must make a public appearance in the applied major field.

It is possible for a major in music to become certified as an elementary school teacher. Students interested in the possibility of such dual certification should consult the Head of the Department of Music.

A minor in music consists of 25 hours of credit in music including Music 113, 114, 115, 308, and 317. Credit in band, orchestra, or chorus may not be used in meeting the requirements of the minor.

Requirements for the graduate major in music are found in the section on graduate study, page 175.

A student whose major is in music may receive three hours of credit per quarter in applied music by taking three lessons a week. Any student may receive two hours of credit per quarter in applied music by taking two lessons a week.

Activities: The department maintains a symphony orchestra which presents standard symphonic works; a marching band; a concert band; a chorus; an a cappella choir; and string, wood-

*On Leave

wind, and brass ensembles. An oratorio is given before the Christmas recess by the chorus and orchestra, and a Spring Festival is presented by the chorus and orchestra in May. String ensemble classes study and present in public several times each year standard ensemble literature such as trios, quartets, quintets, etc. Opportunity for participation in any one or all of these activities is afforded all students in the college as well as those whose major is in music. Opportunity is given all of these groups, as well as individual students, for radio performance over the college radio studios. Student recitals are given Friday of each week in Gilchrist Hall. Throughout the year, Leisure Time Hour faculty recitals are given at the college.

One hour of credit may be earned by a student who completes an academic year (3 quarters) in either band, orchestra, or chorus. No credit is allowed unless participation is continuous for a full academic year. Credit may be reported only at the close of the spring quarter. Not more than two hours of such credit may be used in meeting the requirements of the two-year plan or more than four hours in meeting degree requirements.

A concert course by celebrated artists is sponsored by the college affording opportunities for students to hear the best in music.

General Courses in Music

10. Elements of Music—2 hours. Designed for elementary school teachers. Introduction to school music: singing, rhythmic development, and elementary theory. One hour per week is devoted to class work in voice, from which students showing proficiency may be excused. Daily.

12. Music for Elementary Grades—2 hours. Training in singing; sight singing, ear training, and dictation; elementary conducting; materials. Prerequisite: Music 10 or equivalent preparation. One hour per week is devoted to class work in piano, from which students showing proficiency in piano may be excused. Daily.

130. Exploring Music—3 hours. Designed to introduce the art of music to non-performers. Emphasis on: (1) listening to learn what music is capable of conveying to him, (2) participating chiefly through group singing, (3) understanding the correlation of the historical development of music with the other arts and the place of music in modern society, (4) developing an appreciation of the skill of the composer of music by engaging in the creation of simple melodies.

606. Methods in Music Research—1 hour. Designed to acquaint the student with methods in musical research; to help locate a suitable thesis topic and the necessary source material. Should be taken during the first quarter in residence by all candidates for the master's degree with a major in music.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at the time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Music before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

Music Theory

113. Aural Theory I—3 hours. Eurythmics. Elementary theory. Simple rhythmic and melodic dictation. Sight singing of folk songs. Elementary keyboard harmony. Daily.

114. Aural Theory II—3 hours. Sight singing of melodies involving chromatic difficulties. Melodic dictation in major and minor with modulations to nearly related keys. Harmonic dictation using principal triads in root position and in inversions. More advanced keyboard harmony using cadence formulas and modulations. Rhythmic dictation involving syncopation. Prerequisite: Music 113. Daily.

115. Aural Theory III—3 hours. Introduction to part writing. Advanced harmonic dictation using secondary triads, all inversions and modulations. Melodic dictation in major and minor modulating to all related keys and involving more difficult leaps and rhythms. Keyboard harmony continued, including harmonization of simple tunes and figured basses at sight and modulating to all keys. Introduction of alto and tenor clefs in sight singing. Singing of part songs at sight. Prerequisite: Music 114. Daily.

308. Harmony I—3 hours. A course designed to familiarize the student with the construction and manipulation of all types of seventh chords and ninth chords, and chromatic alterations of fundamental harmonies. Harmonic analysis, keyboard harmonization, and aural perception of chords in harmonic progressions are emphasized. Prerequisite: Music 115.

317. Harmony II—3 hours. Continued written and aural drill on harmonic techniques of the eighteenth and nineteenth centuries, with emphasis on practical application to the keyboard. Prerequisite: Music 308.

318. Harmony III—3 hours. A study of modern harmonic devices, classification and evolution of modern harmonies. A study of the harmonic contributions of contemporary composers. Emphasis on original examples of such devices as polytonality, chord-building by fourths and whole-tone writing. Modal harmonies and duodecuple construction. Prerequisite: Music 317.

403. Counterpoint I—2 hours. The species in two, three, and four parts. Motive development and imitation. Original work with early polyphonic forms. Prerequisite: Music 317.

404. Counterpoint II—2 hours. Inventions and choral forms. Analysis of the Bach two-part inventions and organ choral preludes. Prerequisite: Music 403.

405. Counterpoint III—2 hours. Canon and fugue. Analysis of Bach's Well-Tempered Clavichord. Prerequisite: Music 404.

***409. Orchestration—3 hours.** The various choirs in the orchestra; arrangements for small and large orchestras; orchestral scores. Prerequisite: Music 317.

412. Conducting—3 hours. Baton techniques, score reading; practice in conducting. Prerequisite: Music 10, 17, or 113. Three periods a week.

****441. Form and Analysis—3 hours.** Analysis of selected works of 18th and 19th century composers. Emphasis on instrumental forms: chamber, symphonic, and concerted works.

507. Advanced Counterpoint—3 hours. Model counterpoint. The vocal polyphonic style of the 16th century. Analysis of representative works of Palestrina, Lassus and their contemporaries. Creative work in vocal forms: motet, madrigal, mass. Two, three, four and five-part writing. Prerequisite: Music 404 or its equivalent.

514. Composition—3 hours. No credit for a student who has credit in Music 414, 515, or 516. Creative work in the primary forms. Phrase and period structure. Two and three-part song forms. Dance forms. Prerequisite: Music 404 or its equivalent.

615. Advanced Composition—3 hours. Creative work in the larger forms. Sonata-allegro rondo, theme and variations and kindred forms. Student must complete at least one original project in any of these forms. Prerequisite: Music 514 or its equivalent.

*Music 409. Orchestration replaces the former three-quarter sequence of one-hour courses of Music 409, 410, and 411.

**Music 441. Form and Analysis replaces the former three-quarter sequence of one-hour courses of Music 441, 442, and 443.

618. Advanced Arranging—3 hours. Practical work in scoring for orchestra, band, or chorus. Special emphasis on arranging for school groups. Student must complete at least one transcription for a large instrumental or vocal group, or for a combination of both. Prerequisite: Music 409 or its equivalent.

Music Literature

535. Music History and Literature I—2 hours. Survey of the development of music from its primitive origins through classical antiquity up to the end of the eighteenth century. Music literature from the Gregorian chant to the Mozart symphonies and the operas of Gluck studied by means of phonograph records and slides. Three periods a week.

536. Music History and Literature II—2 hours. Music of the nineteenth century. Literature from Beethoven to Debussy. Development of romanticism, nationalism, program music. The music dramas of Wagner. Three periods a week.

537. Music History and Literature III—2 hours. Music of the twentieth century in all countries including the growth of music in the United States and Latin America. Three periods a week.

544. Music Literature—Baroque—3 hours. The early and middle baroque periods in Italy, the Netherlands, Germany, France, Spain, England. The early Italian opera; the baroque sonata; the cantata and oratorio; the *ballet de cour*; clavicin and harpsichord music; the masque. Music of the late baroque period. The concerto grosso; chamber music; the French opera and the *opera comique*; the suite; organ music. J. S. Bach, Handel. Prerequisites: Music 535, 536, 537 or equivalents.

545. Music Literature—Contemporary—3 hours. Music since 1900. Principal styles and trends in the 20th century. Realism, Strauss; Impressionism, Debussy. Viennese Expressionism; Schonberg; Modern music in England, Italy, Russia. American music. Prerequisites: Music 535, 536, 537 or equivalents.

648. Music Literature—Renaissance—3 hours. Comprehensive study of western music to about 1600; early secular music; the Burgundian school; the Flemish and French schools; the Italian Renaissance; the Venetian and Roman schools; the Italian madrigal; Palestrina; Spanish music of the Renaissance; music of the German Reformation. Music in England; the Tudor and Elizabethan composers, the English Madrigal School; the Lutenists; the English Virginal School. Prerequisites: Music 535, 536, 537 or their equivalents.

Music Methods

400. School Music Methods I—2 hours. Materials and methods for kindergarten and primary grades. Prerequisite: Music 10, 17, or 113.

402. School Music Methods II—2 hours. No credit for a student who has credit for Music 12. Materials and methods for intermediate grades. Prerequisite: Music 10, 17, or 113.

408. School Music Methods III—3 hours. Materials and methods for junior and senior high schools. Prerequisite: Music 10, 17, or 113.

431. Orchestral Materials—2 hours. A study of elementary and advanced orchestral literature. Designed for instrumental majors.

472. Choral Directing—2 hours.

513. Band Management—3 hours. Development of school bands, marching and drill maneuvers; arrangement and preparation of band scores. Three periods a week.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

532. Band Materials—2 hours. An analysis of solos and studies for all wood-wind and brass instruments, as well as small group, large group, and full band ensembles. Designed for instrumental majors.

539. Voice Repertoire—2 or 3 hours. A comprehensive survey of vocal literature and its suitability for different voices. The study includes early Italian arias, French *chanson*, German *lieder*, art songs, and contemporary literature. It is designed primarily for those interested in teaching singing.

585. Opera Production—2 hours.

601. *Psychology of Music—3 hours. The psychological basis of teaching music in its performance and structure; the study of musical aptitude tests; the study of human behavior as related to the teaching of music.

680. Seminar in Band—3 hours. Designed for the student who has had some actual teaching experience. Practical situations are studied and analyzed, then brought to a conclusion by collective recommendation.

*Psychology of Music may be used to satisfy the special methods elective in the professional core for the master's degree.

681. Seminar in Orchestra—3 hours. A discussion-project course designed to implement the string and orchestral program in the elementary and secondary schools.

682. Seminar in Chorus—3 hours. An analysis of problems, both actual and hypothetical, as found in the vocal program of our modern school.

691. Planning and Supervision—3 hours. A program of broad coverage from the preschool to high school and through the junior college. The course is designed with emphasis on a balanced, integrated music program for the prospective supervisor of music in a medium to large school system.

Applied Music

Individual Lessons: For each hour of credit the work in applied music requires one lesson a week for one quarter. The amount of credit will be determined at the time of registering. A student whose major is music may earn three hours of credit by taking three lessons a week. The student must show improvement as the work in any line progresses. The Head of the Department of Music has the authority to assign students to specific instructors.

120, 320, 520. Applied Music—(Voice)

121, 321, 521. Applied Music—(Piano or organ)

122, 322, 522. Applied Music—(Stringed instrument)

123, 323, 523. Applied Music—(Wood-wind or brass instrument)

124, 324, 524. Applied Music—(Percussion instrument)

125. Piano—Group Instruction—1 hour. Designed to meet the needs of any student who has had little piano training but who must acquire some facility on the instrument. A student is first tested and placed in the proper section from A to F; he will be advanced successively as he progresses until he reaches the proficiency of Grade IV for music majors. By successive enrollments a student may earn not to exceed six hours' credit. The same fee is paid as for applied music given by individual instruction.

Group Lessons: The following courses are offered for credit as indicated only to students whose major or minor is in music.

The work consists of class study of the instrument including its selection and care. Each class meets two periods a week.

- 300. **Orchestral Instruments I**—1 hour. Cello, Bass.
- 302. **Orchestral Instruments II**—1 hour. Clarinet.
- 303. **Orchestral Instruments III**—1 hour. Brass Instruments.
- 304. **Orchestral Instruments IV**—1 hour. Flute, Saxophone, Percussion.
- 305. **Orchestral Instruments V**—1 hour. Oboe, Bassoon.
- 306. **Orchestral Instruments VI**—1 hour. Violin, Viola.
- 502. **Senior Recital**—2 hours.

Note

String ensembles for the study and performance of sonatas, trios, quartets, and quintets are provided for students in violin, viola, cello, bass, harp, and piano. Wood-wind and brass ensemble for work of a similar nature are provided for students in wood-wind and brass instruments.

Students may also receive credit in band, chorus, or orchestra.

See page 125 for limitations. Numbers are assigned as follows depending on the student's classification.

151, 351, 451—Band, 1 hour

152, 352, 452—Chorus, 1 hour

153, 353, 453—Orchestra, 1 hour

Physical Education for Men

L. L. Mendenhall, M.A., Professor of Physical Education for Men and Head of the Department

James R. Clark, Ph.D., Associate Professor of Physical Education for Men

Arthur Dickinson, MA., Assistant Professor of Physical Education for Men

Oliver M. Nordly, B.A., Assistant Professor of Physical Education for Men

Clyde L. Starbeck, B.S., Assistant Professor of Physical Education for Men

Lawrence W. Whitford, M.A., Assistant Professor of Physical Education for Men

William H. Koll, M.A., Instructor in Physical Education for Men

A major in physical education (men) consists of 47 hours which must include Biological Science 111 and at least 42 hours in physical education courses recommended by the department.

A minor in physical education (men) consists of at least 28 hours which must include Physical Education 353, 354, 451, 452, 456, 457, 473, 563, 574, and six hours of 01.

During one of the first four quarters in residence, men students who have not passed a swimming test given by the department must complete a course in swimming.

Courses Offered to Both Men and Women

01. Physical Education—Games, recreational games, beginning folk dance, intermediate folk dance, advanced folk dance, American country dance, modern dance.

100. First Aid to the Injured—2 hours. Students may prepare themselves in this course for the examination for a Red Cross Standard First Aid Certificate. Three periods a week.

113. Physical Education for Elementary Grades—3 hours. No credit for a student who has credit in Physical Education (Women) 202. Teaching methods and interpretation of materials suitable for physical education in elementary schools. Experience in activities and program planning. Daily.

300. Anatomy—5 hours. Gross anatomy of the osseous, muscular, and nervous systems, and of the vital organs.

301. Kinesiology—3 hours. Body mechanics in relation to posture, sports, corrective gymnastics, and everyday activities. Prerequisite or corequisite: Physical Education 300.

408. Therapeutic Exercise—2 hours. Theory and practice of posture examination, remedial posture measures, and massage in the school program. Prerequisites: Physical Education 300, 301, and Biological Science 111.

410. Physiology of Exercise—3 hours. Effects of exercise upon the various organic functions of the body. A comparison of strength, speed, and endurance exercises. Prerequisites: Physical Education 300 and Biological Science 111.

411. Advanced First Aid—1 hour. Completion of this course should enable one to meet the requirements for the American Red Cross instructor's certificate. Prerequisite: Physical Education 100 or equivalent. Two hours a week.

421. Testing in Physical Education—1 hour. Giving and scor-

ing of standardized tests in physical education, tabulation and interpretation of results. Prerequisite: Physical Education 492 and permission of the instructor.

492. Tests and Measurements in Physical Education—2 hours. Credit also as a course in education for a student whose major is physical education. Analysis, interpretation, and use of tests in physical education.

507. School Health Problems—3 hours. No credit for a student who has credit for Biological Science 300 (Hygiene and Sanitation). Methods of health instruction through the health examination; health needs of the individual child; hygiene of the environment; cooperation with home and community. Evaluation of the literature and devices of health instruction. Prerequisite: Science 118 or equivalent.

509. Community Recreation and the School—3 hours. Growing need of the average citizen for recreational opportunities. Agencies which are involved in the recreation program. Trends in the development of school-community programs and problems of leadership, facilities, and organization.

532. Physical Education and the Child—2 hours. Role of physical education as a part of the total school curriculum. Implications of known facts of child development in planning a program of elementary physical education. Problems of administration and public relations. Prerequisite: Education 211 or equivalent.

571. History and Principles of Physical Education—3 hours. When taken by women this course must be accompanied by two hours of laboratory as arranged.

Courses Offered to Men

Men may earn credit in Games and one additional 01 course that is open to both men and women. A man may enroll for any other activity courses in the Department of Physical Education for Women only upon the approval of that department and will receive credit for the course only by securing the advance approval of the heads of both departments of physical education and the Dean of the Faculty.

01. Physical Education.

This work in Physical Education 01 required of all men students is selected from the following courses: badminton, baseball, basketball, boxing, cross country, diamond-ball, floor and mat

work, football, golf, gymnastics, handball, modified activities, six-man football, soccer, softball, speedball, beginning swimming, advanced swimming, tennis, touch football, track and field, volleyball, and wrestling.

07. Military Survey—2 hours. Designed particularly for men who expect to enter the armed services. Lecture and recitation, two periods a week; laboratory and field work, two periods a week.

351. Football Fundamentals—2 hours. Daily.

352. Basketball Fundamentals—2 hours. Daily.

353. Baseball—2 hours. Daily.

354. Track and Field—2 hours. Daily.

451. Advanced Football—2 hours. Daily.

452. Advanced Basketball—2 hours. Daily.

455. Gymnastics—2 hours. Gymnastic marching, elementary exercises on bars, horse, mats, and other apparatus. Daily.

456. Swimming—2 hours. Daily.

457. Games and Rhythmic Activities—2 hours. Rhythms, games, and individual physical education activities appropriate for junior and senior high schools. Four periods a week.

458. Wrestling—2 hours. Daily.

459. Recreational Leadership—2 hours. City, county, state, and national organizations promoting recreational activities. Playground equipment and programs.

472. Supervision of Physical Education—3 hours. This course must be taken in conjunction with Methods in Physical Education. Prerequisites: Physical Education 351 or 451 and 352 or 452.

473. Organization and Administration of Physical Education—3 hours.

490. Methods in Physical Education—2 hours. Credit also as a course in education for a student whose major is physical education (men). This course must be taken in conjunction with Supervision of Physical Education and ordinarily it should precede student teaching.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

563. Training Techniques—3 hours. Demonstration and prac-

tical work in the prevention and treatment of athletic injuries; diet, care of equipment, physiotherapy.

574. Curriculum in Physical Education—2 hours. The physical education curriculum for the junior-senior high school with emphasis on the grade placement of activities and the use of lead-up activities in the elementary school. Four periods a week.

Physical Education for Women

Jean Bontz, Ph.D., Associate Professor of Physical Education for Women and Head of the Department

Doris E. White, M.A., Professor of Physical Education for Women, Emeritus, part-time service

Shirley Winsberg, Ph.D., Associate Professor of Physical Education for Women

Dorothy L. Moon, M.A., Assistant Professor of Physical Education for Women

Thelma Short, M.A., Assistant Professor of Physical Education for Women

Grace Van Ness, M.A., Assistant Professor of Physical Education for Women

Mrs. Frances M. Bernard, B.A., Temporary Instructor in Physical Education for Women

Mary A. Butterworth, M.A., Instructor in Physical Education for Women

*Elinor Ann Crawford, M.A., Instructor in Physical Education for Women

Betty Ann Dial, B.S., Temporary Instructor in Physical Education for Women

Betty Swanson, M.S., Instructor in Physical Education for Women

Barbara Yager, M.A., Instructor in Physical Education for Women

A major in physical education (women) consists of 60 hours which must include Biological Science 111 and which should include Physical Education 100, 202, 300, 301, 305, 400, 401, 406, 408, 490, 507, 571, and two courses from 309, 403, and 412. A student should complete three quarters each of Physical Education 06, 07, and 08, and two quarters of Physical Education 09.

It is possible for a major in physical education (women) to become certified as an elementary school teacher. Students interested in the possibility of such dual certification should consult the Head of the Department of Physical Education (Women).

*On leave.

A minor in physical education (women) consists of 27 hours in physical education, including Physical Education 305, 401, 571, one course from 309, 403, 412, and 430, and 6 hours of Physical Education 01. It is suggested that students consult the Head of the Department in choosing the six quarters of 01 best suited to the individual's needs.

Courses Offered to Both Men and Women

01. Physical Education. Games, recreational games, beginning folk dance, intermediate folk dance, advanced folk dance, American country dance, modern dance.

100. First Aid to the Injured—2 hours. Students may prepare themselves in this course for the examination for a Red Cross Standard First Aid Certificate. Three periods a week.

113. Physical Education for Elementary Grades—3 hours. No credit for a student who has credit in Physical Education (Women) 202. Teaching methods and interpretation of materials suitable for elementary school physical education. Experience in activities and program planning. Daily.

300. Anatomy—5 hours. Gross anatomy of the osseous, muscular, and nervous systems, and of the vital organs.

301. Kinesiology—4 hours. Body mechanics in relation to posture, sports, corrective gymnastics, and everyday activities. Prerequisite: Physical Education 300. Recitation, three periods a week; laboratory, two periods a week.

408. Therapeutic Exercise—3 hours. Theory and practice of posture examination, the posture program and remedial posture exercise in the school; the recreational sports program for the handicapped child; theory and techniques of massage. Prerequisites: Physical Education 300, 301, and Biological Science 111. Four periods a week.

410. Physiology of Exercise—3 hours. Effects of exercise upon the various organic functions of the body. A comparison of strength, speed, and endurance exercises. Prerequisites: Physical Education 300 and the Biological Science 111.

411. Advanced First Aid—1 hour. Completion of this course should enable one to meet the requirements for the American Red Cross instructor's certificate. Prerequisite: Physical Education 100 or equivalent. Two hours a week.

421. Testing in Physical Education—1 hour. Giving and scoring of standardized tests in physical education, tabulation and in-

terpretation of results. Prerequisites: Physical Education 492 and permission of the instructor.

492. Tests and Measurements in Physical Education—2 hours. Credit also as a course in education for a student whose major is physical education. Analysis, interpretation, and use of tests in physical education.

507. School Health Problems—3 hours. No credit for a student who has credit for Biological Science 300 (Hygiene and Sanitation). Methods of health instruction through the health examination; health needs of the individual child; hygiene of the environment; cooperation with home and community. Evaluation of the literature and devices of health instruction. Prerequisite: Science 118 or equivalent.

509. Community Recreation and the School—3 hours. Growing need of the average citizen for recreational opportunities. Agencies which are involved in the recreation program. Trends in the development of school-community programs and problems of leadership, facilities, and organization.

532. Physical Education and the Child—2 hours. Role of physical education as a part of the total school curriculum. Implications of known facts of child development in planning a program of elementary physical education. Problems of administration and public relations. Prerequisite: Education 211 or equivalent.

571. History and Principles of Physical Education—3 hours. For women this course must be accompanied by two hours of laboratory as arranged.

Courses Offered to Women

01. Physical Education.

The work in Physical Education 01 required of all women students is selected from the following courses:

Group Games and Team Sports: beginning basketball, intermediate basketball, advanced basketball, fieldball, games (representative activities for various age groups), simple team games (mainly the lead-up games to the major sports), beginning hockey, advanced hockey, beginning soccer, advanced soccer, beginning softball, intermediate softball, advanced softball, speedball, beginning volleyball, intermediate volleyball, and advanced volleyball.

Individual and Dual Activities: beginning archery, intermediate

archery, archery golf, indoor archery, badminton, bowling, canoeing, beginning golf, intermediate golf, horseback riding, ice skating, outing activities, recreational games (handball, table tennis, deck tennis, etc.), stunts and tumbling (including trampoline), beginning swimming, first intermediate swimming, second intermediate swimming, advanced swimming, diving, lifesaving, beginning tennis, intermediate tennis, advanced tennis, track and field, and winter sports.

Rhythmic Activities: beginning folk dance, intermediate folk dance, advanced folk dance, beginning modern dance, intermediate modern dance, advanced modern dance, beginning social dance, advanced social dance, rhythmic form and analysis, beginning tap and clog, intermediate tap and clog, and American country dance.

Fundamentals of Body Movement: body mechanics, Danish gymnastics, and therapeutic gymnastics.

Physical Education for Special Groups: activities for social recreation, fundamentals of rhythmic education, individual activity, and physical education activities for high school girls.

Each quarter certain activity courses taught by the department of physical education for men are ordinarily offered that are open to **women** students for credit. A woman may enroll for any other activity course in the Department of Physical Education for Men only upon the approval of that department and will receive credit for the course only by securing the advance approval of the heads of both Departments of Physical Education and the Dean of the Faculty.

***06. Freshman Major Activities—1 hour.** Open only to prospective majors in physical education. Four periods a week. Activities in which freshmen participate are: hockey, archery, swimming, beginning folk dance, beginning modern dance, intermediate modern dance, volleyball, basketball, softball, tennis, golf, and badminton.

***07. Sophomore Major Activities—2 hours.** Open only to majors in physical education. Eight periods a week. Soccer, speedball, tennis, swimming, advanced modern dance, intermediate folk dance, beginning tap and clog, rhythmic form and analysis, social dance, stunts and contests, Danish gymnastics, outing activities, and piano.

***08. Junior Major Activities—0 hour.** Open only to majors in physical education. Eight periods a week. Cadet teaching or laboratory practice in hockey, soccer, basketball, softball, archery, golf, tennis, badminton, therapeutics, rhythmic activities, swimming, track and field activities, and activities of the elementary school.

***09. Senior Major Activities**—1 hour. Open only to majors in physical education. Eight periods a week. Seniors are given an opportunity to improve their skills in swimming, tennis, advanced modern dance, and recreational games. Other activities in this course are: advanced folk dance, winter sports, badminton, American country dance, golf, and tennis.

102. Water Safety—1 hour. Students may prepare themselves in this course to become American Red Cross Water Safety Instructors. Two periods a week.

202. Activities in the Elementary School—2 hours. No credit for a student who has credit in Physical Education 113. Materials suitable for the elementary schools. Participation in activities. Discussion, one period a week; laboratory, two periods a week.

303. Club and Camp Leadership—3 hours. Organization and activities of girls' clubs; correlation with the physical education program of the school; summer camping program; camp- and wood-craft. Must be accompanied by Outing Activities.

305. Play and Recreational Leadership—3 hours. Play as education. Age needs. Yearly and daily program planning. Playground equipment and sites. Must be accompanied by Games.

309. Sports Methods (Spring)—3 hours. The teaching of softball, tennis, badminton, stunts and tumbling, and track and field. To register a student must have previously developed some skill in the sports mentioned. Physical Education 08 serves as the laboratory for this course. Laboratory, six periods a week.

400. History of Dance—2 hours. The dance from primitive ritual to the art forms of the twentieth century.

401. The Dance in Education—3 hours. Methods and materials for a rhythmic program in the elementary and secondary school. Supervised teaching in laboratory classes.

403. Sports Methods (Fall)—3 hours. The teaching of hockey, soccer, speedball, archery, and golf. To register for this course a student must have previously played with skill the sports mentioned. Physical Education 08 serves as the laboratory for this course. Laboratory, six periods a week.

406. Administration of Physical Education—3 hours. Program of instruction and of free-time recreation; equipment, gymnasium, play field, locker room, swimming pool. Budget; supervisory problems; community relationships.

*Physical Education 06, 07, 08, 09 will satisfy the 01 requirements.

412. Sports Methods (Winter)—3 hours. The teaching of basketball, folk dancing, and social dancing. To register for this course a student must have previously participated with some skill in these activities. Physical Education 08 serves as the laboratory for this course. Laboratory, six periods a week.

413. The Teaching of Swimming and Aquatics—3 hours. No credit for a student who has credit for Physical Education 402, The Teaching of Basketball and Swimming. To register for this course a student must know how to swim at least two strokes. Class discussions, three periods a week; laboratory, two periods a week.

430. Physical Education for High School Girls—3 hours. No credit for a student whose major is physical education for women. Must be accompanied by Physical Education Activities for High School Girls.

490. Problems of Teaching in Physical Education—2 hours. Credit also as a course in education for a student whose major is physical education. Relating psychology of learning to motor activities, bases for selection of activities, developing units, lesson plans, and with general problems of close organization and class management. This course ordinarily should precede student teaching.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

Science

C. W. Lantz, Ph.D., Professor of Biology and Head of the Department

Alison E. Aitchison, M.S., Professor of Geography, Emeritus, part-time service

Louis Begeman, Ph.D., Professor of Physics, Emeritus, part-time service

Emmett J. Cable, Ph.D., Professor of Earth Science, Emeritus, part-time service

R. W. Getchell, Ph.D., Professor of Chemistry, Emeritus, part-time service

R. L. Abbott, Ph.D., Professor of Biology

Martin L. Grant, Ph.D., Professor of Biology

James W. Kercheval, Ph.D., Professor of Chemistry

Willard J. Poppy, Ph.D., Professor of Physics

H. Earl Rath, Ph.D., Professor of Health Education

Robert A. Rogers, Ph.D., Professor of Physics

Marguerite Uttley, Ph.D., Professor of Geography
Leonard Winier, Ed.D., Associate Professor of Biology
Charles F. Allegre, Ph.D., Assistant Professor of Biology
David George Barry, Ph.D., Assistant Professor of Biology
H. Seymour Fowler, Ph.D., Assistant Professor of Biology
D. N. Marquardt, Ph.D., Assistant Professor of Chemistry
Mrs. Dorothy C. Matala, Ph.D., Temporary Assistant Professor of Biology
Clifford G. McCollum, D.Ed., Assistant Professor of Physical Science
Herman Nelson, Ph.D., Assistant Professor of Earth Science
Oscar E. Reece, Ph.D., Assistant Professor of Agriculture
Ernestine Smith, M.S., Assistant Professor of Geography
*Pauline Sauer, M.A., Instructor in Biology
Jerry A. Shannon, Jr., M.A., Temporary Instructor in Science

A major in science consists of at least 69 hours. It includes Science 116, 117, 118, 119, and 490. Additional requirements are 25 hours from a field of special interest which may be biological science, chemistry, or physics; 10 hours from each of the above mentioned fields which have not been chosen as the field of special interest; and 5 hours from Earth Science 360, 468, 573, and 561.

Requirements for the graduate major in science are found in the section on graduate study, pages 171 and 176.

General Courses in Science

18. Physical Science for Elementary Grades I—3 hours. Common physical and chemical phenomena. Simple experiments with the physics and chemistry of everyday life. Demonstrations and student participation in setting up simple experiments. Acquaintance with suitable source materials.

116. The Physical Sciences—5 hours. No credit for a student who has credit in Science 16 or 18. Basic concepts of the physical sciences and their significance in the modern world. The methods of science. Five periods a week.

117. The Biological Sciences—4 hours. No credit for a student who has credit in Science 15 or Biological Science 10. Basic principles of biology with special emphasis upon their social and economic applications. Man's biological position in the living world. Class discussions, three periods a week; laboratory, two periods a week. Prerequisite: Science 116.

118. Human Biology—3 hours. No credit for a student who

*On Leave

has credit in Biological Science 12 or 13. Biological principles as applied to the physiology and health of man. Public health agencies.

119. World Resources—3 hours. No credit for a student who has credit in Earth Science 162 or 163. Distribution and utilization of arable land, grasslands, and forests in various types of climates; power resources; metal resources; inland waterways, seaways, and lowland routes.

490. The Teaching of Science—4 hours. Credit also as a course in education for a student whose major is science. Prerequisite: 15 hours in science. This course ordinarily should precede student teaching.

515. Biological Science for Elementary Grades II—3 hours. Biological materials suitable for use in the elementary school. Field and laboratory studies of common birds, mammals, trees, flowers and weeds. Simple biological experiments. Practice in preparing demonstrations and illustrative materials. Prerequisite: Science 15, 117 or Biological Science 10.

518. Physical Science for Elementary Grades II—3 hours. Physical science materials suitable for use in the elementary school. Practice in preparing and presenting demonstrations. Emphasis upon the use of simple equipment. Prerequisite: Science 18 or 116. Two double periods a week.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

603. History and Philosophy of Science—3 hours. A philosophical treatment, arranged more or less historically, of the development of the scientific method. The content of science and philosophy. Types of philosophy with reference to their application to the use of the scientific method. A philosophical analysis of "scientific truth."

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at the time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Science before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

691. Seminar in Science Teaching—3 hours. Special problems in the teaching of science. Review and discussion of recent advances in science teaching. Students may select the particular areas for investigation in which they are most interested.

Biological Science

A student interested in a major in biological science should major in science (see page 141) and declare biological science as his area of special interest.

A minor in biological science consists of at least 25 hours including Science 117, 118, Biological Science 100 and 102, and 8 additional hours in biological science. Physical Education 300 may be counted toward a minor in biological science.

10. Biological Science for Elementary Grades I—5 hours. No credit for a student who has credit for Science 15 or 117. The more conspicuous types of plant and animal life with special emphasis on trees, birds, and insects. Conservation of plant and animal resources. Class discussions, three periods a week; laboratory, four periods a week.

100. Animal Biology—5 hours. Life processes and structure of animals. Prerequisite: Science 118. Class discussions, three periods a week; laboratory, four periods a week.

102. Plant Biology—5 hours. Life processes and structure of plants. Prerequisite: Science 117 or equivalent. Class discussions, three periods a week; laboratory, four periods a week.

104. Conservation for Elementary Grades B—5 hours. Wildlife, soil nutrients, and balance in nature, as found particularly in Iowa. Considerable field experience affords acquaintance with typical forms and conservation problems, with emphasis placed upon associations and interrelationships. Preparation of visual aids, demonstrations, bibliographies, and projects suitable for elementary grades. Three discussion and four field or laboratory periods per week when offered on campus. Chiefly field experience when offered at Conservation Camp.

105. Conservation for Elementary Grades A—5 hours. Soil, water, and forests and their conservation, as found particularly in Iowa. Considerable field experience affords acquaintance with typical forms, with emphasis placed upon associations and interrelationships. Preparation of visual aids, demonstrations, bibliographies, and projects suitable for elementary grades. Three discussion and four field or laboratory periods per week, when offered on campus. Chiefly field experience when offered at Conservation Camp.

111. Physiology—5 hours. The functioning of the different systems of organs of the human body; correlation of the physiology and anatomy of each organ; dissection and experimentation. Prerequisite: Science 118. Class discussions, three periods a week; laboratory, four periods a week.

113. Microbiology—4 hours. Designed for nurses in training.

114. Anatomy and Physiology—7 hours. Designed to meet the needs of nurses in training.

306. Vertebrate Zoology—5 hours. The classes of vertebrates with particular reference to their origin, development, anatomy, and physiology. Prerequisite: Biological Science 100. Class discussions, three periods a week; laboratory, four periods a week.

308. Invertebrate Zoology—5 hours. Anatomy and physiology of several type-forms in each division of invertebrate animals. Prerequisite: Biological Science 100. Class discussions, three periods a week; laboratory, four periods a week.

403. Plant Morphology—5 hours. Morphology and evolution of the great group of plants, with special emphasis upon algae, fungi, mosses, and ferns. Prerequisite: Biological Science 102. Class discussions, three periods a week; laboratory, four periods a week.

501. Vertebrate Embryology—5 hours. Development of vertebrate organisms; formation and development of germ cells; fertilization; growth and differentiation; sex. Prerequisite: Biological Science 100.

504. Plant Physiology—5 hours. Physiological processes of plants and emphasis upon plant metabolism. Responses of plants to stimuli. Prerequisite: Biological Science 102. Class discussions, three periods a week; laboratory, four periods a week.

505. Iowa Conservation Problems—5 hours. The nature and interrelationships of Iowa's natural resources. Management procedures; patterns of wildlife behavior and associations of soils, plants, and animals. Research problems by students. Conservation curriculum materials. Preparation of visual aids, demonstrations, bibliographies, and projects suitable for public schools. Class discussion, three periods a week; laboratory and field work, four periods a week. It is recommended that this course be preceded by Science 117 or Biological Science 10 or equivalent.

506. Plant Taxonomy and Ecology—5 hours. Effects of environment upon plant growth and plant distribution. Identification, field recognition, and economic importance of seed plants of our local flora; evolution of flowering plants. Prerequisite: Biological Science 102. Class discussions, three periods a week; laboratory, four periods a week.

508. Bacteriology—5 hours. Micro-organisms, their classification, morphology, and physiology; their relation to health, sanitation, and food preservation. Prerequisite: Science 118.

Class discussions, three periods a week; laboratory, four periods a week.

510. Field Biology—5 hours. The natural history of the more common, conspicuous, and important species of native plants and animals of the state. Habits, behavior, structure, identification, etc., principally as seen on field trips into their natural environments. Emphasis on conservation. Prerequisite: Science 117; Biological Science 100 and 102 recommended. Class discussions, three periods a week; field work, four periods a week. This course is also offered during the summer at the Lakeside Laboratory.

511. Organic Evolution—2 hours. Meaning, evidences, and factors of organic evolution; its significance in biology and in modern thought. Prerequisite: Science 118.

512. Heredity—3 hours. Laws of heredity and their relation to plants, animals, and man. Significance of heredity to the human race. Prerequisite: Science 118.

516. Entomology—5 hours. The anatomy, physiology, and development of insects and their relation to man. Prerequisite: Biological Science 100 or equivalent. Class discussion, three periods a week; laboratory, four periods a week.

680. Special Problems in Biology—1 to 5 hours. Credit to be determined at the time of registration. Individual problems selected according to the interests and needs of the student. A student must consult the Head of the Department of Science before registering for this course.

682. Biological Techniques—5 hours. Biological techniques useful to the teacher of biology. Microtechnique, photography, the collection and preparation of biological materials for laboratory and demonstration purposes. Interpretation of materials prepared. Laboratory, ten periods a week.

Chemistry

A student interested in a major in chemistry should major in science (see page 141) and declare chemistry as his area of special interest.

A minor in chemistry consists of at least 20 hours including Science 116 and 15 hours in chemistry.

121. *Inorganic Chemistry I—5 hours. The nonmetallic ele-

*Students who have had one unit of high-school chemistry or equivalent may, if they show sufficient proficiency, enter Chemistry 122, or, in exceptional instances, Chemistry 124.

ments and their compounds and chemical theory. Class discussions, three periods a week; laboratory, four periods a week.

122. Inorganic Chemistry II—5 hours. Prerequisite: Chemistry 121 or equivalent preparation. Class discussions, three periods a week; laboratory, four periods a week.

124. Chemistry of Metals and Qualitative Analysis—5 hours. Introduction to the study of the properties of the metallic elements. Prerequisite: Chemistry 122. Class discussions, two periods a week; laboratory, six periods a week.

129. Chemistry for Nurses—4 hours. Practical applications of inorganic and organic chemistry to the field of nursing.

318. Applied Inorganic Chemistry—5 hours. No credit for a student who has credit in Chemistry 121 or for a student whose major is chemistry. Principles and practices of inorganic chemistry as applied to the home, farm, and community. Especially designed for students of home economics and agriculture. Class discussions, three periods a week; laboratory, four periods a week.

319. Applied Organic Chemistry—5 hours. No credit for a student who has credit in Chemistry 321. Fundamental principles of organic chemistry. Laboratory work for students of agriculture is devoted chiefly to soils, fertilizers, and common industrial products; for students of home economics, chiefly to foods and textiles. Prerequisite: Chemistry 318 or equivalent preparation. Class discussions, three periods a week; laboratory, four periods a week.

328. Physiological Chemistry—3 hours. The chemical processes involved in the digestion and utilization of food in the body. Prerequisite: Chemistry 319 or 321. Class discussions, one period a week; laboratory, four periods a week.

521. Organic Chemistry I—5 hours. Essentials of aliphatic organic chemistry. Prerequisite: Chemistry 122. Class discussions, three periods a week; laboratory, four periods a week.

522. Organic Chemistry II—2 to 5 hours. Credit to be determined at the time of registration. Essentials of aromatic and cyclic organic chemistry. Prerequisite: Chemistry 521. Class discussions and laboratory work.

523. Water Chemistry—3 hours. Sources of water supply, standards of purity for home and industrial uses, methods of chemical analysis of common contaminants. Prerequisite: Chem-

istry 524. Class discussion, one period a week; laboratory, four periods a week.

524. Quantitative Analysis I—5 hours. Elementary principles of volumetric and gravimetric analysis. Prerequisite: Chemistry 122. Class discussions, two periods a week; laboratory, six periods a week.

526. Food Analysis—5 hours. The chemical processing of some of our common foods, effects of the processing, adulteration, contamination and proximate quantitative analysis of these foods. Prerequisites: Chemistry 521 and 524. Class discussion, one period a week; laboratory, four periods a week.

527. Quantitative Analysis II—5 hours. Analytical principles and practices of chemistry adapted to the particular needs of the student. Prerequisite: Chemistry 524. Class discussions, two periods a week; laboratory, six periods a week.

528. Organic Chemistry III—2 hours. More advanced study of carbohydrates, lipids, proteins, purines, and pyrimidines. This course is especially for premedical students but is open to all who meet the prerequisites. It may be taken concurrently with Organic Chemistry II. Prerequisite: Chemistry 521. Class discussions, one period a week; laboratory, two periods a week.

529. Physical Chemistry—5 hours. Emphasis on an understanding of the physical aspects of general chemistry from the viewpoint of the secondary school teacher of chemistry. A student must consult the Head of the Department of Science before registering for this course.

628. Biochemistry—5 hours. Chemistry of life processes. Chemistry of carbohydrates, fats, proteins and their metabolism. Enzymes, vitamins, and hormones. A student must consult the Head of the Department of Science before registering for this course.

640. Chemical Literature—2 hours. A study of chemical literature suitable for use in high school teaching and for advanced study. This will include a study of the types of chemical literature; its sources, organization, availability, and its use for study in research. A student must consult the Head of the Department of Science before registering for this course.

681. Special Problems in Chemistry—1 to 5 hours. Credit to be determined at time of registration. Individual problems in the field of chemistry selected according to the interests and needs of the student. A student must consult the Head of the Department of Science before registering for this course.

Physics

A student interested in a major in physics should major in science (see page 141) and declare physics as his area of special interest.

A minor in physics consists of at least 20 hours including Science 116 and 15 hours in physics.

52. Principles of Physics—5 hours. No credit for a student who has credit in Physics 140 or 343. The principles of physics which are of particular importance to students of agriculture and of industrial arts. Prerequisite: Science 116. Class discussions, four periods a week; laboratory, two periods a week.

140. Mechanics—5 hours. Prerequisite: Science 116 or entrance credit in physics. Class discussion, three periods a week; laboratory, four periods a week.

341. Sound and Light—5 hours. Prerequisite: Physics 140 or equivalent preparation. Class discussions, three periods a week; laboratory, four periods a week.

343. Heat, Electricity, and Magnetism—5 hours. Prerequisite: Physics 140. Class discussion, three periods a week; laboratory, four periods a week.

442. Modern Physics—5 hours. Introduction to radioactive and electronic phenomena. Prerequisites: Physics 140 and 343. Class discussions, four periods a week; laboratory, two periods a week.

448. Physics Problems—5 hours. A non-laboratory course in solving problems in mechanics, electricity, and magnetism. Prerequisites: Physics 140 and 343 and Mathematics 101.

540. Measurements in Electricity and Magnetism—5 hours. Resistance, electromotive force, current, capacitance, inductance, magnetic field strength, and other electrical and magnetic quantities are accurately measured, and the instruments of measurement studied. Prerequisite: Physics 343 or equivalent preparation. Class discussions, three periods a week; laboratory, two periods a week.

541. Alternating Currents—5 hours. Includes a study of industrial alternating currents; and of high-frequency currents, circuits, and devices used in radio. Prerequisite: Physics 140 and 343. Class discussions, three periods a week; laboratory, four periods a week.

545. Thermodynamics—5 hours. Prerequisite: Physics 343.

Class discussions, four periods a week; laboratory, two periods a week.

546. Laboratory Course in Light—3 hours. Experimental problems, preceded by discussion of the principles involved. Prerequisite: Physics 341 or equivalent preparation. Class discussions, one period a week; laboratory, four periods a week.

550. Acoustics—3 hours. Designed primarily for students who major in music. Emphasis on musical sounds and instruments. Class discussions, five periods a week.

650. Atomic Physics—5 hours. The structure of atoms including the nuclear and the extranuclear systems. Emphasis on the nature of energy changes occurring within the atom in such processes as emission and absorption of radiation and in radioactive disintegrations. Problems of nuclear fission and the possible applications of the large amounts of energy made available. Prerequisites: Physics 140, 341, 343.

652. Theoretical Physics—5 hours. Selected subjects, particularly in mechanics, studied from the theoretical point of view. Development of physical concepts through the application of mathematical techniques. Prerequisites: Physics 140, 341, 343 and Mathematics 417.

682. Special Problems in Physics—1 to 5 hours. Credit to be determined at time of registration. Individual problems in the field of physics selected according to the interests and needs of the student. A student must consult the Head of the Department of Science before registering for this course.

Earth Science

A major in earth science consists of at least 35 hours including Science 119 and Earth Science 493.

A minor in earth science consists of at least 20 hours including Science 119 and 17 hours in earth science.

360. Astronomy—3 hours. Descriptive aspects of the elements of our galaxy and of extra-galactic phenomena.

366. Geography of North America—5 hours. Description, analysis, and interpretation of the present occupancy pattern of the major regions of the United States. Brief survey of Canada, Mexico, and the Caribbean regions.

466. Historical Geography of the United States—5 hours. Geography of the major regions of the United States in past times. Successive stages in land occupancy.

468. Conservation of Natural Resources—5 hours. Natural resources of the United States and their exploitation. Current problems relating to their conservation.

472. Trade and Transportation—5 hours. Commodities of international trade; trade routes of the world; ocean transportation.

493. The Teaching of Geography—4 hours. Credit also as a course in education for a student whose major is earth science. Selection and organization of geographic materials for presentation in grades four to nine inclusive. Prerequisite: 10 hours of college geography. This course ordinarily should precede student teaching.

561. Meteorology—5 hours. The meteorological elements and their application to weather; interpretation of weather maps; world weather relations as a basis for climate.

562. Climatology—5 hours. World pattern and characteristics of the types of climate and the associated plant and animal life.

564. Geography of South America—5 hours. Designed to develop an understanding of the geographic individuality of each of the major countries of South America.

570. Geography of Europe—5 hours. Regional study of the continent of Europe. Analysis of the geographic individualities of the major countries.

571. Geography of Asia—5 hours. A general survey of Asia with detailed geographical analysis of China, Japan, India, and the East Indies.

573. General Geology—5 hours. No credit for a student who has credit in Earth Science 474 or 475. Agencies at work in producing land forms; rocks and rock structures; diastrophism and volcanism; eras of earth's history.

665. Social Geography—5 hours. Regional studies of man's present-day use of natural resources in areas of international concern. The solving of natural-environmental problems by human groups of contrasting historical and social backgrounds and in different stages of economic development. Prerequisites: three courses in geography, at least one of which is in regional geography.

Agriculture

A major in agriculture consists of at least 55 hours. It should include Agriculture 181, 380, 382, 385, 386, 486, 488, 494, 585, and 587; Chemistry 318; Physics 52; and Industrial Arts 465.

A minor in agriculture consists of at least 23 hours including Industrial Arts 465; Agriculture 181, 486, 585, 587, and 5 additional hours in agriculture.

181. Farm Crops—5 hours. Not to be taken by a student with credit in Agriculture 80 or 82. The production of the important grain and forage crops of Iowa. Identification of crop varieties. Weeds and their control. Crop rotation. Class discussions, three periods a week; laboratory, four periods a week.

182. Horticulture—2 hours. Management of orchard, bush, and small fruits. Harvesting and marketing. Class discussion, one period a week; laboratory, two periods a week.

380. Dairy Cattle—3 hours. Types and breeds. Judging and marketing. Class discussions, two periods a week; laboratory, two periods a week.

382. Beef Cattle and Sheep—3 hours. Types, breeds, grades. Judging and marketing. Class discussions, two periods a week; laboratory, two periods a week.

385. Soils and Soil Fertility—5 hours. Not to be taken by a student with credit in Agriculture 180 or 480. Management of soils for maximum production. Emphasis on soil conservation practices. Class discussions, three periods a week; laboratory, four periods a week.

386. Swine—2 hours. Types, breeds, market classes, grades. Judging and marketing. Class discussion, one period a week; laboratory, two periods a week.

481. Crop Problems—2 hours. Identification, judging, and grading of grain and forage crops. Noxious weeds and their control. Prerequisite: Agriculture 181. Laboratory, four periods a week.

484. Farm Poultry—2 hours. Breeds and varieties. Management. Class discussion, one period a week; laboratory, two periods a week.

486. Principles of Breeding—2 hours. Laws of breeding and care of breeding stock.

488. Marketing Agricultural Products—3 hours. Grain, live-

stock, and produce marketing, with emphasis upon cooperative methods.

494. Teaching of General Agriculture—4 hours. Credit also in education for a student whose major is agriculture. The organization and teaching of general agriculture. The course of study, equipment, and materials. Prerequisite: 10 hours of agriculture. This course ordinarily should precede student teaching.

583. Livestock Judging—2 hours. Judging of beef cattle, dairy cattle, swine, and sheep. Prerequisite: Agriculture 380 or 382. Laboratory, four periods a week.

585. Feeds and Feeding—3 hours. Balanced rations. Methods of feeding farm animals.

587. Farm Management—3 hours.

Social Science

M. R. Thompson, Ph.D., Professor of Economics and Head of the Department

Mary B. Hunter, M.A., Professor of Economics, Emeritus, part-time service

Ralph R. Fahrney, Ph.D., Professor of History

Lyman H. Harris, Ph.D., Professor of History

William C. Lang, Ph.D., Professor of History

George C. Robinson, Ph.D., Professor of Government

Leland L. Sage, Ph.D., Professor of History

Donald F. Howard, Ph.D., Associate Professor of History

Charles T. Leavitt, Ph.D., Associate Professor of History

Erma B. Plaehn, Ph.D., Associate Professor of Government

Louis Bultena, Ph.D., Assistant Professor of Sociology

William L. J. Dee, Ph.D., Assistant Professor of Sociology

H. Theodore Dohrman, Ph.D., Assistant Professor in Sociology

Robert E. Strain, Ph.D., Assistant Professor of Economics

Karl A. Svenson, Ph.D., Assistant Professor of Government

Morris Crawford, M.A., Instructor in Economics

A major in social science consists of at least 59 hours which must include 10 hours of history, 9 hours of government, 8 hours of economics, 8 hours of sociology, and Social Science 490. Students who have credit in Humanities 111, 112, and 113, and in Social Science 116, 117, and 118 are considered to have met the following requirements: history, 8 hours; government, 4 hours; economics, 3 hours; and sociology, 3 hours. History 304, Government 332, Economics 352, and Sociology 358 should also be

included. Because of the large amount of history usually taught by social science teachers, at least 15 hours of history should be completed.

The required minor may not be in a social science field. However, the student whose major is social science and who completes 30 or more hours in either history, government, or economics and sociology may have this emphasis indicated on his permanent record provided he so requests not later than at registration for his final quarter's work.

Foreign language is recommended for students majoring in social science, particularly those who plan to do graduate work.

Requirements for the graduate major in social science are found in the section on graduate study, pages 171 and 176.

General Courses in Social Science

10. Contemporary Affairs A—1 hour. May be repeated for credit.

116. Basic Forces and Economic Problems—5 hours. A study of economic problems preceded by an introductory investigation of the basic historical developments which play a vital role in modern living. Three hours of credit may be counted as economics and two hours as history.

117. Governmental Problems—4 hours. No credit for a student who has credit in Government 132 or 133. Significant problems of American government will be illustrated by examination of the actual working of national and state government. Designed to meet the state requirement for certification of teachers. May be counted as credit in government.

118. Problems of Society—3 hours. No credit for a student who has credit in Sociology 167. A study of important problems centering around social relationships in contemporary American society. Credit may be counted as sociology.

400. Contemporary Affairs B—1 hour. May be repeated for credit.

490. The Teaching of the Social Studies—4 hours. Credit also as a course in education for a student whose major is social science. Prerequisite: 15 hours of social science. This course ordinarily should precede student teaching.

520. Independent Study. See page 45 for conditions applying to credit for independent study.

606. Seminar in Social Science Research—1 hour. Various methods and techniques of research applicable to the social sciences. An evaluation of the effectiveness and limitations of each and specific applications.

610. Field Study—Credit arranged not to exceed three hours. Credit to be determined at the time of registering. May be taken by projected registration only. A student must consult the Head of the Department of Social Science before registering for this course.

620. Thesis—1 to 9 hours. Credit to be determined at the time of registration. A student may register for thesis credit more than once but the total credit will not exceed nine hours.

691. Problems in Teaching the Social Studies—3 hours. Investigation and analysis of instructional problems in the social studies. Emphasis on problems arising in the classroom and community.

History

A student interested in a major in history should major in social science (see page 152) and declare an emphasis in history.

A minor in history consists of at least 23 hours which should include History 304 and 313. Humanities 111, 112, and 113, and Social Science 116, 117, and 118 satisfy 8 hours of this requirement.

11. Social and Economic History of the United States—5 hours. No credit for a student who has credit in History 14 or 304. Designed for students preparing to teach in the elementary grades. A survey of early American social and economic history and more concentrated study of the recent era.

14. American History to 1865—5 hours. No credit for a student who has credit in History 11. Foreign relations, westward expansion, development of democracy, growth of nationalism, and sectional controversies.

102. English History to 1688—5 hours. Ancient Britain and the invasions; medieval institutions; the Renaissance and the Reformation. The beginnings of overseas expansion; Parliament, Puritanism, and the Glorious Revolution.

104. English History since 1688—5 hours. A continuation of History 102. Development of the Empire, limiting the monarchy; the Industrial Revolution and the French Revolution; the Victorian period. Imperialism and World War I. Great Britain between world wars.

304. American History since 1865—5 hours. No credit for a student who has credit in History 11. Reconstruction, the rise of big business, financial adjustments, the reform movements, and the emergence of the United States as a world power.

312. Modern Europe to 1870—5 hours. The formation of the nation-state; the Commercial Revolution; the Protestant Reformation; the national histories of France, Spain, England, Prussia, Russia, Austria, the Netherlands, the Italian States. The multiple revolutions of the eighteenth century; the new nationalism and democracy of the nineteenth century.

313. Modern Europe since 1870—5 hours. A continuation of History 312. Nationalism and democracy in Great Britain, France, Germany, Austria-Hungary, Italy, Russia, the Ottoman Empire and the Balkan States; World War I; peacemaking in 1919-1920; the rise of the dictatorships; Europe between the two World Wars; World War II and its results.

321. History of Iowa—2 hours.

402. Greek, Roman, and Medieval Civilization—5 hours. No credit for a student who has credit in History 301. Contributions of Greek and Roman civilization to human progress.

506. American Colonial History—5 hours. Founding of the American colonies; evolution of economic, social, and governmental institutions; various phases of the independence movement.

508. The British Empire—5 hours. An intensive study of British possessions throughout the world since 1815.

510. The Far East—5 hours. Brief course including recent history of China, Japan, and India.

512. Diplomatic History of the United States—5 hours. American foreign relations with emphasis upon the Monroe Doctrine, rights of neutrals, territorial expansion, and peaceful solutions of disputes. It is recommended that 5 hours of American history precede this course.

514. History of the West—5 hours. The westward-moving frontier and its influence upon American history. It is recommended that 5 hours of American history precede this course.

516. Latin-American History—5 hours. The development of the Latin-American states and their relations to the United States.

518. Russia—5 hours. The political, social, and economic history of Russia.

521. Twentieth Century Europe—5 hours. Seeks the reasons for an age of conflict and deals with the current political philosophies and the outstanding personalities of the period.

603. Historians and Historiography—3 hours. The methodology, style, problems, and personalities of ancient and modern historians. Prerequisite: 20 hours of history.

611. American Constitutional History—5 hours. The development of the Constitution of the United States from its adoption to the present time. A student must consult the Head of the Department of Social Science before registering for this course.

680. Seminar in History—3 hours. Subject matter to be chosen from selected areas of history. Through general reading and specialized research each student will prepare one or more reports. This seminar may be repeated for a maximum of nine hours' credit. A student must consult the Head of the Department of Social Science before registering for this course.

Government

A student interested in a major in government should major in social science (see page 152) and declare an emphasis in government.

A minor in government consists of at least 20 hours and should include Government 332. Credit in Social Science 117 applies on this requirement.

134. Parliamentary Law—1 hour.

332. Principles of Political Science—5 hours. Nature, origin, and sovereignty of the state; relation of a state to other states; separation of the powers of the state; authority of the state over the individual.

336. Constitutional Law—5 hours. The Constitution of the United States as fundamental law with emphasis upon the provisions that have been interpreted by the supreme court. Prerequisite: Social Science 117 or equivalent.

340. Political Parties—3 hours. Origin, organization, and operation of political parties in the United States.

342. Modern European Governments—5 hours. Comparative study of the organization and administration of the governments of England, France, Germany, Switzerland, Italy and certain newer European states.

434. Municipal Government—5 hours. Structure and functions of city government. Relation of the city to the state.

532. State and Local Government—5 hours. State, county, township, and village government in the United States.

536. National Government and Administration—3 hours. Intensive study of the legislative, executive, and judicial powers and procedures of the national government. Prerequisite: Social Science 117, or equivalent.

538. World Government and Politics—5 hours. International relations of independent states; arbitration, alliances, conferences, and congresses; the balance of power, the Hague court, and the League of Nations. Prerequisite: Social Science 117 or equivalent.

542. School Laws of Iowa—3 hours. Legal rights, powers, duties, and responsibilities of school corporations, school boards, school officers, superintendents, teachers, parents, and pupils.

635. Major Political Philosophers—3 hours. The origin and development of the State as reflected in the writings of political philosophers. Special emphasis on American political thinkers.

681. Seminar in Government—3 hours. Selected areas of political science. Literature and source materials in American, foreign, and international government. May be repeated for a maximum of nine hours' credit. A student must consult the Head of the Department of Social Science before registering for this course.

Economics and Sociology

A student interested in a major in economics and sociology should major in social science (see page 152) and declare an emphasis in economics and sociology.

A minor in economics and sociology consists of at least 23 hours and should include Economics 352 and Sociology 358.

Economics

352. Principles of Economics—5 hours. Application to current problems. Prerequisite: Social Science 116.

354. Money and Banking—5 hours. Functions of money and banks; relation of credit and debt to prices.

452. Insurance—2 hours. Property and life insurance.

554. Corporation Finance and Investments—5 hours. Financing of business enterprises; corporate and individual investments; failures and reorganizations.

555. Labor Problems—3 hours. Labor organizations; wage levels, hours of work, unemployment, women in industry; methods of settling industrial disputes; labor legislation; industrial democracy.

556. Public Finance—5 hours. Expenditures, sources, and administration of public funds.

558. Business Cycles—3 hours. Trade movements. The stabilization of business.

562. Transportation and Public Utilities—5 hours. Problems of highway, water, rail, and air transportation and of public utilities; valuation, rates, service requirements, regulation.

564. Industrial Combinations—3 hours. Types of organization; production on a large scale; legislation.

566. Foreign Trade Problems—3 hours. International trade; foreign exchange; trade policies and tariffs; international debts. Prerequisite: Social Science 116.

653. History of Economic Thought—3 hours. Evolution of economic ideas and doctrines. Particular emphasis upon the economic concepts of industrial America of the nineteenth and twentieth centuries.

682. Seminar in Economics—3 hours. Various fundamental and current economic problems; comparative economic systems, government controls in a period of mobilization; fiscal controls. Topics will be rotated each quarter. May be repeated for a maximum of nine hours' credit. A student must consult the Head of the Department of Social Science before registering for this course.

Sociology

165. Rural Sociology—3 hours. No credit for a student who has credit in Agriculture 155.

358. Principles of Sociology—5 hours. The principal social forces and institutions involved in the evolution of society. Methods of social control.

467. Social Problems—3 hours.

468. The Family—3 hours. Origin, development, and problems of the modern family and marriage.

469. Social Welfare Services—3 hours. Introduction to social work; scope and methods. The nature and function of the principal social welfare services in the community which supplement the work of the public schools.

570. Population—3 hours. Composition of population; theories of population; improvement of racial quality; growth of population and its bearing upon wages and standards of living; rural population.

572. Crime and Delinquency—5 hours. A survey of the nature and causes of crime and delinquency. Methods of treatment and prevention.

573. General Anthropology—3 hours. The principal findings of the physical and cultural anthropologists regarding ancient, primitive, and modern men and their culture.

575. Minority Group Relations—3 hours. The nature of the social relations of the ethnic and cultural minority groups within the larger American society with special reference to Negro-Caucasian relations.

577. Urban Sociology—3 hours. The social and ecological forces affecting social life in the city; types and growth of cities; the spread of urbanism.

683. Seminar in Sociology—3 hours. Selected areas of sociological theory and problems of society. May be repeated for a maximum of nine hours of credit. A student must consult the Head of the Department of Social Science before registering for this course.

Teaching

Dwight K. Curtis, Ph.D., Professor of Teaching and Director of Student Teaching

Mary C. Anderson, M.A., Assistant Professor of Teaching, Emeritus, part-time service

Cyril L. Jackson, M.A., Associate Professor of Teaching, Emeritus, part-time service

E. Grace Rait, M.A., Associate Professor of Teaching, Emeritus, part-time service

Eulalie Turner, M.A., Assistant Professor of Teaching, Emeritus, part-time service

Dorothy May Koehring, Ph.D., Professor of Teaching

Myrtle M. Stone, Ed.D., Professor of Teaching

Verna J. Adney, M.A., Associate Professor of Teaching

- Lucile E. Anderson, M.A., Associate Professor of Teaching
*Alice Bakken, M.A., Associate Professor of Teaching
Robert P. Brimm, D.Ed., Associate Professor of Teaching and
Principal of the College Secondary School
Margaret Divelbess, M.A., Assistant Professor of Teaching
Jack Vernon Hall, Ed.D., Assistant Professor of Teaching and
Principal of the College Elementary School
Corinne D. Harper, Ed.D., Associate Professor of Teaching
Edna Mantor, M.A., Associate Professor of Teaching
Emma Opfer, M.A., Associate Professor of Teaching
Marna Peterson, M.A., Associate Professor of Teaching
Manford Sonstegard, Ph.D., Associate Professor of Teaching
Alta Wilmarth, M.A., Associate Professor of Teaching
Randall R. Bebb, Ph.D., Assistant Professor of Teaching
Harry J. Carnine, M.Mus., Assistant Professor of Teaching
Izetta Mae Frahm, M.A., Assistant Professor of Teaching
Agnes Gullickson, M.A., Assistant Professor of Teaching
Rose L. Hanson, M.A., Assistant Professor of Teaching
William P. Happ, Ph.D., Assistant Professor of Teaching
Bernice Helff, M.A., Assistant Professor of Teaching
Mrs. Marjorie B. Holmberg, M.Ed., Assistant Professor of
Teaching
Florence M. Kasiske, M.A., Assistant Professor of Teaching
Richard T. Lattin, Ph.D., Assistant Professor of Teaching
Peter M. Mazula, M.A., Assistant Professor of Teaching
Eleanor McBride, M.A., Assistant Professor of Teaching
Phyllis McCarthy, M.A., Assistant Professor of Teaching
Caryl A. Middleton, M.A., Assistant Professor of Teaching
Mardelle L. Mohn, M.S., Assistant Professor of Teaching
Alfred C. Moon, M.S., Assistant Professor of Teaching
Ross A. Nielsen, M.S., Assistant Professor of Teaching
Samuel B. Peavey, Ed.D., Assistant Professor of Teaching
Cecil K. Phillips, M.Ed., Assistant Professor of Teaching
Joe Przychodzin, Ed.D., Assistant Professor of Teaching
Edward L. Ruman, Ed. D., Assistant Professor of Teaching
Melvin F. Schneider, M.A., Assistant Professor of Teaching
Marguirette May Struble, Ph.D., Assistant Professor of Teach-
ing
Howard Vander Beek, Ed.D., Assistant Professor of Teaching
Wayne O. Aurand, M.Mus., Instructor in Teaching
Mrs. Mildred R. Blackman, M.Ed., Instructor in Teaching
Josephine Bronczyk, M.A., Instructor in Teaching
Mrs. Helen P. Brown, M.S., Instructor in Teaching
Mrs. Mabel D. Brown, B.A., Temporary Instructor in Teaching
*William W. Chase, M.A., Instructor in Teaching
Ardith L. Emmons, M.A., Instructor in Teaching

Edith E. Ennis, M.A., Instructor in Teaching
Earl C. Floyd, M.A., Instructor in Teaching
Laura K. Gilloley, M.A., Instructor in Teaching
Kenneth G. Gogel, M.A., Instructor in Teaching
Walter J. Gohman, M.A., Instructor in Teaching
Mrs. Leta Norris Harmon, M.Ed., Instructor in Teaching
Frank C. Hartwell, M.A., Instructor in Teaching
Clark L. Heiple, M.A., Instructor in Teaching
Mrs. CleoBell Heiple, M.A., Temporary Instructor in Teaching
Geraldine Henderson, B.A., Temporary Instructor in Teaching
Donald R. Herrick, M.S., Instructor in Teaching
Mrs. Carolyn W. Hoffman, B.A., Temporary Instructor in Teaching
Max M. Hosier, M.A., Instructor in Teaching
Ruth Hutcheson, M.A., Instructor in Teaching
Mary Ann Jackson, M.S., Instructor in Teaching
Priscilla Jacobs, M.S., Temporary Instructor in Teaching
William B. Kadow, M.A., Instructor in Teaching
Albert L. Leeland, Ed.D., Instructor in Teaching
Herbert L. Lynch, M.Ed., Instructor in Teaching
Mrs. Alice D. Madore, M.A., Temporary Instructor in Teaching
Normand W. Madore, M.S., Instructor in Teaching
William O. Maricle, M.A., Instructor in Teaching
Della McMahon, M.S., Instructor in Teaching
Frances Pauline Miller, M.Ed., Instructor in Teaching
*Vernon N. Mork, M.A., Instructor in Teaching
Carmen O. Ness, M.A., Instructor in Teaching
Robertta Noe, M.Ed., Instructor in Teaching
Robert J. Orr, M.S., Instructor in Teaching
John R. Parisho, M.Ed., Instructor in Teaching
Albert A. Potter, M.A., Instructor in Teaching
Donald C. Rathe, M.A., Instructor in Teaching
Betts Ann Roth, M.A., Instructor in Teaching
Louis O. Schilder, M.A., Instructor in Teaching
Mary Margaret Schmitt, M.Ed., Instructor in Teaching
Mrs. Melvin F. Schneider, B.Mus., Temporary Instructor in Teaching
Barbara E. Schnelle, M.A., Instructor in Teaching
Marshall Schools, M.A., Instructor in Teaching
Mae Avis Schultz, M.A., Instructor in Teaching
Helen Schweizer, M.A., Temporary Instructor in Teaching
Davis A. Scott, M.A., Temporary Instructor in Teaching
Mrs. Hazel M. Scott, M.A., Temporary Instructor in Teaching
*Lois E. Shefte, M.A., Instructor in Teaching
Gene D. Shepherd, M.Ed., Instructor in Teaching

Earl W. Steininger, M.S., Instructor in Teaching
Lloyd J. Stokstad, M.S., Instructor in Teaching
Annice Strong, M.A., Temporary Instructor in Teaching
Leonard Y. Tripp, M.A., Instructor in Teaching
Mrs. Wava Lee Vineyard, M.Mus., Temporary Instructor in Teaching

Marguerite M. Vodicka, M.A., Instructor in Teaching

*James R. Wailes, M.A., Instructor in Teaching

*William J. Walsh, Jr., M.A., Instructor in Teaching

Mildred M. Walter, Ph.M., Instructor in Teaching

Harold H. Weber, M.M.E., Instructor in Teaching

Dorothy E. Wineke, M.S., Instructor in Teaching

W. Dean Winters, B.A., Temporary Instructor in Teaching

Nina Mary Yeager, M.Ed., Instructor in Teaching

The completion of an undergraduate curriculum requires 12 hours' credit in student teaching. Student teaching credit earned in other colleges does not meet the student teaching requirements of the Iowa State Teachers College. A student who has 5 or more quarter hours' credit (3 semester hours or more) in student teaching in another college in the same area as his major at Iowa State Teachers College will be held for at least 5 quarter hours in student teaching at this college. A student who has completed either the old two-year curriculum or the new two-year plan and desires to complete the work for a bachelor's degree is required to take additional work in student teaching only if he majors in an area other than that of teaching in the upper or lower grades of the elementary school.

Any student may elect more than the required 12 hours of work in student teaching but should remember that only 15 hours of credit in the Department of Teaching may be applied toward the requirements for graduation. For the students who choose to take additional work in student teaching an effort is made to provide the specialized experiences most needed by the student such as work in guidance, remedial reading, and visual aids.

A student following the two-year plan enrolls for 12 or more hours of student teaching during his sophomore year. All other undergraduate students do their required work in student teaching during either their junior year or the first or second quarter of the senior year. The required work in student teaching must be completed before the last quarter of the senior year.

Except for majors in music, the required 12 hours of student teaching is concentrated in one quarter during which time the student ordinarily enrolls for a methods course for two or four hours' additional credit. Majors in music ordinarily do the required work in student teaching in two quarters.

*On Leave

The work in student teaching has for its aim that of giving the student practical experience in as many aspects of the teacher's responsibilities as is possible. This necessitates an exceedingly broad pattern of student teaching experiences and includes taking charge of classes in the campus laboratory school or in an affiliated school, outlining units of work, conferences with critics, preparing comprehensive reports on student teaching activities, evaluating pupil progress, active participation in the school's extra-class activities, working with consultants in special areas, learning how to make maximum instructional use of school and community facilities, and learning how to get along with school administrators and other teachers, and with children and their parents.

The scholarship average required before a student is permitted to register for student teaching is 2.00. A student must make application for teaching at least one quarter in advance of the time when the work in teaching is to be taken. (Watch for announcement in College Eye and on bulletin boards.)

5. Rural Observation—2 hours. Observation and participation in rural school teaching activities. Three periods on each of two afternoons a week.

305, 405. Rural School Teaching. Prerequisite: Teaching 5. Teaching in a rural school under the direction of a senior teacher.

302, 402. Nursery School Teaching. Prerequisite: 10 hours of psychology and education.

304, 404. Kindergarten-Primary Teaching. Prerequisite: 10 hours of psychology and education.

306, 406. Intermediate Grade Teaching. Prerequisite: 10 hours of psychology and education.

407. Junior High School Teaching. Prerequisite: Education 212.

408. High School Teaching. Prerequisite: Education 212. Special methods course in major field ordinarily should precede student teaching.

510. Rural Observation and Supervision—10 hours. Designed for students whose major is elementary school supervision.

650. Advanced Laboratory Practice—Credit arranged but not to exceed six hours. Students may concentrate on any aspect of the school program such as the curriculum, methods, evaluation, remedial instruction, guidance, supervision, administration, public school relations, audio-visual aids, and extra-class activities.

Graduate Study

In 1951 the Iowa Board of Education authorized the Iowa State Teachers College to offer a program of graduate work designed specifically for school personnel. The program began with the summer session of 1952 and the first graduate degree was awarded in the spring of 1953. Only one graduate degree is conferred—the professional degree of Master of Arts in Education.

ADMISSIONS

1. **Unconditional admission** to graduate study will be granted a student if:
 - a. He is a graduate of a college or university accredited by the American Association of Colleges for Teacher Education or by the North Central Association of Colleges and Secondary Schools or a corresponding regional accrediting agency.
 - b. All the necessary papers and information have been filed with the Registrar.
 - c. There is nothing in the student's undergraduate record or other data to indicate that the student is of doubtful promise as a graduate student.
2. **Conditional admission** to graduate study will be granted a student if:
 - a. At the time of registration all the required information and data have not been received by the Registrar.
 - b. The student has not completed the work for a bachelor's degree at the time he applies for admission to graduate study.
3. A student will be **admitted on probation** if:
 - a. He is a graduate of a college that at the time of his graduation was **not** accredited by the American Association of Colleges for Teacher Education or by the North Central Association of Colleges and Secondary Schools or a corresponding regional agency.
 - b. His undergraduate record and other data indicate that the student is of doubtful promise as a graduate student.

The conditional admission status will be removed by the Registrar as soon as the student has filed all the required records and reports, or, in the case of a senior, he has received the bachelor's degree.

The probational admission status will be removed by the

Registrar when the student has earned 15 or more hours of graduate credit in this institution with an average grade of at least B.

4. Anyone possessing the bachelor's degree from this or any institution who wishes to register for either undergraduate or graduate credit in this college must make **application for admission to graduate study**. Seniors in this college, within five quarter hours of graduation, who wish to register for graduate credit must apply for admission to graduate study. Transcripts of all of the applicant's college records, both graduate and undergraduate, must be submitted together with the supporting data and references requested on the application form. All new graduate students except those enrolled as undergraduates in this college during the year preceding application for admission to graduate study will file a health record.

ADMISSION TO CANDIDACY FOR THE MASTER OF ARTS IN EDUCATION DEGREE

Admission to graduate study is not the same as admission to candidacy for the master's degree. A student may desire to take only selected courses and have no intention of becoming a degree candidate. Admission to candidacy is granted after the conditions, explained below, have been met.

Application for candidacy is made by the student any time after the student first enrolls for graduate work at Iowa State Teachers College. A student who has made application for candidacy for the master's degree will be admitted to candidacy after he has been **unconditionally admitted** to graduate study and has:

1. Completed one quarter of graduate study (15 hours) in this college with at least a B average.
2. Passed satisfactorily a candidacy examination. The first two parts of this examination attempt to measure the student's mental maturity and the extent of his knowledge in the field of professional education. These are administered at the time of the first registration in graduate study. The third part of the examination is in the area of the student's graduate major and is taken at a time convenient to both the student and the major department.
3. Given evidence of satisfactory health and physical condition as determined by the college Health Service.
4. Had his program of graduate work approved by his Advisory Committee and the Dean of the Faculty.
5. Had his thesis subject approved by his Advisory Committee and by the Dean of the Faculty.

6. Been approved by the Dean of the Faculty on the recommendation of his Advisory Committee as a graduate major in his chosen area. For such approval the following minimum requirements must be met:
 - a. To major in elementary teaching, the student must have sufficient professional and academic work at the undergraduate level to meet the Iowa requirements for an Advanced Elementary Certificate.
 - b. To major in an area of secondary school teaching or in a special subject the student must have the work necessary to secure an Iowa Standard Secondary Certificate or the appropriate special certificate.
 - c. To be approved as a major on the elementary principal's curriculum, the student must meet the requirements for the elementary teaching curriculum (a. above).
 - d. To be approved as a major on the secondary principal's curriculum, the student must have the work necessary to secure an Iowa Standard Secondary Certificate.
 - e. To be approved as a major on the elementary supervision curriculum, the student must meet the approved standards for elementary teaching (a. above).
 - f. To be approved as a major on the guidance and counseling curriculum, the student must meet the requirements for either the Iowa Advanced Elementary or the Iowa Standard Secondary Certificate.

7. EXCEPTIONS

- a. A student's Advisory Committee may require additional work at the undergraduate level before recommending the student as a graduate major in his chosen area.
- b. In special cases in which certain details of the requirements for admission to candidacy have not been met but in which justice would indicate the desirability of such action, the Dean of the Faculty, upon the recommendation of the head of the major department, may grant approval. In such cases the student is required to present a satisfactory plan of removing the deficiencies before applying for graduation.

REQUIREMENTS FOR THE MASTER OF ARTS IN EDUCATION DEGREE

Credit required for the degree—At least 45 quarters hours of graduate credit are required. At least 36 quarter hours of graduate credit must be earned at Iowa State Teachers College.

Residence—Two quarters of full-time residence work and thirty quarter hours of graduate credit in residence are required of all

candidates for the master's degree. By "full-time residence" is meant the completion of 10 or more hours of work in one quarter on this campus.

After a student has been admitted as a candidate for a master's degree in this college, providing prior arrangements have been made with the Dean of the Faculty, he may take work at the State University of Iowa or Iowa State College, for which residence credit may be given at Iowa State Teachers College.

Time requirements—Courses taken more than 10 years prior to the granting of the degree cannot be used to meet the requirements for the degree.

Scholarship requirements—A grade index of 3.00 (B average) must be earned in all courses attempted as a graduate student. No credit toward graduation is allowed for a course in which a grade below C is earned.

Thesis—A thesis is required of all candidates for the master's degree. The thesis will demonstrate the candidate's ability to draw relevant and valid conclusions from the data that have been assembled. It will be an investigation relating to the improvement of instruction and to making the individual a better teacher. Credit for the thesis (1 to 9 hours) may be used to meet part of the minimum 45 quarter hours required for the master's degree. A student may enroll for thesis credit in any quarter after he is approved as a candidate for the master's degree. The number of hours is determined at the time of registration.

Maximum Load—The maximum graduate student load per quarter is 15 quarter hours. A full-time employee will not be permitted to register for more than 5 quarter hours of graduate credit in any quarter.

Teaching experience requirement—On four of the curricula leading to a master's degree a minimum of **one** year of successful teaching experience is required before the master's degree will be awarded and before all the courses required on these curricula can be taken. This requirement applies to the following curricula: elementary supervision, elementary principalship, secondary principalship, and guidance and counseling. The following courses require at least one year's teaching experience as a prerequisite for enrollment: Education 614—Elementary School Supervision II, Education 618—Organization and Administration of the Guidance Program, Education 676—Administration of the Secondary School, and Education 677—Administration of the Elementary School.

Transfer Credit—Graduate credit from other approved institutions will be accepted. Irrespective of the amount of such transfer credit, the student must complete the requirements of a minimum of two quarters and 36 quarter hours of graduation credit at the Iowa State Teachers College.

Extension Class Credit—A maximum of six quarter hours of graduate credit earned in extension classes may be applied toward the 45 hour minimum required for the master's degree.

Advisory Committees

Each graduate student works under the direction of an Advisory Committee which consists of three graduate faculty members. The chairman of the Advisory Committee, a member of the department in which the student chooses to major, is regarded as the student's adviser and the director of his thesis. The other two members are appointed by the Dean of the Faculty. The Advisory Committee assists the student in preparing his plan of graduate study and, by a study of his background and future needs, agrees on the particular work required of the student. The Advisory Committee evaluates the thesis and recommends to the Dean of the Faculty the amount of credit that should be allowed. The committee will prescribe, conduct, and evaluate all degree examinations including the required candidacy examinations and the final comprehensive and oral examinations. At the time of admission to graduate study, the student will be directed to the head of the department in which he plans to major who will assign the student to a member of his staff for advisement. Ordinarily, this individual becomes the chairman of the student's Advisory Committee.

Graduate Assistantships

A limited number of graduate assistantships are available for graduate students who are in residence through the academic year. These assistantships permit the student to carry a maximum of twelve quarter hours of work and carry a stipend of not more than \$750 for the academic year. The assistantships are accompanied by a remission of \$29 of the quarterly fees for each quarter of the academic year. For those students who have held a graduate assistantship for three quarters there is a similar remission of fees for the succeeding summer quarter. Certain non-teaching duties requiring an average of approximately ten hours a week are assigned each graduate assistant. Blanks for applying for an appointment as a graduate assistant are available in the office of Dean of the Faculty and applications should be filed in that office by March 1.

Fees

Fees for graduate study will be the same as for undergraduate study, \$40.00 per quarter. A charge of \$4.00 per quarter hour

is made for those students who take less than ten hours. The minimum fee is \$12.00. Fees are subject to change by the State Board of Education.

Housing and Food Service

Cost for a room in the residence halls and for food service in the Commons are the same as for undergraduates. Accommodations for graduate students with families may be available but no preference over undergraduate students is granted.

Projected Registration

A student who has been admitted to candidacy for the master's degree may use a procedure known as projected registration for enrollment in Field Study or Thesis. This work is done off-campus but under the supervision of a member of the graduate faculty and is not considered residence credit. The student must be regularly registered for such work and must have the approval of his adviser and the head of the department offering the course. The fee is \$4 per quarter hour with a minimum fee of \$12. The minimum time for the completion of this work is six weeks and the maximum time is one calendar year. A student may withdraw or cancel his registration if this is done in writing before the expiration of the year. In such cases the instructor will report W, WP, or WF, but no part of the fee will be refunded unless the cancellation is at the request of the college. Failure to withdraw formally or to do satisfactory work will result in a grade of "Failed." Enrollment by projected registration is automatically terminated when the student enrolls for residence work.

Grades for work taken in this manner are reported at the end of a quarter and all work must be completed and in the hands of the instructor in charge at least two weeks in advance of the close of the quarter in which the report is to be made. If the last work required for graduation is taken by projected registration, the completed work must be in the instructor's hands at least one month before the date of proposed graduation.

Graduate Curricula

Graduate majors are offered in elementary teaching, elementary supervision, elementary principalship, secondary principalship, guidance and counseling, and in the following areas for teaching

in the secondary school or in special subjects: art, business education, English, mathematics, music, science, social science, and speech.

General Requirements

On each curriculum, the student who plans to receive the Master of Arts in Education degree must:

1. Have been admitted to candidacy (see page 166).
2. Have fulfilled the requirements relating to residence, scholarship, total hours, and thesis as described on pages 167 and 168.
3. Have earned a minimum of twenty hours of work, exclusive of thesis credit, in courses numbered 600 and above.
4. Have completed successfully the **ten-hour professional core consisting of:**
 - a. Education 604—Educational Research—4 hours.
 - b. Psychology 613—Advanced Educational Psychology—3 hours, or Education 684—Philosophy of Education—3 hours.
 - c. Either a special methods course in the major field—3 hours, or any additional course numbered 600 and above in the departments of education or teaching—3 hours.
5. Have demonstrated satisfactory achievement on a final written and/or oral examination. On the recommendation of the student's Advisory Committee either or both parts of this requirement may be waived.
6. Have completed the additional requirements for a specific major and any additional work designated by his Advisory Committee.
7. Have made application for graduation at the time of enrollment for the last quarter.

Requirements for Various Majors

Every effort has been made to keep the specific course requirements for each major at a minimum so that the student, with the help of his Advisory Committee, may plan the program of graduate work which will best meet his individual needs. Such a flexible pattern permits one student a high degree of concentration in a special area while not denying another the opportunity to broaden his education by taking considerable work outside the field of concentration.

Major in Elementary Teaching—Aside from the ten-hour professional core requirement and the thesis, there are no additional

required courses. The student choosing to major in elementary teaching, after consideration of his undergraduate work, experience, and future plans, will have ample opportunity to select, with the help of his Advisory Committee, those courses that will best meet his needs. Such courses for one student may be entirely within the Department of Education, while for another student all of the courses selected may be in other departments.

***Major in Elementary Supervision**—On this curriculum, in addition to the ten-hour professional core and thesis, the student takes the work necessary to meet the requirements for an Iowa Elementary Supervisor's Certificate and such additional courses as are considered most essential by the student and his Advisory Committee. The requirement for the Elementary Supervisor's Certificate includes 30 quarter hours graduate credit in elementary school professional education, including at least 9 quarter hours in elementary school administration and elementary school supervision or curriculum and supervisory experience under the supervision of an approved teacher education institution. On this curriculum, one year of successful teaching experience at the elementary level is required before the master's degree may be awarded. A master's degree in this area and four years of successful teaching experience in the elementary school qualify one for an Iowa Elementary Supervisor's Certificate.

***Major in Elementary Principalship**—In addition to the ten-hour professional core requirement and the thesis, a student whose major is in this area includes 30 quarter hours of work in elementary school administration and such related fields as the student and his Advisory Committee feel necessary to meet certification requirements and most appropriate for him. One year of successful teaching experience in the elementary school is required before the master's degree will be awarded to a student on this curriculum.

The completion of the work required for a master's degree on this curriculum and two years of successful teaching experience in the elementary school qualify one for an Iowa Elementary Principal's Certificate.

***Major in Secondary Principalship**—In addition to the ten-hour professional core requirement and the thesis, a major on this curriculum includes 30 quarter hours of work in secondary school administration and such related fields as the student and his Advisory Committee feel are necessary to meet certification re-

*A student whose major is in elementary supervision, elementary principalship, or secondary principalship may be able to qualify for the Superintendent's Certificate. If interested in this possibility, the student should consult the Head of the Department of Education.

quirements and most appropriate for him. One year of successful teaching experience at the secondary school level is required before the master's degree will be awarded to a student on this curriculum.

A master's degree in this area and the completion of two years of successful teaching experience in the secondary school qualifies one for an **Iowa Secondary Principal's Certificate**.

Major in Guidance and Counseling—In addition to the ten-hour professional core requirement and the thesis, a student whose major is in guidance and counseling must have had at least one year of successful teaching experience and take the course work in guidance and counseling and such related fields as the student and his Advisory Committee feel to be most appropriate.

Major in Art

1. Other than the ten-hour professional core requirements and the thesis, there are no additional required courses for a graduate major in art unless the student desires to complete the requirements for certification as a supervisor of art.

2. In consultation with his Advisory Committee, the student will review and evaluate his undergraduate work, his experience, and his present and future needs and develop a graduate program which will permit him either to pursue work to make him a better art teacher or to concentrate on completing the requirements for certification as a supervisor of art.

A student who chooses to qualify for the Iowa Art Supervisor's Certificate must have four years of successful teaching experience and include in his graduate program the following courses:

a. Art 634. The Supervision of Art—4 hours.

b. At least 10 hours from the following:

Education 572. Secondary School Supervision—5 hours.

Education 631. Curriculum Development in the Secondary School—5 hours.

Education 570. Elementary School Supervision I—5 hours.

Education 614. Elementary School Supervision II—3 hours.

Education 632. Curriculum of the Elementary School Child—5 hours.

3. At least one quarter before the master's degree is to be conferred, the student whose major is art must demonstrate his proficiency in a selected creative area through presentation of an exhibit.

A student who receives the Master of Arts in Education degree with a major in art is eligible for an Iowa Advanced Secondary

Certificate and may also be eligible (see above) for the Iowa Art Supervisor's Certificate.

Major in Business Education

1. In addition to the ten-hour professional core requirement and the thesis, all graduate majors in business education will take Business Education 603. Foundations of Business Education—3 hours.
2. The remaining hours will be devoted to courses from business education and other departments chosen with the help of the student's Advisory Committee after consideration of his undergraduate preparation, work experience, present problems, and future plans.
3. The major in business education will permit a concentration in one area (such as secretarial, accounting, distributive education), or it may include a combination of work in various areas.
4. To receive the Master of Arts in Education degree with a major in business education, the student must demonstrate that he possesses an adequate background knowledge of the business world. In evaluating this background, the student's practical business experience and his work in such areas as economics and commerce will be among the matters considered.

A student who receives the Master of Arts in Education degree with a major in business education is eligible for an Iowa Advanced Secondary Certificate.

Major in English

1. In addition to the ten-hour professional core requirement and the thesis, a graduate major in English will complete the English core consisting of:
 - a. English 615. Teaching of Literary Forms—5 hours.
 - b. English 664. Language Problems in the High School—3 hours.
 - c. English 606. Bibliography and Methods of Research—1 hour.
2. The remaining hours will be devoted to courses from English and other departments chosen with the help of the student's Advisory Committee after consideration of his undergraduate preparation, experience, present needs, and future plans.
3. At least one quarter before the degree will be conferred, the major in English must demonstrate basic competence, confirmed by examination, in French, German, or Latin. In French or German, a reading knowledge of simple material employing

a vocabulary of about 2000 words is necessary. In Latin, a working knowledge of the foundational structure and a vocabulary of about 1,500 words are required. If a graduate student wishes to work independently in order to meet this requirement, direction and assistance will be made available.

A student who receives the Master of Arts in Education degree with a major in English is eligible for an Iowa Advanced Secondary Certificate.

Major in Mathematics

1. Aside from the ten-hour professional core requirement and the thesis, there are no additional required courses for a graduate major in mathematics.
2. Courses will be chosen from mathematics and other departments with the help of the student's Advisory Committee after consideration of his undergraduate preparation, experience, present needs, future plans, and particular area of emphasis in mathematics.
3. A student will select as an area of emphasis either the teaching of elementary mathematics or the teaching of secondary mathematics.

A student who receives the Master of Arts in Education degree with a major in mathematics is eligible for an Iowa Advanced Secondary Certificate.

Major in Music

1. In addition to the ten-hour professional core requirement and the thesis, a graduate major in public school music will complete the music core consisting of:
 - a. Music 520, 521, 522, 523, or 524. Applied Music—3 hours.
 - b. Music 691. Planning and Supervision—3 hours.
 - c. Music 680. Seminar in Band—3 hours, or
Music 681. Seminar in Orchestra—3 hours, or
Music 682. Seminar in Chorus—3 hours.
2. The remaining hours will be devoted to courses from music and other departments chosen with the help of the student's Advisory Committee after consideration of his undergraduate preparation, experience, present needs, and future plans.
3. To be accepted as a graduate major in public school music, a student must have attained a proficiency in a field of applied music equal to that required of a student completing an undergraduate major in music (Grade XII). It is highly desirable for the graduate major in music to have attained Grade XVIII or higher.

4. A student will select as an area of emphasis either instrumental or vocal public school music.

A student who receives the Master of Arts in Education degree with a major in public school music is eligible for an Iowa Advanced Secondary Certificate. By including Education 631 or 676 and 632 or 677 in the student's graduate program and with the required four years of successful teaching experience, the student may, in addition, become eligible for the Music Supervisor's Certificate.

Major in Science

1. In addition to the ten-hour professional core requirement and the thesis, all graduate majors in science will take Science 603. History and Philosophy of Science—3 hours.
2. The remaining hours will be devoted to courses from science and other departments chosen with the help of the student's Advisory Committee after consideration of his undergraduate preparation, experience, present needs, future needs, and particular area of emphasis in science.
3. A student may select as a field of emphasis one of the following:
 - a. Consultant or supervisor of elementary science.
 - b. General science.
 - c. Biological science.
 - d. Chemistry.
 - e. Physics.

A student who receives the Master of Arts in Education degree with a major in science is eligible for an Iowa Advanced Secondary Certificate.

Major in Social Science

1. Aside from the ten-hour professional core requirement and the thesis, there are no additional required courses for a graduate major in social science.
2. Courses will be chosen from social science and other departments with the help of the student's Advisory Committee after consideration of his undergraduate preparation, experience, present needs, future needs, and particular area of emphasis in social science.
3. A student, if he desires, may select as an area of emphasis one of the following:
 - a. History.
 - b. Government.
 - c. Economics.
 - d. Sociology.

A student who receives the Master of Arts in Education degree

with a major in social science is eligible for an Iowa Advanced Secondary Certificate.

Major in Speech

1. In addition to the ten-hour professional core requirement and the thesis, the graduate major in Speech will complete the speech core consisting of:
 - a. English 664. Language Problems in the High School—3 hours.
 - b. Speech 608. Psychology of Speech—3 hours.
 - c. Speech 606. Bibliography and Methods of Research—1 hour.
2. The remaining hours will be devoted to courses chosen from the Department of English and Speech or other departments with the help of the student's Advisory Committee after consideration of his undergraduate preparation, experience, present needs, future needs, and particular area of emphasis in speech.
3. A student may select as a field of emphasis either drama or public speaking.

A student who receives the Master of Arts in Education degree with a major in speech is eligible for an Iowa Advanced Secondary Certificate.

"All the high hopes which I entertain of a more glorious future for the human race are built upon the elevation of the teacher's profession and the enlargement of the teacher's usefulness."—HORACE MANN.

"Upon the subject of education . . . I can only say that I view it as the most important subject which we as a people can be engaged in."—ABRAHAM LINCOLN.

Extension Service

Elmer L. Ritter, Ph.D., Professor of Education and Director of the Bureau

Fred D. Cram, M.A., Professor of Education, Emeritus, part-time service

Lou A. Shepherd, M.A., Professor of Primary Education, Emeritus, part-time service

H. V. Hake, M.A., Associate Professor of Radio Education and Director of Radio and Television

Extension Service for 1953-54

The extension service includes consultative service, correspondence study, and extension class work.

Consultative Service

The services of the members of the extension staff are available to teachers, administrators, and boards of education for the improvement of instruction and administration in the public schools of Iowa.

Extension Credit Work

Extension credit may be earned by (1) correspondence study and (2) extension class work. Credit earned through correspondence study cannot be used toward a master's degree and not more than six quarter hours of credit earned through extension classes may be applied toward a master's degree.

Definite limitations on the amount of extension credit that a student can earn have been set by the Iowa State Board of Educational Examiners and by this college:

- (1) Not more than 15 quarter hours of extension credit may be earned in the regular school year.
- (2) Not more than one-half of the credits presented for the renewal or reinstatement of a certificate may be completed through correspondence study.
- (3) Not more than one-fourth of the work required for an Iowa Standard Elementary, Advanced Elementary, or Standard

Secondary teaching certificate may be earned in non-resident credit.*

- (4) A student registered for residence work in this college or for credit work in any other college or university may **not** be registered for correspondence study or for extension class work.
- (5) A student must meet all requirements for college entrance including the filing of transcripts of credits in high school and for any work taken in other colleges. A student with a bachelor's degree is required to apply for admission to graduate study and file a statement of graduation from college.
- (6) A student must have at least sophomore standing to be eligible to take a course numbered 300-399, and at least junior standing to enroll for a course numbered 400-599.
- (7) No student may earn more than 5 quarter hours' extension credit in any one period of ten weeks.

Extension Class Work

The conditions for admission to extension class work are the same as for admission to residence work. For each hour of credit in an extension class there must be not less than ten clock hours of actual instruction. Insofar as possible an extension class will be offered by the same instructor and in the same manner as it is on the campus. However, no course will be offered by extension that requires more than five clock hours of instruction per week. Ordinarily extension classes will not be offered in communities where residence credit in this or some other accredited college may be obtained.

The fee for extension class work is \$6 per quarter hour.

Correspondence Study

In addition to the general rule concerning all credit by extension, the student interested in correspondence study should particularly note the following rules:

- (1) He may enroll for only **one** correspondence course at a time.

*An exception to No. 3 above is made by the Iowa State Board of Educational Examiners for an experienced teacher who is working for a Standard Elementary Certificate. Such a person is required to earn at least 32 quarter hours in residence at the institution by which she expects to be recommended for the teaching certificate but may earn the balance of her credit by extension. However, not more than 25 quarter hours may be earned through correspondence study.

- (2) He may not repeat any course by correspondence study in which he previously **failed**.
- (3) He must have had at least one full year of college credit with at least a C average.
- (4) He may not complete a five-hour course in less than ten weeks; a four-hour course in less than eight weeks; a three-hour course in less than six weeks; or a two-hour course in less than four weeks.
- (5) He is expected to complete a correspondence study course within twelve months from the date of registration. A fee of \$2 is charged for a six months' extension of time if the course is not completed within the allotted year's time. If, however, a student who is registered for correspondence study registers for residence work within one year from the date of registration for his correspondence study and before the completion of that study, he is entitled to continue his correspondence study course at the close of his residence work until the entire time of his correspondence, exclusive of time spent in residence work, amounts to twelve months.
- (6) He will complete two or more written lessons for each hour of credit in the course.
- (7) He will take a final examination in the course under the direct supervision of a city or county superintendent of schools. He should understand that his final grade in the course will be determined essentially by the grade made on the examination.
- (8) He will receive no credit until the course has been satisfactorily completed and the final examination taken.
- (9) After he has enrolled for a correspondence study course, all communication between the instructor and the student concerning the work must pass through the office of the Director of the Bureau of Extension Service.
- (10) The fee for correspondence study is \$4 per quarter hour. **Do not pay in currency.** Make your money order or check payable to the Iowa State Teachers College and if payment is made by check, add five cents for exchange charges.

If the application for correspondence study is rejected the fee is refunded. After a student has enrolled, refunds are made only in case of serious illness certified to by a physician, or registration for the same course in residence. The refund that is made to a student whose enrollment has been accepted shall not exceed four-fifths of the fees paid, less \$1 for each lesson submitted by the student.

Courses Offered By Correspondence Study

Business Education

Course Number	Course Title	Prerequisite	Quarter Hours
40	Introduction to Business.....		3
354	Business Law I.....		5
355	Marketing		3
361	Principles of Accounting II.....	Business 360.....	5
572	Philosophy of Vocational Education.....		2

Education

Psy			
415	Child Psychology	5 hours of psychology, or Ed 211 or 212.....	3
516	Psychology of Adolescence...	5 hours of psychology, or Ed 211 or 212.....	3
520	Social Psychology	5 hours of psychology, or Ed 211 or 212.....	3
Ed			
136	Reading and Language Arts I.....		5
525	Statistical Methods in Education	See Note 1.....	2
534	Methods in Elementary Science.....		3
541	Social Studies in the Elementary School.....		3
555	Educational Tests for the Elementary School	Ed 211 or 525.....	2
568	The Junior High School.....		5
588	History of Education.....		5

English

Eng			
100	English II.....	Eng 1...See Note 2...	4
335	The British Novel to 1900.....		3
545	American Literature, 1765-1865.....		5

Home Economics

HE			
60	Nutrition of Children.....		3
61	Personal Relationships.....		2

Languages

Fr			
301	Modern French Prose.....	2 years of high school French or equivalent preparation...	3
302	Short French Plays.....	2 years of high school French or equivalent preparation....	2

Ger	
301 Recent German Prose.....	2 years of high school German or equivalent preparation 5
303 Schiller's Dramas.....	Ger 301 or equivalent preparation 5
Lat	
104 Cicero's Orations I.....	2 years of high school Latin or Lat 103 or equivalent preparation 5
108 Vergil II.....	½ year of Vergil in high school or Lat 107..... 5
Span	
301 Spanish Prose.....	2 years of high school Spanish or equivalent preparation 3
302 Spanish Short Stories.....	2 years of high school Spanish or equivalent preparation.... 2

Mathematics

Math	
322 Teaching of Arithmetic I.....	3
408 Teaching of Arithmetic II.....	3

SCIENCE

Geog	
119 World Resources.....	Sci 18 or 117 or Bio Sci 10 (See Note 4)..... 3

Social Science

General	
117 Governmental Problems.....	(See Note 3)..... 4
Hist	
11 Social and Economic History of the United States.....	See Note 5..... 5
14 American History to 1865.....	See Note 6..... 5
312 Modern Europe to 1870.....	5
313 Modern Europe Since 1870.....	See Note 7..... 5
304 American History Since 1865.....	See Note 6..... 5
321 History of Iowa.....	2
510 The Far East.....	5
512 Diplomatic History of the United States	5
516 Latin-American History.....	5
Govt	
332 Principles of Political Science.....	5
532 State and Local Government.....	5
542 School Laws of Iowa.....	3
Econ	
555 Labor Problems	3
Soc	
165 Rural Sociology	See Note 8..... 3
358 Principles of Sociology.....	5

468 The Family.....	3
570 Population	3
572 Crime and Delinquency.....	5

NOTES

1. No credit for a student who has credit in Mathematics 506: Statistical Measurements.
2. No credit for a student who has credit in English 102.
3. No credit for a student who has credit in Government 132 or 133.
4. No credit for a student who has credit in Earth Science 162 or 163.
5. No credit for a student who has credit in History 14 or 304.
6. No credit for a student who has credit in History 11.
7. No credit for a student who has credit in European History since 1815 or European History since 1914.
8. No credit for a student who has credit in Agriculture 155.

NOTICE OF LIMITATIONS

The college reserves the right to limit the number of students in any one correspondence course. Therefore, it may be wise to list a second course on your enrollment blank in case it is not possible to complete your enrollment in the first course requested.

Address all inquiries regarding work by correspondence study or extension class work to E. L. Ritter, Director, Bureau of Extension Service, Iowa State Teachers College, Cedar Falls, Iowa.

"We have faith in education as the foundation of democratic government."—FRANKLIN D. ROOSEVELT.

"One who enters teaching enters a career that offers all the freshness, vitality and challenge of a rapidly developing profession."—BENJAMIN W. FRAZIER.

College Terminology

The Meaning of Terms Frequently Used at Iowa State Teachers College

Adviser, advisee—	Your adviser or counselor is the instructor assigned by the college to help you with your problems. You are called his "advisee."
Certificate—	A document, issued by the Iowa State Board of Educational Examiners, which states that you are qualified to teach and what you may teach.
Course—	A particular subject being studied—thus, a "course" in English.
Credit—	The numerical reward you receive for completing a college course. It is described in quarter hours. The freshman student will ordinarily register for seventeen hours of class work. A total of 196 hours of credit is required for graduation from the four-year program.
Curriculum—	The whole body of courses required for a degree.
Department—	A division of the college which offers instruction in a particular branch of knowledge: the Department of Music.
Elective—	A subject or course which you may choose to study as distinguished from "required courses" which you are asked to take.
Extracurricular—	This word refers to those activities which are part of student life but are not part of the course of study. Debate, dramatics, and athletics are extracurricular activities.
Fee—	A charge which the college asks you to pay for certain services it offers you; for example, a music fee, paid for private lessons in music.

General Education— The knowledge, skills, appreciations, and attitudes that any well-educated person should possess. At the Iowa State Teachers College more than one-third of the work required for graduation consists of general education courses which are required of all students.

Grade-Points— For reasons of simplicity in bookkeeping, grades are evaluated in terms of quality points. For every hour of A which you earn, you are credited with four grade-points; for every hour of B, three grade-points; for every hour of C, two grade-points; for every hour of D, one. To receive the bachelor of arts degree or to complete the two-year plan, you are required to have twice the number of grade-points that you have hours of credit. For example, if a student on the two-year plan has earned 100 hours' credit, he must have at least 200 grade-points to receive a certificate of completion and be recommended for a teaching certificate. Similarly, a student on a four-year curriculum, who has earned the minimum 196 hours that is required for the bachelor's degree, is required to have at least 392 grade-points before he is permitted to graduate.

Graduate Study— Work beyond the bachelor's degree, usually toward a master's or doctor's degree.

Matriculation— The act of enrolling for the first time as a student at the college.

Major— The subject or field of study which you decide to emphasize. If, for example, you plan to specialize in mathematics, you will be said to "major" in that field. If you chose to specialize in two such subjects you will have a "double major."

- Minor—** This word refers to the field of your secondary emphasis. The hours devoted to your minor field are somewhat less than those allotted to your major. You may choose one or more minors.
- Prerequisite—** This word designates the preliminary requirement which must be met before a certain course can be taken. Thus, English I is a "prerequisite" to all other courses in English and must be successfully completed before other English courses are taken.
- Registration—** The act of enrolling in classes, usually at the beginning of a quarter. This involves choosing your classes with the help of your counselor.
- Required Subjects—** Those subjects which are prescribed by the college for the completion of your program. You choose your electives; your required subjects are chosen for you.
- Schedule—** A listing of the courses you are taking each quarter. Your schedule is your program of studies.
- Undergraduate—** A student who has not yet obtained the bachelor's degree.

"Perhaps you think there's no glamour in teaching. Perhaps there's not so much glamour as in the life of the explorer or the soldier or the Hollywood star. But neither is there so much drudgery or mud.

"Teaching isn't all fun, but it is exciting. There's never a dull moment in it, whether it's in the kindergarten or the college class. Life is dull only to dull people. Teaching is a constant challenge. The danger is never that we'll be too big for it, only that we won't be big enough."—JAMES M. SPINNING.

Instructional Staff

J. W. MAUCKER, B.A., Augustana College; M.A., Ph.D., State University of Iowa
President of the College, 1950

MARTIN J. NELSON, B.A., Luther College; M.A., Ph.D., University of Wisconsin
Dean of the Faculty, 1924 (1934)

EMERITUS STAFF

A single date following the title indicates the beginning of service at this college. If two dates are given, the first indicates the incumbent's first appointment to a position and the second (in parentheses) the beginning of service in present capacity.

ALISON E. AITCHISON, B.S., State University of Iowa; M.S., University of Chicago
Professor of Geography, Emeritus, part-time service, 1903 (1944)

MARY C. ANDERSON, B.A., Iowa State Teachers College; M.A., State University of Iowa
Assistant Professor of Teaching, Emeritus, part-time service, 1924 (1953)

AMY F. AREY, B.S., M.A., Columbia University
Professor of Education, Emeritus, part-time service, 1919 (1947)

CHARLES H. BAILEY, B.S., Columbia University
Professor of Industrial Arts, Emeritus, part-time service, 1905 (1944)

LOUIS BEGEMAN, B.S., M.S., University of Michigan; Ph.D., University of Chicago
Professor of Physics, Emeritus, part-time service, 1899 (1935)

BENJAMIN BOARDMAN, B.Ph., State University of Iowa
Business Manager, Emeritus, part-time service, 1917 (1945)

A. E. BROWN, B.S., Baker University; M.A., Yale University; Ph.D., State University of Iowa
Professor of Education, Emeritus, part-time service, 1924 (1952)

H. S. BUFFUM, B.A., M.A., Ph.D., State University of Iowa
Professor of Education, Emeritus, part-time service, 1914 (1947)

KATHERINE BUXBAUM, B.A., State University of Iowa; M.A., University of Chicago
Associate Professor of English, Emeritus, 1924 (1948)

EMMETT J. CABLE, B.S., M.S., Cornell College; Ph.D., State University of Iowa
Professor of Earth Science, Emeritus, part-time service, 1905 (1948)

JOHN W. CHARLES, B.A., M.A., Haverford College; Ph.D.; State University of Iowa
Professor of Education, Emeritus, 1916 (1948)

- FRED D. CRAM, B.A., Iowa State Teachers College; M.A., State University of Iowa
Professor of Education, Emeritus, part-time service, 1920 (1950)
- ROWENA A. EDWARDS
Cataloguer, Emeritus, part-time service, 1916 (1947)
- ALBERT C. FULLER, B.A., State University of Iowa; LL.D., Buena Vista College
Director of the Bureau of Alumni Service and Public School Relations, Emeritus, part-time service, 1917 (1947)
- MYRTLE E. GAFFIN, B.A., Iowa State Teachers College; M.A., State University of Iowa
Assistant Professor of Business Education, Emeritus, part-time service, 1923 (1951)
- ROBERT W. GETCHELL, B.A., Iowa State Teachers College; M.S., Ph.D., University of Wisconsin
Professor of Chemistry, Emeritus, part-time service, 1909 (1949)
- E. W. GOETCH, B.A., M.A., Ph.D., State University of Iowa
Director of the Placement Bureau, Emeritus, part-time service as Placement Consultant, 1918 (1951)
- IRVING H. HART, B.A., Grinnell College
Director of the Bureau of Extension Service, Emeritus, part-time service as Archivist, 1914 (1948)
- WILLIAM E. HAYS, B.Mus., Chicago Musical College; M.Mus., DePaul University
Associate Professor of Voice, Emeritus, 1921 (1948)
- MARY B. HUNTER, B.A., Iowa State Teachers College; M.A., University of Chicago
Professor of Economics, Emeritus, part-time service, 1918 (1950)
- C. L. JACKSON, B.A., Grinnell College; M.A., State University of Iowa
Associate Professor of Teaching, Emeritus, part-time service, 1924 (1952)
- W. H. KADESCH, B.S., Ohio Wesleyan University; M.Ph., Ph.D., University of Chicago
Professor of Physics, Emeritus, 1921 (1949)
- EDWARD KURTZ, B.Mus., Detroit Conservatory; M.Mus., Cincinnati Conservatory of Music; M.A., State University of Iowa; D.Mus., Detroit Institute of Musical Art
Professor of Violin and Composition, Emeritus, part-time service, 1924 (1951)
- INGEBRIGT LILLEHEI, B.A., M.A., University of Minnesota, Ph.D., University of Illinois
Professor of French and Spanish, Emeritus, part-time service, 1918 (1953)
- SAMUEL A. LYNCH, B.L., University of Missouri; M.A., University of Chicago
Professor of English, Emeritus, 1909 (1938)
- FRANK N. MEAD, M.D., University of Pennsylvania
Health Director, Emeritus, part-time service, 1920 (1939)
- BERTHA L. PATT, Des Moines Academy of Art; New York Art Student's League
Professor of Art, Emeritus, 1895 (1938)

- E. GRACE RAIT, B.A., Iowa State Teachers College; M.A., Columbia University
Associate Professor of Teaching, Emeritus, part-time service, 1914 (1952)
- O. B. READ, B.Ph., Hillsdale College; M.A., University of Wisconsin
Professor of Chemistry, Emeritus, 1913 (1940)
- LOU A SHEPHERD, B.A., Iowa State Teachers College, M.A., Columbia University
Professor of Primary Education, Emeritus, part-time service, 1924 (1953)
- JOHN R. SLACKS, B.Ph., M.A., University of Chicago
Professor of Rural Education, Emeritus, 1918 (1943)
- MAY SMITH, B.A., Coe College; M.A., Columbia University
Professor of Education, Emeritus, part-time service, 1919 (1953)
- EULALIE TURNER, B.S., State University of Iowa; M.A., Columbia University
Assistant Professor of Teaching, Emeritus, part-time service, 1915 (1951)
- DORIS E. WHITE, B.A., Simpson College; M.A., Columbia University
Professor of Physical Education for Women, Emeritus, part-time service, 1915 (1952)

Professors

- R. L. ABBOTT, B.A., Iowa State Teachers College; M.S., Ph.D., University of Wisconsin
Professor of Biology, 1916 (1920)
- JOHN P. COWLEY, B.A., Heidelberg College; M.A., University of Wichita; Ph.D., Yale University
Professor of English, 1945 (1951)
- DWIGHT K. CURTIS, B.S., Northeast Missouri State Teachers College, M.A., Ph.D., State University of Iowa
Professor of Teaching and Director of Student Teaching, 1945 (1951)
- E. C. DENNY, B.A., Indiana University; M.A., University of Chicago; Ph.D., State University of Iowa
Professor of Education 1923 (1934)
- L. V. DOUGLAS, B.S., M.A., Ph.D., State University of Iowa
Professor of Business Education and Head of the Department of Business Education, 1937 (1946)
- W. B. FAGAN, B.A., Earlham College; M.A., University of Kansas
Professor of English, 1915 (1938)
- RALPH R. FAHRNEY, B.A., Mount Morris College; M.A., Ph.D., University of Chicago
Professor of History, 1929 (1945)
- MARTIN L. GRANT, B.A., Oberlin College; M.A., Ph.D., University of Minnesota
Professor of Biology, 1936 (1950)
- LYMAN H. HARRIS, Jr., B.A., Washington and Lee University; M.A., Ph.D., University of Wisconsin
Professor of History, 1946 (1952)

- ESTHER HULT, B.Ed., Superior, Wisconsin, State Teachers College;
M.Ph., Ph.D., University of Wisconsin
Professor of Education, 1943 (1953)
- JAMES W. KERCHEVAL, B.A., Iowa State Teachers College; M.S.,
Ph.D., State University of Iowa
Professor of Chemistry, 1949 (1953)
- DOROTHY MAY KOEHRING, B.A., Kansas State University; M.A.,
Columbia University; Ph.D., Yale University
Professor of Teaching, 1933 (1950)
- WILLIAM C. LANG, B.A., Yankton College; M.A., Ph.D., State University of Iowa
Professor of History, 1949 (1952)
- C. W. LANTZ, B.A., M.A., Ph.D., University of Illinois
Professor of Biology and Head of the Department of Science, 1921 (1948)
- L. L. MENDENHALL, LL.B., M.A., State University of Iowa
Professor of Physical Education for Men and Head of the Department of Physical Education for Men, 1921 (1933)
- HAROLD G. PALMER, B.A., Iowa State Teachers College; M.A., State University of Iowa; Ph.D., Ohio State University
Professor of Industrial Arts and Head of the Department of Industrial Arts, 1924 (1951)
- WILLARD J. POPPY, B.Ed., Oshkosh State Teachers College; M.S., Ph.D., State University of Iowa
Professor of Physics, 1949 (1953)
- MALCOLM PRICE, B.A., Cornell College; M.A., Ph.D., State University of Iowa; LL.D., Cornell College
Professor of Education, 1940 (1950)
- H. EARL RATH, B.S., M.S., Ph.D., Iowa State College
Professor of Health Education, 1921 (1938)
- H. W. RENINGER, B.A., M.A., Ph.D., University of Michigan
Professor of English and Head of the Department of English and Speech, 1939 (1948)
- H. A. RIEBE, B.Ph., M.Ph., Ph.D., University of Wisconsin
Professor of Education, 1925 (1938)
- ELMER L. RITTER, B.A., Indiana University; M.A., Ph.D., State University of Iowa
Professor of Education and Director of the Bureau of Extension Service, 1921 (1948)
- GEORGE C. ROBINSON, B.A., University of Wisconsin; M.A., Ph.D., Harvard University
Professor of Government, 1922 (1933)
- ROBERT A. ROGERS, B.A., Miami University; M.S., Ph.D., State University of Iowa
Professor of Physics, 1947 (1950)
- MYRON RUSSELL, B.Mus., Kansas State Agricultural College; M.Mus., Eastman School of Music, University of Rochester; Ph.D., University of Michigan
Professor of Wood-wind Instruments, and Head of the Department of Music, 1929 (1951)

- LELAND L. SAGE, B.A., Vanderbilt University; M.A., Ph.D., University of Illinois
Professor of History, 1932 (1945)
- JOSEF SCHAEFER, State Examination, Ph.D., University of Freiburg
Professor of German and Acting Head of the Department of Languages, 1926 (1953)
- MYRTLE M. STONE, B.A., Washington State College; M.B.A., University of Washington; Ed.D., New York University
Professor of Teaching, 1928 (1950)
- HAZEL B. STRAYER, B.A., Iowa State Teachers College; M.A., Columbia University
Professor of Speech, 1921 (1947)
- ELISABETH SUTHERLAND, B.S., M.S., University of Wisconsin; Ph.D., University of Minnesota
Professor of Home Economics and Head of the Department of Home Economics, 1940 (1951)
- M. R. THOMPSON, B.A., Western Union College; M.A., Ph.D., State University of Iowa
Professor of Economics and Head of the Department of Social Science, 1921 (1923)
- MARGUERITE UTTLEY, B.A., Iowa State Teachers College; M.S., Ph.D., University of Chicago
Professor of Geography, 1921 (1948)
- HENRY VAN ENGEL, B.A., Nebraska Wesleyan University, M.A., Ph.D., University of Michigan
Professor of Mathematics and Head of the Department of Mathematics, 1937 (1949)
- GUY W. WAGNER, B.A., Iowa State Teachers College; M.A., Ph.D., State University of Iowa
Professor and Director of Curriculum Laboratory, 1941 (1953)
- M. J. WILCOX, B.S., Cornell College; M.A., Ph.D., State University of Iowa
Professor of Education, 1923 (1945)

Associate Professors

- VERNA J. ADNEY, B.A., Iowa State Teachers College; M.A., Columbia University
Associate Professor of Teaching, 1927 (1953)
- LUCILE E. ANDERSON, B.A., Iowa State Teachers College; M.A., University of Chicago
Associate Professor of Teaching, 1930 (1952)
- *ALICE BAKKEN, B.A., Iowa State Teachers College; M.A., Columbia University
Associate Professor of Teaching, 1927 (1952)
- CLIFFORD L. BISHOP, B.A., Western State College of Colorado; M.A., University of Denver; D.Ed., University of Colorado
Associate Professor of Education and Head of the Department of Education, 1950 (1953)

*On Leave.

- JAMES T. BLANFORD, B.S., Central Normal College; M.S., D.Ed., Indiana University
Associate Professor of Business Education, 1946 (1953)
- ESTHER BOEHLJE, B.A., Iowa State Teachers College; M.A., State University of Iowa, Ed.D., University of Indiana
Associate Professor of Education, 1937 (1952)
- JEAN BONTZ, B.A., M.A., Ph.D., State University of Iowa
Associate Professor of Physical Education for Women and Head of the Department of Physical Education for Women, 1949
- ROBERT P. BRIMM, B.Ed., Southern Illinois University; M.Ed., D.Ed., University of Missouri
Associate Professor of Teaching and Principal of the College Secondary School, 1948 (1953)
- IRVIN BRUNE, B.S., College of Wooster; M.A., Ph.D., Ohio State University
Associate Professor of Mathematics, 1949
- JAMES R. CLARK, B.A., Gustavus Adolphus College; M.A., Ph.D., George Peabody College for Teachers
Associate Professor of Physical Education for Men, 1949
- CORLEY A. CONLON, B.A., Iowa State Teachers College; M.A., Columbia University
Associate Professor of Art, 1923 (1950)
- MARGARET DIVELBESS, B.A., Grinnell College; M.A., Columbia University
Associate Professor of Teaching, 1927 (1953)
- MRS. LOUISE C. TURNER FOREST, B.A., M.A., Bryn Mawr College; Ph.D., Yale University
Associate Professor of English, 1948
- ERNEST C. FOSSUM, B.A., Augustana College; M.A., Ph.D., State University of Iowa
Associate Professor of Speech, 1943 (1950)
- CHARLES BOYD GUEST, B.S., Delta State Teachers College; M.S., Alabama Polytechnic Institute; Ph.D., University of Wisconsin
Associate Professor of English, 1946
- HARRY G. GUILLAUME, B.S., M.A., Ed.D., Columbia University
Associate Professor of Art and Head of the Department of Art, 1948 (1953)
- JACK VERNON HALL, B.A., Central Washington College of Education; M.A., Ed.D., Colorado State College of Education
Associate Professor of Teaching and Principal of the College Elementary School, 1952 (1953)
- NELLIE HAMPTON, B.S., Central Missouri State Teachers College; M.A., State University of Iowa; Ph.D., University of Wisconsin
Associate Professor of Education, 1945 (1952)
- CORINNE D. HARPER, B.S., Kansas City Teachers College; M.Ed., Ed.D., University of Missouri
Associate Professor of Teaching, 1947 (1953)
- HENRY HARRIS, B.Mus., Philadelphia Conservatory of Music
Associate Professor of Piano, 1941 (1952)

- FRANK W. HILL, B.Mus., M.Mus., Eastman School of Music, University of Rochester
Associate Professor of Violin, Viola, and Theory, 1929 (1948)
- HARALD B. HOLST, B.Mus., M.Mus., American Conservatory of Music
Associate Professor of Voice, 1936 (1943)
- DONALD F. HOWARD, B.A., Iowa State Teachers College; M.A., Ph.D., State University of Iowa
Associate Professor of History, 1947 (1952)
- CHARLES T. LEAVITT, B.A., Beloit College; M.A., Ph.D., University of Chicago
Associate Professor of History, 1946 (1953)
- EDNA MANTOR, B.A., Iowa State Teachers College; M.A., Columbia University
Associate Professor of Teaching, 1923 (1952)
- FRANK E. MARTINDALE, B.Ed., Stevens Point, Wisconsin, Teachers College; M.Ph., Ph.D., University of Wisconsin
Associate Professor of Education, 1948 (1953)
- ELAINE E. McDAVITT, B.S., M.A., Northwestern University; Ph.D., University of Michigan
Associate Professor of Speech, 1947 (1953)
- EDNA O. MILLER, B.A., Iowa State Teachers College; M.A., Columbia University
Associate Professor of Latin, 1924 (1948)
- EMMA OPFER, B.Ph., University of Chicago; M.A., Columbia University
Associate Professor of Teaching, 1930 (1953)
- MARNA PETERSON, B.Ph., University of Chicago; M.A. Columbia University
Associate Professor of Teaching, 1920 (1932)
- ERMA B. PLAETH, B.A., Cornell College; M.A., Ph.D., State University of Iowa
Associate Professor of Government, 1936 (1950)
- DONALD O. ROD, B.A., Luther College; B.A. in Library Science, University of Michigan
Associate Professor of Library Science and Head Librarian, 1953
- ROSE LENA RUEGNITZ, B.Mus., Northwestern University; M.Mus., Cosmopolitan Conservatory
Associate Professor of Piano, 1923 (1946)
- *ROLAND SEARIGHT, B.A., Grinnell College; M.A., Eastman School of Music, University of Rochester
Associate Professor of Violoncello and Conducting, 1927 (1943)
- MANFORD SONSTEGARD, B.Ed., St. Cloud, Minnesota, State Teachers College; M.A., University of Minnesota; Ph.D., Northwestern University
Associate Professor of Teaching, 1945 (1953)
- JULIA SPARROW, B.S., St. Cloud, Minnesota, State Teachers College; M.A., Ph.D., State University of Iowa
Associate Professor of Education, 1944 (1953)

*On Leave.

- NORMAN C. STAGEBERG, B.S., University of Minnesota; M.A., State University of Iowa; Ph.D., University of Wisconsin
Associate Professor of English, 1946 (1953)
- OSCAR E. THOMPSON, B.Ed., Moorhead, Minnesota, State Teachers College; M.S., University of North Dakota; Ph.D., State University of Iowa
Associate Professor of Education, 1947 (1952)
- HAROLD C. TRIMBLE, B.A., University of Western Ontario; M.A., Ph.D., University of Wisconsin
Associate Professor of Mathematics, 1940-1947 (1951)
- LILLIAN ROSE WAGNER, B.A., University of South Dakota; M.A., State University of Iowa; Ph.D., University of Wisconsin
Associate Professor of Speech, 1950 (1953)
- ALTA WILMARTH, B.A., Iowa State Teachers College; M.A., State University of Iowa
Associate Professor of Teaching, 1919 (1952)
- LEONARD WINIER, B.S., Winona, Minnesota, State Teachers College; M.A., Ed.D., Columbia University
Associate Professor of Biology, 1948 (1953)
- SHIRLEY WINSBERG, B.S., University of Illinois; M.S., Wellesley College; Ph.D., State University of Iowa
Associate Professor of Physical Education for Women, 1945 (1953)

Assistant Professors

- CHARLES F. ALLEGRE, B.S., Emporia, Kansas, State College; M.S., Ph.D., State University of Iowa
Assistant Professor of Biology, 1950
- RUTH A. ALLEN, B.S., M.S., Iowa State College
Assistant Professor of Home Economics, 1947
- WALLACE L. ANDERSON, B.A., M.A., Trinity College; Ph.D., University of Chicago
Assistant Professor of English, 1948
- REBECCA BAKER, B.S., M.Ed., University of Missouri; Ph.D., State University of Iowa
Assistant Professor of Education, 1947 (1950)
- OLIVE L. BARKER, B.A., Iowa State Teachers College; M.A., Columbia University
Assistant Professor of Voice, 1926 (1946)
- DAVID GEORGE BARRY, B.A., Iowa State Teachers College; M.S., Ph.D., State University of Iowa
Assistant Professor of Biology, 1953
- RUSSELL N. BAUM, B.Mus., M.Mus., Eastman School of Music, University of Rochester
Assistant Professor of Piano, 1938 (1945)
- RANDALL R. BEBB, B.A., Iowa State Teachers College; M.A., Ph.D., State University of Iowa
Assistant Professor of Teaching, 1947 (1949)
- JANE BIRKHEAD, B.A., M.A., University of Missouri
Assistant Professor of Voice, 1941 (1946)

- *EMIL W. BOCK, B.Mus., M.Mus., Northwestern University
Assistant Professor of Violin, 1939 (1946)
- MARY LEAH BOULDIN, B.S., University of Missouri; M.S., University of Illinois
Assistant Professor of Home Economics, 1948 (1950)
- LOUIS BULTENA, B.D., San Francisco Seminary; M.Ph., Ph.D., University of Wisconsin
Assistant Professor of Sociology, 1946
- MARJORIE D. CAMPBELL, B.S., M.A., Ohio State University
Assistant Professor of Art, 1949
- HARRY J. CARNINE, B.S., Kansas State Teachers College; M.Mus., University of Michigan
Assistant Professor of Teaching, 1952
- WILLIAM L. J. DEE, B.S.J., M.A., Washington University; Ph.D., University of Chicago
Assistant Professor of Sociology, 1949 (1952)
- ARTHUR DICKINSON, B.A., Iowa State Teachers College; M.A., State University of Iowa
Assistant Professor of Physical Education for Men, 1924 (1939)
- WALTER E. DITZLER, B.S., Iowa State Teachers College; M.A., Ohio State University; Ph.D., State University of Iowa
Assistant Professor of Industrial Arts, 1946 (1948)
- H. THEODORE DOHRMAN, B.A., Nebraska State Teachers College; S.T.B., Ph.D., Harvard University
Assistant Professor of Sociology, 1949 (1953)
- WILLIAM H. DREIER, B.S., Iowa State College; M.A., Ph.D., University of Minnesota
Assistant Professor of Education, 1949 (1953)
- CLAYTON V. FOWLER, B.S., University of Michigan; M.A., Ph.D., State University of Iowa
Assistant Professor of Art, 1951
- H. SEYMOUR FOWLER, B.S., M.S., Ph.D., Cornell University
Assistant Professor of Biology, 1952
- JOSEF W. FOX, B.A., Pennsylvania State College; M.A., Louisiana State University; Ph.D., University of Chicago
Assistant Professor of English, 1947 (1952)
- IZETTA MAE FRAHM, B.A., Upper Iowa University; M.A., State University of Iowa
Assistant Professor of Teaching, 1948 (1952)
- E. GLENADINE GIBB, B.Ed., Western Illinois State Teachers College; M.A., George Peabody College; Ph.D., University of Wisconsin
Assistant Professor of Mathematics, 1946 (1953)
- *WALDEMAR GJERDE, B.A., Augsburg College; M.A., University of Minnesota
Assistant Professor and Specialist in Audio-Visual Education, 1945 (1948)
- LEO P. GOGGIN, B.A., Central State Teachers College, Edmond, Oklahoma; M.A., Ph.D., University of Chicago
Assistant Professor of English, 1950 (1953)

*On Leave.

- AGNES GULLICKSON, B.A., Iowa State Teachers College; M.A., Columbia University
Assistant Professor of Teaching, 1926 (1947)
- PETER G. HAINES, B.S., M.A., University of Minnesota
Assistant Professor of Business Education, 1949 (1953)
- E. W. HAMILTON, B.A., Tarkio College; M.A., State University of Iowa
Assistant Professor of Mathematics, 1949
- MRS. MARY WHEAT HANAWALT, B.A., Iowa State Teachers College;
M.A., Ph.D., State University of Iowa
Assistant Professor of English, 1949
- ALDEN B. HANSON, B.A., St. Olaf College; M.Ph., University of Wisconsin
Assistant Professor of English, 1946 (1949)
- ROSE L. HANSON, B.S., University of Nebraska; M.A., State University of Iowa
Assistant Professor of Teaching, 1920 (1934)
- WILLIAM P. HAPP, B.S., Northwestern University; M.S., Ph.D., State University of Iowa
Assistant Professor of Teaching, 1948
- BERNICE HELFF, B.A., State University of Iowa; M.A., Columbia University
Assistant Professor of Teaching, 1942 (1947)
- CLIFFORD H. HERROLD, B.A., Central Oklahoma State Teachers College; M.A., Colorado State College of Education
Assistant Professor of Art, 1947 (1953)
- MRS. MARJORIE B. HOLMBERG, B.S., Northwest Missouri State Teachers College; M.Ed., University of Missouri
Assistant Professor of Teaching, 1947 (1949)
- KARL M. HOLVIK, B.A., Concordia College; M.A., Eastman School of Music, University of Rochester; Ph.D., State University of Iowa
Assistant Professor of Wood-wind Instruments, 1947 (1953)
- MRS. KATHERINE HUMPHREY, B.S.C., M.A., State University of Iowa
Assistant Professor of Business Education, 1947 (1952)
- FLORENCE M. KASISKE, B.A., Illinois Wesleyan University; M.A., University of Illinois
Assistant Professor of Teaching, 1945 (1950)
- HOWARD T. KNUTSON, B.A., Luther College; M.A., Ed.D., University of Wyoming
Assistant Professor of Education, 1953
- WILLIAM P. LATHAM, B.Mus., M.M., College of Music of Cincinnati
Ph.D., Eastman School of Music, University of Rochester
Assistant Professor of Brass Instruments, 1947 (1950)
- RICHARD T. LATTIN, B.A., Iowa State Teachers College; M.A., Ph.D., State University of Iowa
Assistant Professor of Teaching, 1947 (1953)
- AGNES LEBEDA, B.A., Northwestern Oklahoma State College; M.S., Oklahoma Agricultural and Mechanical College
Assistant Professor of Business Education, 1953

- FRED W. LOTT, Jr., B.S., Cedarville, Ohio, College; M.A., University of Michigan
Assistant Professor of Mathematics, 1949
- E. L. MARIETTA, B.Ed., Southern Illinois Normal University; M.A., Ph.D., State University of Iowa
Assistant Professor of Business Education, 1949
- D. N. MARQUARDT, B.A., Grinnell College; M.S., Ph.D., State University of Iowa
Assistant Professor of Chemistry, 1949
- MRS. DOROTHY C. MATALA, B.A., Indiana Central College; M.A., Indiana University; Ph.D., Cornell University
Temporary Assistant Professor of Biology, 1946 (1947)
- RAYMOND E. MATALA, B.S., M.A., University of Minnesota
Assistant Professor of Industrial Arts, 1948 (1952)
- PETER M. MAZULA, B.S., Cortland, New York, State Teachers College; M.A., Columbia University
Assistant Professor of Teaching, 1949 (1953)
- ELEANOR McBRIDE, B.Ed., Illinois State Normal University; M.A., University of Illinois
Assistant Professor of Teaching, 1946 (1949)
- PHYLLIS McCARTHY, B.S., Northern South Dakota State Teachers College; M.A., State University of Iowa
Assistant Professor of Teaching, 1947 (1949)
- CLIFFORD G. McCOLLUM, B.S., in Ed., M.A., D.Ed., University of Missouri
Assistant Professor of Physical Science, 1949 (1950)
- LAURETTA G. McCUSKER, B.A., Western Maryland College; Library Certificate, Columbia University; M.S., Columbia University
Assistant Professor of Library Science, 1949 (1953)
- CARYL A. MIDDLETON, B.A., Iowa State Teachers College; M.A., State University of Iowa
Assistant Professor of Teaching, 1949
- JOHN W. MITCHELL, B.Sch.Mus., College of Wooster; M.Mus.Ed., Oberlin College
Assistant Professor of Music Education, 1946 (1949)
- MARDELLE L. MOHN, B.S., Bradley University; M.S., University of Wisconsin
Assistant Professor of Teaching, 1948 (1952)
- ALFRED C. MOON, B.S., M.S., University of Missouri
Assistant Professor of Teaching, 1948 (1952)
- DOROTHY L. MOON, B.Ed., Northern Illinois State Teachers College; M.A., Northwestern University
Assistant Professor of Physical Education for Women, 1946 (1950)
- HERMAN L. NELSON, B.A., Iowa State Teachers College; M.S., State University of Iowa; Ph.D., Clark University
Assistant Professor of Earth Science, 1949 (1952)
- ROSS A. NIELSEN, B.A., Wartburg College; M.S., State University of Iowa
Assistant Professor of Teaching, 1947 (1953)
- OLIVER M. NORDLY, B.A., Carlton College
Assistant Professor of Physical Education for Men, 1937 (1947)

- SAMUEL B. PEAVEY, B.A., State University of Iowa; M.A., Harvard University; Ed.D., Columbia University
Assistant Professor of Teaching, 1950 (1953)
- CECIL K. PHILLIPS, B.S., Southwest Missouri State Teachers College; M.Ed., University of Missouri
Assistant Professor of Teaching, 1948 (1953)
- JOE PRZYCHODZIN, B.Ed., Southern Illinois Normal University; M.S., University of Illinois; Ed.D., University of Missouri
Assistant Professor of Teaching, 1947 (1953)
- OSCAR E. REECE, B.S., Kansas State College; M.S., Ph.D., University of Minnesota
Assistant Professor of Agriculture, 1948
- GORDON J. RHUM, B.A., Iowa Wesleyan College; M.A., Ph.D., State University of Iowa
Assistant Professor of Education, 1948 (1949)
- EDWARD L. RUMAN, B.S., Southern State Teachers College, Springfield, South Dakota; M.A., Ed.D., Colorado State College of Education
Assistant Professor of Teaching, 1953
- MELVIN F. SCHNEIDER, B.Mus., M.A., University of Wisconsin
Assistant Professor of Teaching, 1945 (1949)
- DONALD R. SCOTT, B.A., Gettysburg College; M.A., Syracuse University; Ph.D., Cornell University
Assistant Professor of Rural Education, 1947
- MRS. EDNA ANDERSON SHORES, B.S., M.A., Columbia University
Temporary Assistant Professor of Home Economics, 1947 (1952)
- THELMA SHORT, B.S., M.A., Columbia University
Assistant Professor of Physical Education for Women, 1929 (1946)
- WRAY D. SILVEY, B.S., Central Missouri State College; M.Ed., D.Ed., University of Missouri
Assistant Professor of Education, 1950 (1952)
- OLIVER M. SKALBECK, B.A., St. Olaf College; M.A., State University of Iowa
Assistant Professor of Speech, 1949
- ERNESTINE SMITH, B.A., M.S., University of Michigan
Assistant Professor of Geography, 1936 (1943)
- FRANCIS ELIOT SMITH, B.A., University of Massachusetts; M.A., Ph.D., State University of Iowa
Assistant Professor of English, 1950 (1953)
- M. B. SMITH, B.S., Northern State Teachers College, Aberdeen, South Dakota; M.A., University of Minnesota
Assistant Professor of Speech, 1947 (1953)
- CLYDE L. STARBECK, B.S., South Dakota State College
Assistant Professor of Physical Education for Men, 1936 (1945)
- *WILLARD A. STARKEY, B.S., Southwest Missouri State College; M.Mus., Northwestern University
Assistant Professor of Instrumental Music, 1949

*On Leave.

- ROBERT E. STRAIN, B.A., Municipal University of Wichita; M.Ph., Ph.D., University of Wisconsin
Assistant Professor of Economics, 1947 (1953)
- MARGUIRETTE MAY STRUBLE, B.A., M.A., Ph.D., State University of Iowa
Assistant Professor of Teaching, 1935
- KARL A. SVENSON, B.A., University of Wyoming; M.A., Indiana University; Ph.D., State University of Iowa
Assistant Professor of Government, 1949
- E. CHARLES THENO, B.Ed., State College of Washington; M.Ed., University of Southern California; D.Ed., University of Oregon
Assistant Professor of Music Education, 1953
- HOWARD VANDER BEEK, B.A., State University of Iowa; M.A., Ed.D., Columbia University
Assistant Professor of Teaching, 1948 (1952)
- GRACE VAN NESS, B.A., Cornell College; M.A., Columbia University
Assistant Professor of Physical Education for Women, 1919 (1921)
- WILLIS H. WAGNER, B.S., Central Missouri State Teachers College; M.Ed., University of Missouri
Assistant Professor of Industrial Arts, 1945 (1947)
- LAWRENCE W. WHITFORD, B.A., Iowa State Teachers College; M.A., University of Michigan
Assistant Professor of Physical Education for Men, 1926 (1945)
- STANLEY WOOD, B.A., Iowa State Teachers College; M.A., Western Reserve University
Assistant Professor of Speech, 1946 (1948)
- BERTRAM L. WOODCOCK, B.S., Iowa State Teachers College; M.A., New York University
Assistant Professor of Safety Education and Director of Safety Ed., 1946 (1949)
- MILES V. ZINTZ, B.A., Iowa State Teachers College; M.A., Ph.D., State University of Iowa
Assistant Professor of Education, 1946 (1949)

Instructors

- ELLEN M. AAKVIK, B.Mus., M.Mus., Cincinnati Conservatory of Music
Instructor in Piano, 1948
- BLAKE D. ANDERSON, B.A., St. Olaf College; M.A., State University of Iowa
Temporary Instructor in Speech, 1952
- WAYNE O. AURAND, B.A., Iowa State Teachers College; M.Mus., University of Michigan
Instructor in Teaching, 1951
- BETTY JEAN BARNEY, B.P.S.M., Indiana University; M.Mus., Eastman School of Music, University of Rochester
Temporary Instructor in Violin, 1953
- MRS. MARY GREEN BECKMAN, B.Mus., Oberlin Conservatory of Music; M.Mus., Cleveland Institute of Music
Temporary Instructor in Theory and Harp, 1947

- MRS. FRANCES M. BERNARD, B.A., Iowa State Teachers College
Temporary Instructor in Physical Education for Women, 1953
- MRS. MILDRED R. BLACKMAN, B.S., Northwest Missouri State
Teachers College; M.Ed., University of Missouri
Instructor in Teaching, 1948
- *JOSEPH A. BOLINSKY, B.S., New Jersey State Teachers College;
M.A., Columbia University
Instructor in Art, 1949
- RICHARD R. BRADDOCK, B.A., Montclair, New Jersey, State Teachers
College; M.A., Columbia University
Instructor in English, 1948
- JOSEPHINE BRONCZYK, B.S., Duluth, Minnesota, State Teachers
College; M.A., University of Minnesota
Instructor in Teaching, 1952
- MRS. HELEN P. BROWN, B.S.E., M.S., University of Arkansas
Instructor in Teaching, 1952
- MRS. MABEL D. BROWN, B.A., Iowa State Teachers College
Temporary Instructor in Teaching, 1953
- JACK BURGNER, B.S., Eastern Illinois State College; M.A., Colorado
State College of Education
Instructor in Art, 1949
- MARY MARGARET BUSWELL, B.S., M.A., Ph.D., University of Min-
nesota
Instructor in Education, 1950
- MARY A. BUTTERWORTH, B.S., M.A., Texas State College for Women
Instructor in Physical Education for Women, 1953
- *WILLIAM W. CHASE, B.A., M.A., Colorado State College of Education
Instructor in Teaching, 1949
- WALTER B. COLEMAN, B.A., Swarthmore College; M.Mus., University
of Texas
Temporary Instructor in Flute and Cello, 1953
- *ELINOR ANN CRAWFORD, B.A., M.A., University of California
Instructor in Physical Education for Women, 1949
- MORRIS H. CRAWFORD, Undergraduate and M.A., University of
Chicago
Instructor in Economics, 1953
- EDMUND D. CROSBY, B.A., Western Michigan College of Education;
M.A., Colorado State College
Instructor in Industrial Arts, 1947
- WILLIAM P. DALEY, B.S., Massachusetts School of Art; M.A., Colum-
bia University
Instructor in Art, 1951
- DAVID D. DELAFIELD, B.F.A., M.A., Ph.D., Ohio State University
Instructor in Art, 1951
- BETTY ANN DIAL, B.S., Texas State College for Women
Temporary Instructor in Physical Education for Women, 1953
- DAVID F. DRIESBACH, B.F.A., M.F.A., State University of Iowa
Instructor in Art, 1953

*On Leave.

- ARDITH L. EMMONS, B.A., Penn College; M.A., Mills College
Instructor in Teaching, 1952
- EDITH E. ENNIS, B.S.C., M.A., State University of Iowa
Instructor in Teaching, 1951
- EARL C. FLOYD, B.S., M.A., Ball State Teachers College
Instructor in Teaching, 1949
- LAURA K. GILLOLEY, B.S., M.A., University of Minnesota
Instructor in Teaching, 1950
- KENNETH G. GOGEL, B.S., M.A., Ohio State University
Instructor in Teaching, 1950
- WALTER J. GOHMAN, B.A., St. Cloud, Minn. State Teachers College;
M.A., University of Minnesota
Instructor in Teaching, 1951
- MRS. LETA NORRIS HARMON, B.S., Oklahoma Central State College;
M.Ed., University of Oklahoma
Instructor in Teaching, 1950
- FRANK C. HARTWELL, B.S., Northern Illinois State Teachers College;
M.A., Colorado State College of Education
Instructor in Teaching, 1948
- JAMES S. HEARST
Visiting Instructor in Creative Writing, 1941
- CLARK L. HEIPLE, B.A., Iowa State Teachers College; M.A., New
Mexico Highlands University
Instructor in Teaching, 1953
- MRS. CLEOBELL HEIPLE, B.A., Iowa State Teachers College; M.A.,
New Mexico Highlands University
Temporary Instructor in Teaching, 1953
- GERALDINE HENDERSON, B.A., University of Oklahoma
Temporary Instructor in Teaching, 1952
- DONALD R. HERRICK, B.S., M.S., University of Illinois
Instructor in Teaching, 1953
- MRS. CAROLYN W. HOFFMAN, B.A., Iowa State Teachers College
Temporary Instructor in Teaching, 1953
- MRS. OLIVE J. HOLLIDAY, B.A., Iowa State Teachers College; M.A.,
University of Illinois
Instructor in Home Economics, 1949
- MAX M. HOSIER, B.A., Peru, Nebraska, State Teachers College; M.A.,
Colorado State College of Education
Instructor in Teaching, 1951
- RUTH HUTCHESON, B.A., Peru, Nebraska, State Teachers College;
M.A., Colorado State College of Education
Instructor in Teaching, 1953
- MARY ANN JACKSON, B.S., M.S., University of Arkansas
Instructor in Teaching, 1953
- PRISCILLA A. JACOBS, B.S., M.S., University of Illinois
Temporary Instructor in Teaching, 1953
- ROSS JEWELL, B.A., Wabash College; M.A., University of Indiana
Instructor in English, 1951

- WILLIAM B. KADOW, B.A., M.A., University of Arkansas
Instructor in Teaching, 1953
- DAVID E. KENNEDY, B.Mus., M.Mus., Eastman School of Music, University of Rochester
Instructor in Brass Instruments and Theory, 1948
- WILLIAM H. KOLL, B.A., Iowa State Teachers College; M.A., Northwestern University
Instructor in Physical Education for Men, 1952
- ALBERT L. LEELAND, B.A., M.A., Colorado State College of Education; Ed.D., Columbia University
Instructor in Teaching, 1951
- HERBERT L. LYNCH, B.S., M.Ed., University of Nebraska
Instructor in Teaching, 1951
- WILLIAM K. MACY, B.A., Walla Walla College; M.Mus., Westminster College
Temporary Instructor in Music, 1953
- MRS. ALICE D. MADORE, B.E., Oswego, New York, State Teachers College; M.E., New York University
Temporary Instructor in Teaching, 1953
- NORMAND W. MADORE, B.E., Plymouth, N. H., Teachers College; M.S., Indiana University
Instructor in Teaching, 1953
- WILLIAM O. MARICLE, B.Ed., Southern Illinois Normal University; M.A., University of Illinois
Instructor in Teaching, 1949
- R. JANE MAUCK, B.Mus., M.Mus., Drake University
Instructor in Voice, 1946
- EDWIN J. MAURER, JR., B.A., State University of Iowa; M.A., University of Chicago
Instructor in English, 1948
- MRS. JYONE L. MAXWELL, B.A., Iowa State Teachers College; M.Mus., American Conservatory of Music
Temporary Instructor in Piano, 1948
- MRS. ADA McLEOD, B.A., Iowa State Teachers College; B.S., in Library Science, Columbia University
Instructor in Library Science, 1949
- DELLA McMAHON, B.S., Eau Claire, Wisconsin, State Teachers College, M.S., University of Wisconsin
Instructor in Teaching, 1949
- LEONA BELLE MEECE, B.S., M.S., University of Illinois
Instructor in Business Education, 1948
- F. ELEANOR MERRITT, B.A., Iowa State Teachers College; M.A., George Peabody College for Teachers
Instructor Curriculum Laboratory Consultant, 1951
- FRANCES PAULINE MILLER, B.S., M.Ed., University of Nebraska
Instructor in Teaching, 1952

- *VERNON N. MORK, B.S., University of North Dakota; M.A. University of Minnesota
Instructor in Teaching, 1949
- CARMEN O. NESS, B.A., Buena Vista College; M.A., State University of Iowa
Instructor in Teaching, 1953
- ROBERTA NOE, B.S., M.Ed., University of Missouri
Instructor in Teaching, 1952
- ROBERT J. ORR, B.S., M.S., Indiana University
Instructor in Teaching, 1952
- JOHN R. PARISHO, B.S., Drake University; M.Ed., University of Colorado
Instructor in Teaching, 1950
- ROBERT L. PAULSON, B.S., M.A., State University of Iowa
Temporary Instructor and Specialist in Audio-Visual Education, 1953
- LYMAN C. PECK, B.S., Yale University; M.S., University of Chicago; Ph.D., Ohio State University
Instructor in Mathematics, 1952
- ALBERT A. POTTER, B.A., Chadron, Nebraska, State Teachers College; M.A., State University of Iowa
Instructor in Teaching, 1946
- DONALD C. RATHE, B.Ed., St. Cloud, Minnesota, State Teachers College; M.A., State University of Iowa
Instructor in Teaching, 1951
- ARTHUR L. REDNER, B.S., Mansfield, Pa., State Teachers College; M.Mus., University of Michigan
Instructor in Music Education, 1952
- BETTS ANN ROTH, B.S., George Peabody College for Teachers; M.A., Columbia University
Instructor in Teaching, 1951
- GEORGE W. SAMSON, Iowa State Teachers College
Instructor in Organ and Piano, 1916
- *PAULINE SAUER, B.Ed., Chicago Teachers College; M.A., University of Michigan
Instructor in Biology, 1949
- LOUIS O. SCHILDER, B.A., M.A., State University of Iowa
Instructor in Teaching, 1948
- MARY MARGARET SCHMITT, B.A., Iowa State Teachers College; M.Ed., University of Minnesota
Instructor in Teaching, 1946
- MRS. MELVIN F. SCHNEIDER, B.Mus., North Central College
Temporary Instructor in Teaching, 1947
- BARBARA E. SCHNELLE, B.S., M.A., Ball State Teachers College
Instructor in Teaching, 1950
- MARSHALL SCHOOLS, B.S., Mary Washington College; M.A., George Peabody College
Instructor in Teaching, 1949

*On Leave.

- MAE AVIS SCHULTZ, B.A., Iowa Wesleyan College; M.A., State University of Iowa
Instructor in Teaching, 1952
- AUGUSTA L. SCHURRER, B.A., Hunter College; M.A., Ph.D., University of Wisconsin
Instructor in Mathematics, 1950
- HELEN SCHWEIZER, B.A., University of Colorado; M.A., Ohio State University
Instructor in Teaching, 1952
- DAVIS A. SCOTT, B.A., Grinnell College; M.A., Indiana University
Temporary Instructor in Teaching, 1953
- MRS. HAZEL M. SCOTT, B.A., Albion, Michigan, College; M. A. Michigan State College
Temporary Instructor in Teaching, 1953
- JERRY A SHANNON, JR., B.S., Mansfield, Pennsylvania, State Teachers College; M.A., George Peabody College
Temporary Instructor in Science, 1953
- *LOIS E. SHEFTE, B.A., Yankton College; M.A., State University of Iowa
Instructor in Teaching, 1950
- GENE D. SHEPHERD, B.A., Oklahoma City University; M.Ed., University of Oklahoma
Instructor in Teaching, 1953
- PAUL R. SMITH, B.S., Kansas State Teachers College; M.F.A., State University of Iowa
Instructor in Art, 1951
- EARL W. STEININGER, B.A., M.S., University of Illinois
Instructor in Teaching, 1950
- LLOYD J. STOKSTAD, B.S., M.S., University of Wisconsin
Instructor in Teaching, 1948
- ANNICE STRONG, B.E., Western Illinois State Teachers College; M.A., State University of Iowa
Temporary Instructor in Teaching, 1952
- BETTY SWANSON, B.S., University of Minnesota; M.S., University of Southern California
Instructor in Physical Education for Women, 1949
- THOMAS H. THOMPSON, B.A., M.A., Ph.D., State University of Iowa
Instructor in Philosophy, 1952
- LEONARD Y. TRIPP, B.S., Fredonia, New York, State Teachers College; M.A., University of Wyoming
Instructor in Teaching, 1951
- MRS. WAVA L. VINEYARD, B.S., St. Cloud, Minnesota, State Teachers College; M.Mus., Northwestern University
Temporary Instructor in Teaching, 1953
- MARGUERITE M. VODICKA, B.S., Northeast Missouri State Teachers College; M.A., Colorado State College of Education
Instructor in Teaching, 1951

*On Leave.

- ROBERT A. von NEUMANN, B.F.A., School of the Art Institute of Chicago; M.S., University of Wisconsin
Instructor in Art, 1950
- *JAMES R. WAILES, B.A., M.A., Colorado State College of Education
Instructor in Teaching, 1949
- *WILLIAM J. WALSH, JR., B.A., M.A., State University of Iowa
Instructor in Teaching, 1948
- MILDRED M. WALTER, B.Ed., Oshkosh, Wisconsin, State Teachers College; M.Ph., University of Wisconsin
Instructor in Teaching, 1953
- HAROLD H. WEBER, B.F.A., University of South Dakota; M.M.E., Drake University
Instructor in Teaching, 1953
- DOROTHY E. WINEKE, B.S., M.S., University of Wisconsin
Instructor in Teaching, 1949
- JAMES E. WINKLEMAN, B.S., M.S., Southern Illinois University
Instructor in Teaching, 1953
- W. DEAN WINTERS, B.A., University of Colorado
Temporary Instructor in Teaching, 1950
- LAWRENCE S. WRIGHT, B.S., M.S., Stout Institute
Instructor in Industrial Arts, 1949
- BARBARA YAGER, B.S., M.A., Ohio State University
Instructor in Physical Education for Women, 1949
- NINA MARY YEAGER, B.S., Central Missouri State College; M.Ed., University of Missouri
Instructor in Teaching, 1947
-

OTHER OFFICERS AND ASSISTANTS

Librarians

- DONALD O. ROD, B.A., Luther College; B.A. in Library Science, University of Michigan
Associate Professor of Library Science and Head Librarian, 1953
- EVELYN J. MULLINS, B.A., Grinnell College; B.S., Columbia University
Order Librarian, 1930 (1948)
- IRENE A. EHRESMAN, B.A., Carleton College; Library Certificate, University of Wisconsin
Periodicals and Binding Librarian, 1926
- CLARA E. CAMPBELL, B.A., Irving College; B.S., Carnegie Institute of Technology; M.S., Columbia University
Campus School Librarian, 1937 (1952)
- MARY DIETERICH, B.A., Grinnell College; B.S., Columbia University
Reference Librarian, 1930 (1946)
- MARGARET G. FULLERTON, B.A., Iowa State Teachers College; M.A., Columbia University; B.S., in Library Science, Columbia University
Head Cataloguer, 1947

*On Leave.

LAURETTA G. McCUSKER, B.A., Western Maryland College; Library Certificate, Columbia University; M.S., Columbia University Assistant Professor in Library Science, 1948 (1953)

MRS. ADA McLEOD, B.A., Iowa State Teachers College; B.S., in Library Science, Columbia University Instructor in Library Science, 1949

RICHARD W. JOHNSON, B.A., State University of Iowa; M.S., Columbia University Circulation Librarian, 1953

MRS. GRACE W. DOUGLAS, B.A., State University of Iowa Assistant Librarian, Catalogue Department, 1949

Special Assistants in Public Relations

JIMMIE CLARK, B.A., University of Nebraska Sports Assistant, Bureau of Public Relations, 1953

MARY CONLEY, B.S., University of Omaha Information Assistant, Bureau of Public Relations, 1953

The Commons

MARGARET FITZGERALD, B.S., Iowa State Teachers College; M.A., Columbia University Director of Foods, 1945 (1949)

BETTY ROWLEY, B.A., Cornell College Director of Social Life, 1952

Bartlett Hall for Women

MARGARET SUE LUND, B.A., Iowa State Teachers College; M.A., University of Wisconsin Personnel Director, 1946

COLLETTE LAKE, B.A., Iowa State Teachers College Assistant Director, 1953

DORIS H. GREENWOOD, R.N. Nurse, 1953

Lawther Hall for Women

ELIZABETH A. CLARKE, B.A., Mt. Holyoke College; M.A., Columbia University Personnel Director, 1951

LUCILLE CASWELL, B.Ed., University of Colorado; M.A., State University of Iowa; R.N. Nurse, 1953

Campbell Hall for Women

JEAN HINDS, B.S., Rockford College; M.A., Columbia University Personnel Director, 1951

LUCILLE CASWELL, B.Ed., University of Colorado; M.A., State University of Iowa; R.N. Nurse, 1953

The George T. Baker Hall for Men**MRS. MARY JUNE McNAMAR**

Director, 1950

The Homer H. Seerley Hall for Men**ROBERT E. McCUE, B.A., Iowa State Teachers College**

Director, 1953

Stadium Hall for Men**CLINTON DUANE WOLF, B.A., Iowa State Teachers College**

Director, 1953

Hospital Service**MAUDE E. HAINES, R.N.**

Supervisor, 1942

JESSIE JOYCE, R.N.

Nurse, 1934

ROSE ANN McDONOUGH, R.N.

Nurse, 1947

LUCILLE CASWELL, R.N.

Nurse, 1953

DORIS H. GREENWOOD, R.N.

Nurse, 1953

CATHRYN WEBER, R.N.

Nurse, 1953

MRS. KATHLEEN FOWLER, R.N.

Nurse, 1953

I. Faculty Committees

(Chairman's name first)

Curricula

Dean of the Faculty

Daryl Pendergraft

C. W. Lantz

Clifford Bishop

James Blanford

James R. Clark

M. R. Beard, secretary

Clifford L. Bishop

Henry Van Engen

M. R. Thompson

Marshall R. Beard

Daryl Pendergraft, secretary

Evaluation

Jean Bontz

Harry Guillaume

Corinne Harper

Tom Lamke

Daryl Pendergraft

Lyman Harris

E. L. Marietta

Graduate Council (Elected)

M. J. Nelson

C. W. Lantz

Myron Russell

Dwight K. Curtis

Instructional Load

Clifford McCollum
Irvin Brune
Walter Ditzler

Independent Study

John Cowley
Willard J. Poppy
Fred Lott

Admissions and Professional Screening

Dean of the Faculty
Dean of Students
Associate Dean of Students
Coordinator of Student Counseling
Registrar
The student's adviser

Committees (Elected)

Malcolm Price
William Lang
Paul Brimm

Professional Publications

E. L. Ritter
Guy Wagner
Mary Dieterich
Wallace L. Anderson
Mrs. Dorothy Matala
Director of Public Relations
Director of Research

Educational Policies Commission (Elected)

Lillian Wagner
Gordon Rhum
Bernice Helff
Daryl Pendergraft
Harold Trimble
Jean Bontz
Margaret Buswell
Mrs. Dorothy Matala
Jack Burgner
Dorothy Koehring

Faculty Personnel Administration (Elected)

James Blanford
Mary Dieterich
Myron Wilcox
Clifford L. Bishop
Donald Howard
Cecil Phillips
Henry Van Engen

Retirement Annuities

M. J. Wilcox
Louis Bultena
W. H. Wagner
Business Manager

Faculty Programs

Corinne Harper
Ralph R. Fahrney
Clayton Fowler

Conferences

E. L. Ritter
C. W. Lantz
L. V. Douglas
Clifford L. Bishop
M. R. Thompson

North Central Association Study

Oscar E. Thompson
Harry G. Guillaume
Clifford L. Bishop
James Blanford
Myron E. Russell

Student Welfare

Dean of Students
Associate Dean of Students
May Smith
H. A. Riebe
Harold E. Bernhard

Student Loan Fund

Frank W. Hill
 Thelma Short
 Dean of Students
 Associate Dean of Students
 Business Manager

Athletic Board

R. R. Fahrney
 Paul C. Kelso
 William P. Happ
 Alden B. Hanson
 James W. Kercheval
 H. A. Riebe
 Business Manager
 Director of Athletics, Secretary

Convocations and Commencements

Frank W. Hill
 Paul F. Bender
 M. R. Beard
 Harold E. Bernhard
 Philip Jennings
 Oscar E. Thompson
 Mrs. Katherine Humphrey

Board in Control of Student Publications

George H. Holmes
 H. Earl Rath
 James L. Bailey
 Paul Smith
 5 students
 Maxine Hull, Pres.
 Chas. Ball
 Armand Baker, Secy.
 Jim Heskett

**Jane Clark
Recreation Park**

L. L. Mendenhall
 E. C. Denny
 Oliver M. Nordly

Jean Bontz
 Dorothy Moon

Board of Health

Health Director
 Dean of the Faculty
 Dean of Students
 Associate Dean of Students
 Registrar
 Jean Bontz
 L. L. Mendenhall
 Paul C. Kelso

Traffic and Safety

Bertram Woodcock
 Peter Mazula
 Philip Jennings
 Paul F. Bender
 M. B. Smith
 E. L. Ritter
 E. E. Cole
 2 students (one from Sunset Village)
 David Turner
 Sheila Flinn

Exhibits (State Fair and ISEA)

George H. Holmes
 Clifford L. Bishop
 W. H. Wagner
 Donald Kelly
 Robert Paulson
 Oscar E. Thompson
 Herbert Hake
 2 students chosen by the Student League Board

Lecture and Concert

Herbert Hake
 Stanley Wood
 Donald Kelly
 Julia Bailey
 3 students chosen by the Student League Board
 Shirley Mahannah
 Jim Maltby
 Elaine Hofstad

Homecoming

Raymond Schlicher

Clifford Herrold

Mrs. Mary Hanawalt

Donald Kelly

5 students chosen by the Stu-

dent League Board

Joan Nordly, Chm.

Beverly Howell

Jane Clark

Carlyle Davidson

Kenneth Rowe

Dad's DayStudent committee advised by
the Dean of Students**Mother's Day**Student Committee advised by
the Associate Dean of Stu-
dents**II. Excusing Officers**

- A. For late enrollment or withdrawal before the end of a quarter
Dean of the Faculty, M. J. Nelson
- B. For other absences
Men—Dean of Students, Paul F. Bender
Women—Associate Dean of Students, Marian McBrair

III. Student Counselors

Coordinator of Student Counseling, Paul C. Kelso

A. For students on the Two-Year Plan

Rebecca Baker

Esther Boehlje

Mary Leah Bouldin

Jack Burgner

William Dreier

Esther Hult

D. N. Marquardt

Edwin J. Maurer

Clifford McCollum

Arthur L. Redner

Gordon Rhum

Augusta Schurrer

Thelma Short

May Smith

Julia Sparrow

Robert Strain

B. For freshman students on Four-Year Curricula

Charles Allegre

Louis Bultena

Alden Hanson

Mrs. Olive Holliday

Donald Howard

Mrs. Katherine Humphrey

William Koll

William Latham

Agnes Lebeda

Fred W. Lott

Raymond Matala

Robert von Neumann

Lawrence Wright

Barbara Yager

C. For other studentsThe head of the department in which the student's major
work is offered will assign the counselor.

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