

1-1966

College Catalog 1966-1968

State College of Iowa

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1966-68 CATALOG ISSUE
BULLETIN

State College of Iowa Bulletin

College Catalog 1966-1968

Effective Summer Session

1966

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of August 24, 1912.

Vol. LXVII, No. 1, January 1966

CONTENTS

	Page
College Calendar	4-5
The College and Its Program	6
College Terminology	8
Questions and Answers	11
Steps in Preparing for Admission	13
General Information	15
Student Residence	15
Employment	17
Scholarships	19
Extracurricular Activities	21
Special Services	25
Extension Service	30
College Policies	32
Admission Procedures	32
Enrollment and Registration	41
Fees Schedule	41
Curricula	49
Undergraduate Curricula	53
Curriculum Adjustments for Transfer Students	63
Requirements for Graduation	64
Teaching Certificates	67
Courses of Instruction	69
The Graduate Program	131
Assistantships	134
Master of Arts in Education Degree	135
Master of Arts Degree	146
Specialist in Education Degree	162
State Board of Regents	170
Administrative Staff	171
Emeritus Faculty	174
Instructional Staff	176
Committees	193
Index	197

CALENDAR

1966-1967

Summer Session 1966

- June 13 Mon. Registration for 8-week and 11-week sessions, 8:00 a.m. to 4:00 p.m.
- June 14 Tue. Instruction begins for 8-week and 11-week sessions, 7:30 a.m.
- July 4 Mon. Legal holiday
- Aug. 5 Fri. Commencement
- Aug. 5 Fri. 8-week session ends, 5:00 p.m.
- Aug. 26 Fri. 11-week session ends, 5:00 p.m.

Fall Semester 1966-67

- Sept. 7-9 Wed.-Fri. Orientation and Registration, 8:00 a.m. to 4:00 p.m.
- Sept. 12 Mon. Instruction begins, 8:00 a.m.
- Nov. 5 Sat. End of first half-semester, 12:00 noon
- Nov. 23 Wed. Thanksgiving vacation begins, 12:00 noon
- Nov. 28 Mon. Instruction resumes, 8:00 a.m.
- Dec. 20 Tue. Christmas vacation begins, 12:00 noon
- Jan. 3 Tue. Instruction resumes, 8:00 a.m.
- Jan. 17-24 Tue.-Tue. Final examinations
- Jan. 25 Wed. Semester ends, 5:00 p.m.

Spring Semester 1967

- Jan. 30 Mon. Registration, 8:00 a.m. to 4:00 p.m.
- Jan. 31 Tue. Instruction begins, 8:00 a.m.
- Mar. 25 Sat. End of first half-semester, 12:00 noon
- Mar. 25 Sat. Spring vacation begins, 12:00 noon
- Apr. 3 Mon. Instruction resumes, 8:00 a.m.
- May 24-
June 1 Wed.-Thu. Final examinations
- June 2 Fri. Commencement
- June 2 Fri. Semester ends, 5:00 p.m.

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CALENDAR

1967-1968

Summer Session 1967

- June 12 Mon. Registration for 8-week and 11-week sessions, 8:00 a.m. to 4:00 p.m.
- June 13 Tue. Instruction begins, 7:30 a.m.
- July 4 Tue. Legal holiday
- Aug. 4 Fri. Commencement
- Aug. 4 Fri. 8-week session ends, 5:00 p.m.
- Aug. 25 Fri. 11-week session ends, 5:00 p.m.

Fall Semester 1967-68

- Sept. 6-8 Wed.-Fri. Orientation and Registration, 8:00 a.m. to 4:00 p.m.
- Sept. 11 Mon. Instruction begins, 8:00 a.m.
- Nov. 4 Sat. End of first half-semester, 12:00 noon
- Nov. 22 Wed. Thanksgiving vacation begins, 12:00 noon
- Nov. 27 Mon. Instruction resumes, 8:00 a.m.
- Dec. 19 Tue. Christmas vacation begins, 12 noon
- Jan. 3 Wed. Instruction resumes, 8:00 a.m.
- Jan. 16-23 Tue.-Tue. Final examinations
- Jan. 24 Wed. Semester ends, 5:00 p.m.

Spring Semester 1968

- Jan. 29 Mon. Registration, 8:00 a.m. to 4:00 p.m.
- Jan. 30 Tue. Instruction begins, 8:00 a.m.
- Mar. 23 Sat. End of first half-semester, 12:00 noon
- Mar. 23 Sat. Spring vacation begins, 12:00 noon
- Apr. 1 Mon. Instruction resumes, 8:00 a.m.
- May 22-29 Wed.-Wed. Final examinations
- May 31 Fri. Commencement
- May 31 Fri. Semester ends, 5:00 p.m.

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The College and Its Program

STATE COLLEGE of Iowa is a member of the American Association of Colleges for Teacher Education (AACTE), and is fully accredited through the master's degrees and the sixth-year Specialist in Education degree by the North Central Association of Colleges and Secondary Schools (NCA) and by the National Council for Accreditation of Teacher Education (NCATE). The college is also accredited by the National Association of Schools of Music.

Created by act of the Iowa General Assembly, the institution opened on September 6, 1876, in Central Hall which was destroyed by fire on July 22, 1965. This structure 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 embraces more than thirty principal buildings, a 570-acre campus, a faculty numbering about 400, and a student body of approximately 7,000. Originally named Iowa State Normal School, the institution was renamed Iowa State Teachers College in 1909. Under that name the college attained a national reputation as a leading institution in the field of teacher education. On July 5, 1961, by enactment of the Iowa General Assembly on the recommendation of the State Board of Regents, the name of the college was changed to State College of Iowa and its function redefined as follows:

The primary responsibility of the college shall be the preparation of teachers and other educational personnel for schools, colleges, and universities, and the provision of consultative and other services, including experimentation with instructional content, method, and materials, for the improvement of the educational programs of schools of the state.

The college may also offer programs of instruction in the liberal and vocational arts and such other educational programs as the State Board of Regents may from time to time approve.

Although teacher education remains the chief function of the college, it is now permitted to offer degrees to students who do not plan to teach. Thus the college can make its facilities available more widely and be of greater service to the state. State College of Iowa has two programs leading to the Bachelor of Arts degree, one with certification to teach and one without certification. On the graduate level, it offers the Master of Arts degree, the Master of Arts in Education degree, and the Specialist in Education degree.

Together with the University of Iowa and Iowa State University of Science and Technology, the State College of Iowa is governed by the State Board of Regents.

To Our Future Students

TO ONE unfamiliar with college programs and college terms, a college catalog may at first be somewhat hard to understand and difficult to use. The pages immediately following have been designed to orient you and to provide information that you will need to know at the outset.

Immediately below is a section dealing with COLLEGE TERMINOLOGY, which explains the meaning of terms you will frequently use. It is followed by a list of questions most frequently asked by students and THE ANSWERS to those questions. Next appears a listing of the STEPS IN PREPARING FOR ADMISSION.

College Terminology

THE MEANING OF TERMS FREQUENTLY USED AT THE STATE COLLEGE OF IOWA.

- Adviser, advisee— Your adviser or counselor is the instructor assigned by the college to help you with your problems. You are called his advisee.
- Audit— To take a course without credit (See Visitor). A course audited can never be used for credit.
- Certificate— A document, issued by the Iowa State Department of Public Instruction, Division of Teacher Education and Certification, which states that you are qualified to teach and what you may teach. See pp. 67-68.
- Course— A particular subject being studied—for example, a course in English.
- Credit— The numerical reward you receive for completing a college course. It is described in semester hours. The freshman student will ordinarily register for sixteen or seventeen hours of class work. A total of 130 hours of credit is required to graduate with a B.A. degree with certification to teach; a total of 124 hours is required for the B.A. degree without certification.

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 a required course which you must take.
Emphasis—	A concentration of work in an area not officially declared as your minor field. For example, a student whose major is Social Science—Teaching, may not minor in a social science field. He may, however, complete 20 or more hours in either history or political science, or economics and sociology and have that emphasis indicated on his permanent record. (See Major and Minor.)
Extracurricular—	Those activities which are part of student life but are not part of the course of study. Debate, dramatics, and athletics are extracurricular activities. See pp. 21-25.
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. See pp. 41-43.
General Education—	The knowledge, skills, appreciations, and attitudes that any well-educated person should possess. More than one-third of the work required for graduation consists of general education courses which are required of all students. See pp. 53-54.
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 figure your grade-point index, divide the total number of grade points by the total number of credit hours attempted.

- Graduate Study—** Work beyond the bachelor's degree, usually toward a master's or doctor's degree.
- I.D. Card—** Student identification card.
- Load—** The total hours for which you are registered. The normal undergraduate load is 16 or 17 hours.
- 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 choose to specialize in two such subjects, you will have a double major.
- Matriculation—** The act of enrolling for the first time as a student at the college.
- Minor—** 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—** The preliminary requirement which must be met before a certain course can be taken. Thus, Composition I is a prerequisite to all other courses in English and must be successfully completed before other English courses are taken.
- Probation—** A status of trial for a student whose work or conduct is unsatisfactory. See p. 46.
- Registration—** The act of enrolling in classes, usually at the beginning of a semester. This involves choosing your classes with the help of your adviser. See pp. 41-43.
- 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 semester. Your schedule is your program of studies.

- Undergraduate— A student who has not yet obtained the bachelor's degree.
- Visitor— One who is enrolled in a course without credit. (See Audit.)

Questions and Answers

SHOULD I ATTEND THE STATE COLLEGE OF IOWA?

If you want what the college offers. It offers two programs leading to the Bachelor of Arts degree, one with certification to teach and one without certification. The teaching program prepares elementary, junior high, and secondary school teachers; teachers of special subjects; and school librarians. The B.A. without certification offers liberal arts, vocational, and pre-professional programs. See pp. 55-63. Other factors which might affect your decision—cost, opportunities for self-support, social life, etc.—are discussed below.

WHAT DOES IT COST?

The over-all cost for undergraduate students who are residents of Iowa is approximately \$1,142—\$1,156 for the academic year:

Basic fee		\$ 342*
Board and room	\$ 700	— \$ 714
Books and supplies		\$ 100
	<hr/>	<hr/>
	\$1142	\$1156

* Non-residents are charged an additional \$300 basic fee.

This does not include fees for applied music nor for the summer session. For a full statement of fees, see pp. 42-43.

ARE SCHOLARSHIPS AVAILABLE?

Yes. See pp. 19-21.

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 per cent of the men students and 20 per cent 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.

MUST A STUDENT HAVE A BACHELOR'S DEGREE TO BE ABLE TO TEACH?

Yes.

CAN A STUDENT ENROLL FOR THE FIRST TIME DURING THE SPRING SEMESTER OR SUMMER SESSION?

Yes.

WHAT IS THE DIFFERENCE BETWEEN QUARTER AND SEMESTER HOURS OF CREDIT?

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. Since the summer of 1957, the college has operated on the semester plan.

WHERE MAY TEXTBOOKS BE SELECTED?

Students are required to provide their own textbooks. Ordinarily the cost of these books will be \$40 to \$45 a semester. College Store, Inc., 1009 West 23rd Street, located just across from the campus, sells both new and used books.

A correspondence student may order his textbooks by mail from the above firm.

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 Public Instruction and are subject to change by this body at any time. The Division of Teacher Education and Certification 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 Registrar of the college or from

Department of Public Instruction
Division of Teacher Education and Certification
State Office Building
Des Moines, Iowa 50309

Steps in Preparing for Admission

1. APPLICATION FOR ADMISSION

Fill in form below and mail to the REGISTRAR.
See pp. 32-33 and pp. 132-133.

2. TRANSCRIPTS

Have your high school principal send a Certificate of High School Credits to the REGISTRAR. If you have attended another college, have an official transcript of your college record sent to the REGISTRAR.

3. ROOM RESERVATIONS

Send room contract and housing card with your application for admission.

1966-68

STATE COLLEGE OF IOWA
CEDAR FALLS, IOWA

C
H
E
C
K

Mr.

Date....., 196..

Mrs.

Name Miss

Street and No. or RFD.....

City.....

County.....

State.....

I am considering entering State College of Iowa

() FALL semester () SPRING semester () Summer

Please send me:

An application for admission to undergraduate study... ()

An application for admission to graduate study..... ()

A Graduate Bulletin (issued only in alternate years)... ()

I would like additional information concerning.....

Steps in Preparing for
Admission

First Class
Permit No. 29
Cedar Falls, Iowa

BUSINESS REPLY CARD
No Postage Required if Mailed in United States

POSTAGE WILL BE PAID BY—

STATE COLLEGE OF IOWA
CEDAR FALLS
IOWA 50613

Office of the Registrar



General Information



Student Residence

WOMEN—All undergraduate women students who do not live in their own homes with their parents or legal guardians or husbands must live in college residence halls. All special permissions to work for board and room in private homes, to live with relatives other than those named above, or to live in approved housing, must be secured from the Office of Student Personnel before registration day.

MEN—All single men who are less than 21 years old and who do not live at the home of their parents or guardian must live in a college residence hall during their freshman year. Single men students of sophomore standing or higher who are less than 21 are required to live at home, with close relatives, in college residence halls, or in college-approved off-campus housing. Exceptions to these requirements may be approved for good reason by the Office of Student Personnel prior to the beginning of any semester.

APPLICATIONS FOR ROOMS IN RESIDENCE HALLS—The application for a room reservation must be submitted with a contract for accommodations in one of the residence halls. A deposit fee of \$30 must accompany the application. If an applicant for whom a room has been reserved finds it necessary to cancel the contract, the deposit fee is refunded if the cancellation reaches the Office of Student Personnel on or before the dates stated in the contract.

In the assignment of residence hall rooms, an effort is made to give room preferences of returning students prior consideration. Definite assignments for new students are made only after they have been admitted to the college. Notices of assignment are mailed before the opening of a semester.

All applicants must recognize that capacity of the residence halls has been extended beyond their intended occupancy to accommodate increased enrollment.

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 semester or summer session. If a reserved room is not occupied by the opening day of classes and arrangements have not been made for later occupancy, the reservation may be cancelled by the college.

RATES AND PAYMENT—Occupants of the residence halls pay a fee which includes both board and room, ranging from \$700 to \$714 for the academic year, depending on the dormitory in which the student lives. For specific details see p. 42. The entire fee may be paid on registration day at the beginning of the fall semester or in proportional amounts at the beginning of each semester or summer session. The combined cost of board and room in the college residence halls during the 8-week summer session is \$176; for the 11-week session, \$242. These rates are subject to change.

If the contract is terminated before the expiration date, the plan of refunding as stated in the contract will be applied but the student will not be relieved of any financial liabilities incurred prior to the date of termination.

Women's Residence Halls

The women's residence halls have been extended beyond normal capacity to accommodate increased student enrollment. All are equipped with such facilities as study rooms, shampoo rooms, pressing rooms, and recreational rooms as well as attractive lounges, music rooms, and libraries. Individual student rooms are furnished with lavatory, comfortable beds and mattresses, dresser or chest, study desk and chair.

Bartlett, Campbell, Hagemann and Lawther Halls house women students of all classifications. Freshmen are placed in special units within the halls and an upperclass counselor lives with them.

Men's Residence Halls

Each of the residence halls for men, in addition to its student rooms, contains lounges, study rooms, recreation areas, laundry rooms, and other facilities for the comfort and convenience of its occupants.

Baker, Rider, and Shull Halls provide accommodations for between 316 and 420 men per hall. A new residence hall is expected to be available for occupancy in the fall of 1966 and another in the fall of 1967.

Accommodations for Married Students

A limited number of housing facilities for married students are available. Students with children are given priority in making assignments, but applications are accepted and assignments are made to students without children. If interested, write to the Office of Student Personnel for details and application blanks.

Accredited Rooming Houses

A list of accredited rooming houses for men students will be furnished upon request, after the student has been admitted to the college. 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.

The Commons

THE COMMONS houses recreational facilities as well as the central food service department. Included in these facilities are the ballroom, student lounge, faculty lounges, and club rooms. These rooms are equipped to carry on the program of social education which is a distinctive part of campus life.

Food Service

All students living in college residence halls are required to eat in the college food service departments. The fee for board and room for each semester is payable in the college business office at the time of registration, subject to the conditions stated in the contract. Snack bar service is available in the Commons for all students.

Employment

MANY STUDENTS earn a part of their expenses while attending college. The Office of Student Personnel 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 which 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 main-

tain the college standards as to health and scholarship. Appointments to work on campus are made for one semester and must have the approval of the department supervisors for renewal.

A student is cautioned not to attempt much outside work during the first semester of residence. Full time is needed to make adjustment to the new environment, to engage in extracurricular activities, and to attain 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.

The Work-Study Program, as part of the Economic Opportunity Act, has provided funds to help secure jobs, both on and off campus, for students from low income families. To be eligible to participate in the Work-Study Program, a student must be from a family that is unable to contribute a significant amount to the student's expenses. The Work-Study jobs are handled in the same way as other campus jobs. The Office of Student Personnel selects eligible students for this program.

Loan Funds

NATIONAL Defense Education Act loans are available to students who are on a continuous program and who meet certain standards of scholarship and financial need. Undergraduates may borrow up to \$1000 per year, and graduates up to \$2500 per year. This loan fund is especially attractive to those entering teaching, since 10 per cent of the loan, both principal and interest, is cancelled for each year of teaching, up to a total of 50 per cent of the loan. The teaching may be in both public and private (non-profit) schools, from elementary schools through institutions of higher education. Further information may be secured from the Director of Financial Aids, Office of Student Personnel.

Other loans, such as the Seerley Loan Fund and the Aubrey and Winslow Grubb Loan Fund, are available to students with at least one semester of resident credit. Specific information on the loans may be secured from the Director of Financial Aids, Office of Student Personnel.

The Library

A NEW LIBRARY building, conveniently located in the center of the campus, was occupied in September, 1964. The new building is completely air-conditioned, and has seating space for

1,100 students. An "open stack" policy makes all library materials easily accessible to all students. Special typing and group-study rooms and photoduplication facilities are conveniently located, and the library is open for a public service week of 96 hours.

Book collections total more than 240,000 volumes, including a well-selected reference collection of over 8,000 volumes, and the library has current subscriptions to 1,700 periodicals and 50 newspapers, with the majority of periodical titles complete from their beginning. More than 14,000 volumes of new material are added each year. The library also has a rapidly growing collection of materials in microfilm (6,000 reels) and microcard form, and about 3,000 albums of recordings with facilities for their use. As a depository for United States Government publications, the library adds hundreds of volumes annually to its collections. Of special interest to prospective teachers is a Youth Collection of 10,000 volumes—a representative collection of elementary and secondary school library materials.

The new library occupies a central geographic location on the campus, but far more important, it serves the campus as a vital academic center.

Scholarships

STUDENT AID SCHOLARSHIPS are available each year to approximately 500 students. Of this number 95 per cent are reserved for students who plan to teach in the public schools of Iowa, with the other five per cent for non-teaching majors. All applicants must be legal residents of Iowa, possess those qualities of character, personality, and academic ability essential for success in college, and need aid in financing their college education. Ten per cent of the scholarships are available to junior college graduates and SCI students.

The Student Aid Scholarships are in the form of partial remission of fees and are authorized by the Iowa State Board of Regents. There is no limitation on the number of awards that may be made to graduates of a particular high school or to students of any county.

To aid in determining academic ability, scores on the American College Tests are required of each applicant. These tests are administered at various times and places throughout Iowa. Notices of the dates and places where these examinations will be given are available from high school principals and counselors.

ALUMNI SCHOLARSHIPS are made possible through gifts from alumni and friends of the college. They are primarily for entering freshman students and are awarded for one academic year. Applicants need not be residents of Iowa.

There are two types of awards: The Merit Award and the General Award. The Merit Award, available only to new freshman students, is based upon scholarship as evidenced by high school grades and success in the American College Tests referred to under Student Aid Scholarships. The award is \$100 and is made without reference to the financial need of the student. The General Award is based upon financial need, probable success as a student, participation in extracurricular activities, and the character and personality of the applicant. Interest in teaching will be considered, but it is not a requirement. The General Alumni Scholarship provides \$100 a semester for two semesters. Applications for these grants should be made prior to March 1 on the form used for Student Aid Scholarships.

ART FAIR SCHOLARSHIPS are awarded annually to four high school seniors interested in becoming art teachers. These grants are made primarily on the basis of student work submitted during the Art Fair held each spring on this campus. Their value is the same as that of the Student Aid Scholarships.

INDUSTRIAL ARTS FAIR SCHOLARSHIPS are awarded annually to high school seniors interested in becoming industrial arts teachers. These grants are made primarily on the basis of the student work submitted at the Iowa State Industrial Arts Fair held each spring on this campus, scholarship potential, and potential as an industrial arts teacher. These grants provide Student Aid Scholarships for four years. The value and regulations governing these awards are the same as for the Student Aid Scholarships.

SCI ATHLETIC GRANTS-IN-AID AWARDS are provided by contributions from alumni, gate receipts, businessmen in Waterloo and Cedar Falls, and other friends of the college. To be considered for this award, the student must be eligible for admission and must be recommended by the college coach of his sport and the athletic director.

SCIENCE SYMPOSIUM AWARDS are made to high school seniors ranking highest on examinations in the areas of biology, chemistry, and physics given each year on this campus. These grants provide cash and/or Student Aid Scholarships for four years. The value of and regulations governing these awards are determined on a yearly basis.

THE MERCHANT SCHOLARSHIP is awarded to a graduate of the State College of Iowa who plans to enter graduate school with the intention of obtaining a graduate degree. Ordinarily the award is made to a student who has been enrolled in a graduate school and has done superior work at the graduate level.

THE WILD AND WHITE AWARDS are made to an upperclass student majoring in the Department of Physical Education for Women and to an alumna teaching physical education who gives evidence of outstanding ability and interest in teaching.

Note: Explanatory materials and application forms for the above scholarships are available in the Office of the Director of Financial Aids at the college. They are mailed to the high schools of Iowa in the fall and can be found in the principal's or counselor's office. The deadline for making applications is March 1. Students are encouraged to make application for the awards any time after the start of the first semester of their senior year if they are high school students, or the start of their sophomore year if they are junior college students. By filling out the one scholarship application form every applicant will be considered for every award for which he might be eligible. Applications received after March 1 will be considered *only* if all the scholarships have not been awarded to applicants applying before March 1. Additional forms and information may be secured from the Director of Financial Aids, Office of Student Personnel.

A number of other scholarships are awarded to entering freshmen. These include the Leslie I. Reed Memorial Scholarship, the Latta Scholarships, the C. A. Boehmler and Katherine S. Boehmler Memorial Scholarship, the Viking Scholarship, the McDonald Scholarship and Loan, the Alison E. Aitchison Scholarship, and the Dickey Memorial Scholarship. Applications for these awards are made on the same forms as for a Student Aid Scholarship.

Other scholarships and special awards are available to students who have been in attendance at the State College of Iowa. These include the Bartlett-Freeland Debate Award, the Fisher Foundation Scholarships, the Brindley Debate Scholarship, the Alice O. Gordon Bequest, the Ida B. Wilson Scholarship, the Louis E. Begeman Memorial Scholarship, the Faculty Memorial Scholarship, the Faculty Men's Club Scholarship, the Furniss and Mary W. Lambert Scholarship, the Bertha Martin Memorial Scholarships, the Cora B. Nelson Memorial Art Scholarship, the Anna M. Nielsen Music Scholarship, the Ann Moline Organ Scholarship, the May Smith-Amy Arey Kindergarten-Primary Award, the Sigma Alpha Iota Awards, the Theta Alpha Phi Alumni Award, the Pi Gamma Mu Award, the Tau Sigma Delta Award, the Phi Mu Alpha Sinfonia Scholastic Award, and the Purple and Old Gold Awards.

Extracurricular Activities

AT THE State College of Iowa extracurricular activities are planned and fostered because of the significant contribution they can make to the education of the student. Experience in extracurricular activities aids materially in achieving the objectives of general education. For students who plan to teach, there is additional value in participating in such activities, since teachers are expected to aid in the extracurricular programs of the public schools.

The college, therefore, maintains an extensive program of extracurricular activities including athletics, dramatics, publications, forensics, music, social life, artists 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. Women students do not compete in intercollegiate sports but for both men and women extensive programs of intramural sports are conducted.

The college engages in intercollegiate athletic competition in football, basketball, baseball, track, wrestling, tennis, and golf. Intercollegiate athletics are under the control of the Athletic Board, an eight-member faculty committee appointed by the President. For the non-participant in intercollegiate sports, it provides recreational value. For the participant, it provides general educational value and constitutes a laboratory for the preparation of future high school athletic coaches.

DRAMATICS—At least three college plays, sponsored by the Department of Speech, are produced each year. Any student is eligible to try out for a part in these productions.

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 Speech, and it welcomes participation of all students.

MUSIC—Musical activities include the marching band, the varsity band, the concert band, the symphony orchestra, various instrumental ensembles, the concert chorale, the college chorus, the women's chorus, the men's glee club, music theatre, and the madrigal singers. Although these activities are sponsored by the Department of Music, any student may be eligible for participation.

SOCIAL LIFE—The social life at the State College of Iowa is an ever-changing, 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 life are offered in many forms, including teas, dances, community service projects, all-college play nights, student-faculty mixers, and fashion shows. Many of these activities take place in the Commons, which is the center of campus social life. The Social Program Council, a subcommittee of the Student Senate and the Union Policy Board, is responsible for the development of this program.

STUDENT GOVERNMENT—Almost every student participates to some

extent in student government. The student government associations include the Student Senate, the Associated Women Students, the Men's Union, and the various associations of housing units.

THE STUDENT SENATE—This is a legislative and an administrative group composed of representatives from the housing units, the student body at large, and the chairmen of standing committees. The president and vice-president are elected from the student body at large. The Student Senate 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 interests. It carries on a program of work which gives 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 Senate sponsors the selection of outstanding seniors for the Purple Key honor awards.

THE ASSOCIATED WOMEN STUDENTS is an organization consisting of all women students enrolled at the college. It provides the self-governing structure for women students and makes provision for the social, recreational, and educational aspects of women's student life.

The AWS Community Council, together with the Inter-Residence Council and the Housing Unit Governments, carry out the program for women. This association encourages scholarship and service through the three women's honorary societies: Torch and Tassel, local honorary for senior women; Chimes, local honorary for junior women; and Purple Arrow, local honorary for freshman and sophomore women. The Associated Women Students is a member of the Intercollegiate Association of Women Students, national organization for college women.

There are five women's housing units, which are organizations of all the students living in the women's residence halls and a combined unit for those living in Cedar Falls and Waterloo. Each unit is represented on the AWS Board.

THE MEN'S UNION—An organization of 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. 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 three men's housing units in the student government structure. The men living in the residence halls are organized under

the Association of Men's Residence Halls; the married men living in Sunset Village, College Courts, and South Courts are governed by the Married Students Council; the men living off-campus belong to the Off-Campus organization. Each unit has its own council and each strives to improve the welfare of its membership in relation to the total college community. Representatives from the various councils are members of the Student Senate and of the executive committee of Men's Union.

INTEREST ORGANIZATIONS—Numerous organizations sponsored by departments and specialized interest groups provide students the opportunity to become better acquainted with other students and faculty as well as to explore and perpetuate interests outside the classroom. Many of the organizations have no membership requirements other than an active interest in the work for which the club exists and regular attendance at the meetings. Participation in such organizations broadens the individual and helps him to become acquainted with new ideas.

RELIGION—At the State College of Iowa there are numerous opportunities for the nurture and maturing of the religious life of the student. There are planned religious activities, lectures, seminars, student religious foundations and organizations, and the factual study of religion by way of courses in the curriculum. There are opportunities for religious counsel and worship in the churches and centers in the campus area. This program is coordinated by the Director of the Bureau of Religious Activities and the Student Council of Religious Activities. The Student Council is made up of representatives from the Student Religious Centers and Organization with the officers elected by the student body of the college.

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)
- "I" Club (Men's Physical Education)
- Chimes (Junior Women)
- Kappa Pi (Art)
- Kappa Delta Pi (Education)
- Kappa Mu Epsilon (Mathematics)
- Lambda Delta Lambda (Chemistry and Physics)
- Phi Mu Alpha Sinfonia (Music fraternity)
- Sigma Alpha Iota (Music sorority)
- 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)

Theta Alpha Phi (Drama)
Theta Theta Epsilon (Home Economics)
Tomahawk (independent sophomore service fraternity)
Torch and Tassel (local honor group for senior women)

SOCIAL ORGANIZATIONS—There are eight sororities and five fraternities on the campus; one of the former and the five latter have national affiliations. The purpose of these organizations is to create a desire in their members to become useful citizens of the college community and to strive for the social and personal development of their members. Each organization is sponsored by a member of the faculty. The activities of the sororities are coordinated through the Intersorority Council; those of the fraternities, through the Interfraternity Council.

STATION KYTC—A campus-carrier radio station which enables all students in the residence halls to hear college news, announcements, and student programs is located in the old student health center behind Baker Hall.

STUDENT PUBLISHING ASSOCIATION—The Student Publishing Association is governed by the Board of Control of Student Publications consisting of five students and four members of the faculty. The *College Eye*, semi-weekly newspaper, and the *Old Gold*, student annual, are edited by students under the supervision of the Director of the Office of College Relations and the Board of Control of Student Publications.

ARTISTS SERIES—Each year the college brings a number of nationally famous musicians and lecturers to the campus to appear on the artists 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 artists series at a greatly reduced price.

Special Services

ORIENTATION—Special orientation programs are provided for all new undergraduate students. Preceding the opening of the semester, upperclass students serve as guides to help new students familiarize themselves with the campus and college procedures.

Entering students may take a series of tests designed to measure ability in English, mathematics, physical science, biological science, music, and speech. The test results are used to (1) excuse students from certain general education courses, (2) help advisers and coun-

selors assist students in planning their academic schedule and future vocational choice, and (3) assist instructors in meeting the individual needs of students.

COUNSELING—The counseling service is designed to assist students with questions pertaining to academic progress, educational and vocational choice, and interpersonal relations with other students and faculty. It includes (1) a student guide program in the residence halls, (2) the faculty academic advisory program, and (3) the centralized counseling program which assists students in evaluating abilities, aptitudes, interests, and personality. Specialized referral services are available for students who have serious personality problems.

THE EDUCATIONAL CLINIC, a part of the Department of Education and Psychology, is located in the basement of the Auditorium Building and, through its work with individuals and small groups, performs an important task in teacher education. It maintains a primarily instructional emphasis and thus implements a program of action which is consistent with the purpose of the State College of Iowa. The clinic is concerned with a wide range of problems related to intellectual capability, aptitude, academic achievement, motivation, and personality adjustment. The clinic demonstrates for teacher and service personnel methods of evaluating a child's educational potential, provides an opportunity for service personnel interested in special education to work with exceptional children in clinical experiences, translates psychological test findings and recommendations into educational terms and procedures, offers consultative services to the schools of the state at the request of school officials, and performs such research as practicable along lines that provide increased understanding of the learning and remedial processes.

THE SPEECH AND HEARING CLINIC, located in the basement of the Auditorium Building, provides speech therapy for students possessing voice or articulation disorders or hearing problems. At the beginning of each semester all students entering the college for the first time are given a speech and hearing check. Those with problems which might interfere with a teaching career are referred to the clinic. Any other student who feels the need of help concerning a speech or hearing problem is encouraged to visit the clinic at any time.

The clinic also helps prepare speech correction majors by providing clinical practice with children and adults from the immediate vicinity who have speech or hearing problems.

STUDENT HEALTH SERVICE—Medical advice and treatment are provided students by the Health Director and his assistants without additional cost, except for unusual drugs or antibiotics, since a portion of the student fee is set aside for the purpose of defraying

the expenses of this service. The Student Health Service affords preventive care to the student body and does not compete with private medical services. It usually administers to acute conditions only; students with chronic ailments or conditions for which expensive, prolonged or special treatment is indicated will be referred to home physicians. The family will be notified if there is a serious illness or if surgery seems to be indicated. The Health Service does not undertake major surgery and offers no dental service of any kind.

The Health Service maintains a well-qualified staff of physicians available to all students between 8:30 a.m. and 4:45 p.m., Monday through Friday, although emergency medical care is available 24 hours daily.

All students entering the college are required to present a health record prepared by their family physician or osteopath. The health record should consist of a personal history, the report of a physical examination and laboratory report of at least urine, white blood count, and hemoglobin. Blood type, if known, should be given. If this medical entrance form is not filed when the student enters college and it is done at the Student Health Service, a charge will be made. It is very strongly recommended that the students be immunized against diphtheria and tetanus, and poliomyelitis. The students will be tested for immunity to smallpox and be given the Mantoux Tuberculin skin test (at no charge) or a chest X-ray (at minimum charge).

The college maintains a hospital for the benefit of its students. No specific hospital charge is made to the student for the first seven days in the hospital in any semester. After seven days, the charge is \$5.00 per day. A charge is made for specific medicines and laboratory procedures. These charges are covered by the student Accident and Sickness Insurance, if the student is hospitalized.

Through the Repass Insurance Agency of Waterloo, Iowa, the college maintains a group plan of Accident and Sickness Insurance available on a *voluntary basis* to all full-time registered students. For \$14.50 a year, students can secure insurance to cover injuries and illness beyond the benefits provided by the Student Health Service. (This is not included in the registration fee.) Coverage extends throughout the year, including summer and other vacation periods. (No student can afford to be without this insurance.)

IOWA TEACHERS CONSERVATION CAMP—The State Conservation Commission, in collaboration with the State Department of Public Instruction and the State College of Iowa, conducts a field laboratory in conservation each summer for teachers at Springbrook State Park, Guthrie Center, Iowa.

Three hours of college credit can be earned in each of the three-week-long sessions. Field and laboratory work is given in conserva-

tion of soils, water, forests, and wildlife. Emphasis is placed upon the adaptation of materials for teaching.

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 Department of Science, State College of Iowa, Cedar Falls, Iowa.

IOWA LAKESIDE LABORATORY—The three institutions, State College of Iowa, the University of Iowa, and Iowa State University, jointly maintain a field laboratory station at Lake Okoboji. A scientific advisory board made up of representatives 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, State College of Iowa, upon approval of the head of the Department of Science.

THE CURRICULUM LABORATORY consists of two closely related departments, the Curriculum Center and the Audio-Visual Center. At present the Curriculum Center has over 20,000 items carefully organized and available for student use. These include courses of study produced by selected school systems in all 50 states, resource units, publishers' catalogs, child accounting forms, standardized tests, programmed materials, and the like. Although the Center has shelved some 2,000 current elementary and secondary textbooks and workbooks, new material released throughout the country is constantly being received and evaluated. Only the best is retained—usually no longer than six years.

The Audio-Visual Center has materials to supplement those in the Curriculum Center. It has approximately 750 educational films, 2,300 filmstrips, and 750 recordings as well as maps, globes, models, and slides. It also has a wide variety of audio-visual equipment including projectors, recorders, record players, duplicating machines, and typewriters. Instruction is available to those who wish to learn how to operate the various types of audio-visual equipment.

Opportunities to use the materials in the Curriculum Laboratory are available to all students whether as a part of formal course work or simply as a private project in preparing new material.

CONFERENCES, WORKSHOPS, AND EXHIBITS—Throughout the year 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 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.

SATURDAY AND EVENING CLASSES—As a service to persons in the vicinity of Cedar Falls, some resident college courses are scheduled for evening hours and for Saturday mornings. Some of these are especially for graduate students; others are open to junior and senior students; a few are available for freshmen and sophomores. While the selection of courses is made with in-service teachers in mind, other courses are scheduled as the demand seems to justify.

PLACEMENT BUREAU—The College Placement Bureau aids prospective graduates, alumni, and others who qualify for the service, in securing teaching positions in accordance with their professional qualifications and special interests. To be eligible for placement service, a student must have earned in residence at least thirty semester hours of undergraduate or ten hours of acceptable graduate credit at the State College of Iowa, or have qualified for recommendation by the college for an initial teaching certificate. Registration with the Placement Bureau is a graduation requirement for those on the undergraduate teaching program.

Placement service is also provided in areas other than teaching. Career opportunities in many areas of business and industry, and in government service, are available to prospective liberal arts graduates and alumni.

No fee is charged for initial or subsequent registration.

THE COLLEGE RELATIONS OFFICE—The College Relations Office has the general responsibility of developing public understanding of college aims, policies, and activities, both in the immediate college community and with the public at large. To fulfill this responsibility, the office staff works in close cooperation with members of the faculty, the administration, and the student body as well as with the press, radio, and TV. The office maintains a news and information service, a publications service, and a public relations advisory service.

The public relations service includes advisement of faculty and students in the promotion of public events, and consultation with the administrative staff on the public relations implications of college policies. The College Relations Director assists in the public information program of the State Board of Regents and represents the president of the college in relationships with student publications.

The news and information service tells the SCI story through daily release of news articles and photographs to press, radio, and TV—as well as through the preparation of informative articles for special and general interest periodicals. The Information Service

Director also edits the quarterly *Alumnus magazine* and keeps information files on all aspects of the institution in order to answer requests and to assist representatives of the press who call or visit the campus seeking background information for news releases or magazine articles.

The publications service supervises the design and printing of the more than 150 books, brochures, pamphlets and other publications produced at the college annually. The Publications Director also serves in a consultative capacity to faculty responsible for college publications and has traditionally been faculty advisor of the college yearbook.

The sports information service keeps the public informed about intercollegiate athletic events and the college physical education program through news releases, photographs, radio and TV programs, sports brochures, wall calendars, etc.

RADIO-TV SERVICE—The State College of Iowa serves the schools and the general public of Iowa, daily, by means of radio and television. Programs originating in the studios on the third floor of the Auditorium Building are broadcast over Radio Stations WOI, in Ames, and KXEL, in Waterloo. This educational service has been maintained without interruption since 1942. FM Radio Station KTCF was activated by the college in 1960. Its coverage is limited to Waterloo and Cedar Falls.

Through the cooperation of Station WOI-TV in Ames, weekly television programs in Science and in Iowa History have been presented by members of the college staff since 1952. These *Iowa TV School-time* programs are also broadcast by several commercial TV stations in the state.

Closed-circuit television cameras and receivers were installed on the third floor of the Auditorium Building in 1957. This equipment, plus video tape recording facilities purchased in 1965, enables a single instructor to teach as many as five sections of a course simultaneously.

Extension Service

Selected members of various college departments serve each semester as members of the extension faculty.

Four types of extension service are available: consultative service, publications, extension credit work, and community classes.

- I. **CONSULTATIVE SERVICE**—The services of members of the extension staff are available to teachers, administrators, and boards of education for the improvement of the public schools of Iowa and for the in-service education of teachers.

- II. PUBLICATIONS—Two types of educational service publications are issued: the teaching aid series, and the research and survey series. These publications are distributed at cost; a list of the titles and prices is available from the Extension Office.
- III. EXTENSION CREDIT WORK—Correspondence study and extension classes comprise the media by which extension credit may be earned. *Definite limitations on the amount of extension credit which a student can earn have been set by the Iowa State Department of Public Instruction, Division of Teacher Education and Certification, and by this college. Students registering for extension credit are urged to familiarize themselves with these regulations, a copy of which may be secured by writing the Director of Extension Service.*
- A. CORRESPONDENCE STUDY—Credit earned through correspondence study cannot be applied on the 30-hour minimum requirement for a master's degree. The fee for correspondence study is \$19 per semester hour for both undergraduate and graduate students.
- B. EXTENSION CLASS WORK—The conditions for admission to extension class work are the same as for admission to residence work. Not more than 6 semester hours of credit earned through extension class work may be applied toward a master's degree. The fee for extension work is \$19 per semester hour.

Note: Not more than one-fourth of the work required for an Iowa teaching certificate or the bachelor's degree may be earned in non-resident credit.

- IV. COMMUNITY CLASSES—As a service to individuals in the community who are interested in furthering their education but not in earning college credit, the Extension Service also offers community classes on the college campus. These classes are open to any mature person regardless of educational background. These classes carry no credit, but if the course offered is listed in the college catalog, it may be possible for a person who completes the community class to receive credit in the course by special examination. The fee for community classes is \$17 per credit hour or approximation thereof.

For a list of courses offered either for extension credit or in community classes and for additional information on any aspect of extension service, write Dr. Raymond J. Schlicher, Director of Extension Service.



College Policies

I. Admission Procedures

A STUDENT should take the following steps in applying for admission to the college. These should be taken as far in advance as possible since conditional admissions are granted six to ten months in advance of the opening of the fall semester and several months in advance of the opening of the second semester and summer session.

- A. Application for Admission and Health Record. Secure these forms from the Registrar, complete them carefully, and mail as indicated. A fee of \$10.00 must accompany the application. This fee is not refundable except to Iowans who are denied admission and is not applicable to later registration fees.
- B. High School Record. Ask your high school principal to send a six- or seven-semester transcript if you ARE still in school and a final report on graduation. If you are OUT of school, ask your principal to send a complete transcript. If you have attended more than one high school, a single report is sufficient if it contains all your work; otherwise, a report will be needed from each high school attended.
- C. Transcripts of College Records. If you have attended another college, an official transcript of record MUST be filed from EACH college attended. If you are still enrolled in another college, a partial record may be used for considering admission, but a complete record will be required before unconditional admission is granted.
- D. Tests and Interviews. All new undergraduate students are required to take the American College Tests before admission will be granted. The tests are given in all states.

Be certain to specify that your test record be sent to State College of Iowa.

A visit to the campus is encouraged if convenient. In some situations the college may require an interview or additional tests before acting on an application for admission. Students are notified by mail if these are required of them.

- E. **Application Deadlines.** Applicants for admission must submit the required applications for admission and the necessary official transcripts and other required documents to the Registrar at least ten days prior to the beginning of orientation for the session for which the student is applying. Applications for admission from students who are required to take entrance examinations will not be considered unless the examinations can be completed at least five days before the beginning of orientation. This regulation may be waived by the Registrar only for adequate reasons.

- F. **Advanced Fee Payment.** The colleges of Iowa have agreed to require of applicants for admission to undergraduate study an advanced fee payment of at least \$50.00. Thus, State College of Iowa requires an advance of \$50.00 from applicants. The payment is credited to the student's account and reduces the fee payment required at the time of first registration.

The payment may be submitted with the application for admission (it **MUST** accompany applications submitted after these dates: for Fall, May 1; for Spring, Dec. 15; for Summer, Apr. 15), or upon receipt of notice of admissibility. If not paid within two weeks of notice of admissibility, the college will assume that space need not be saved for you and your application will be transferred to the inactive file.

The entire amount paid in advance will be refunded if the college denies admission, or if you notify the Registrar's office of cancellation of your application not later than these dates: for Fall, July 1; for Spring, Jan. 1; for Summer, May 1. If you cancel your application after that date, except in unusual circumstances completely beyond your control, you will forfeit \$50.00 of advance payment.

II. General Admission Standards of the State Board of Regents

A. ADMISSION OF FRESHMAN STUDENTS

A student desiring admission must meet the requirements in this section and also any special requirements for the curriculum, or major of his choice.

He must submit a formal application for admission and must have the secondary school provide a certificate of high school credits, including a complete statement of the applicant's high school record, rank in class, scores on standardized tests, and certification of high school graduation. The applicant must also submit any other evidence such as a certificate of health that may be required by the individual institution of higher learning.

1. A GRADUATE OF AN APPROVED IOWA HIGH SCHOOL who has the proper subject-matter background, who is in the upper one-half of his graduating class, and who meets specific curricular requirements will generally be admitted upon certification of graduation, if he applies for admission.

A candidate who is not in the upper one-half of his graduating class may be required to take special examinations and may after a review of his entire record and at the discretion of the Admissions Office: (1) be admitted unconditionally, (2) be admitted on probation, (3) be required to enroll for a tryout period during a preceding summer session, or (4) be denied admission.

2. A GRADUATE OF AN ACCREDITED HIGH SCHOOL IN ANOTHER STATE must meet at least the same standards as a graduate of an Iowa high school. The options for admission by probation or tryout enrollment may not be open to these students. The college reserves the right to demand higher standards from graduates of out-of-state high schools.
3. A GRADUATE OF A NON-APPROVED HIGH SCHOOL must submit all data as required above and in addition must take examinations which will demonstrate his general competence to do successful college work.
4. AN APPLICANT WHO IS NOT A HIGH SCHOOL GRADUATE must submit all data required above in so far as it exists and must take examinations to demonstrate competence to do college work. Evidence of specific competence for admission to a given curriculum will also be required.

B. ADMISSION OF UNDERGRADUATE STUDENTS BY TRANSFER FROM OTHER COLLEGES

1. STUDENTS FROM ACCREDITED COLLEGES AND UNIVERSITIES—
Transcripts of record are given full value if coming from colleges or universities accredited by the North Central Association of Colleges and Secondary Schools or similar regional associations. For schools not regionally accredited the recommendations contained in the current issue of the *Report of Credit Given by Educational Institutions* published by the American Association of Collegiate Registrars and Admissions Officers will be followed.
 - a. Each applicant shall submit an official transcript bearing

the original seal and signature of the official in charge of records from each college or university which the student has attended previously. The student will also submit any other records or letters which the college may require to support his application for admission.

- b. A transfer applicant shall be expected to have maintained a "C" average (2.00 based on an "A" grade being 4 points) for all college work previously attempted and not be under suspension from the last college attended. Students who are not residents of Iowa may be expected to have maintained a 2.25 grade index.
 - c. A student who is below the above standards may be permitted to take entrance examinations. If the applicant successfully completes the examinations, he may be admitted on probation.
 - d. In general, transfer applicants under academic suspension from the last college attended will not be considered for admission during the period of suspension or if for an indefinite period, until six months have passed since the last date of attendance. When eligible for consideration the applicant will be considered as in "c" above.
 - e. A transfer applicant under disciplinary suspension will not be considered for admission until a clearance and a statement of the reason for suspension is filed from the previous college. When it becomes proper to consider an application from a student under suspension, the college must take into account the fact of the previous suspension in consideration of the application. Applicants granted admission under these circumstances will always be on probation and their admission subject to cancellation.
 - f. Applicants for admission by transfer who do not meet the standards may be denied.
 - g. Transfer credit from a junior college will not be accepted if that credit is earned after the total number of hours of credit accumulated by the student at all institutions attended exceeds one-half the number of hours needed for the earning of a baccalaureate degree.
2. STUDENTS FROM NON-ACCREDITED COLLEGES—A college may refuse to recognize credit from a non-accredited college or may admit the applicant on a provisional basis and provide a means for the validation of some or all of the credit. The validation period shall not be less than one semester and will ordinarily be a full academic year. The college will specify to the student the terms of the validation process at the time of provisional admission. Each student from a non-accredited college will be considered on his merits and his admission or rejection is at the discretion of the admissions officer.

C. CLASSIFICATION OF RESIDENTS AND NON-RESIDENTS FOR ADMISSION AND FEE PURPOSES

1. GENERAL—Students enrolling at the State College of Iowa shall be classified as resident or non-resident for admission, fee, and tuition purposes by the registrar. The decision shall be based upon information furnished by the student and all other relevant information. The registrar is authorized to require such written documents, affidavits, verifications, or other evidence as are deemed necessary to establish the domicile of a student, including proof of emancipation, adoption, award of custody, or appointment of guardian. The burden of establishing that a student is exempt from paying the non-resident fee is upon the student.

For purposes of resident and non-resident classifications, the word "parents" as herein used shall include legal guardians or others standing *in loco parentis* in all cases where lawful custody of any applicant for admission has been awarded to persons other than actual parents.

2. RESIDENCE FOR TUITION PURPOSES—Regulations regarding residence for admission, fee and tuition payments are generally divided into two categories—those that apply to students who are minors and those that apply to students who are over twenty-one years of age. The requirements in these categories are different. Domicile within the state means adoption of the state as a fixed permanent home and involves personal presence within the state. The two categories are discussed in more detail below.
3. STUDENTS WHO ARE MINORS—The residence of a minor shall follow that of the parents at all times, except in extremely rare cases where emancipation can be proved beyond question. The residence of the father during his life and, after his death, the residence of the mother, is the residence of the unmarried or unemancipated minor; but if the father and the mother have separate places of residence, the minor takes the residence of the parent with whom he lives or to whom he has been assigned by court order. The parents of a minor applying for admission will be considered residents of Iowa *only* if they have had a domicile within the state for six months immediately prior to the date of the minor's enrollment at the State College of Iowa.

A minor admitted before his parents have moved to Iowa or before they have been here six months, may be reclassified as a resident at the next registration after his parents have had a domicile here six months. A minor student whose parents move their residence from Iowa to a location outside of Iowa shall be considered to be a non-resident after six months from the date of the parents' removal from the state.

4. **STUDENTS OVER TWENTY-ONE YEARS OF AGE**—A resident student twenty-one years of age or over is (1) one whose parents were residents of the state at the time he reached his majority and who has not acquired a domicile in another state or (2) who, while an adult, has established a bona fide residence in the state of Iowa by residing in the state for at least twelve consecutive months immediately preceding registration. Bona fide residence in Iowa means that the student is not in the state primarily to attend a college; that he is in the state for purposes other than to attempt to qualify for resident status.

Any non-resident who reaches the age of twenty-one years while a student at any school or college does not by virtue of such fact attain residence in this state for admission or tuition payment purposes.

5. **GENERAL FACTS**—The residence of a wife is that of her husband. A non-resident female student may attain residence through marriage, and, correspondingly, a resident female may lose residence by marrying a non-resident. Proof of marriage should be furnished to the registrar at the time change of status is requested.

Persons who are moved into the state as the result of military or civil orders from the government, or the minor children of such persons, are entitled to residence status after residing in Iowa for six months. However, if the initial registration of the minor children precedes the arrival of the parents, non-resident tuition will be charged in all cases until the next registration after the conditions set forth above are met.

Dependents of persons whose legal residence is permanently established in Iowa, who have been classified as residents for tuition purposes, may continue to be classified as residents as long as such residence is maintained, even though circumstances may require extended absence of said persons from the state. It is required that persons who claim an Iowa residence while living in another state or country will provide proof of a continual Iowa domicile such as (1) evidence that they have not acquired a domicile in another state, (2) they have maintained a continuous voting record in Iowa, and (3) they have filed regular Iowa income tax returns during their absence from the state.

Ownership of property in Iowa, or the payment of Iowa taxes, does not in itself establish residence.

A student from another state who has enrolled for a full program, or substantially a full program, in any type of educational institution will be presumed to be in Iowa primarily for educational purposes, and will be considered not to have established residence in Iowa. Continued residence in Iowa

during vacation periods or occasional periods of interruption to the course of study does not of itself overcome the presumption.

All students not classified as resident students shall be classified as non-residents for admission, fee, and tuition purposes. A student who willfully gives incorrect or misleading information to evade payment of the non-resident fees and tuition shall be subject to serious disciplinary action and must also pay the non-resident fee for each session attended.

An alien who has entered the United States on an immigration visa and who has established a bona fide residence in Iowa by living in the state for at least twelve consecutive months immediately preceding registration may be eligible for resident classification provided he is in the state for purposes other than to attempt to qualify for resident status as a student.

Men in military service (except career servicemen) who listed Iowa as their residence prior to entering service and who, immediately upon release, return to Iowa to establish their residence or enter college, will be classified as residents unless their parents moved from the state while the individual was still a minor.

Change of classification from non-resident to resident will not be made retroactive beyond the semester or session in which application for resident classification is made.

6. **REVIEW COMMITTEE**—The decision of the registrar on the residence of a student for admission, fee, and tuition purposes may be appealed to a review committee. The finding of the review committee shall be final.

III. Admission Policies for Undergraduate Students

A student must have filed an application for admission with the required records and other supporting material, have met all conditions named in Parts I and II above, and been issued an admission statement by the Director of Admissions and Registrar before he is permitted to register in the college. In considering an application, consideration is given to scholarship, health, character, and personality. Individual students may be required to come to the campus for interview and tests. Those who do not give reasonable promise of success as college students may be denied.

Teaching Curricula

Applications for approval in a teacher education program may

be filed after a student has earned at least 24 semester hours credit at SCI. The student must pass such tests and meet such other standards as may be prescribed by the Committee on Teacher-Education Standards and Practices. For full approval, a student must have at least a 2.20 grade index in all his college work. The committee may grant provisional approval for students in exceptional cases but may not grant full approval until all standards have been met. Normally a student will be expected to meet full approval by the beginning of the junior year if he wishes to complete requirements in the minimum time.

A student may, at the time of admission to the college, declare an intent to enter a teaching program and be assigned a teaching adviser from his first enrollment. The college must give special consideration to scholarship, health, character, personality, and quality of potential leadership of an applicant for a teaching curriculum.

Detailed information regarding admission and retention may be found in the brochure entitled "Policies, Requirements, and Procedures for Admission and Retention in Teacher Education at State College of Iowa" which each student should obtain from the office of the Registrar.

IV. Admission Requirements for Graduate Students

A graduate of a college or university accredited by the National Council for Accreditation of 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 be granted conditional admission at the discretion of the Registrar. Admission to graduate study does not guarantee admission to candidacy for an advanced degree.

Preparation for College

For admission to the State College of Iowa one does not need to have chosen a particular program in high school. However, it is expected that the record of the student seeking admission will be in conformity with the following suggested pattern:

I. Graduation from an approved high school shall ordinarily pre-

cede admission to college. The student who applies for admission to an institution of higher learning shall, in general, have:

- A. Completed a balanced program of studies designed to insure a well-rounded background of knowledge in basic fields.
- B. Developed proficiency in the use of the English language in reading, writing, and speaking.
- C. Acquired proficiency in basic mathematical skills.
- D. Developed effective study skills and work habits.
- E. Developed an adequate intellectual, physical, moral, and social maturity.
- F. Developed a sincere interest in further formal education.

II. Those planning to enter college shall be guided by the following standards in completing their preparatory academic work:

- A. **ENGLISH**—Since the ability to write clearly and to read with understanding and appreciation are essential to success in college, it is highly desirable that the student complete at least three and preferably four units in English, with strong emphasis on writing.
- B. **MATHEMATICS**—Mathematics has much to offer not only as a tool to further learning but as a means of providing basic education. Two and one-half years of such study should be the minimum for those planning to attend college. Students planning to specialize in the sciences or in engineering should complete at least two and one-half units and preferably three units or more in mathematics in high school.
- C. **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.
- D. **THE SCIENCES**—The field is rich in possibilities for understanding the modern world. A minimum of two units in science is recommended. For those who plan to emphasize science or engineering in college, three units would be helpful.
- E. **FOREIGN LANGUAGES**—The prospective college student should develop a basic reading or speaking knowledge of a foreign language, classical or modern. For most students this would suggest a minimum of two years of study; three or four would be preferable.
- F. **ART AND MUSIC**—This field offers opportunity for development in an important area of general education which can contribute much toward individual growth.

G. OTHER SUBJECTS—Agriculture, business, home economics, industrial arts, speech, etc., when properly studied, contribute materially to the educational growth of the individual and prepare him for continued study as well as for the more general activities of living. The prospective college student with an interest in further study in a field related to one of these subjects should find one or two years of high school work in it to be particularly valuable.

Enrollment and Registration

ORGANIZATION BY SEMESTERS—The college operates on the semester basis. This means that the work during the academic year is divided into two semesters of approximately eighteen weeks each.

SUMMER SESSIONS—There are two summer sessions beginning on the same date; one continues for eight weeks, the other for eleven. For information write the Director of the Summer Session.

COLLEGE OFFICE HOURS—From the end of the spring semester to the beginning of the fall semester the college administrative offices are open from 7:30 a.m. to 4:30 p.m. on Mondays to Fridays, inclusive. During the remainder of the year 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 Saturdays and Sundays.

All college offices are also closed for the following holidays:

	1966	1967
New Year's Day		Mon., Jan. 2
Memorial Day	Mon., May 30	Tues., May 30
Independence Day	Mon., July 4	Tues., July 4
Labor Day	Mon., Sept. 5	Mon., Sept. 4
Thanksgiving	Thurs., Nov. 24	Thurs., Nov. 23
Christmas	Mon., Dec. 26	Mon., Dec. 25
New Year's Day (1968)		Mon., Jan. 1 (1968)

PHYSICAL EXAMINATION—Each student enrolling for the first time is required to present a health record prepared by the family physician. After an absence from college for *four* or more semesters, the student is required to have a physical examination by either a family physician or the college physician.

Fees Schedule

The basic fee is charged to all students carrying 9 or more hours

during a semester, or 6 or more hours during any eight-week summer session. All other students are assessed on a credit-hour basis. Students assessed on an hourly basis do not have any portion of their fees applied to services supported by activity fees and, thus, their identification cards are valid only for library services.

I. BASIC FEES	Effective Sept., 1965		Effective Sept. 1966	
	Res.	Non-Res.	Res.	Non-Res.
A. ACADEMIC YEAR				
1. Undergraduates, <i>per semester</i> ..	\$156	\$306	\$171	\$321
a. Less than 9 hrs., per hr.	18	34	19	36
b. Minimum fee	36	68	38	72
2. Graduates, <i>per semester</i>	171	171	186	286
a. Less than 9 hrs., per hr.	19	19	21	32
b. Minimum fee	38	38	42	64
B. SUMMER SESSION (11 weeks)				
1. Undergraduates	104	204	114	214
a. Less than 6 hrs., per hr.	18	34	19	36
b. Minimum fee	36	68	38	72
2. Graduates	114	114	124	190
a. Less than 6 hrs. per hr.	19	19	21	32
b. Minimum fee	38	38	42	64
C. SUMMER SESSION (8 weeks)				
1. Undergraduates	98	193	107	202
a. Less than 6 hrs., per hr.	18	34	19	36
b. Minimum fee	36	68	38	72
2. Graduates	108	108	117	180
a. Less than 6 hrs., per hr.	19	19	21	32
b. Minimum fee	38	38	42	64

II. RESIDENCE HALL FEES (Board and Room)	Semester	Academic Year
Baker Hall	\$350	\$700
Bartlett Hall	350	700
Campbell Hall	357	714
Hagemann Hall	350	700
Lawther Hall	350	700
Rider Hall	350	700
Shull Hall	350	700

Residence hall fees for the summer sessions are approximately as follows: 8 weeks, \$176; 11 weeks, \$242.

Halls to be used in a given summer will be designated later and exact fees determined later.

III. OTHER FEES	Semester
A. Advanced fee payment	\$50.00
B. Application fee	10.00
C. Applied Music	
1. Regularly enrolled college students, one half-hour lesson per week per semester	20.00
2. All others studying with members of the music faculty	40.00
3. Sub-collegiate instruction by college students	24.00
4. Organ rental per semester	4.50
D. Change of registration (each change)	3.00
E. Credit by examination, per hour	5.00
*F. Correspondence, extension class and television, per semester hour	(\$18.00) 19.00
*G. Community class, per credit hour or approximation thereof	(\$16.00) 17.00
H. Late enrollment fee	5.00
I. Visitors: by the week	10.00
by the course, per semester hour— undergraduates	19.00
graduates	21.00
J. Transcripts, per copy	1.00
K. Health insurance (voluntary), per year	14.50
L. Hospital care (after 7 days), per day	5.00
M. Thesis binding fee (graduate students only)	6.00

*The lower rate shown in parentheses applies to the 1966 summer session only.

All fees subject to change by the State Board of Regents.

WITHDRAWAL REFUNDS

If credit is earned during the period of enrollment, there is no refund. For any two- or three-week session, there is no refund.

Students enrolled for load requiring full fee payment for a semester

A student who has had his class cards pulled is considered to have enrolled. Thereafter, the first \$25.00 of his fee is considered not refundable. The remainder of the fee is refundable on the percentage schedule given below.

Students enrolled for a load requiring payment by the credit hour or for summer session

A student who has had his class cards pulled is considered to have enrolled. Thereafter, the first \$15.00 of his fee is considered not refundable. The remainder of the fee is refundable on the percentage schedule given below.

State College of Iowa

Percentage of Remainder Refundable-	Semester From 1st day of classes to the end of	Summer Sessions	
		(8 weeks)	(11 weeks)
100%	1 week*	1-3 days#	1-3 days#
90%	2 weeks	4-5 days	4-7 days
80%	3 weeks	6-8 days	8-10 days
70%	4 weeks	9-10 days	11-13 days
60%	5 weeks	11-13 days	14-17 days
50%	6 weeks	14-15 days	18-20 days
40%	7 weeks	16-18 days	21-23 days
30%	8 weeks	19-20 days	24-27 days
20%	9 weeks	21-23 days	28-30 days
10%	10 weeks	24-25 days	31-33 days

*Weeks are defined as seven calendar days. The first week begins with the day instruction begins.

#Days are calendar days. The day instruction begins is the first day.

STUDENT IDENTIFICATION CARD—Each new student receives a plastic Identification Card which is used throughout his college course. He also receives a receipt for the payment of fees for each semester or summer session. These two items together permit withdrawal of books from the library and admission to athletic events; they are also used for other purposes. A fee of \$3 is charged to replace the plastic ID card, and \$2 to replace the fee receipt.

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 or spring semester consists of 16 or 17 hours.

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. Persons employed full-time should not register for more than 6 hours of academic work during either semester.

The regular work of an undergraduate student for the eight-week summer session is 8 hours; for the eleven-week 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

	Earned Semester Hours
Freshman	up to 31
Sophomore	32-63
Junior	64-95
Senior	96 and over

VETERANS—Veterans may be excused from the required activity courses in physical education upon filing a copy of a DD214 form with the Registrar.

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 Instruction.

Work lost by change of registration after the first three days of classes in any semester may not be made up for credit without the consent of the Dean of Instruction 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 semester. Exceptions to this rule are rarely made.

Work left incomplete at the end of a semester or summer session will be reported as a *Failure* unless permission is obtained from the Dean of Instruction 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.

CLASS ATTENDANCE—The responsibility for attending classes rests with the student. As the citizens of Iowa have every right to assume, students at this college are expected to attend class. This idea is neither novel nor unreasonable.

Students are expected to learn and observe whatever attendance rules each individual instructor may require for the course(s) he teaches. Caution, therefore, must be exercised lest needless absences affect the quality of work expected by the instructor.

Instructors will help students to make up work whenever a student has to be absent for good cause. Here again the matter lies between the student and instructor. Students should realize that an hour missed cannot be relived, that work can seldom be made up 100 percent, and that made-up work seldom equals the original experience in class.

Instructors will notify the Student Personnel Office in case a student's attendance is such that his membership in a class is in doubt. Failure to make such reports often puts the college in an embarrassing position with the Veterans Administration, parents, or with the students themselves.

Marks and Grade Points

The marks A, B, C, D, F (Failed), and U (Unfinished) are used in indicating quality of work. Courses dropped between the end of the third week and the end of the sixth week of a semester are indicated on the student's record by W (withdrawn). *Courses dropped after the end of the sixth week are recorded as automatic failures.*

The time for dropping classes in the summer is proportionately shorter and dates are given in the summer schedule of classes.

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.

PROBATION—At the end of each semester or summer session the faculty Committee on Admission and Retention examines the record of each student whose grade index is below 2.00. The committee also reviews the records of those students admitted on probation and of those who have been referred to the Committee by a member of the faculty. The Committee does not adhere rigidly to prescribed grade standards but examines each student's situation individually in an effort to arrive at a fair judgment in each instance. Though the Committee is not bound by any table of minimum scholarship standards, the following guides are presented to indicate probable actions. The Committee will deviate from these whenever it believes it to be in the best interests of the student, the college, or the public to do so.

Freshmen whose grade-point average is less than 1.50 will ordinarily be placed on probation. Those with a grade-point average below 2.00 but above 1.50 are warned. Normally freshmen are not suspended during an academic year, but they may be if the situation seems to warrant such action.

Sophomores whose grade-point average falls below 1.75 at the State College of Iowa are usually placed on probation. Those whose grade-point average falls below 2.00 but above 1.75 are warned.

Juniors and seniors are usually placed on probation when the grade-point average falls below 2.00.

SUSPENSION—Students, who due to failures or the dropping of courses have not reached the classification they should according to the length of time they have been enrolled, may be considered for suspension on the basis of the classification they should have earned, had they passed normal schedules.

Any student is suspended at the end of a semester or summer session in which he does not pass at least half the work for which he originally enrolled.

Suspensions are for either definite or indefinite periods of time. Students who have been suspended for a definite period may return at the end of the period stated without further permission. Students who have been suspended for an indefinite period may be re-admitted only after appealing in writing to the Committee on Admission and Retention. Re-admissions are seldom granted before the end of a six-month period. The Committee will need assurance that a better quality of work can be expected. Students who are permitted to return after suspension are on probation and their progress is checked regularly. If there is no such progress, the suspension becomes permanent.

Transfer students who are admitted on probation must earn a 2.00 grade-point average for the period specified at the time of admission.

While scholarship gives the Committee on Admission and Retention its greatest concern, it must also consider health, character, and personality. The Committee on Teacher-Education Standards and Practices, which is instructed by the faculty to consider the suitability of those who are candidates for the teaching profession, must give special consideration to these qualities as well as to scholarship.

Independent Study

Students of outstanding ability and achievement may be permitted to earn not more than six semester 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. 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 Dean of Instruction, to whom applications should be sent at least one-half semester before the project is begun.

Workshop and Study Tours

From time to time, and especially during the summer session, opportunities are offered for earning credit under the workshop plan. Workshops provide residence credit but a maximum of 6 semester hours may be applied toward graduation.

Occasionally departments of the college may arrange extensive study tours for credit. These trips are open to graduate and undergraduate students. Plans for this type of study and the number of hours of credit which may be earned are announced through college publications. During recent summers, several study tours were conducted by departments of the college.

Curricula



AT THE undergraduate level the State College of Iowa offers the Bachelor of Arts degree. Major goals in the program leading to this degree are the advancement of humane learning and the preparation of young men and women to cope intelligently, effectively, and reasonably with the complex changing conditions of life in modern society. To attain these goals students are expected to make significant progress while in college toward:

1. understanding themselves and the society in which they live,
2. developing the ability to read, write, and speak their own language well and to appreciate its literature,
3. gaining an acquaintance with the literature of another language and the culture of its people, preferably in the original but certainly through the study of translations,
4. securing a thorough grounding in the history and cultural traditions of the modern world with a special sympathetic understanding for the economic, social, and political problems of our time,
5. acquiring an understanding of the principles and methods of the natural sciences and mathematics and the part they play in modern society,
6. developing the ability to perceive the values of the arts and derive an enjoyment from them,
7. acquiring a knowledge of how to care for their own health and to take an intelligent interest in the health of the community in which they live,
8. growing in the desire to secure knowledge.

To achieve these ends the students are obliged to take a variety of courses drawn from among the arts, humanities, philosophy, mathematics and language; from among the biological, physical

and social sciences. Concentration in a major field enables a student to engage in intensive study, to think for himself, and to exercise discriminating judgment. It prepares him for more advanced work if he decides to go on to graduate school, or in some instances for immediate employment. This emphasis on the academic program is not to exclude the contributions made by other parts of the college life to the substantial development of a student's personality—social and athletic activities, public speaking and dramatic arts, music, art, public affairs, or other programs.

The desired result of this degree program is not an individual who conforms to society as it is or sees his own vocation within the narrow confines of his day-to-day occupation, but rather a person enriched in mind and spirit and so stimulated that he will seek with eagerness to contribute to the benefit of the world in which he lives. Such a program is desirable for all students whatever their future professions may be.

For those who plan to become teachers, additional work is required in professional education. This work seeks to enhance the student's interest in teaching, to instill loyalty toward the profession, and to encourage the desire for continuous professional growth. He learns the skills, techniques, and understandings necessary to good teaching. He studies the recent knowledge concerning the physical and mental growth of the child, the ways children learn, the guidance of that learning to its fullest potentialities in each child. The student explores the mutual relationships and responsibilities of the school, community, and the teacher.

The prospective teacher must also spend a significant part of his time in the area of learning in which he chooses to concentrate. His mastery of the subject matter of this area, its closely related fields, and the skills to present it effectively are essential aspects of successful teaching.

The teaching program requires more hours to complete than the non-teaching program in order to include the necessary professional work and to approximate, as far as possible in a four-year period, the other major goals listed above. Students on the teaching program especially are encouraged to continue their education beyond the bachelor's degree.

State College of Iowa offers both undergraduate and graduate curricula.

I. Undergraduate Curricula

Two programs leading to the Bachelor of Arts degree are available.

A. BACHELOR OF ARTS—Teaching Program—130 semester hours.
On this program students are prepared as:

1. Secondary teachers of art, business education, geography,

English, foreign languages, home economics and vocational home economics, industrial arts, mathematics, music physical education, science, social science, and speech.

2. Special teachers of art, industrial arts, music, physical education, speech correction; and as school librarians.
3. Elementary teachers, kindergarten through sixth grade.
4. Junior High school teachers in all usual areas of instruction.

B. BACHELOR OF ARTS—124 semester hours.

On this program students are prepared in the following areas:

1. Liberal Arts—Art, English, foreign language, mathematics, music, psychology, speech, social science, and science.
2. Vocational—Business, home economics, industrial arts, and physical education.
3. Joint Programs

a. Acceptance of credit from professional schools of medicine, dentistry, and law toward meeting part of degree requirements:

A student who has completed three years or more of college work with a minimum of 96 semester hours, of which at least the last 30 hours of work was completed at the State College of Iowa before admission to an accredited professional college, may use professional credit to satisfy the remaining hours required for the baccalaureate degree at the State College of Iowa. The student shall have completed all of the specific requirements for the degree as well as the requirements of an appropriate major at this college, as specified on pp. 62-63.

b. Acceptance of credit from a professional school of Medical Technology or Physical Therapy toward meeting part of degree requirements:

A student who has completed three or more years of college work with a minimum of 96 semester hours, of which at least the last 30 hours of work was completed at the State College of Iowa before admission to an approved school of Medical Technology or Physical Therapy, may use professional credit to satisfy the remaining hours required for the baccalaureate degree at the State College of Iowa. The student shall have completed all of the specific requirements for the degree, as well as the requirements of an appropriate major at this college, as specified on pp. 62-63. In addition, medical technologists shall successfully complete the examinations of the Registry of Medical Technology of the American Society of Clinical Pathologists; physical therapists must pass either the comprehensive exami-

nation in Science at the State College of Iowa or the examination of the American Registry of Physical Therapists.

For details of these programs, see pp. 62-63.

C. OTHER PROGRAMS

1. Pre-professional—Suggested programs are available for those planning to transfer into Law, Medicine, Dentistry, and Engineering. These may be requested in advance from the Registrar.
2. Cooperative Programs—The college cooperates with Allen Memorial School of Nursing, Waterloo, Iowa, to offer the freshman year academic work. Admission to the program is a joint action of the School of Nursing and the college. Applications should be made to the School of Nursing.

The college also cooperates with Allen Memorial School of Medical Technology to offer the first three years of work; the School of Medical Technology offers the fourth year. Applications should be made to the registrar of the college and a copy of the combined program requested.

A student who expects to transfer to another institution should declare his special interest at the time of admission. He will be assigned to an adviser who is familiar with the type of program which he seeks. Before seeing his adviser for the first time, the student should secure a copy of the catalog of the college to which he wishes to transfer, and know its requirements thoroughly. If he remains more than one year at the State College of Iowa, he must clear his program with the Coordinator of Counseling at the beginning of the sophomore year.

CHANGE OF DEGREE PROGRAM

Students who change from one degree program to the other will be held for all specific requirements of the program on which they expect to graduate. There will be little difficulty in making such a change if it is made not later than the beginning of the junior year. However, if the change is made later than that, there is no assurance that the student will be able to complete the work required for graduation within the usual four-year period.

II. Graduate Curricula

The State College of Iowa offers three graduate degrees:

- A. Master of Arts in Education—30-38 semester hours.
- B. Master of Arts—30-38 semester hours.
- C. Specialist in Education—Minimum of 30 semester hours beyond the master's degree.

For details of graduate programs, see pp. 131-169.

Undergraduate Curricula

General Education Requirements

All candidates for the 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:

COMMUNICATION	Semester Hours
62:21 Composition I	3
62:22 Composition II	2
50:26 Fundamentals of Speech	3
 MATHEMATICS	
80:20 Mathematics for General Education ¹	3
 SCIENCE	
82:20 The Physical Sciences I ²	3
82:22 The Biological Sciences I	4
 SOCIAL SCIENCES	
90:23 Man in Society I ³	4
90:24 Man in Society II ³	4
90:25 World Resources	3
68:124(g) Foreign Area Studies—China ⁴	3
68:125(g) Foreign Area Studies—India ⁴	3
 HUMANITIES	
68:21 Ancient Times Through the Reformation	4
68:22 From the Seventeenth Century to the Present	4
60:20 Man and Materials ⁵	2
52:20 Exploring Music ⁶	2
50:20 Introduction to Theatre	2
64:116 Religions of the World	3
64:120 Heritage of the Bible	2
65:121 Introduction to Philosophy	3
 PSYCHOLOGY	
20:8 General Psychology	3
 PHYSICAL EDUCATION⁷	
	4

In addition a student will complete one of the alternatives A, B, or C.

A. One year of a foreign language

B. Study Tour of England and Europe or Latin America

C. At least one of the following courses: Courses marked † cannot

be used under this item if already used to meet the General Education requirement listed above.

	Semester	Hours
50:20 Introduction to Theatre†	2	2
52:20 Exploring Music†	2	2
60:20 Man and Materials†	2	2
62:31 Introduction to Literature	3	3
64:116 Religions of the World†	3	3
64:120 Heritage of the Bible†	2	2
65:121 Introduction to Philosophy†	3	3
82:175 The Nature of Science	2	2
87:31 Physical Geology	4	4
87:108 Astronomy	3	3
90:123 Problems in American Civilization	2	2
96:14 American History to 1877	4	4
96:114 American History since 1877	4	4
	—	—
General Education Total	Minimum	55

Notes:

1. Prospective majors in Mathematics may substitute 80:45 Elementary Analysis I.
2. Prospective majors in Science may substitute a year of either chemistry or physics.
3. Prospective majors in Social Science may substitute 94:14 Introduction to American Government, and 98:58 Principles of Sociology, and either 92:52 Principles of Economics I or 92:53 Principles of Economics II for the two-course sequence 90:23 and 90:24.
4. Until these courses are fully available, students may substitute one of the following courses to satisfy this requirement: 60:147 Oriental Art; 68:123 Oriental Civilization; 96:170 Russia; 96:185 The Far East; 96:187 Modern Chinese History; 97:165 Geography of Asia, or 97:167 Geography of Africa.
5. Prospective majors in Art who successfully complete 60:10 and 60:15 may be released from 60:20.
6. Prospective majors in Music who successfully complete 58:50 and 58:51 may be released from 52:20.
7. Physical Education. All men students are required to take 4 hours of 38:1, one hour of which must be a course in swimming unless exempted by the department.

I. Bachelor of Arts— Teaching Program

All candidates on this program will choose one of the following patterns not later than the beginning of the sophomore year.

A. Preparation for teaching in the secondary school or in special subjects.

	Semester Hours
General education	Minimum 55
Common professional sequence	22
Major, minor, electives	53
	130

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

	Semester Hours
General education	Minimum 55
Common professional sequence	22
Additional specific requirements	10
Subject field and elective	43
	130

C. Preparation for teaching in the elementary school (kindergarten and grades 1-6).

	Semester Hours
General education	Minimum 55
Additional academic requirements	20
Common professional sequence	22
Professional semester	17
Subject field and electives	16
	130

THE COMMON PROFESSIONAL SEQUENCE

All candidates for the Bachelor of Arts-Teaching Program are required to take the courses in the common professional sequence as outlined below, and in addition one departmental methods course.

	Semester Hours
21:14 The Teacher and the Child	5
20:16 Psychology of Learning	5
21:118 Social Foundations of Education	4
28:1 Student Teaching*	8
	22

*Course number in Teaching denotes area in which experience is gained: 28:134, 135, 136, 137, 138.

MAJORS AND MINORS— SECONDARY SCHOOL TEACHING

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. He will also select at least one minor if a minor requirement is indicated under the description of the major he has chosen. Even if not required, a student may select a second major or one or more minors.

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.

If a student has only one minor, it may *not* be in the field of his major; if he chooses two minors, the second may be in his major field.

MAJORS

Art
 Business Education
 English
 French
 German
 Home Economics
 Industrial Arts
 Library Science
 Mathematics
 Music
 Physical Education (Men)
 Physical Education (Women)
 Science
 Social Science
 Spanish
 Speech
 Technical Institute Teaching
 Teaching of English as a
 Foreign Language

MINORS

Art

Biology
 Business Education
 Chemistry
 Economics and Sociology
 English
 French
 Geography
 German
 History
 Industrial Arts
 Latin
 Library Science
 Mathematics
 Music
 Physical Education (Men)
 Physical Education (Women)
 Physics
 Political Science
 Russian
 Safety Education
 Spanish
 Speech

To be approved for teaching in a major or minor area a student must make satisfactory grades in that area and pass such tests as the area department may require. A student may be held for additional work if he fails to demonstrate competence.

Major in Junior High School Education

In addition to the work in general education, the common professional sequence, and physical education, the junior high school major shall consist of the following:

SPECIFIED REQUIREMENTS

	Semester	Hours
20:116 Psychology of Adolescence		2
21:172 Problems in Reading in the Secondary School ..		3
21:178 The Junior High School		5

HIGHLY RECOMMENDED ELECTIVES

20:181 Group Evaluation Techniques		3
21:182 Introduction to Guidance and Counseling		3

SUBJECT FIELDS

One subject field chosen from the following:

Art	Music
Business Education	Physical Education (Men)
English	Physical Education (Women)
Foreign Language	Science
Home Economics	Social Science
Industrial Arts	Social Science—Language Arts
Library Science	(core program)
Mathematics	Speech

Course patterns in each subject field for the junior high school major will be found with the departmental listings, pp. 69-130. A methods course in teaching the subject field at the secondary level is required. A significant segment of the course will emphasize teaching problems unique to the junior high school.

GENERAL ELECTIVES OR ADDITIONAL SUBJECT FIELD

The student may complete a secondary minor in an area other than his subject field. He may also utilize his electives to strengthen his academic preparation in one field, or to strengthen his preparation in general education, professional education, or psychology.

Major in Elementary Education

The student will complete the work in general education except that 37:13 will be substituted for 2 hours of 39:3. The student will also complete the common professional sequence. In addition, the following is prescribed:

ADDITIONAL ACADEMIC REQUIREMENTS:

	Semester	Hours
20:100 Child Psychology		2
21:44 Children's Literature		3
52:102 Foundations of Music		3
80:130 Foundations of Arithmetic		3
60:21 or elective in art		3
Elective in geography or American history		3
Elective in science		3

 20

State College of Iowa

SUBJECT FIELD (detailed below)	15
PROFESSIONAL SEMESTER	
21:146 Reading and Language Arts	5
80:134 Teaching of Arithmetic	2
21:101 Elementary Methods and Materials	10
	17

Electives to complete a minimum of 130 hours.

EMPHASES

The student will choose one of three emphases indicating the area in which he would like to teach and will take work appropriate to this interest.

1. Upper Grades. The student will enroll in sections of courses marked (z) in the schedule of classes when available, and do student teaching at the upper grade level. Otherwise no special requirements exist.
2. Lower Grades. The student will enroll in sections of courses marked (y) in the schedule of classes when available, and do student teaching at the lower grade level. Otherwise no special requirements exist.
3. Special Education. The student will enroll in sections of courses marked (x) in the schedule of classes when available, otherwise either (y) or (z) sections. The student must complete at least 20 hours in appropriate work in order to meet approval standards in connection with teacher certification. There is a minimum core of work required of all students completing this emphasis and, in addition, a set of requirements in the special subdivision chosen. Courses below marked * are a part of other requirements on the major or the degree and are thus counted twice. The student may omit 9 hours of the additional academic requirements on the elementary major but may not omit 80:130.

CORE:

	Semester	Hours
21:185 The Exceptional Child	2	2
*21:100 Child Psychology	2	2
20:181 Group Evaluation Techniques	3	3
*28:135 Student Teaching—Special Education (replaces ½ of regular teaching requirement)	4	4

SPECIAL EDUCATION—RETARDED

20:186 Mental Retardation	3
21:186 Curriculum for Retarded Children	3
50:170 Speech Correction for the Classroom Teacher ..	2
Elective from list below	1

SPECIAL EDUCATION—GIFTED

21:187	The Gifted Child	4
35:112	Library Materials for Children or	
21:132	Materials of Instruction (Gifted)	3
	Elective from list below	2

SPECIAL EDUCATION—REMEDIAL READING

21:147	Remedial Reading	3
21:166	Recent Research in Reading	3
21:160	Diagnosis of Reading Problems	2
*21:44	Children's Literature	3

ELECTIVE LIST APPROPRIATE TO THIS EMPHASIS:

20:50	20:186	21:160	21:186	50:170
20:108	20:194	21:166	21:187	80:185
20:112	21:144	21:180	21:188	98:119
20:140	21:147	21:182	33:183	
20:142	21:148	21:184	35:112	

SUBJECT FIELDS

Students choosing a major in elementary education complete one of the following subject fields. The work shall be in addition to requirements in general education, except in mathematics, and a course taken to meet the additional electives (A, B, or C) may be counted on the subject field as may also one of the additional academic requirements. The minimum hours for the subject field are 15 hours.

ART AND INDUSTRIAL ARTS

Semester Hours

Required:

33:183	Industrial Arts for the Elementary School	2
60:21	or elective in art	3
	Additional electives in either art or industrial arts	
	except 33:190 and 195; and 60:95 and 195	10

LANGUAGE ARTS

Required:

62:31	Introduction to Literature	3
62:162	The Structure of English	3
21:44	Children's Literature	3
62:	Elective in Literature	3

One Required:

50:130	Creative Dramatics for Children	3
50:31	Oral Interpretation	3

State College of Iowa

MATHEMATICS

Required:

80:20 Mathematics for General Education	3
80:130 Foundations of Arithmetic	3
80:45 and 80:46 Elementary Analysis I and II <i>or</i>	
80:111 and 80:112 Introduction to Analysis and Introduction to Geometry	8

Electives from the following:

80:54 Mathematics of Measurement	3
80:107 Mathematics of Finance	2
80:153 Probability Theory	3
80:172 Fundamentals of Statistical Methods	3
80:183 History of Arithmetic	2
80:113 Topics in Mathematics	3

SCIENCE

Required:

One course in biology which may include 82:122 or any course numbered 84	3
One course in the physical sciences which may include 82:120 or any course numbered 86, 87, or 88	3
Additional courses in science except those numbered 82 .	9

SOCIAL SCIENCE

Required:

96:14 American History to 1877 <i>or</i>	
96:114 American History since 1877	4
One course in geography	3
Electives in social science except 90:190	8

A MODERN FOREIGN LANGUAGE

70:190 The Teaching of Foreign Languages	2
Credit in one modern foreign language beyond the level of the course numbered 2	12

Bachelor of Arts

All candidates on this program will complete the following pattern:

	Semester Hours
General Education	Minimum 55
Major, Minor, Foreign Language, Electives	69
	124

Not later than the beginning of the sophomore year each student enrolled on this program will choose one major from the list below. A minor is required for those majoring in geography or physics. A knowledge of a foreign language is required of those majoring in art, English, geography, history, social science, or speech. (Specific information regarding the foreign language requirement will be found with the departmental listings.) It is recommended that the student include in his electives a course in the literature of some language or languages other than English (in translation if not in the original).

Comprehensive Examination: The satisfactory fulfillment of a departmental comprehensive examination will be required during the senior year.

MAJORS AND MINORS

Specific requirements for the various major and minors will be found with the departmental listings

MAJORS

Art
Biology
Business
Chemistry
English
French
Geography
German
History
Home Economics
Industrial Arts
Mathematics
Music
Physical Education (Men)
Physics
Psychology
Science
Social Science
Spanish
Speech
Teaching of English as a
Foreign Language

MINORS

Art
Biology
Business
Chemistry
Economics
English
French
Geography
German
History
Home Economics
Industrial Arts
Latin
Mathematics
Music
Physical Education (Women)
Physics
Political Science
Psychology
Russian
Sociology
Spanish
Speech

Joint Programs

Required of all students:	Semester Hours
General Education	55
Appropriate major and elective courses	41

 96

DENTISTRY

88:54 General Physics I	4
88:56 General Physics II	4
84:34 General Zoology	4
84:36 General Botany	4
86:44 General Chemistry I	4
86:48 Inorganic Chemistry	4
86:124 Organic Chemistry I	4
86:126 Organic Chemistry II	4
Electives in Science	6

Comprehensive examination in Science

MEDICINE

88:54 General Physics I	4
88:56 General Physics II	4
84:34 General Zoology	4
84:106 Comparative Anatomy of Vertebrates	4
84:108 Vertebrate Embryology	4
86:44 General Chemistry I	4
86:48 Inorganic Chemistry	4
86:124 Organic Chemistry I	4
86:126 Organic Chemistry II	4
86:132 Quantitative Analysis I	4

Comprehensive examination in Science

MEDICAL TECHNOLOGY

86:44 General Chemistry I	4
86:48 Inorganic Chemistry	4
86:132 Quantitative Analysis I	4
86:124 Organic Chemistry I	4
<i>or</i>	
86:134 Quantitative Analysis II	4
84:34 General Zoology	4
84:36 General Botany	4
84:151 General Microbiology	4
Electives from the following: 84:106; 84:114; 84:128; 84:140	7
80:45 Elementary Analysis I	4
88:54 General Physics I is strongly recommended.	

Successful completion of the examination of the Registry of Medical Technology of the American Society of Clinical Pathologists.

PHYSICAL THERAPY

84:34	General Zoology	4
84:36	General Botany	4
86:44	General Chemistry I	4
86:46	General Chemistry II	4
	<i>or</i>	
86:48	Inorganic Chemistry	4
88:54	General Physics I	4
88:56	General Physics II	4

Electives in Science, including 10 hours in courses numbered 100 or above. Suggested electives: 84:38; 84:106; 84:114; 84:128; 86:124; 86:126

37:151 Kinesiology is strongly recommended.

Successful completion of the comprehensive examination in Science at the State College of Iowa or the examination of the American Registry of Physical Therapists.

LAW

Major in Social Science	40
Major in History	40
Major in Business	40

Other majors, except those in education, may be used but no part of the transferred work from law school may be considered as meeting any major requirements. A comprehensive examination in the appropriate major is required.

Curriculum Adjustments for Transfer Students

- I. The work of students who transfer from other colleges will be evaluated in terms of curriculum requirements at the State College of Iowa. In so far as possible, courses covering similar areas will be accepted in lieu of courses required here. Students who have had two full years of a general education or liberal arts curriculum will usually have satisfied many if not all of the requirements of the first two years. It should be understood that piecemeal work in several different institutions or an irregular pattern of work in a single institution will probably not meet many of the requirements of the first two years.

- II. In determining the requirements for the baccalaureate degree, the records of transfer students having two or more years of college work will be examined in terms of the following requirements:
1. The number of hours required for the degree less the number of hours accepted by transfer.
 2. All general education courses for which no reasonable substitute can be found.
 3. All work of the majors 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. A transfer student is required to take at least 10 hours of work at this college on his major.
 4. Competence in reading, speaking, and writing is required of all candidates seeking degrees or college recommendation for certification. Thus, transfer students who cannot pass the speech check are required to take necessary corrective work in the Speech and Hearing Clinic; similarly, those who do not meet certain standards on the English placement tests are held for work in the communication area.

Additional Requirements for the Bachelor of Arts—Teaching Program:

1. All required courses in education, psychology, and teaching.
2. If courses equivalent to one or more of the common professional sequence courses can be determined, these may be accepted in lieu of like courses at this college. However, the transfer student is normally required to take 20:16 as a prerequisite to Student Teaching on this campus.
3. 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.
4. Proficiency in typing and in the use of duplicating machines is required of all students.

Requirements for Graduation

In addition to the completion of one of the patterns outlined above, the requirements for graduation from the Undergraduate Curricula include the following:

A. RESIDENCE

1. Not more than 32 semester hours earned in correspondence, extension, radio, or television courses may be used toward graduation.
2. At least 36 weeks spent in residence at *this college* while earning in such residence at least 32 hours of credit, of which 20 hours must be earned in the junior and senior years.
3. At least 32 hours of credit earned in the junior and senior years in courses at this college. This total may include non-residence credit.
4. The last semester or full summer session before graduation spent in residence at this college.

B. SCHOLARSHIP

1. A student working toward the Bachelor of Arts degree with certification to teach must achieve a cumulative grade-index in all college work attempted, at this college and elsewhere, of at least 2.20 to be recommended for graduation. The student must also achieve a cumulative grade-index of 2.20 on all work attempted at the State College of Iowa.
2. A student working toward the Bachelor of Arts (without certification) must achieve a cumulative grade-index in all college work attempted, at this college and elsewhere, of at least 2.00 to be recommended for graduation; he must also achieve a cumulative grade-index of 2.00 on all work attempted at the State College of Iowa.

NOTE: If a student has failed to be recommended for graduation because of his scholastic average, the deficiency may be removed only by work taken in residence.

C. COMMUNICATION—Competence in reading, speaking, and writing is required of all candidates seeking degrees or college recommendation for certification.

D. ADVANCED COURSES—At least 10 hours of work in a major in courses numbered 100-199 and taken at this college.

E. PHYSICAL EDUCATION

1. All students should complete the requirement of 4 hours of credit in physical education activity courses during the first two years.
2. Physical education activity courses are numbered 1, 2, and 3.
3. Women students must complete 39:1 and 39:2 and two semesters of 39:3. 39:1 and 39:2 meet three periods a week and should be completed during the first year.

3. Not more than 4 hours of PE activity credit will apply toward graduation requirements. Only one hour of activity credit may be earned each semester, although a student may take more than one course. The registration card must indicate the course in which credit is desired.
4. No PE activity course may be repeated for credit except with the approval of the head of the appropriate PE department.
5. A student enrolled for marching band may defer PE activity for that semester.
6. A temporary release from PE 1, 2, or 3 for all or part of a semester does not release the student from any part of the total requirement.

F. LISTING OF CANDIDATES FOR GRADUATION

A student may be listed as a candidate for graduation at the end of a semester if the completion of 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.

G. APPLICATION FOR GRADUATION

A student who expects to be graduated at the end of a semester must make written application at the opening of the semester. This application is filed in the office of the Registrar.

H. SECOND BACCALAUREATE DEGREE

To receive a second baccalaureate degree, a student must meet all the requirements for the second degree, including at least 36 weeks in residence after receiving the first degree and not less than 32 hours of credit in addition to that required for the first baccalaureate degree.

Additional Requirements for the Bachelor of Arts—Teaching Program:

A. PHYSICAL EDUCATION

For students majoring in elementary education, the course 37:13 Physical Education for the Elementary Grades may be used to satisfy 2 hours of the PE 1 requirement. Credit may be earned in 37:13 in addition to 4 hours in PE 1 courses, except that when 37:13 is taken in the same semester as a PE 1 course the latter course will carry no credit.

- B. TYPEWRITING—All students must demonstrate competence in typing and the use of duplicating machines. Students should seek to complete this requirement before their senior year.

C. STUDENT TEACHING

1. For the completion of any undergraduate curriculum, or to earn a Temporary Certificate, the student must earn 8 hours credit in student teaching at this college, except that an undergraduate student with 3 or more semester hours credit in student teaching earned at the same level in another college may be released from 4 hours of student teaching at this college.
2. A student who has completed a two-year course of elementary teaching at this college will not be held for additional student teaching if he desires to complete a major in elementary education. However, credit in Teaching 28:138 will be required if the student majors in a field other than elementary teaching.
3. A student must make application for student teaching at least one semester in advance of the time when the work in student teaching is to be taken. Transfer students must complete one full semester in residence before being approved for student teaching. Opportunity for student teaching in the summer session is limited to candidates for graduation at the end of the summer session. Secondary teaching is not offered during the summer.
4. Not more than 10 hours of credit in student teaching may be used toward graduation.

D. PLACEMENT BUREAU REGISTRATION—Registration with the Placement Bureau is required of all candidates for degrees or for a Temporary Certificate and must be completed at the beginning of the last semester in residence.

Teaching Certificates

Teaching certificates are issued by state departments of public instruction and are valid only in the state of issue. A college recommendation that a certificate be issued is required.

Students on the teaching program must meet requirements for an Iowa teaching certificate to be graduated from the State College of Iowa.

Graduates of this college can usually secure appropriate certificates in other states by making proper application. Holders of Iowa certificates based upon less than four years of college preparation can secure certificates in only a few other states, under special conditions.

State College of Iowa

At present the following Iowa certificates are issued:

TYPE	PREPARATION	DURATION	KIND OF SERVICE AUTHORIZED*
Permanent Professional	Bachelor's degree plus Master's degree 4 years experience	Life	As endorsed
Professional	Bachelor's degree	10 years	As endorsed

*All certificates carry endorsements to indicate the kind of service licensed; e.g., elementary teaching, secondary teaching, special music teaching, elementary principal.

In addition to holding a certificate valid for the level of teaching being done, the secondary teacher must also have APPROVAL in each subject he is to teach. Approvals are issued by the Iowa Department of Public Instruction on the recommendation of an acceptable preparing college. To secure the recommendation of SCI, the student must usually meet the requirements for a major or a minor (or equivalent) in the subject, with a grade index in the subject of 2.25 or better. Exceptions are made only with the authorization of the college department offering the subject.

To be approved for coaching whether for intra- or inter-school competition or for teaching physical education half time or less, the teacher must have at least 15 semester hours of credit in physical education and the recommendation of a preparing college acceptable to the Iowa Department of Public Instruction. To secure recommendation for this approval from SCI, the student must meet the requirements for a minor in physical education.

This college may recommend for certification those graduates of other colleges who have completed their professional work here, but this is a discretionary matter and the college will expect such students to demonstrate excellence of scholarship and meet standards of health, conduct, and personality required of its own graduates. Such students must have been in residence at least 22 weeks and earned at least 20 hours of residence credit.

The Registrar will be pleased to answer specific questions concerning certification.

Courses of Instruction



IN THE following pages, courses are designated by two numbers, separated by a colon. The first number refers to the department or area of the course; the second number refers to the specific course. For example, in the designation 60:10, the "60" refers to the Department of Art and the "10" refers to the course. In registration always use the full number.

Courses 0-99 are primarily designed for freshman and sophomore students.

Courses 100-199 are primarily designed for junior, senior, and graduate students. *However, only those 100-level courses whose numbers are followed by a "g" provide graduate credit, e.g., 57:181 (g).* In all courses of the 100(g) series, greater academic achievement, both qualitative and quantitative, is expected of those receiving graduate credit than of those receiving undergraduate credit.

Courses 200-299 are primarily designed for graduate students. Undergraduates seeking admission to graduate courses must secure the permission of the head of the department offering the course. Courses numbered 200 taken as an undergraduate cannot later be used for an advanced degree unless the student was eligible to earn graduate credit. See pp. 132-133.

Students are classified as follows:

	Earned Semester Hours
Freshman	up to 31
Sophomore	32-63
Junior	64-95
Senior	96 and over

Graduate classification is earned by admission to graduate study.

When Courses Are Offered

In the listing of courses the letter F after the hours of credit means the course is normally offered each Fall semester. S means Spring semester. F-S means the course is offered both semesters. Su means Summer session. (Only a few departments have identified summer offerings; hence the absence of Su does not mean that the course will not be offered in the summer.) Where no letter is given, the course will be offered as seems desirable.

Course Numbers Common To Many Departments

These common numbers may be used under named conditions by prefixing the department number:

059, 159, 259—Reserved for temporary courses of a special or experimental nature.

133 or 233 WORKSHOP—1 to 6 hrs. Offered for special groups as announced in advance. Students may take work in one or more workshops but may not use more than 6 hours toward graduation.

192 HONORS SEMINAR—1 to 3 hrs.

196 HONORS READINGS—1 to 3 hrs.

198 INDEPENDENT STUDY—Hours to be arranged in advance. A provision for seniors to do work in a special area not offered in formal courses. Permission of the Dean of Instruction and head of the department offering the work is required. Projects must be approved well before the beginning of the semester in which the work is to be done.

199 STUDY TOUR—4 to 8 hrs. Offered as announced in the Summer Bulletin and Schedule of Classes. See page 48 of this catalog for general description and consult appropriate department for specific information.

297 PRACTICUM—2 hrs. Offered as needed in the various disciplines to provide practical experience in college teaching.

299 RESEARCH—1 to 3 hrs. For details of approval and registration, see pp. 138, 149, 163.

Theme Groups

00:17 or 117 THEME GROUP—1 or 2 hrs. Theme Groups are small discussion groups each devoted to a single topic; they are open only to students on the Honors Program.

Course Descriptions

In the pages immediately following are listed all the courses offered by the various departments of the college. Departments are listed alphabetically. Within each section the list of courses is preceded by the departmental requirements for the majors and minors as well as for the subject field on the junior high school major. For departments which cover a number of fields, e.g., Science, and Social Science, the material has been subdivided. Requirements for graduate majors are listed under The Graduate Program, pp. 131-169.

Art

Guillaume, Head. Benge, Campbell, Choo, Delafield, Finegan, Gogel, Harshbarger, Haskell, Herrold, Koppel, Page, Petheo, D. Robinson, J. K. Stein.

ART MAJOR—TEACHING

Required: 60:10; 60:15; 60:40; 60:95; 60:195 16 hours

Required: One of the following: 60:142; 60:144;

Courses of Instruction

60:146; 60:148	3 hours
Required: At least four of the following: 60:18; 60:30; 60:34; 60:37; 60:50; 60:55; 60:74 or 60:75;	
60:80 or 60:81	12 hours
Electives in Art	17 hours
Required: Student Show	0
	48 hours

It is recommended that 65:143 be elected by art majors. An art major may elect an emphasis in Art History, Commercial Art, Ceramics, Drawing, Crafts, Metalwork, Painting, Printmaking, or Sculpture.

Prior to graduation each student must demonstrate proficiency in at least one art area.

ART MAJOR

Required: 60:10; 60:15; 60:40	10 hours
Art History elective	3 hours
At least four of the following courses: 60:18; 60:30; 60:50; 60:80 or 60:81; 60:34; 60:37; 60:55; 60:74 or 60:75	
Additional electives in art excluding 60:20; 60:21; 60:95; 60:195	12 hours
Student show	0
	37 hours

An art major may elect an emphasis in Art History, Commercial Art, Ceramics, Drawing, Crafts, Metalwork, Painting, Printmaking, or Sculpture. It is strongly recommended that a minimum of 12 hours be completed in one area.

Prior to graduation each student is required to demonstrate proficiency in at least one art area and must pass a comprehensive examination.

The student must present an acceptable one-man show at least one semester prior to graduation.

The student must demonstrate a competence in a modern foreign language.

ART MINOR — Teaching and Liberal Arts

Required: 60:10; 60:15; 60:40	10 hours
Electives in art (excluding 60:20; 60:95; 60:195; 60:21 except that students on a teaching program may include 60:95)	
	10 hours
	20 hours

ART SUBJECT FIELD — Junior High School Major

Required. 60:10; 60:15; 60:40; 60:95; and 60:195	16 hours
Electives chosen from the following: 60:30; 60:34; 60:37; 60:50; 60:55; 60:74; 60:80;	
	15 hours
	31 hours

60:10. Art Fundamentals—Drawing—3 hrs. F-S. Experience in two-dimensional media with emphasis on the interpretive aspects of form. 6 periods a week.

60:15 Art Fundamentals—Design—3 hrs. F-S. Experience in two- and three-dimensional media with emphasis on the theoretical aspects of design. 6 periods a week.

60:18. Drawing—3 hrs. F. Emphasis on growth in perception of visual form. Range of materials and subject matter. Prerequisite: 60:10. 6 periods.

60:20. Man and Materials—2 hrs. F-S. For general education in the field of art. Experiences with art materials. The interaction between man and various art media. Emphasis upon contemporary art forms. 4 periods.

- 60:21. Exploring Art**—3 hrs. F-S. Experience with a variety of materials with implications for their adaption on the elementary school level. 6 periods. Prerequisite: 60:20.
- 60:30. Commercial Design**—3 hrs. S. Application of design principles to the requirements of commercial art. Lettering and layout, poster design and display. 6 periods.
- 60:34. Printmaking**—3 hrs. S. Block prints, etchings, serigraphs, lithographs, and monotypes. 6 periods.
- 60:37. Sculpture**—3 hrs. F. Three-dimensional materials with emphasis on modeling, carving, and casting plaster and concrete. 6 periods.
- 60:40. Survey of Art History**—4 hrs. F-S. From prehistoric time to the present.
- 60:50. Ceramics**—3 hrs. F-S. Ceramic materials, design, forming, glazing, and firing. 6 periods.
- 60:55. General Crafts**—3 hrs. F-S. Textile design (loom weaving and printing), puppetry and staging, and work in other craft areas. 6 periods.
- 60:74. Jewelry and Metalwork**—3 hrs. F-S. Forming, joining, decorating, and combining precious and non-precious metals with other materials. 6 periods.
- 60:75. Metalsmithing**—3 hrs. S. Designing and forming metal objects by forging. 6 periods.
- 60:80. Painting—Oil**—3 hrs. F.S. Oil and mixed media palette. Experience in grounds, mediums, supports, and preparations. 6 periods.
- 60:81. Painting—Water base**—3 hrs. S. Plastic, tempera, transparent, gouache, casein, and all water soluble media. 6 periods.
- 60:95. Philosophy and Materials of Art Education**—4 hrs. F-S. Study of the philosophy, materials, and facilities of art education on the elementary and secondary school level. 8 periods. 3 hours will count as education.
- 60:111(g). Life Drawing**—3 hrs. S. Drawing from the model using a variety of media. 6 periods.
- 60:118(g). Advanced Drawing**—1-8 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.
- 60:132(g). Commercial Art**—3 hrs. Design and techniques on the advanced level. Students may select from the following sections: 1. Advanced Design; 2. Fashion Illustration; 3. Illustration; 4. Package Design; 5. Display Design. Course may be repeated but not in the same section.
- 60:134(g). Advanced Printmaking**—1-8 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.
- 60:137(g). Advanced Sculpture**—1-8 hrs. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.
- 60:142(g). Italian Renaissance Art**—3 hrs. F. History of 14th, 15th, and 16th century Italian art.
- 60:144(g). Baroque and Rococo**—3 hrs. S. History of Baroque and Rococo art in 17th and 18th century Europe.
- 60:146(g). 19th Century European Art**—3 hrs. F. Napoleonic art to Art Nouveau.
- 60:147(g). Oriental Art**—3 hrs. S. Introduction to the arts of India, South-east Asia, China and Japan.
- 60:148(g). Contemporary Art**—3 hrs. S. History of art from about 1900 to the present in Europe and America; includes painting, sculpture and architecture.
- 60:150(g). Advanced Ceramics**—1-8 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.
- 60:156(g). Advanced Crafts**—1-8 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.
- 60:160(g). Puppetry**—3 hrs. S. Design, construction, manipulation, and staging of puppets and marionettes. 4 periods.
- 60:170(g). Advanced Metalwork**—1-8 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.
- 60:180(g). Advanced Painting**—1-8 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Approval of Department.

- 60:189. Senior Show—0 hrs.
- 60:195(g). Artist-Teacher Seminar—2 hrs. F-S. Evolution of contemporary art education philosophy and the dynamic role of the twentieth century artist-teacher. Place of the artist-teacher in society and in the community. Art demands of our present culture and implications for the art education program in terms of methods and materials.
- 60:198. Independent Study. See pp. 47 and 70.
- 60:199(g). Study Tour, Eastern America—5 hrs. Four weeks' study (and two weeks on campus) of museums and art studios in midwestern and eastern United States. Consult department for prerequisite.
- 60:240. Art Forms—3 hrs. From the period of cave drawings to Impressionism. 6 periods.
- 60:241. Contemporary Art Forms—3 hrs. From Impressionism to the present day. 6 periods.
- 60:275. Art Projects—2-5 hrs. F-S. Credit to be determined at time of registration. May be repeated for credit. Prerequisite: Departmental approval. 1. Drawing, 2. Ceramics, 3. Painting, 4. Printmaking, 5. Sculpture, 6. Crafts, 7. Metalwork.
- 60:292. Research and Bibliography—3 hrs.
- 60:293. Research in Art History—1-5 hrs. May be repeated for credit. Prerequisite: 6 hours of Art History or proficiency and department approval.
- 60:295. Seminar in Teaching Art—3 hrs. Specific art education relating to public schools with emphasis upon continuity of art activity. Satisfies the special methods elective for the professional core.
- 60:296. The Supervision of Art—3 hrs. Teaching problems and practices relating to the curriculum and the supervision of art.
- 60:299. Research. See pp. 138, 149, 163.

Business and Business Education

Douglas, Head. O. Anderson, J. Blanford, M. Blanford, Denton, Goyal, Halverson, Hebron, G. Hansen, K. Hansen, Humphrey, Keefe, Lebeda, McCrea, McDonald, Reece, Reed, Ruggle, L. E. Wright.

BUSINESS EDUCATION MAJOR—TEACHING

All majors are required to (1) furnish documented evidence of a minimum of 360 hours of approved business work experience or (2) secure credit in 15:111 or 15:112. Emphasis E and F require additional work experience.

Required: 15:10; 12:30; 12:31; 14:50; 15:12; 15:101	18 hours
Chosen from sections of 15:190	3 hours
Electives in business education	19 hours

—
40 hours

Emphases: A student who completes one of the following special emphasis requirements in addition to the core requirement and has the approval of the department may have a statement of completion added to his student record.

- A. *General Business*: At least 18 hours including 13:40 and 15:102, with the remainder chosen from 12:132; 13:41; 13:142; 15:116; 15:151; 15:152; 15:160; 15:165; 15:167; and 15:170 (Sec. 2).
- B. *Accounting*: At least 18 additional hours from accounting and 15:170 (Sec. 1). 15:102 and 15:167 are recommended also.
- C. *Marketing*: At least 18 hours including 13:40; 13:41; 13:141; 13:142; and 15:116. Additional courses to be chosen from those in Marketing, 15:170 (Sec. 3) and 15:167.

State College of Iowa

- D. *Secretarial*: At least 18 hours including 14:54; 14:152; and 15:116 with additional courses chosen from 14:151; 15:117; 15:165; and 15:170 (Secs. 5,6).
- E. *Distributive Education Teacher-Coordinator*. (a) Completion of Marketing emphasis. (b) 8 hours of professional courses including 15:113; 15:114; and recommended 15:118; 15:119; 21:182. (c) 15:111; 15:112 or documented proof of satisfactory work experience.
- F. *Office Education Teacher-Coordinator*. (a) Completion of a Secretarial emphasis. (b) 8 hours of professional courses including 15:113; 15:114; and recommended 15:118; 15:119; 21:182. (c) 15:111; 15:112 or documented proof of satisfactory work experience.

BUSINESS MAJOR

Required: 15:10; 15:101; 12:30; 12:31; 13:40	16 hours
One field of emphasis	18 hours
Electives in business excluding 15:180 and those numbered from 190-199	6 hours
	40 hours

Recommended: 8 or more hours in economics including 92:52.

Emphases:

- A. *General Business*: At least 18 hours including 15:102, with remainder chosen from 12:131; 12:132; 13:141; 13:142; 15:116; 15:117; 15:151; 15:152; 15:160; 15:165; 15:167; and 15:170 (Secs. 2, 3, 4).
- B. *Accounting*: At least 18 additional hours from Accounting and 15:170 (Sec. 1). 15:102 and 15:167 are recommended also.
Business majors with an accounting emphasis who wish to qualify to sit for the CPA examination in the State of Iowa must meet additional specific requirements as outlined by the Iowa Board of Accountancy in their *Annual Register*. A copy of these requirements may be obtained in the office of the Department of Business and Business Education.
- C. *Marketing*: At least 18 hours including 15:116, with remainder from additional courses in Marketing and 15:167.
- D. *Secretarial*: At least 18 hours including 14:54; 14:152; and 15:116, with remainder chosen from 15:117; 15:165; and 15:170 (Secs. 5, 6).

BUSINESS EDUCATION MINOR—TEACHING

Required: One or more sections of 15:190 and the appropriate prerequisites, plus electives to total 18 hours

BUSINESS MINOR

Required: 15:10	4 hours
One of the following groups of courses:	
12:30; 12:31; 13:40; 15:101	12
Courses in accounting	12
Courses in marketing	12
Courses in secretarial	12
Chosen from 15:101; 15:102; 15:116; 15:160; 15:165; 15:167	12
	12
	16 hours

BUSINESS EDUCATION SUBJECT FIELD—

Junior High School Major

Required: 12:30; 14:50; 15:10; 15:12; 15:101; 15:190 ..	16 hours
Electives	14 hours
	30 hours

It is recommended that electives be chosen from the following:

12:31; 12:132; 13:40; 14:151; 15:102; 15:116; 15:160.

It is recommended that consideration be given to the completion of a major in business education on which all of the above courses may be counted.

GENERAL BUSINESS

15:10. **Introduction to Business**—4 hrs. F-S. An introduction to the organization, operation, management, functions, and responsibilities of the American business enterprise.

15:12. **Office Techniques**—2 hrs. F-S. Adding and calculating machines; filing, voice writing, duplicating. Prerequisite: Ability to type. Discussion, 2 periods; lab., 3 periods arranged.

15:70. **Business Statistics**—3 hrs. F. A functional approach to descriptive and inductive uses of statistics as tools of business management.

15:101(g). **Business Law I**—3 hrs. F-S. Contracts, agency, employment, negotiable instruments, personal property, bailments, and transportation.

15:102(g). **Business Law II**—3 hrs. S. Insurance, surety, partnerships, corporations, real estate, trusts, and bankruptcy. Prerequisite: 15:101.

15:111(g). **Directed Work Experience I**—2 hrs. F. Job analysis, job descriptions, weekly work-experience reports and analyses coordinated with problems related to students' work. Corequisite: Employment in an *approved* office or distributive occupation.

15:112(g). **Directed Work Experience II**—2 hrs. S. Human relations problems, job study guides, job training techniques, weekly work-experience reports coordinated with problems related to students' work. Corequisite: Employment in an *approved* office or distributive occupation.

15:113(g). **Organization and Administration of Cooperative Programs**—4 hrs. F. Objectives, operation, and coordination of vocational programs; emphasis on office and distributive occupations at the secondary level.

15:114(g). **Philosophy of Vocational Education**—2 hrs. F. Development and status of vocational education. Emphasis on work experience programs, adult, and junior college offerings.

15:116(g). **Business Writing**—3 hrs. F. Business letters, press releases, business reports, and dictation.

15:117(g). **Office Management**—3 hrs. S.

15:118(g). **Adult Business Education Programs**—3 hrs. S. Materials and special problems in adult evening classes and short courses; curricula, materials and problems in post-secondary vocational and technical schools and in junior colleges.

15:119(g). **Individual Instruction Techniques**—2 hrs. S. Correlating classroom instruction with on-the-job training in office and distributive cooperative part-time programs. Prerequisite: 15:113 or instructor's consent.

15:151(g). **Business Finance**—3 hrs. F. Fund demand and supply in the capital market and the monetary and credit policies of the business enterprise; principles for determining optimum relationship of short-term and long-term debt to owner's equity and methods of attaining it.

15:152(g). **Business Investments**—3 hrs. S. A study of investment policy. Mechanics of measuring investment return; factors of choice in investments; types of industrial and non-industrial investments; analysis of indirect investments for both profit and non-profit enterprises.

15:160(g). **Business Management**—4 hrs. F. Basic principles of management, with emphasis on the scientific management of business enterprises.

15:162(g). **Risk Management and Insurance**—3 hrs. F. Fundamentals of risk and of insurance as they apply to financial management.

15:165(g). **Personnel Management**—3 hrs. S. Odd years. Selection, placement, promotion, training, wage, incentive, welfare, and related employee problems of business; basic principles and current practices.

15:167(g). **Elements of Data Processing**—3 hrs. F. An introduction to the techniques and procedures of data processing. Analysis and study of data processing systems, including punch card equipment and electronic computers.

15:169(g). Business Internship—2 hrs. F-S. Open only to qualified majors in Business or Business Education with at least a 2.50 grade index who are recommended by the department. A full-time business internship extending for a minimum of eight weeks. The internship may be in (1) Accounting (2) Management (3) Marketing or (4) Secretarial.

15:170(g). Problems in Business Education—1-3 hrs. F-S. Credit determined at registration. Student will choose one of the following areas:

1. Accounting
2. Basic and Consumer Business
3. Distribution
4. Business Law
5. Typewriting and Office Practice
6. Shorthand and Secretarial

May be repeated with concentration in a different area. Prerequisite: instructor's consent.

15:180. Senior Seminar in Business Education—2 hrs. F-S TO ACCOMPANY STUDENT TEACHING. Projects and research of value to the student as a teacher. Open to majors and minors in Business Education; others should consult the head of this department.

15:190. Methods—1 hr. A student may earn credit in more than one section. Not over 3 hours may be used as credit in Education by a major in Business Education.

1. Basic Business. Prerequisite: 15:10
2. Bookkeeping. Prerequisite: 12:31
3. Typewriting. Prerequisite: 14:51
4. Shorthand. Prerequisite: 14:54
5. Office Machines and Office Practice. Prerequisites: 14:51 and 15:12
6. Distribution. Prerequisites: 13:41 and 13:141

15:198. Independent Study. See pp. 47, 70.

15:203. Foundations in Business Education—2 hrs. Su. Even years. Trends, objectives, curricula, principles, and philosophy of business education.

15:270. Business Ethics—3 hrs. The role of business management in meeting its responsibilities to the individual and to society; issues, practices, and professional standards.

15:280. Seminar in Business Education—2 hrs. Su. May be repeated for a maximum of 6 hours.

15:282. Seminar in Business—1-3 hrs. F-S. May be repeated for a total of 6 hours credit. Prerequisite: departmental approval. Sections: 1. Accounting 2. Marketing, 3. Management, 4. Finance, 5. Office Administration.

15:285. Individual Readings—1-2 hrs. F-S. Directed readings and reports. May be repeated for a maximum of 4 hours.

15:290. Improvement of Basic Business Instruction—2 hrs. Su. Odd years.

15:292. Business Research—3 hrs. The nature, design, tools and completion of research projects.

15:299. Research. See pp. 138, 149, and 163.

ACCOUNTING

12:30. Principles of Accounting I—3 hrs. F-S. Preparation of financial statements, effects of merchandising operations, accounting procedures, voucher system, payroll and tax accounting. Primarily for sophomores.

12:31. Principles of Accounting II—3 hrs. S. Continuation of 12:30. Partnership, corporation, departmental, branch, and manufacturing accounting. Statement analysis and supplementary statements. Primarily for sophomores.

12:130(g). Intermediate Accounting—4 hrs. F. Balance sheet analysis; supplementary statements. Prerequisite: 12:31.

12:131(g). Cost Accounting—4 hrs. F. Emphasis on job-order costs. Prerequisite: 12:31.

12:132(g). Income Tax—3 hrs. S. Accounting problems relating to individual and corporation income taxes (state and federal).

- 12:134(g). **Auditing**—3 hrs. F. Odd years. Procedures used to determine accuracy and reliability of financial records. Prerequisite: 12:130.
- 12:135(g). **Advanced Accounting**—4 hrs. S. Even years. Analysis of working capital and operation; supplementary statements (funds, cash-flow from incomplete records); quasi-reorganizations; income tax allocation; partnership dissolutions; consolidations. Prerequisite: 12:130.
- 12:140(g). **Accounting Systems**—3 hrs. F. Analysis of modern accounting systems with emphasis on system building; application of data processing methods to system development with special attention to the use of electrical and electronic devices. Prerequisite: 12:130.
- 12:291. **Improvement of Bookkeeping Instruction**—2 hrs. Su. Even years.

MARKETING

- 13:40. **Elements of Distribution**—3 hrs. F-S. Facets in the distribution of goods and services.
- 13:41. **Salesmanship**—2 hrs. F-S. Selling techniques. Selling problems of manufacturers, wholesalers, and retailers. Retail sales demonstrations by students. Primarily for sophomores.
- 13:141(g). **Retailing**—4 hrs. F. Management of retail and service establishments.
- 13:142(g). **Advertising**—3 hrs. F. Functions of advertising display and visual merchandising, techniques and media of advertising, and sales promotion techniques.
- 13:143(g). **Retail Merchandising**—3 hrs. S.
- 13:145(g). **Retail Advertising and Display**—3 hrs. S. Advertising problems of both small and large stores including campaigns, media, layout, display techniques, and public relations.
- 13:150(g). **Marketing Management**—3 hrs. F. A comprehensive study of problems encountered by marketing executives in modern business and of policies and procedures that may be followed in their solution. Prerequisite: 6 hours of credit in marketing.
- 13:151(g). **Marketing Research**—3 hrs. S. Procedures used in defining a marketing problem and carrying out the research necessary for its proper solution; a detailed study of methods used in motivation research, product research, advertising research, and sales control research. Prerequisite: 6 hours of credit in marketing.
- 13:245. **Problems in Distributive Education**—2 hrs. Su. Even years. Prerequisite: Experience as teacher-coordinator of supervised work-experience program or consent of instructor.
- 13:250. **International Marketing**—3 hrs. Odd Summers. Marketing practices and trends in businesses serving foreign markets.

SECRETARIAL

- 14:47. **Personal Use Typewriting**—1 hr. F. A beginning course for students with no previous typewriting instruction; includes learning the keyboard by the touch method. No credit on a major in business education. 2 class periods and 2 lab. periods arranged.
- 14:50. **Basic Typewriting**—2 hrs. F-S. Development of speed and control. Elective for students lacking minimum skill for Advanced Typewriting. Prerequisite: 14:47 or one semester of high school typewriting or equivalent. 2 class periods and 3 lab. periods arranged.
- 14:51. **Advanced Typewriting**—3 hrs. F-S. Technique, speed and control refinements; office applications. Required for departmental approval for teaching typewriting. Prerequisite: ability to type at 40 net words per minute for five minutes; 14:50 or one year of high school typewriting or equivalent. 3 periods.
- 14:53. **Beginning Shorthand**—4 hrs. F. For students with no previous training in shorthand. Corequisite: Registration in a typewriting course unless already a good typist. Daily.

14:54. Advanced Shorthand—4 hrs. To build skill in taking and transcribing dictation and to perfect knowledge of shorthand theory. Required for state certification as shorthand teacher. 14:152 may be substituted for certification only if officially excused from 14:54 on the basis of performance. Students should take dictation at a minimum rate of 60 words a minute at the beginning of the course. Students lacking minimum ability may elect 14:53. Prerequisite: 14:53, or one year of high school shorthand. Daily.

14:55. Forkner Shorthand—3 hrs. S. A complete course in a combination alphabet-symbol shorthand for either vocational or personal use.

14:151(g). Office Practice—3 hrs. S. Advanced office duties, techniques and procedures. No shorthand required. Prerequisites: 15:12 and 14:51. Primarily for sophomores and juniors.

14:152(g). Secretarial Practice—5 hrs. F. Secretarial duties, responsibilities, and procedures. Includes advanced dictation and transcription. Prerequisite: 14:54.

14:282. Comparative Shorthand Theory—2 hrs. Su. Even years. Principles underlying shorthand systems as related to learning and teaching. Prerequisite: instructor's approval.

14:292. Improvement of Typewriting Instruction—2 hrs. Su. Even years.

14:293. Improvement of Shorthand Instruction—2 hrs. Su. Even years.

Education and Psychology

Bishop, Head, Ball, Blackwood*, Bosdell, Breithaupt, Brimm, M. B. Brown, Curtis, W. D. DeKock, Denny, Dreier, Dunbar, Eland, Elster, Erickson, Euchner, W. Fatka, Frank, Froyen, Hampton, Harrington, Hellwig, Hosier, Hult, Johnson, Koehring, K. Kramer, Martindale, Melberg, M. Nelson, Petrie, Pierce, Przychodzin, Ratekin, Reppas, Rhum, Rutkowski, Schnepf**, Scott, Schowalter, W. Silvey, Sparrow, J. Stein, Wilcox, Worrell.

PSYCHOLOGY

PSYCHOLOGY MAJOR

In addition to the general education requirement, 20:8 General Psychology, an undergraduate major in psychology shall consist of 30 semester hours of credit in psychology:

20:50	Experimental Psychology: General	4 hours
20:150	Experimental Psychology: Learning and Motivation	3 hours
21:180	Statistical Methods in Education and Psychology	2 hours
20:181	Group Evaluation Techniques	3 hours
20:118	Systems of Psychology	3 hours
	Electives in Psychology	15 hours
		<hr/> 30 hours

Elective courses in psychology may include any psychology courses approved by the adviser, except 20:16.

Psychology majors will be required to satisfy *one* of the following requirements:

1. A reading knowledge of one modern foreign language.
2. Eight semester hours of biological and/or physical sciences beyond general education.
3. Eight semester hours of mathematics (including 80:153, Probability Theory, and/or 80:172, Fundamentals of Statistical Methods) beyond general education.

* Deceased

** On leave 1965-66

4. Nine semester hours of English language as follows:
 62:103, Advanced Composition; 62:162, The Structure of English;
 62:164, Semantics.

PSYCHOLOGY MINOR #

Required: 20:50; 21:180; 20:118 9 hours
 Electives in psychology except 20:16 6 hours

15 hours

#Counts as a minor on the teaching program for speech correction majors and other majors that do not require a teaching minor.

20.8. **General Psychology**—3 hrs. F-S. To provide a foundation for psychological understanding.

20:16. **Psychology of Learning**—5 hrs. F-S. Prerequisite: 21:14.

20:50. **Experimental Psychology: General**—4 hrs. F-S. Basic understanding and training in both the general methods of experimental psychology and selected areas of investigation. Emphasis upon human behavior. Laboratory and lecture, 6 periods per week. Prerequisite: 20:8 or equivalent.

20:100(g). **Child Psychology**—2 hrs. F-S. Prerequisite: 20:8 or 21:14 or equivalent.

20:108(g). **Psychology of Personality**—3 hrs. F.

20:112(g). **Mental Hygiene**—2 hrs. F-S.

20:116(g). **Psychology of Adolescence**—2 hrs. F-S. Growth, attitudes, and concepts from age eleven to maturity. Prerequisite: 20:8 or 21:14 or equivalent.

20:118(g). **Systems of Psychology**—3 hrs. S. Prerequisite: 21:14 or equivalent or one course in psychology.

20:140(g). **Social Psychology**—3 hrs. F. Prerequisite: One course in psychology or 21:14 or equivalent.

20:142(g). **Abnormal Psychology**—3 hrs. S. Causes of abnormal behavior. Characteristics of major abnormalities. Classification of organic and functional disturbances. Relevance of Abnormal Psychology to the study of children and youth.

20:150(g). **Experimental Psychology: Learning and Motivation**—3 hrs. F-S. Problems of learning and motivation studied from their theoretical point of view utilizing lecture, reading and the laboratory method. Laboratory and lecture, 5 periods per week. Prerequisite: 20:50 and 21:180.

20:152(g). **Psychology of Sensation and Perception**—3 hrs. F. Sensation and perception studied from the standpoint of the various psychological theories. Prerequisite: 20:50 and 21:180.

20:181(g). **Group Evaluation Techniques**—3 hrs. F-S. Measurement and evaluation in the instructional programs of elementary and secondary schools. Utilization of standardized group instruments in measuring aptitude, intelligence, achievement, interest, and personality. Construction of classroom tests by the teacher. Prerequisite: 21:180 or 20:16 or equivalent.

20:186(g). **Mental Retardation**—3 hrs. F. The nature and etiology of mental retardation and mental deficiency; the degrees, types and personality correlatives of mental deficiency; the psychology of retardedness 21:185 should precede this course.

20:194(g). **Clinical Experience**—1-4 hrs. F-S. Practice in educational testing, mental testing, interviewing, guidance and counseling; and formulation of follow-up procedures. Prerequisite: departmental approval.

20:198. **Independent Study**. See pp. 47 and 70.

20:214. **Advanced Educational Psychology**—2 hrs. F-S.

20:285. **Individual Intelligence Testing**—3 hrs. F-S. Standardization, cross-validation, administration and interpretation of results for both the Stanford-Binet Scale and the Wechsler-Bellevue Scale. 5 periods per week. Prerequisite: 20:181.

20:286. **Analysis of the Individual**—3 hrs. S. Prerequisite: 21:180, and 21:182 or 21:183.

20:287. **Advanced Psychological Testing**—3 hrs. F. The selection, ad-

ministration, and interpretation of objective personality inventories and certain other methods of personality assessment. Special individual tests of intelligence. Prerequisite: 20:181 and 20:285.

EDUCATION

The undergraduate major in elementary education is described on pp. 57-60. The junior high school major is described on pp. 56-57.

21:14. The Teacher and the Child—5 hrs. F-S. Appraisal of the teaching profession; work and certification of teachers; psychology of child growth and development from birth through high school age. Prerequisite: 20:8.

21:31. Audio-Visual Materials in Education—1 hr. F-S. Two periods.

21:44. Children's Literature—3 hrs. F-S.

21:101(g). Elementary Methods and Materials—10 hrs. F-S. This fused course deals with the methods and materials used in the elementary school in relation to the development of the child. It embodies the content of such courses as the teaching of elementary social studies, science, art, and music. Prerequisite: 21:14, 20:16.

21:118. Social Foundations of Education—4 hrs. F-S. The school as a social institution; organized and informal community controls; current philosophies of education; teacher responsibilities for the curriculum and professional ethics. Prerequisite: 21:14. TO ACCOMPANY STUDENT TEACHING.

21:131(g). Audio-Visual Education—2 hrs. F-S. Discussion, 3 periods; lab., as arranged.

21:132(g).—Materials of Instruction—3 hrs. S-Su. Laboratory work in the Curriculum Laboratory with all types of materials in the student's field. Especially for students interested in supervision; others should have departmental approval.

21:134(g). History of Education—3 hrs. F.

21:135(g). Administration of the Audio-Visual Program—2 hrs. S. An advanced course to prepare an experienced teacher for the position of Audio-Visual Director or Coordinator. Prerequisite: 21:131 and departmental approval.

21:138(g). Comparative Education—3 hrs. S. A panoramic view of the educational systems of various nations of the world compared with the education of the United States of America.

21:141(g). Principles of Supervision—2 hrs. F. Techniques for teacher improvement in the elementary and secondary schools. Before enrolling in this course the student should have had teaching experience.

21:142(g). Methods in Elementary Science—2 hrs. F.

21:143(g). Social Studies in the Elementary School—2 hrs. S.

21:144(g). Literature for Elementary Children—3 hrs. F-S. An advanced course in children's literature. An elementary course in children's literature should precede this course.

21:145(g). Story Telling—2 hrs. F. 21:44; 21:144 or 35:112 should accompany or precede this course.

21:146(g). Reading and Language Arts—5 hrs. F-S. The language arts of reading, speaking, listening, and writing in the elementary school. Survey of recent literature and research in the field. Emphasis on individual and group problems.

21:147(g). Remedial Reading—3 hrs. F-S. Laboratory experience with children. Prerequisite: a methods course in the teaching of reading.

21:148(g). Parent Education—3 hrs. F.

21:152(g). Elementary Curriculum—3 hrs. F-S. Recent trends in the curriculum for children in grades K-6. No credit allowed for a student who has received credit in 21:101.

21:154(g). Nursery School and Kindergarten—2 hrs. S.

21:160(g). Diagnosis of Reading Problems—2 hrs. S. Prerequisite: one course in the teaching of reading.

21:166(g). Recent Research in Reading—3 hrs. F-S. Research in reading

with its implications for the classroom teacher. Prerequisite: one course in the teaching of reading.

- 21:172(g). **Problems in Reading in Secondary Schools**—3 hrs. S.
- 21:175(g). **Braille I**—2 hrs. Braille reading and writing for the education of blind children. Use of Braille writing equipment. Reading problems; observation of blind children; Braille in mathematics and music.
- 21:176(g). **Braille II**—2 hrs. Continuation of Braille I.
- 21:178(g). **The Junior High School**—5 hrs. S. Prerequisite: 20:116.
- 21:179(g). **Teaching the Retarded in Secondary Schools**—3 hrs. The education of retarded youth in the junior and senior high schools, including the curriculum and modern procedures and materials of instruction. Prerequisite: 20:186.
- 21:180(g). **Statistical Methods in Education and Psychology**—2 hrs. F-S.
- 21:182(g). **Introduction to Guidance and Counseling**—3 hrs. F-S.
- 21:183(g). **Educational and Occupational Information**—2 hrs. S. The orientation needed by junior and senior high school students in investigating educational and occupational possibilities.
- 21:184(g). **Guidance in the Elementary School**—2 hrs. F.
- 21:185(g). **The Exceptional Child**—2 hrs. F. Introduction to the field.
- 21:186(g). **Curriculum for Retarded Children**—3 hrs. The education of the retarded child including modern educational procedures and materials of instruction: special class, pre-school, primary, intermediate, and secondary; counseling the mentally retarded; administering the special education program for the mentally retarded. Prerequisite: 20:186.
- 21:187(g). **The Gifted Child**—4 hrs. S. 21:185 should precede this course.
- 21:188(g). **The Physically Handicapped**—2 hrs. S. 21:185 should precede this course.
- 21:191(g). **Supervision of Student Teaching**—3 hrs. Designed primarily for those presently or potentially involved in the supervision of student teachers. It covers the selection and preparation of student teachers; readiness for student teaching; principles of supervision, including the identification and analysis of good classroom procedures; desirable experiences for the student teacher in the total school program; professional responsibilities of the student teacher in the school and community; evaluation of student teachers, and the supervising teacher's role in the selection of teachers for the profession. It also covers the selection and preparation of student teaching centers, qualifications of supervising teachers, and the role of the coordinator of student teaching.
- 21:198. **Independent Study**. See pp. 47, 70.
- 21:201. **Teaching in College**—3 hrs. Methods and materials of college teaching to help the college instructor become a better teacher. Useful to junior and senior college personnel.
- 21:203. **Current Issues in Higher Education**—3 hrs. A seminar-type course organized around the major issues confronting junior colleges, senior colleges, and universities in contemporary society.
- 21:231. **School and Community Relations**—3 hrs. S.
- 21:234. **Philosophy of Education**—2 hrs. F-S.
- 21:235. **Principles of School Administration**—3 hrs. F. Before enrolling in this course the student should have had teaching experience.
- 21:237. **School Finance**—3 hrs. F. Financial support for education, business administration, and budgeting. Prerequisite: 21:235.
- 21:238. **School Buildings and Sites**—2 hrs. S. Problems of school building planning, operation, and maintenance. Prerequisite: 21:235.
- 21:239. **School Personnel Administration**—3 hrs. S. Teacher selection and placement, promotion, tenure, and retirement; administration of pupil personnel facilitating services. Prerequisite: 21:235.
- 21:241. **Supervision of the Elementary School**—2 hrs. S. Prerequisite: 21:141.
- 21:243. **Curriculum Development in the Elementary School**—3 hrs. F.

21:245. Administration of the Elementary School—3 hrs. S. Prerequisite: one year of teaching experience and departmental approval. Should have had 21:235 and course work in elementary education.

21:265. Student Personnel Programs in Higher Education—3 hrs. An introduction to the field of college student personnel services with applications of theory to practice.

21:271. Supervision of the Secondary School—2 hrs. F. Prerequisite: 21:141.

21:272. Curriculum Development in the Secondary School—3 hrs. S.

21:275. Administration of the Secondary School—3 hrs. F. Prerequisite: one year of teaching experience and departmental approval. Should have had 21:235.

21:280. Theory and Construction of Tests—2 hrs. An advanced course in the theory of test construction and practical applications of the theory to actual construction and validation processes. Prerequisite: 21:180 and 20:181.

21:281. Topics in Statistical Analysis—3 hrs. S. Application of statistical principles to research in education and psychology. Topics selected from: correlational analysis; analysis of variance; sampling in educational research; chi square, t, and F distributions. Emphasis on statistical inference. Prerequisite: 21:180 or the equivalent.

21:283. Group Procedure Guidance and Counseling—3 hrs.

21:287. Techniques of Counseling—3 hrs. S. Prerequisite: 21:182 or 21:183.

21:288. Organization and Administration of the Guidance Program—2 hrs. S. Prerequisite: one year of teaching experience and departmental approval.

21:289. Seminar in Education—2 hrs. (1) Elementary Education, (2) Evaluation, (3) Interdisciplinary view of administration, (4) Research Problems, (5) Secondary Education, (6) Special Education, (7) School Guidance, (8) School Psychology, (9) College Student Personnel Services, (10) School Administration.

21:290. Practicum in Education and Psychology—2-4 hrs. Each section may be repeated once with permission of the department.

1. Administration

2. Curriculum and Supervision

3. School Personnel Services

4. College Counseling Services

5. College Student Housing

6. College Student Personnel Administration

7. College Student Activities

8. Non-School Counseling

21:294. Educational Research—3 hrs. F-S. Methods and evaluation of educational research. Individual exploration of a possible thesis project in cooperation with student's adviser.

21:299. Research. See pp. 138, 149, 163.

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. Not more than 3 hours may be used from the following courses as undergraduate credit in Education. Not more than an additional 3 hours may be used as graduate credit in Education.

12:291. Improvement of Bookkeeping Instruction—2 hrs.

14:292. Improvement of Typewriting Instruction—2 hrs.

14:293. Improvement of Shorthand Instruction—2 hrs.

15:190. Methods—1 hr.

15:290. Improvement of Basic Business Instruction—2 hrs.

31:190. Methods in Home Economics—3 hrs.

33:190. Teaching Industrial Arts—3 hrs.

33:214. Problems in Teaching Industrial Arts—4 hrs.

35:190. Teaching the Use of Libraries—2 hrs.

37:174. Testing in Physical Education—2 hrs.

37:190. Methods and Principles in Physical Education—3 hrs.

39:191. Methods and Materials in Physical Education—1 to 4 hrs.

- 50:193. Teaching of Speech—2 hrs.
- 50:194. Methods of Directing Forensics—2 hrs.
- 50:195. Methods in Speech Correction—2 hrs.
- 50:283. Seminar in Teaching Speech—2 hrs.
- 57:292. Psychology of Music—2 hrs.
- 60:95. Philosophy and Materials of Art Education—4 hrs.
- 60:195. Artist-Teacher Seminar—2 hrs.
- 60:295. Seminar in Teaching Art—3 hrs.
- 62:190. The Teaching of English—3 hrs.
- 70:190. The Teaching of Foreign Languages—2 hrs.
- 80:190. The Teaching of Secondary Mathematics—3 hrs.
- 80:235. Problems in Teaching Arithmetic—2 hrs.
- 80:290. Problems in Teaching Junior High School Mathematics—2 hrs.
- 80:291. Problems in Teaching High School Mathematics—2 hrs.
- 82:191. The Teaching of Biological Sciences—3 hrs.
- 82:192. The Teaching of Physical Sciences—3 hrs.
- 82:280. Seminar in Science Teaching—2 hrs.
- 90:190. The Teaching of Social Studies—3 hrs.
- 90:291. Problems in Teaching the Social Studies—2 hrs.

SAFETY EDUCATION

SAFETY EDUCATION MINOR—TEACHING

Required: 30:30; 30:130; 30:132	10 hours
Required: 20:181	3 hours
Required: 21:131; 21:180	4 hours
Required: 37:10	2 hours
	19 hours

The undergraduate student without teaching experience is expected to take 30:130 and 30:132 after completing, or in conjunction with, the other requirements listed above.

Approval to teach driver education will be recommended on the basis of completion of 30:30, 30:130, and 30:132.

30:30. General School Safety—4 hrs. F-S. Methods of teaching safety education in elementary and secondary schools.

30:130(g). Driver Education and Highway Safety—4 hrs. F-S. Classroom and practice driving units; safety education as a social problem; development of safety skills, habits, attitudes, and ideals; accident causes; study of research.

30:132(g). Directing the Safety Program—2 hrs. F-S. Organization and administration of safety programs through the entire school system.

Home Economics

Sjolander, Head. Buckingham, Holliday, Miller, Shores, Yeager.

VOCATIONAL HOME ECONOMICS MAJOR—TEACHING

Required: 31:10, 31:15, 31:35, 31:36, 31:62, 31:65, 31:110, 31:111, 31:142, 31:150, 31:170, 31:172, 31:182, 31:190	35 hours
31:51 or 31:152	2 hours
Art (in addition to 60:20) or 31:160 or 31:165	3 hours
86:61, 86:63, 84:33	11 hours
	51 hours

No minor is required.

State College of Iowa

Students who wish a notation on their placement papers that they are qualified to teach Family Life Education should consult the pattern of courses which can be secured from the Head of the Department of Home Economics.

HOME ECONOMIC MAJOR-TEACHING

Required: 31:190	3 hours
Electives in home economics	27 hours
Required: Art in addition to 60:20	2 hours
Required: Science in addition to 82:20 and 82:22 and may include 37:50	6 hours
	<hr/>
	38 hours

Minor required in another area. Recommended minors are art, biology, English, history.

HOME ECONOMICS MAJOR

Required: 31:10; 31:35; 31:65; 31:170; and 31:51 or 31:152	12 hours
Required Art in addition to 60:20	3 hours
Electives in home economics selected from the areas of Textiles and Clothing; Foods and Nutrition; Family Relationships and Child Development; Home Planning and Management	17 hours
	<hr/>
	32 hours

Recommended: 6 hours from courses in chemistry, physiology, bacteriology and psychology. Competence in a foreign language.

HOME ECONOMICS IN BUSINESS - EMPHASIS,

Food and Nutrition

Required: 31:10; 31:35; 31:36; 31:51; 31:62; 31:65; 31:142; 31:170	19 hours
Electives in home economics	11 hours
Required: 86:61; 86:63	8 hours
Required: 13:40; 13:41; 13:142; 13:143; 15:116	14 hours
Required: 92:52	3 hours
	<hr/>
	55 hours

HOME ECONOMICS IN BUSINESS - EMPHASIS,

Clothing and Home Furnishings

Required: 31:10; 31:15; 31:35; 31:51; 31:65; 31:110; 31:111; 31:112 or 31:165; 31:170	22 hours
Electives in home economics	8 hours
Required: 13:40; 13:41; 13:142; 13:143; 15:116	14 hours
Required: 92:52; 60:132	6 hours
	<hr/>
	50 hours

HOME ECONOMICS MINOR

Required: 31:10; 31:135; 31:170; and 31:51 or 31:152	10 hours
Electives in home economics excluding 31:180-199	10 hours
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	20 hours

HOME ECONOMICS SUBJECT FIELD-

Junior High School Major

Required: 31:10; 31:15; 31:110; 31:35; 31:36;

31:51 or 31:152; 31:150; 31:62; 31:65; 31:170;
31:172; 31:190 30 hours

It is strongly recommended that 86:61 and 86:63 be completed in case the student should later desire to meet vocational requirements.

TEXTILES AND CLOTHING

31:10. **Clothing Selection**—2 hrs. F-S. Problems in wardrobe planning. Discussion, 2 periods.

31:15. **Clothing I**—2 hrs. F-S. Clothing construction using commercial patterns. Discussion and lab., 4 periods. Prerequisite or corequisite: 31:10.

31:110(g). **Textiles**—2 hrs. F. Effect of fiber content, construction, and finish on the serviceability and cost of fabrics. Identification tests. Discussion and lab., 3 periods.

31:111. **Costume Design**—3 hrs. F-S. Flat pattern making and draping. Prerequisite: 31:10 and 31:15. Discussion and lab., 4 periods.

31:112(g). **Advanced Clothing**—3 hrs. S. Advanced clothing construction, including tailoring suits and coats. Prerequisite: 31:10 and 31:15; 31:111 recommended. Discussion and lab., 4 periods.

31:118(g). **Problems**—2 hrs. Clothing.

FOODS AND NUTRITION

31:30. **Family Nutrition**—2 hrs. S. For non-majors. 2 periods.

31:35. **Foods and Nutrition I**—3 hrs. F-S. For majors and minors; also open as an elective. 6 periods.

31:36. **Foods and Nutrition II**—3 hrs. F-S. Factors affecting family nutrition. Meal planning, preparation, and serving. 31:35 should precede this course. 5 periods.

31:135. **Food for the Family**—4 hrs. No credit for students with credit in 31:35, 31:36, or 31:142. For students who do not plan a major in home economics. 6 periods.

31:142(g). **Principles of Food Preparation**—2 hrs. F. 31:36 and 86:63 or equivalent should precede this course. Discussion and lab., 4 periods.

31:143(g). **Special Food Problems**—2 hrs. Influence of food on cultural and social relationships of family, community, and world. Racial and national food patterns. 4 periods.

31:148(g). **Problems**—2 hrs. (1) Foods; (2) Nutrition.

FAMILY RELATIONSHIPS AND CHILD DEVELOPMENT

31:51. **Personal Relationships**—2 hrs. F-S. Understanding relationships in life situations; recognizing and accepting our problems as normal through use of group discussion. Prerequisite: 20:8.

31:150(g). **Child and the Home**—4 hrs. F-S. The infant through pre-school age; experience with children through a play-school situation. 21:14 should precede this course. Discussion and lab., 6 periods.

31:152(g). **Family Relationships**—2 hrs. A functional course dealing with relationships within the family, emphasizing problems of courtship, marriage, and parenthood.

31:158(g). **Problems**—2 hrs. Related to the Family.

HOUSING, HOME FURNISHINGS, AND EQUIPMENT

31:62. **Household Equipment**—2 hrs. S. 82:20 should precede this course. 4 periods.

31:65. **Home Planning and Furnishing**—3 hrs. F-S. Discussion and lab., 5 periods.

31:160(g). **Decorative Textiles**—3 hrs. S. Textile printing, weaving, dyeing, and other decorative processes. Discussion and lab., 4 periods.

31:165(g). **Interior Decoration**—3 hrs. F. Emphasis on accessories and decorative materials. Individual student projects in laboratory. 31:65 should precede this course. Discussion and lab., 4 periods.

31:168(g). **Problems**—2 hrs. Housing.

FAMILY ECONOMICS AND HOME MANAGEMENT

31:170. **Home Management**—2 hrs. F-S. Significance of the management process in achieving family goals. Consideration of management problems unique to the various stages in the family life cycle.

31:172. **Home Management House**—2 hrs. F-S. Experience in applying the principles of management to family resources. Residence in the house integrates the understandings, knowledge, and skills gained from the various phases of home economics: 31:170 should precede this course. TO AC-COMPANY STUDENT TEACHING.

31:176(g). **Family Finance**—2 hrs. 90:23 should precede this course.

31:177(g). **Consumer Problems**—2 hrs. The consumer's role in marketing. Regulations, standards, sources of information, and detailed study of a few products.

HOME ECONOMICS EDUCATION

31:182(g). **Adult Education**—2 hrs. F-S. Survey of the scope and need for adult education. Materials and techniques suited to group work with adults. Observation and participation in organizing and teaching an adult class. 31:190 should precede this course.

31:188(g). **Problems**—2 hrs. (1) Home Economics Education; (2) Curriculum Planning.

31:190. **Methods in Home Economics**—3 hrs. F-S. Credit also as a course in education for a major in Home Economics. Planning and organizing programs; teaching techniques; equipping and managing a department; selection and use of teaching aids and evaluation procedures.

31:198. **Independent Study**. See pp. 47, 70.

Humanities

There is no humanities department as such. Some humanities courses are offered by a single department (60:20 is offered by the Department of Art and is listed among that department's offerings); others are offered jointly by several departments (68:21 and 68:22 are offered by the Department of Social Science and the Department of Languages and Literature).

50:20. **Introduction to Theatre**—2 hrs. F-S. The place of the theatre in the life of man, with a critical appreciation of the various arts and skills involved. Emphasis on the creative function of the audience.

52:20. **Exploring Music**—2 hrs. F-S. To introduce the art of music to non-performers.

60:20. **Man and Materials**—2 hrs. F-S. For general education in the field of art. Experiences with art materials. The interaction between man and various art media. Emphasis on contemporary art forms. 4 periods.

64:116(g). **Religions of the World**—3 hrs. Credit in this course may be counted as a part of a major in social science.

64:120(g). **The Heritage of the Bible**—2 hrs. F-S. A non-sectarian study of the Bible.

65:121(g). **Introduction to Philosophy**—3 hrs. F-S.

68:21.° **Ancient Times Through the Reformation**—4 hrs. F-S. Literature,

philosophy, religion, and the fine arts, integrated with the history of Western Civilization. Credit: 2 hours in history and 2 hours in English.

68:22.* From the Seventeenth Century to the Present—4 hrs. F-S. This course is a continuation of 68:21. Credit: 2 hours in history and 2 hours in English.

68:123(g). Oriental Civilization—3 hrs. Religion, philosophy, literature and the arts of East Asia. Credit toward a social science major or a history minor.

68:124(g). Foreign Area Studies—China—3 hrs. An historical treatment of significant elements of Chinese culture and major aspects of modern China's transformation since the mid-nineteenth century.

68:125(g). Foreign Area Studies—India—3 hrs. An historical treatment of significant elements of Indian culture and major aspects of modern India's transformation under British rule and since independence.

*Note: 68:21 and 68:22 should precede the social science sequence.

Industrial Arts and Technology

Reed, Head. R. Hansen, LaRue, Luck, Pershing, W. Wagner, L. S. Wright.

INDUSTRIAL ARTS MAJOR—TEACHING

Required: 33:10; 33:15; 33:30; 33:40; 33:150;	
33:190; 33:195	24 hours
Required: 88:52	3 hours
Electives	13 hours
	40 hours

It is recommended that the student complete not less than 10 hours in two of the following: drafting, metal, wood, electricity, automotive.

INDUSTRIAL ARTS MAJOR

Required: 33:10; 33:111; 33:115	9 hours
Physics	3 hours
Electives in industrial arts excluding 33:183;	
33:190; 33:195	28 hours
	40 hours

A student is strongly encouraged to take 88:152 or 88:154. He may count it as an elective in industrial arts.

TECHNICAL INSTITUTE MAJOR—TEACHING

Required: 80:45; 80:46; 80:60; 86:44, 86:46;	
88:54; 88:56	28 hours
Required: 33:10; 33:12; 33:111; 33:189; 33:190	
and electives in industrial arts concentrated in and	
related to one of the following areas: automotive,	
building construction, drafting, electrical-electronics,	
or metal	28 hours
	56 hours

In addition to the regular requirements for approval on a teacher education program, a candidate for this major must have had at least one year of recent and significant technical experience in industry in the field for which he is preparing to teach.

INDUSTRIAL ARTS MINOR—TEACHING

Required: 33:10; 33:15; 33:30; 33:190	14 hours
One of the following: 33:111; 33:121; 33:141; 33:150 and elective	7 hours
	21 hours

INDUSTRIAL ARTS MINOR

Required: 33:10	3 hours
Electives in industrial arts excluding 33:183; 33:190; 33:195	17 hours
	20 hours

INDUSTRIAL ARTS SUBJECT FIELD—

Junior High School Major

Required: 33:10; 33:190	6 hours
Electives	24 hours
	30 hours

A good pattern for the elective courses would be 33:15; 33:30; 33:40; 33:150; 33:155; 33:175; 88:52.

Students on pre-engineering programs may take the courses in drafting in the freshman year.

33:10. General Drafting—3 hrs. F-S. Technical sketching; mechanical drafting; pictorial and orthographic representation, and designing shop projects.

33:12. Graphic Science—2 hrs. S. Pictorial projection, true length, bearing and slope of lines; true size, strike and dip of planes, double auxiliary projection, connectors; piercing points; intersections of planes; revolution curved and warped surfaces. Primarily for pre-engineers. Prerequisite: 33:10 or departmental approval.

33:15. General Wood—3 hrs. F-S.

33:30. General Metal I—5 hrs. F-S. Ornamental iron, welding, foundry, spinning, forging, heat treating; bench, sheet, and art metal.

33:40. Power Mechanics—3 hrs. F-S. Introduction to a field of power and the transmission of power as applied in transportation, home appliances, agriculture and manufacturing.

33:111(g). Advanced Drafting—3 hrs. S. Detail and assembly, auxiliary projection and print reading. Prerequisite: 33:10 or departmental approval.

33:115(g). Architectural Drafting—3 hours. F.

33:121(g). Advanced Wood—5 hrs. F-S. Prerequisite: 33:15 or departmental approval.

33:130(g). General Metal II—4 hrs. Student will divide his time equally between two of the following: Advanced instruction in oxy-acetylene welding, electric arc welding, foundry, sheetmetal, metal spinning, ornamental iron, forging and heat treating, and art metal and enameling. Prerequisite: 33:30 or departmental approval. May be repeated in different areas, but credit towards degree may not exceed 8 hours.

33:141(g). Machine Tools—5 hrs. F-S. Prerequisite: 33:30 or departmental approval.

33:150(g). General Electricity I—5 hrs. Housewiring, motor rewinding, communications, industrial and residential electrical equipment. Prerequisite: 88:52 or departmental approval.

33:151(g). General Electricity II—3 hrs. S. Three phase motors and controls; commercial power distribution; intercom systems; signal and protective devices. Prerequisite: departmental approval.

33:152(g). General Electronics I—3 hrs. S. Prerequisites: 33:150, 88:56 or departmental approval.

33:153(g). General Electronics II—3 hrs. S. Radio communications; solid

- state electronic components; micro miniaturization. Prerequisite: departmental approval.
- 33:155(g). **General Graphic Arts**—4 hrs. F. Includes photography and printing.
- 33:158(g). **Advanced Graphic Arts**—2 hrs. F. Prerequisite: 33:155 or departmental approval.
- 33:160(g). **Automotive Engines**—3 hrs. F.
- 33:161(g). **Power Trains and Suspension**—3 hrs. S. Principles and problems of power train units, front suspension and brake systems. Prerequisite: departmental approval.
- 33:166(g). **Building Construction**—3 hrs. Su. Prerequisite: departmental approval.
- 33:175(g). **Industrial Crafts**—2 hrs. F-S. Lapidary, leather and plastics.
- 33:183(g). **Industrial Arts for the Elementary School**—2 hrs. F-S. Also includes industrial arts for the junior high school.
- 33:185(g). **Industrial Technology**—3 hrs. Students choose from the following sections: 1. Automotive; 2. Drafting; 3. Electricity; 4. Machine Tools; 5. Metal; 6. Plastics; 7. Wood. May be repeated for credit in a different section. Prerequisite: departmental approval.
- 33:189(g). **Introduction to Technology**—2 hrs. Integration of theoretical mathematics and science with modern technologies. Prerequisite: departmental approval.
- 33:190(g). **Teaching Industrial Arts**—3 hrs. F-S. Credit also as a course in education for a student whose major is industrial arts. Prerequisite: 11 hours in industrial arts.
- 33:195(g). **School Shop Planning**—2 hrs. F-S. Prerequisite: 33:10 and 33:190. TO ACCOMPANY STUDENT TEACHING.
- 33:198. **Independent Study**. See pp. 47, 70.
- 33:214. **Problems in Teaching Industrial Arts**—4 hrs. Su. Even years. Not over 3 hours may also count as education to satisfy the special methods requirement in the professional core. Prerequisite: departmental approval.
- 33:226. **Foundations of Industrial Education**—4 hrs. Su. Odd years. Leaders, movements, principles, techniques, and trends. Prerequisite: departmental approval.
- 33:228. **Contemporary Theories**—2 hrs. Practices and procedures in industry and education. Developments in technology and techniques.
- 33:270. **Projects in Industrial Arts**—4 hrs. F-S. Students choose an activity from the following: 1. Automotive; 2. Drafting; 3. Electricity; 4. Industrial Arts Design; 5. Machine Shop; 6. Metal; 7. Wood; 8. Plastics; 9. Graphic Arts. Provides for concentration and may be repeated in a different activity. Prerequisite: departmental approval.
- 33:282. **Industrial Arts Seminar**—1 hr. Selected problems dealing with the school shop and its operation. Prerequisite: departmental approval. May be repeated once for credit.
- 33:292. **Industrial Arts Research Methods**—2 hrs.
- 33:299. **Research**. See pp. 138, 149, 163.

Languages and Literature

Reninger, Head. Bairnson, Balke, Bernhard, Bluhm, Bohme*, R. Brook, P. Brooks, Chabert, Conley, Cowley, D. Crownfield, Dalziel, De Hoff, Fagan, Ferguson, Forest, Fox, Goodman, Hagestad, Hall, Hamer, A. Hanson, Hearst, Jamosky, Jewell, J. Lindberg, Meyer, Montas, Munoz, Nordarse, O'Brien, Odwarka, Parker, Penalver, Portesan, Price, Salzberg, Sarnacki, Sasser, Schaefer, Schmidt, Sherwin, F. Smith, Stageberg, Stumbo, B. A. Swanson, Taylor, M. Thompson, T. Thompson, Walther, Ward, Wheeler, R. Wilson.

*On Leave 1965-66

ENGLISH MAJOR—TEACHING

Required: 68:21; 68:22 (Credit as English)	4 hours
Required: 62:21; 62:22; 62:31; 62:103; 62:162; 62:166; 62:190; either 62:153 or 62:51	23 hours
Required: one of the following: 62:156; 62:110; 62:113 or 62:114	3 hours
Electives in English	8 hours
	38 hours

For 62:103 a student may substitute 66:40 or 66:141.

At least one semester before the degree will be conferred, a student whose major is English must demonstrate basic competence, confirmed by examination in French, German, Spanish, Russian or Latin. In French, German, Russian, or Spanish, 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.

TEFL Emphasis: A student choosing an emphasis in Teaching English as a Foreign Language should omit the requirement of 62:162 and add to his requirements: 62:180; 62:181; 62:183; 62:194; 50:185. Since these courses are taken in a two-year sequence, it is desirable to begin the sequence at the beginning of the sophomore year.

It is recommended that the native American student strengthen himself in the knowledge of his own country. The following courses are especially recommended: 94:14; 96:14; 96:114; 96:138; 96:144, and the student may substitute 7 hours in these courses for 7 hours of electives in English. If the native American student knows the part of the world in which he wishes to teach, it will be desirable for him to take courses in the culture of that area, e.g., 96:180; 96:185.

The non-native student may be required to take a competence examination in the use of English—spoken or written. A native American student with this emphasis must demonstrate his foreign language competence in either French or Spanish.

ENGLISH MAJOR

Required: 62:31; 62:162; 62:166	9 hours
Advanced course in writing	3 hours
Electives in English, excluding 62:21; 62:22; 62:165; 62:190	21 hours
	33 hours

The foreign language requirement is the same as that for the English Major—Teaching.

ENGLISH MINOR—TEACHING

Required: 68:21; 68:22 (Credit as English)	4 hours
Required: 62:21; 62:22; 62:31; 62:103; 62:162; and one of the following: 62:110; 62:111; 62:113; 62:114; 62:153 or 62:51; 62:156	17 hours
	21 hours

The student is advised that if he should choose American literature from the above list, he may be certified to teach only in the 11th grade; if he should choose a British literature course, he may be certified to teach only in the 12th grade. If a student wishes to teach both 11th and 12th grades, he must take two courses—one American, one British, and his minor will run to 24 hours.

ENGLISH MINOR

Required: 62:31	3 hours
Electives in English excluding 62:21; 62:22; 62:165; 62:190	15 hours
	<hr/> 18 hours

TEACHING OF ENGLISH AS A FOREIGN LANGUAGE MINOR—Teaching and Liberal Arts

Required: 62:180; 62:181; 62:183; 62:194; 50:185	15 hours
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Since these courses are taken in a two-year sequence, it is desirable to begin the sequence at the beginning of the sophomore year.

ENGLISH SUBJECT FIELD—Junior High School Major

Required: 62:31; 62:162; 62:165; 62:190; and 62:103 or 66:40 or 66:141	14 hours
Electives in English	16 hours
	<hr/> 30 hours

SUBJECT FIELD FOR CORE TEACHER in Social Science and The Language Arts on the Junior High School Major

Social Science:	
Required: 90:190; 94:14; 96:14; 96:114; 96:155	18 hours
Geography, regional courses	6 hours
Language Arts:	
Required: 62:31; 62:103; 62:162; 62:164; 62:165; 62:190; 50:31	20 hours
Electives: any course in literature or 62:170	3 hours
	<hr/> 47 hours

HUMANITIES

68:21. **Ancient Times Through the Reformation**—4 hrs. F-S. Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization. Credit: 2 hours in history and 2 hours in English.

68:22. **From the Seventeenth Century to the Present**—4 hrs. F-S. This course is a continuation of 68:21. Credit 2 hours in history and 2 hours in English.

ENGLISH

62:21 is a prerequisite to all other courses in English.

62:31 is a prerequisite to all other courses in literature except 62:32 and 62:140.

62:X. **Composition X**—F-S. Non-credit class in writing, required of and limited to students referred to the Director of the Writing Improvement Services by members of the faculty. Assignment to the course to be made by the Director of the Writing Improvement Services. Most students required to attend 3 days each week.

62:21. **Composition I**—3 hrs. F-S. Development of skills in expository writing and good language habits.

62:22. **Composition II**—2 hrs. F-S. More advanced skills in writing and organization, with attention to elementary semantics. Training in gathering and organizing source material.

62:31. **Introduction to Literature**—3 hrs. F-S. Analysis and evaluation of the basic forms of imaginative literature.

62:32. **British and American Short Story**—3 hrs. 1900 to the present.

62:51. **American Novel through James**—3 hrs.

- 62:103(g). Advanced Composition—3 hrs. F-S.
- 62:105(g). English Language for Foreign Students—3 hrs. F. The patterns and idioms of English for non-native speakers, with guided practice in speaking and writing.
- 62:110(g). British Poetry to 1750—3 hrs. F.
- 62:111(g). British Poetry 1750 to WWI—3 hrs. S.
- 62:112(g). Continental Drama to Ibsen—3 hrs.
- 62:113(g). British Drama to 1642—3 hrs. Major dramatists not including Shakespeare.
- 62:114(g). British Drama 1660 through Wilde—3 hrs.
- 62:115(g). Modern Drama—3 hrs. American, British, and Continental.
- 62:134(g). Modern British and American Poetry—3 hrs. F-S. Since 1914.
- 62:135(g). Continental Short Story—3 hrs.
- 62:136(g). Faulkner—3 hrs.
- 62:140(g). The Short Novel—2 hrs. TO ACCOMPANY STUDENT TEACHING.
- 62:143(g). Contemporary Novel—3 hrs. F. The Continental, English, and American novel since about 1800.
- 62:144(g). Chaucer—3 hrs. Even years.
- 62:147(g). Milton—3 hrs. Odd years. Milton's major English poetry and prose.
- 62:148(g). Shakespeare—3 hrs. F-S.
- 62:153(g). American Poetry to WWI—3 hrs. F.
- 62:155(g). Continental Novel through Tolstoy—3 hrs.
- 62:156(g). British Novel through Hardy—3 hrs. F.
- 62:158(g). Literary Synthesis—3 hrs. F. To supply historical and philosophical perspective in British and American literature.
- 62:161(g). Practice in Criticism—3 hrs. Even years. Major problems in creative literature, and the solutions offered by the great critics.
- 62:162(g). The Structure of English—3 hrs. F-S. Descriptive American-English grammar and contemporary usage.
- 62:164(g). Semantics—3 hrs. F-S. A study of language habits and how they affect society. TO ACCOMPANY STUDENT TEACHING.
- 62:165(g). Literature for Adolescents—2 hrs. F. Reading and evaluation of literature suitable for adolescents.
- 62:166(g). History of the English Language—3 hrs. Development of the sounds, forms, patterns, and lexicon of English from the Old English period to the present. Prerequisite: 62:162.
- 62:168(g). The Great Critics—3 hrs.
- 62:170(g). Creative Writing—3 hrs. F-S. May be repeated for a total of 4 hours.
- 62:174(g). Advanced Creative Writing—Poetry—3 hrs. S. Prerequisite: 62:170 or consent of instructor.
- 62:175(g). Advanced Creative Writing—Fiction—3 hrs. F-S. Prerequisite: 62:170 or consent of instructor.
- 62:176(g). Advanced Creative Writing—Drama—3 hrs. S. Prerequisite: 62:170 or consent of instructor.
- 62:177(g). Literature of Ideas in America—3 hrs. The main currents of American thought as reflected in expository, hortatory, and argumentative essays: Emerson, Thoreau, William James, and others.
- 62:178(g). Literature of Ideas in England—3 hrs. The main currents of British thought as reflected in expository, hortatory, and argumentative essays: Bacon, Coleridge, Carlyle, Arnold, and others.
- 62:180(g). Phonology of English—3 hrs. Articulatory phonetics, concurrent with a description of the sound systems of American and British English.
- 62:181(g). Morphology and Syntax of English—5 hrs. Word formation and inflections, followed by form classes, immediate constituents, and major syntactic patterns.
- 62:183(g). Problems in English Grammar—3 hrs. Sub-patterns, sub-classes. positions and finer structural distinctions.

- 62:184(g). Old English—3 hrs. S.
- 62:185(g). Introduction to Descriptive Linguistics—3 hrs. Survey of the fields and methods of interpreting linguistic data.
- 62:189. Independent Reading in English—1-2 hrs. This course is not offered as a class. A student, with permission of the Head of the Department, secures a prepared reading list in one of four areas: ancient drama, modern drama, fiction, poetry. After completing the readings he submits himself to a departmental examination. Credit and grade are assigned on the same basis as other courses taken for credit by examination. The same fee system operates. The student is entirely on his own, since no group or individual discussion sessions are provided, but the student is free to consult the instructor who prepared the reading list concerning its scope and intent. A student may complete and be examined in one or more different areas for a total of 4 hours credit. Prerequisite: 62:31. May be repeated for a maximum of 8 hours.
- 62:190(g). The Teaching of English—3 hrs. F-S. Credit also as a course in education for a student whose major is English.
- 62:193(g). The Teaching of Writing—3 hrs.
- 62:194(g). Teaching English as a Foreign Language—3 hrs. Methods and materials. Classroom practices, textbooks, language laboratory, testing.
- 62:198. Independent Study. See pp. 47, 70.
- 62:201. Bibliography and Methods of Research—3 hrs. F.
- 62:202. Analysis of Literary Forms—3 hrs. F. Advanced literary analysis and evaluation of the short story, novel, drama, and poetry.
- 62:241. Pope and Johnson—3 hrs.
- 62:243. Tennyson and Browning—3 hrs.
- 62:245. Conrad and Joyce—3 hrs.
- 62:247. Byron, Shelley, and Keats—3 hrs.
- 62:248. Studies in Shakespeare—3 hrs.
- 62:251. Hawthorne and Melville—3 hrs.
- 62:253. Frost, Eliot, and Yeats—3 hrs.
- 62:255. Twain, Howells, and James—3 hrs.
- 62:284. Seminar in Literature—3 hrs.
- 62:285. Seminar in Language—3 hrs.
- 62:299. Research—See pp. 138, 149, 163.

FOREIGN LANGUAGES

A student who had one year of a foreign language in high school will enroll in a course in the same language numbered 2. A student who had two years of a foreign language in high school will enroll in the course in the same language numbered 110. During the first few class hours, a placement test will be given to students who have begun a language elsewhere. On the basis of these tests, students may be re-assigned to classes appropriate to their skill and need.

Transfer students who plan to take additional work in foreign language and who have less than 10 semester hours in a foreign language should consult the Head of the Department of Languages and Literature to determine the appropriate advanced course to enter. In some cases a proficiency test may be necessary to determine proper placement.

FOREIGN LANGUAGES SUBJECT FIELD—

Junior High School Major

Required: 70:190	2 hours
Required: Courses in one modern language which are more advanced than those numbered 2	14 hours
	16 hours

GENERAL FOREIGN LANGUAGE COURSES

70:190(g). The Teaching of Foreign Languages—2 hrs. Credit also as a course in education for a student whose major is foreign languages. This course ordinarily should precede student teaching.

70:198.—Independent Study. See pp. 47, 70.

FRENCH

FRENCH MAJOR—TEACHING

Required: 70:190	2 hours
Electives in French in courses more advanced than 72:2 ..	.25 hours
	27 hours

FRENCH MAJOR

Electives in French in courses more advanced than 72:2 ..25 hours

FRENCH MINOR—TEACHING AND LIBERAL ARTS

Electives in French courses more advanced than 72:214 hours

72:1. Elementary French I—5 hrs. F-S. For beginners.

72:2. Elementary French II—5 hrs. F-S. Continuation of 72:1. Prerequisite: 72:1 or placement test.

72:110. Intermediate French I—5 hrs. Prerequisite: 72:2 or placement test.

72:111. Intermediate French II—5 hrs. Prerequisite 72:110 or placement test.

72:114(g). Short Stories—3 hrs. Works of de Vigny, Merimee, Daudet, Maupassant, France, Maurois, and others. Prerequisite: 72:111 or equivalent.

72:116(g). Drama before 1900—3 hrs. Works of Corneille, Racine, Moliere, Hugo, Rostand. Prerequisite: 72:111 or equivalent.

72:123(g). French Civilization and Literature to 1913—3 hrs. Provides in a chronological setting historical, cultural, and sociological background essential to the understanding of the French and their literature. Prerequisite: 72:111 or equivalent.

72:124(g). Contemporary France—3 hrs. A survey of recent developments and a description of the country, its people, customs and way of life, institutions, economy, and art. Prerequisite: 72:111 or equivalent.

72:128(g). The Essay and Literature of Ideas—3 hrs. Selection from Rabelais, Montaigne, Voltaire, Sartre, Camus, and others. Prerequisite: 72:111 or equivalent.

72:134(g). French Poetry—2 hrs. Ronsard, DuBellay, LaFontaine, Baudelaire, Verlaine, and others. Prerequisite: 72:111 or equivalent.

72:143(g). The Novel before 1900—3 hrs. Mme. de LaFayette, Hugo, Balzac, Stendhal, Flaubert, Zola, and others. Prerequisite: 72:111 or equivalent.

72:145(g). The Novel since 1900—3 hrs. Prerequisite: 72:111 or equivalent.

72:146(g). Drama since 1900—3 hrs. Selections from Jules Romains, Edouard Bourdet, Marcel Pagnol, Giraudoux, Anouilh, and others. Prerequisite: 72:111 or equivalent.

72:180(g). Applied Linguistics: French—2 hrs. Basic linguistic concepts applied to learning the French language. Urgently recommended that this course be preceded by 62:162. Prerequisite: 72:111 or equivalent.

GERMAN MAJOR—TEACHING

Required: 70:190	2 hours
Electives in German in courses more advanced than 74:2 ..	.25 hours
	27 hours

GERMAN MAJOR

Electives in German in courses more advanced than 74:2 . . . 25 hours

GERMAN MINOR—TEACHING AND LIBERAL ARTS

Electives in German courses more advanced than 74:2 . . . 14 hours

- 74:1. Elementary German I—5 hrs. F-S. For beginners.
 74:2. Elementary German II—5 hrs. F-S. Continuation of 74:1. Prerequisite: 74:1 or placement test.
 74:110. Intermediate German I—5 hrs. Prerequisite: 74:2 or placement test.
 74:111. Intermediate German II—5 hrs. Prerequisite: 74:110 or placement test.
 74:112(g). Introduction to German Classics—3 hrs. S. Works of Schiller, Goethe, or Lessing. Prerequisite: 74:111 or equivalent.
 74:114(g). German Lyrics and Ballads—3 hrs. Odd years. Poetry of the eighteenth, nineteenth, and twentieth centuries. Prerequisite: 74:111 or equivalent.
 74:116(g). Modern German Literature—3 hrs. Odd years. Selections from Thomas Mann, H. Hesse, and others. Prerequisite: 74:111 or equivalent. May be repeated once for credit.
 74:123(g). Readings in German Civilization—3 hrs. Even years. An introduction to the history and culture of Germany through readings in the language. Prerequisite: 74:111 or equivalent.
 74:127(g). Goethe—2 hrs. Even years. Prerequisite: 74:111 or equivalent.
 74:129(g). Survey of German Literature—3 hrs. The development of German language and literature through Old High German, Middle High German, and New High German. Prerequisite: 74:111 or equivalent and one German literature course or 74:123.
 74:143(g). German Novels and Novellen of the 19th Century—3 hrs. Works of Eichendorff, H. von Kleist, Chamisso, Hauff, Freytag, Storm, G. Keller, Meyer, Rosegger, Sudermann, and others. Prerequisite: 74:111 or equivalent.
 74:146(g). German Drama of the 19th Century—3 hrs. Works of H. von Kleist, Freytag, Hebbel, Ludwig, Sudermann, Grillparzer, Schnitzler, Fulda, Bahr, L. Thoma, and others. Prerequisite: 74:111 or equivalent.
 74:180(g). Applied Linguistics: German—2 hrs. Basic linguistic concepts applied to learning the German language. Urgently recommended that the course be preceded by 62:162. Prerequisite: 74:111 or equivalent.

LATIN

LATIN MINOR—TEACHING AND LIBERAL ARTS

Electives in Latin courses more advanced than 76:2 14 hours

- 76:1. Latin I—5 hrs. F. For beginners. Emphasis upon relationship of Latin and English.
 76:2. Latin II—5 hrs. S. Continuation of 76:1. Prerequisite: 76:1 or one year of high school Latin or equivalent.
 76:110(g). Literature of Golden Age I—5 hrs. The Ciceronian Period, 80-43 B.C. Readings from one or more of the following authors: Lucretius, Catullus, Cicero, Caesar, Nepos, and Publius Syrus. Consult the instructor before enrolling. Prerequisite: 76:2 or two years of high school Latin or equivalent.
 76:111(g). Literature of Golden Age II—5 hrs. The Augustan Period, 43 B.C.—14 A.D. Readings from one or more of the following authors: Virgil, Horace, Livy, and Ovid. Consult instructor before enrolling. Prerequisite: 76:2 or two years of high school Latin or equivalent.
 76:112(g). Literature of Silver Age I—5 hrs. Readings from one or more of the following authors: Seneca, Quintilian, and Martial. Consult instructor before enrolling. Prerequisite: 76:2 or two years of high school Latin or equivalent.

76:113(g). Literature of Silver Age II—5 hrs. Readings from one or more of the following authors: Pliny, Tacitus, Juvenal, and Suentonius. Consult instructor before enrolling. Prerequisite: 76:2 or two years of high school Latin or equivalent.

76:150(g). Classical Mythology—2 hrs. Myths and sagas from the Greco-Roman sphere; their sources, function, and significance. No prerequisite.

76:152(g). Classical Roman Literature in English Translation—2 hrs. An intensive study of several Roman classics in reputable English translations.

RUSSIAN

RUSSIAN MINOR—TEACHING AND LIBERAL ARTS

Electives in Russian courses more advanced than 77:2 . . . 14 hours

77:1. Elementary Russian I—5 hrs. F.

77:2. Elementary Russian II—5 hrs. S. Prerequisite: 77:1 or placement test.

77:110. Intermediate Russian I—5 hrs. Prerequisite: 77:2 or placement test.

77:111. Intermediate Russian II—5 hrs. Prerequisite: 77:110 or placement test.

77:114(g). Russian Literature—3 hrs. S. May be repeated once for credit. Selected Russian literary masterpieces. Prerequisite: 77:111 or equivalent.

77:121(g). Advanced Russian Grammar—2 hrs. Even years. Prerequisite: 77:111 or equivalent.

77:123(g). Readings in Russian Civilization—3 hrs. Even years. An introduction to the history and culture of Russia through readings in the language. Prerequisite: 77:111 or equivalent.

SPANISH

SPANISH MAJOR—TEACHING

Required: 70:190 2 hours

Electives in Spanish in courses more advanced than 78:2 . . 25 hours

27 hours

SPANISH MAJOR

Electives in Spanish in courses more advanced than 78:2 . . 25 hours

SPANISH MINOR—TEACHING AND LIBERAL ARTS

Electives in Spanish in courses more advanced than 78:2 . . 14 hours

78:1. Elementary Spanish I—5 hrs. F-S. For beginners.

78:2. Elementary Spanish II—5 hrs. F-S. Continuation of 78:1. Prerequisite: 78:1 or placement test.

78:110. Intermediate Spanish I—5 hrs. Prerequisite: 78:2 or placement test.

78:111. Intermediate Spanish II—5 hrs. Continuation of Intermediate Spanish I. Prerequisite: 78:110 or placement test.

78:112(g). Introduction to Spanish-American Literature—3 hrs. Trends in Spanish-American Literature and representative authors. Prerequisite: 78:111.

78:113(g). Modern Spanish Literature—3 hrs. Later trends in lyrics and drama: Generación del 98, Modernismo, Simbolismo, Vanguardismo, Poesía pura, Neo-gongorismo. In fiction from the Generación del 98 to the present: Palacio-Valdes, Ibanez, Leon, Azorin, and others. Prerequisite: 78:111.

78:123(g). Introduction to Spanish Civilization—2 hrs. The history and culture of Spain through reading in literature. Prerequisite: 78:111.

78:130(g). Introduction to Spanish Literature—3 hrs. Trends in Spanish literature and representative authors. Prerequisite: 78:111.

78:132(g). Golden Age Literature—3 hrs. Prose, poetry, and drama of

- the Spanish Renaissance and Baroque (Culteranismo, Conceptismo). Prerequisite: 78:111.
- 78:134(g). Literature of the Eighteenth and Nineteenth Centuries—3 hrs. Prose, poetry, and drama of the Spanish—Neoclassicismo, Romanticismo, Costumbrismo, Realismo. Prerequisite: 78:111.
- 78:136(g). Don Quijote—2 hrs. The study of this novel and analysis of the various philosophical interpretations. Prerequisite: 78:111.
- 78:140(g). Introduction to Spanish-American Civilization—2 hrs. An introduction to the history and culture of Spanish-America through readings in the language. Prerequisite: 78:111.
- 78:180(g). Applied Linguistics: Spanish—2 hrs. Basic linguistic concepts applied to learning the Spanish language. Urgently recommended that the course be preceded by 62:162. Prerequisite: 78:111.

SCHOOL JOURNALISM

- 66:32. Introduction to Journalism—3 hrs. Survey of modern American journalism and its application to high school courses and publications.
- 66:40. Reporting and News Writing—3 hrs. News values; methods of obtaining, verifying, and presenting news.
- 66:102(g). Special Article Writing—2 hrs. F-S. Writing different types of articles, slanting for publication; writing and marketing articles in such specialized fields as science, education, and religion.
- 66:103(g). High School Newspaper and Yearbook—3 hrs. Advising school publications; staff organization; methods of printing; policies, style, content, textbooks, business management. Prerequisite: 66:40 or consent of instructor.
- 66:104(g). Journalism Laboratory I—1 hr. F-S. Production work on newspaper with emphasis on writing news and features. May be repeated for a total of 3 hours. Prerequisite: 66:40 or consent of instructor.
- 66:105(g). Journalism Laboratory II—1 hr. F-S. Production work on newspaper or yearbook at editor's level. May be repeated for a total of 2 hours. Prerequisite: 66:40 or consent of instructor.
- 66:141. Feature and Editorial Writing—3 hrs. Writing feature articles and editorials for publication. Prerequisite: 66:40 or consent of instructor.

RELIGIOUS LITERATURE

- 64:112(g). History of Christianity—3 hrs. S.
- 64:113(g). Philosophy of Religion—3 hrs. F. Specific religious problems of those enrolled in the course. A substantial introduction to the field of religious thought.
- 64:116(g). Religions of the World—3 hrs. Credit in this course may be counted as a part of a major in social science.
- 64:117(g). History of Religions in the United States—3 hrs. Investigation of religious movements and beliefs from colonial times to the present. Recommend to precede this course one of the following: 64:116; 64:120; 65:121.
- 64:120(g). The Heritage of the Bible—2 hrs. F-S. A non-sectarian study of the Bible. May be offered to accompany student teaching.
- 64:130(g). Asian Religions—3 hrs. Study of major religious movements including Hinduism, Buddhism, Taoism, Confucianism, and Shintoism. Recommend to precede this course, 64:116.

PHILOSOPHY

- 65:121(g). Introduction to Philosophy—3 hrs. F-S. May be offered to accompany student teaching.
- 65:142(g). Introduction to Ethics—2 hrs. F. Analysis of the question, "What is Good?" along with the study of various answers which have been, or can be, given to that question. No prerequisite in philosophy necessary.
- 65:143(g). Introduction to Esthetics—2 hrs. S. Analysis and discussion of

the chief theories of artistic meaning through selected source readings. No prerequisite in philosophy necessary.

65:144(g). History of Philosophy—3 hrs. Survey of ancient, medieval, and modern thinkers and themes including Platonism, Aristotelianism; Epicureanism, Stoicism, Scholasticism, Continental Rationalism, British Empiricism, Positivism, and Pragmatism. Recommend that 65:121 precede. Credit in this course may be counted as a part of a major in social science.

65:145(g). Logic and Language—3 hrs. Methods, principles, and rules of reasoning with emphasis upon their practical uses in effective thinking, scientific inquiry, and verbal communication.

Library Science

Rod, Head. V. Fatka, E. Martin.

LIBRARY SCIENCE MAJOR—TEACHING

Required: 35:12; 35:14; 35:115; 35:120; 35:190	14 hours
Required: 35:112 or 35:114	3-4 hours
Electives in library science or from the following courses:	
21:131; 21:145; 21:172	6-7 hours
	24 hours

LIBRARY SCIENCE MINOR—TEACHING

Required: 35:12; 35:14; 35:115; 35:190; and either	
35:112 or 35:114	14-15 hours
Electives in library science	1-2 hours
	16 hours

LIBRARY SCIENCE SUBJECT FIELD—

Junior High School Major

It is recommended that a student declare a second major in Library Science to meet the subject-field requirements.

35:10. Library Orientation—1 hr. F-S. Practical working knowledge of the library and its resources.

35:12. The School Library—4 hrs. F-S. Problems and methods of effective library service on all levels of the school program. Prerequisite: sophomore standing.

35:14. Book Selection—2 hrs. F-S. General principles of selection. Examination of standard aids. Prerequisite: sophomore standing.

35:112(g). Library Materials for Children—3 hrs. F-S. Survey of children's literature with attention to principles of selection and standards of evaluation of book and non-book materials for the elementary school program.

35:114(g). High School Library Materials—4 hrs. F. Selection and evaluation of materials for junior and senior high school students. Reading interests, habits, and needs of young people.

35:115(g). Cataloging and Classification—3 hrs. F.

35:120(g). Reference—3 hrs. S. Basic reference books and sources. Prerequisite: 35:14, or consent of instructor.

35:130(g). History of Books—2 hrs. S.

35:190(g). Teaching the Use of Libraries—2 hrs. S. Credit also as a course in education for a student whose major is library science. Methods course for library science majors and minors.

Mathematics

Hamilton, Head. D. Baum, Bruha, Cross, Duncan, Heikkinen, Hervey, Lott, Millar*, Moehlis, Schurrer, I. Silvey, Wehner, Whittlesy, Wiesenfeld, Wilkin-son.

The typical sequence in Mathematics is as follows:

80:45 and 80:46 Elementary Analysis I and II	8 hours
80:60, 80:61, and 80:62 Calculus I, II, and III	12 hours
80:153 Probability Theory	3 hours
80:160 Introduction to Modern Algebra	4 hours
80:165 Introduction to Modern Geometries	4 hours
80:147 Advanced Calculus, or 80:149 Differential Equations, or 80:174 Mathematical Statistics I	3 hours

At the time of first enrollment, each student will be placed in the most advanced course for which he is qualified by previous training and experience. Credit for courses which may thus be bypassed does not need to be made up with other mathematics courses but some students are advised to strengthen their programs by choosing additional advanced courses in mathematics.

A student whose high school background in mathematics is not strong may be required to take 80:20 Mathematics for General Education, 3 hours, and/or 80:112 Introduction to Geometry, 4 hours. Such a student might require up to 40 hours of work in mathematics to complete a major.

A student who elects an undergraduate major in mathematics is urged to complete at least one minor in some field of application such as physics, chemistry, biology, economics, sociology, or accounting.

Students who plan to continue their work in mathematics beyond the B.A. level are urged to begin the study of at least one foreign language. Russian, German, and French are particularly recommended. Many students will, by careful use of their electives, be able to complete both a language minor and a minor in a field in which mathematics is applied.

MATHEMATICS MAJOR—TEACHING

The following requirements assume the completion of 80:62:

Required: 80:190	3 hours
Electives from: 80:147; 80:149; 80:153; 80:160; 80:161; 80:165; 80:167; 80:169; 80:174	13 hours
	16 hours

The total hours will depend on a student's background and will vary from 16 to 42 hours.

MATHEMATICS MAJOR

The following requirements assume the completion of 80:62:

Electives chosen from: 80:147; 80:149; 80:153; 80:160; 80:161; 80:165; 80:167; 80:169; 80:174; 80:176	17 hours
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The total hours will depend on a student's background and will vary from 17 to 43 hours.

MATHEMATICS MINOR—TEACHING AND LIBERAL ARTS

Electives chosen from these: 80:60; 80:61; 80:107; 80:153; 80:172; 80:160; 80:165; 80:180	12 hours
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A typical minor will include 80:45 and 80:46 unless released by examination. The total minor will depend on a student's background and will vary from 12 to 24 hours. A student on the teacher education program will be required to take 80:60.

*On leave 1965-67

Mathematics

Hamilton, Head. D. Baum, Bruha, Cross, Duncan, Heikkinen, Hervey, Lott, Millar*, Moehlis, Schurrer, I. Silvey, Wehner, Whittlesy, Wiesenfeld, Wilkin-son.

The typical sequence in Mathematics is as follows:

80:45 and 80:46 Elementary Analysis I and II	8 hours
80:60, 80:61, and 80:62 Calculus I, II, and III	12 hours
80:153 Probability Theory	3 hours
80:160 Introduction to Modern Algebra	4 hours
80:165 Introduction to Modern Geometries	4 hours
80:147 Advanced Calculus, or 80:149 Differential Equations, or 80:174 Mathematical Statistics I	3 hours

At the time of first enrollment, each student will be placed in the most advanced course for which he is qualified by previous training and experience. Credit for courses which may thus be bypassed does not need to be made up with other mathematics courses but some students are advised to strengthen their programs by choosing additional advanced courses in mathematics.

A student whose high school background in mathematics is not strong may be required to take 80:20 Mathematics for General Education, 3 hours, and/or 80:112 Introduction to Geometry, 4 hours. Such a student might require up to 40 hours of work in mathematics to complete a major.

A student who elects an undergraduate major in mathematics is urged to complete at least one minor in some field of application such as physics, chemistry, biology, economics, sociology, or accounting.

Students who plan to continue their work in mathematics beyond the B.A. level are urged to begin the study of at least one foreign language. Russian, German, and French are particularly recommended. Many students will, by careful use of their electives, be able to complete both a language minor and a minor in a field in which mathematics is applied.

MATHEMATICS MAJOR—TEACHING

The following requirements assume the completion of 80:62:

Required: 80:190	3 hours
Electives from: 80:147; 80:149; 80:153; 80:160; 80:161; 80:165; 80:167; 80:169; 80:174	13 hours
	16 hours

The total hours will depend on a student's background and will vary from 16 to 42 hours.

MATHEMATICS MAJOR

The following requirements assume the completion of 80:62:

Electives chosen from: 80:147; 80:149; 80:153; 80:160; 80:161; 80:165; 80:167; 80:169; 80:174; 80:176	17 hours
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The total hours will depend on a student's background and will vary from 17 to 43 hours.

MATHEMATICS MINOR—TEACHING AND LIBERAL ARTS

Electives chosen from these: 80:60; 80:61; 80:107; 80:153; 80:172; 80:160; 80:165; 80:180	12 hours
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A typical minor will include 80:45 and 80:46 unless released by examination. The total minor will depend on a student's background and will vary from 12 to 24 hours. A student on the teacher education program will be required to take 80:60.

*On leave 1965-67

MATHEMATICS SUBJECT FIELD

Junior High School Major

Required: 80:45; 80:46; 80:60; 80:158; 80:190	19 hours
Recommended electives: 80:54; 80:61; 80:62; 80:107; 80:153 or 80:172; 80:165	11 hours
	30 hours

Students who wish to continue the study of mathematics should elect 80:62 and 80:153.

80:20. Mathematics for General Education—3 hrs. F-S. The language and ideas of mathematics.

80:45. Elementary Analysis I—4 hrs. F-S. Properties of algebraic, exponential, logarithmic, and circular functions; derivatives of polynomials. Mathematical structures.

80:46. Elementary Analysis II—4 hrs. F-S. Continuation of 80:45.

80:54. Mathematics of Measurement—3 hrs. Laboratory approach to the applied problems of elementary analysis. Prerequisite: 80:46. 4 periods.

80:60. Calculus I—4 hrs. F. The derivatives and integrals of elementary functions and their applications. Prerequisite: 80:46.

80:61. Calculus II—4 hrs. S. Continuation of 80:60, which is a prerequisite.

80:62. Calculus III—4 hrs. Continuation of 80:61, which is a prerequisite.

80:107. Mathematics of Finance—2 hrs. S. Interest, annuities, and life insurance. Prerequisite: one year of high school algebra or 80:45.

80:109(g). Readings in Mathematical Literature—2 hrs. May be repeated for credit. Prerequisite: departmental approval.

***80:111(g). Introduction to Analysis**—4 hrs. A study of the properties of the real numbers; linear equations, functions, inequalities; linear systems including systems of inequalities and linear programming; complex numbers; quadratic relations; and circular and exponential functions. Prerequisite: departmental approval or 80:130. No credit for a student who has credit in 80:45.

***80:112(g). Introduction to Geometry**—4 hrs. Topics in three divisions of geometry, namely (1) Greek and the elements of Euclidean; (2) Contemporary developments in Euclidean; (3) Foundation and other geometries. Prerequisite: departmental approval or 80:130.

***80:113(g). Topics in Mathematics**—3 hrs. Topics in number theory, geometry, and algebra not included in the prerequisite courses. Topics will be selected from the following: divisibility; congruence; continued fractions; theory of proportion; applications of mechanics in geometry; maximum and minimum problems in geometry; linear programming; Fibonacci numbers; transfinite arithmetic; mathematical induction. Prerequisite: 80:111 and 80:112.

80:130(g). Foundations of Arithmetic—3 hrs. F-S. Cardinal numbers and sets. Abstraction and extension of number concepts. Place value numeration as related to algorithms. Prerequisite: 80:20. Students with credit in either 80:158 or 80:160 should not enroll for this course without permission of the head of the department.

80:134. Teaching of Mathematics in the Elementary School—2 hrs. F-S. Prerequisite: 80:20 and 80:130.

80:147(g). Advanced Calculus—3 hrs. S. Continuation of 80:62, which is a prerequisite.

80:149(g). Differential Equations—3 hrs. F. Differential equations of the first order and linear equations with constant coefficients. Prerequisite: 80:62.

80:153(g). Probability Theory—3 hrs. F-S. Discrete probabilities, random variables, distribution functions. Applications such as quality control and acceptable sampling. Prerequisite: 80:46.

*Note: 80:111, 112, and 113 are designed especially for advanced students with meager or outdated work in mathematics who want to do serious work requiring a background in mathematics which does not include calculus.

80:158(g). **Foundations of Elementary Mathematics**—4 hrs. S. Critical study of the elements of arithmetic, geometry, and algebra. Topics from number theory, algebraic and geometric structures. Students with credit in either 80:130 or 80:160 should not enroll for this course without permission of the head of the department. Prerequisite: 80:46 or equivalent.

80:160(g). **Introduction to Modern Algebra**—4 hrs. F. Concepts of group, ring, and field. Students with credit in either 80:130 or 80:158 should not enroll for this course without permission of the head of the department. Prerequisite: 80:46.

80:161(g). **Introduction to Linear Algebra**—3 hrs. S. Study of vector spaces, linear transformations, matrices, and determinants. Applications to solution of linear equations, linear programming and theory of games. Prerequisite: 80:160.

80:165(g). **Introduction to Modern Geometries**—4 hrs. S. Foundations of geometry; basic concepts of Euclidean, projective, and non-Euclidean geometry. Prerequisite: 80:46.

80:167(g). **Concepts of Topology**—4 hrs. Basic concepts and techniques of analytic and algebraic topology. Introductory study of topology as an axiomatic structure. Application of topology to the calculus for real-valued functions and to the geometry of polyhedra in space. Prerequisite: 80:61.

80:169(g). **Introduction to Mathematical Logic**—3 hrs. An introduction to the sentential calculus and the theory of quantification. The use of Boolean algebras as an algebraic interpretation of fundamental logical notions. Prerequisite: 80:160.

80:172(g). **Fundamentals of Statistical Methods**—3 hrs. Intuitive approach to probability and inferential statistics.

80:174(g). **Mathematical Statistics I**—3 hrs. Continuous random variables, sampling distributions, testing hypotheses and estimation. Prerequisite: 80:62.

80:176(g). **Introduction to Numerical Analysis**—3 hrs. An introduction to mathematical methods applicable to the digital computer including finite differences, numerical integration and differentiation, solution of linear and non-linear equations, and solutions of ordinary differential equations with initial conditions. The writing and execution of programs involving these methods. Prerequisite: 80:62.

80:180(g). **History of Mathematics**—3 hrs. Prerequisite: 80:46.

80:183(g). **History of Arithmetic**—2 hrs.

80:185(g). **Mathematics for the Exceptional Child**—3 hrs. Work with clinical cases under guidance. Prerequisite: 80:134.

80:190. **The Teaching of Secondary Mathematics**—3 hrs. F-S. Credit also as a course in education for a student with a major in mathematics. Prerequisite: 80:46.

80:198. **Independent Study**. See pp. 47, 70.

80:210. **Theory of Numbers**—3 hrs. Basic interrelations of the system of integers.

80:235. **Problems in Teaching Arithmetic**—2 hrs. Seminar. Prerequisite: departmental approval.

80:240. **Mathematical Analysis I**—3 hrs. Advanced calculus; axioms for the real number system; partial differentiation and applications.

80:241. **Mathematical Analysis II**—3 hrs. Further topics from advanced calculus: mappings and transformations, line and surface integrals, infinite series.

80:245. **Topics in Abstract Algebra**—3 hrs. Topics from groups, rings and ideals, fields, Galois' theory, introduction to homological algebra, infinite Abelian groups, and linear algebras.

80:255. **Differential Geometry of Curves and Surfaces**—3 hrs. The analytic study of curves and surfaces in three-dimensional Euclidean space. Prerequisite: 80:147 or departmental approval.

80:265. **Concepts of Geometry**—3 hrs. Geometry as a mathematical structure; Euclidean, non-Euclidean, and projective geometries as axiomatic systems; contribution of geometry to modern mathematical method.

- 80:272. **Mathematical Statistics II**—3 hrs. Small sample theory, design of experiments, analysis of variance, non-parametric methods.
 80:280. **Elementary School Mathematics—Curriculum**—3 hrs.
 80:281. **Elementary School Mathematics—Concepts**—3 hrs.
 80:290. **Problems in Teaching Junior High School Mathematics**—2 hrs. Seminar. Prerequisite: departmental approval. May be repeated once for credit.
 80:291. **Problems in Teaching High School Mathematics**—2 hrs. Seminar. Prerequisite: departmental approval. May be repeated for credit.
 80:299. **Research**. See pp. 138, 149, 163.

Music

Russell, Head. R. Baum, Beckman, Birkhead, Bock, Coffin, Coleman, Conklin-Happ, Gault, Hahn, Hill, Holst, Holstad, Holvik, Kennedy, W. Martin, Matheson, Mauck, Maxwell, Michaelides, Mitchell, Smalley, Wendt.

MUSIC MAJOR—TEACHING

Required: Applied Music	16 hours
Required: Music Theory: 58:50; 58:51; 58:52; 58:53 and electives	19 hours
Required: Music Literature: 59:170; 59:171	6 hours
Required: Music Methods: (elementary and secondary)	6 hours
Required: Electives in music	3 hours
Senior Recital	0 hours
	50 hours

MUSIC MAJOR

Required: Applied Music	16 hours
Required: Music Theory: 58:50; 58:51; 58:52; 58:53	12 hours
Required: Music Literature: 59:170; 59:171	6 hours
Electives in music numbered 100 and above	6 hours
	40 hours

Required in the senior year, a comprehensive examination and/or a recital. The recital may take the form of a performance, an essay, or a composition. Ten hours in a foreign language is strongly recommended for a student whose applied concentration is voice.

MUSIC MINOR—TEACHING AND LIBERAL ARTS

Required: Applied Music	2 hours
Required: Music Theory: 58:50, 58:51	6 hours
Electives in music	9 hours
	17 hours

Recommended electives: Vocal area—57:82; 57:192; 58:63; Instrumental area—57:90; 57:194; 58:63. 52:20 may be used in meeting the minor requirement. Credit in band, orchestra, or chorus may not be used on the minor.

MUSIC SUBJECT FIELD—Junior High School Major

Required: Applied Music—Piano, unless proficiency established by test; in which case any applied music accepted	4 hours
Required: Music Theory: 58:50; 58:51; 58:63	8 hours
Required: Music Methods: elective	6 hours
Required: Music Literature: 59:170; 59:171	6 hours
Electives in music	6 hours
	30 hours

Music majors on either the teaching or the liberal arts program must choose a field of applied music (known as the applied major field) for specialization, and must attain a proficiency grade of at least X in this field. A student enrolling as a freshman should have attained a proficiency grade of VI in some applied area. During his college years he will be expected to advance one grade each semester, attaining a proficiency grade of XIV at the close of the senior year.

All music majors must also participate in at least one of the large ensembles such as orchestra, band, chorus, concert chorale, varsity men's glee club, or women's chorus, each semester they are enrolled as regular college students. Exceptions to this may be made by the head of this department.

Activities: The department of music maintains many organizations and ensembles which present numerous concerts throughout the year. An oratorio is given before Christmas recess by the chorus and orchestra and an opera or operetta is presented each year. Opportunity for participation in any one or several of these activities is afforded all students in the college as well as those who major in music. Opportunities for performance in recital, church, clubs, radio, and concert are numerous for the individual, as a soloist, or as a member of an ensemble. During the year a number of faculty recitals are open to the public. Concerts by nationally known artists, sponsored by the college, also afford the student opportunities for hearing the best in music.

Credit for Activities: One hour of credit may be earned by a student who completes an academic year (2 semesters) in either band, orchestra, or one of the several choruses. No credit is allowed unless participation is continuous for a full academic year. Credit is reported only at the close of the spring semester. Not more than two hours of such credit may be used in meeting degree requirements.

GENERAL COURSES IN MUSIC

52:20. Exploring Music—2 hrs. F-S. To introduce the art of music to non-performers.

52:102(g). Foundations of Music—3 hrs. F-S. An intermediate course providing students with musical experiences through the utilization of basic performance skills (piano, recorder, singing), basic theory, and through the study of music literature (records, tape, film, printed matter). Prerequisite: 52:20.

52:221. Music Research and Bibliography—2 hrs. F. To help locate a thesis topic and acquaint the student with source materials in music. Should be taken during the first semester in residence by all graduate students in music.

52:299. Research. See pp. 138, 149, 163.

APPLIED MUSIC

Individual Lessons. For each hour of credit the work in applied music requires one lesson a week for one semester. A student whose major is music may earn 3 hours of credit by taking 3 lessons a week. Two of these 3 hours may be in the same applied area (e.g., piano). The amount of credit to be carried will be determined at the time of registration. The head of this department assigns all students to specific instructors.

The head of the department may authorize a graduate student to be enrolled in applied music with a 200 number if he passes a satisfactory audition.

54:30,	54:130(g),	54:230.	Flute.
54:31,	54:131(g),	54:231.	Oboe.
54:32,	54:132(g),	54:232.	Clarinet.
54:33,	54:133(g),	54:233.	Bassoon.
54:34,	54:134(g),	54:234.	Saxophone.
54:35,	54:135(g),	54:235.	French Horn.
54:36,	54:136(g),	54:236.	Cornet-Trumpet.
54:37,	54:137(g),	54:237.	Trombone.

54:38,	54:138(g),	54:238.	Baritone.
54:39,	54:139(g),	54:239.	Tuba.
54:40,	54:140(g),	54:240.	Percussion.
54:41,	54:141(g),	54:241.	Violin.
54:42,	54:142(g),	54:242.	Viola.
54:43,	54:143(g),	54:243.	Cello.
54:44,	54:144(g),	54:244.	String Bass.
54:45,	54:145(g),	54:245.	Harp.
54:46,	54:146(g),	54:246.	Piano.
54:47,	54:147(g),	54:247.	Group Piano.
54:48,	54:148(g),	54:248.	Organ.
54:49,	54:149(g),	54:249.	Voice.
54:50,	54:150(g),	54:250.	Harpsichord.

54:154(g). Applied Advanced Composition—1-2 hrs. For a student whose major applied area is composition. May be repeated for credit with permission of the instructor. Prerequisite: 58:152. (Applied music fee applies.)

54:189. Senior Recital—no credit. Required of all seniors. String, woodwind, and brass ensemble classes are provided for the study and performance of chamber music.

Students may also receive credit in band, chorus, or orchestra. Limitations given above. Numbers are assigned as follows depending on the student's classification:

52:10,	52:110.	Concert Chorale.
52:11,	52:111.	College Chorus.
52:13,	52:113.	Women's Chorus.
52:14,	52:114.	Varsity Men's Glee Club.
52:15,	52:115.	Band
52:17,	52:117.	Orchestra.
52:18,	52:118.	Music Theatre.

MUSIC METHODS

57:82. Choral Techniques and Materials—2 hrs. F. Conducting, tone production, and motivation in development of large vocal ensembles.

57:90. Instrumental Techniques—2 hrs. F-S. This course may be taken three times for credit.

57:181(g). Vocal Ensemble Materials—2 hrs. F-S. Offered for vocal majors TO ACCOMPANY TEACHING.

57:182(g). Voice Repertoire—2 hrs. S. Vocal literature for all voices. Primarily for those interested in teaching singing.

57:183(g). Opera and Operetta Production—1 hr. S. Students direct a scene from an opera or operetta. Practical experience in the production of an opera.

57:185(g). School Stage Band—2 hrs.

57:192(g). Music Methods—4 hrs. F-S. Overview of the total music education program in public schools. Detailed consideration of the general music program in elementary and secondary schools.

57:193(g). Piano Methods—2 hrs. Procedures and techniques of piano instruction, especially for the beginning and intermediate student. These include the study and techniques of piano playing, the literature of the instrument, and the styles of the various periods.

57:194(g). Band-Orchestra Methods and Materials—4 hrs. S.

57:197(g). Instrumental Upkeep and Repair—2 hrs. F-S. A laboratory course where practical projects are undertaken. Offered for instrumental majors TO ACCOMPANY STUDENT TEACHING.

57:198. Independent Study. See pp. 47, 70.

57:280. Planning and Supervision—2 hrs. S. Even years. For the prospective supervisor of music.

57:281. Seminar in Chorus—2 hrs. F. Odd years. Problems in the vocal program of junior and senior high schools.

57:290. **Seminar in Band**—2 hrs. F. Even years. For the student with teaching experience. Practical situations studied and analyzed.

57:291. **Seminar in Orchestra**—2 hrs. Odd years. To implement the orchestral program in the elementary and secondary schools.

57:292. **Psychology of Music**—2 hrs. F. The psychological basis of teaching music. May be used to satisfy the special methods elective in the professional core for the master's degree.

MUSIC THEORY

58:50. **Harmony, Ear Training, and Sight Singing I**—3 hrs. F-S. Elementary theory. Rhythmic dictation. Melodic dictation. Sight singing, part writing, and figured basses. Keyboard harmony.

58:51. **Harmony, Ear Training, and Sight Singing II**—3 hrs. F-S. Continuation of 58:50.

58:52. **Harmony III**—3 hrs. F-S. The contrapuntal-harmonic style of the eighteenth century. Continued ear training and keyboard drill, but more emphasis on written theory.

58:53. **Harmony IV**—3 hrs. F-S. Continuation of 58:52 with the addition of some nineteenth century style practices.

58:63. **Conducting**—2 hrs. S. Baton technique, score reading, rehearsal technique, and practice in conducting.

58:150. **Eighteenth Century Counterpoint**—3 hrs. F. Contrapuntal techniques and instrumental forms of the eighteenth century. Prerequisite: 58:52.

58:151(g). **Sixteenth Century Counterpoint**—2 hrs. S. The vocal polyphonic style of the sixteenth century. Analysis. Creative work in vocal forms: motet, madrigal, mass. Prerequisite: 58:52.

58:152(g). **Composition**—3 hrs. S. Creative work in the primary forms. Prerequisite: 58:52.

58:153. **Instrumentation and Arranging**—2 hrs. F. Ranges, transpositions and functions of all instruments of the band and orchestra, and arranging for choir, band, and orchestra. Prerequisite: 58:52.

58:154(g). **Applied Advanced Composition**. See 54:154(g).

58:155(g). **Form and Analysis**—2 hrs. F. Simple homophonic forms, variation and rondo forms, sonata-allegro form and the various forms found in the symphony, concerto, and tone poem.

58:180. **Theory Survey**—3 hrs.

58:252. **Advanced Composition**—3 hrs. S. Creative work in the larger forms. Student must complete at least one original project in any of these forms. Prerequisite: 58:152.

58:253. **Advanced Arranging**—2 hrs. F. Scoring for orchestra, band, or chorus. Student must complete at least one transcription for a large instrumental or vocal group. Prerequisite: 58:153.

MUSIC LITERATURE

59:170. **Music Literature I**—3 hrs. F. From classical antiquity to the beginning of the nineteenth century.

59:171. **Music Literature II**—3 hrs. S. From Beethoven to the present day.

59:175(g). **Music Literature—Baroque**—2 hrs. F. Even years. The early, middle, and late Baroque periods in Italy, the Netherlands, Germany, France, Spain, England. Prerequisite: 59:171.

59:176(g). **Music Literature—Contemporary**—2 hrs. F. Odd years. Principal styles and trends in the twentieth century. Prerequisite: 59:171.

59:260. **History of Musical Instruments**—3 hrs. F. Odd years. The development of musical instruments from antiquity to the present day with emphasis on the function or use of all important changes.

59:270. **Music Literature—Renaissance**—2 hrs. S. Odd years. Western music to about 1600. Prerequisite: 59:171.

59:271. **Music Literature—American**—2 hrs. S. Even years. History and literature of our music from 1620 to the present. Prerequisite 59:171.

Physical Education

COURSES OFFERED TO BOTH MEN AND WOMEN

All students taking a PE activity course must wear the uniform or apparel which has been approved by the department.

37:1. Physical Education—1 hr. F-S. Games, recreational games, beginning folk dance, intermediate folk dance, advanced folk dance, American country dance, modern dance.

37:10. First Aid to the Injured—2 hrs. F-S. Combined Standard and Advanced Red Cross course. Leads to certificates.

37:13. Physical Education for the Elementary Grades—2 hrs. F-S. No credit for a student with credit in 39:14 or 37:14. Teaching methods and experience in activities. 3 periods. Prerequisite: sophomore standing.

37:14. Activities in the Elementary School—2 hrs. F-S. No credit for a student with credit in 37:13. Materials, methods, and participation. Discussion, 1 period; lab., 2 periods. Prerequisite: sophomore standing.

37:15. Personal Health—2 hrs. F.

37:50. Anatomy—3 hrs. S. Gross anatomy of the osseous and muscular systems; joint structure. No credit for a student with credit in 38:150.

37:110. Health Instruction—2 hrs. F-S. Methods and materials. Prerequisite: 37:15.

37:111. Water Safety—1 hr. S. Leads to American Red Cross Water Safety Instructor's certificate. Prerequisite: Red Cross Life Saving Certificate. Freshmen admitted only with special permission.

37:113(g). Community Health—2 hrs. Study of community health problems such as disease control, water supply, sewage disposal, etc. The role of the community-school health council.

37:131. Recreational Leadership—2 hrs. F. Principles and problems. Program materials.

37:132(g). Community Recreation and the School—2 hrs. S. Development of school-community programs. Problems of leadership, facilities, and organization.

37:151(g). Kinesiology—3 hrs. F. Application of principles of mechanics to body movement. No credit for a student with credit in 38:150. Prerequisite: 37:50.

37:152(g). Adapted Physical Education—2 hrs. S. Posture examination; the posture program; remedial exercises; and the handicapped child. Prerequisite: 37:50, 37:151, and 84:38. 3 periods.

37:153(g). Physiology of Exercise—2 hrs. S. Effects of exercise upon the organic functions of the body. Prerequisite: 37:50, 37:151, or equivalent, and 84:38.

37:174. Testing in Physical Education—2 hrs. S. Credit also as a course in education for a student whose major is Physical Education.

37:176. Organization and Administration of Physical Education—2 hrs. S. School and community relationships; budget; supervisory problems. Administration of programs, facilities, curriculum problems.

37:180(g). Physical Education and the Child—2 hrs. S. Even years. Physical education as a part of the school curriculum. Implications of child development in planning elementary physical education. Prerequisite: 21:14 or equivalent.

37:181(g). History and Philosophy of Dance—2 hrs. S. Even years. From primitive ritual to the art forms of the twentieth century.

37:183. History and Principles of Physical Education—2 hrs. F. Physical education in ancient and modern times. Principles basic to program development in elementary and secondary schools. No credit for person with credit in 37:190.

37:190. **Methods and Principles of Physical Education**—3 hrs. F. Credit as a course in education for a student whose major is Physical Education. No credit for person with credit in 39:191 or 37:183.

37:198. **Independent Study.** See pp. 47, 70.

37:251. **Advanced Kinesiology**—3 hrs. Analysis of motion with special emphasis upon application of mechanical and anatomical principles in the performance of physical activities. Relates laws of physics and develops principles from these laws that explain fundamental movements that are successful to various techniques. Prerequisite: 37:50 and 37:151, or 38:150.

37:273. **Physical Education in the Public Schools**—3 hrs. Principles, movements, leaders, trends, purposes, methods, and techniques of structuring the school program in physical education.

37:274. **Measurement and Evaluation in Physical Education**—3 hrs. Historical background of measurement in physical education; evaluation as a part of teaching; statistical techniques; construction and use of motor and knowledge tests; criteria for test selection; administering a testing program; interpretation and use of test results. Prerequisite: 21:180 or 80:172.

37:276. **Supervision of Physical Education**—2 hrs. Analysis of current supervisory practices and problems of teaching in physical education. Prerequisite: 21:141.

37:280. **Physical Education Seminar**—1-2 hrs. One section may be drawn each session from (1) health problems, (2) problems of facilities and equipment, (3) problems of teaching, and (4) motor learning. May be repeated for a maximum of 6 hours of credit. Prerequisite: departmental approval.

37:299. **Research.** See pp. 138, 149, 163.

Physical Education for Men

Witham, Head. J. Anderson, Clark, Dickinson, Erusha, Jennett, Kortemeyer, Patten, Rimmert, Sheriff, Stewart, Thrall, Whitford.

A student who desires to coach either intramural or interscholastic athletics must be approved for certification. The minimum requirement is a minor in physical education and the recommendation of the college.

All men students are required to take 4 hours of 38:1, one hour of which must be a course in swimming unless exempted by the department. Men may use only one semester hour credit in courses open to both men and women in fulfilling the 38:1 requirement.

PHYSICAL EDUCATION FOR MEN MAJOR—TEACHING

A prospective major will take 38:4 and 38:6 instead of 38:1 in the sophomore year. 38:1, 38:4, 38:6 are not included in the minimum hours of the major. Students who have four (4) hours of 38:1 due to a change in major or transfer credit must take 38:4 and 38:6 for no credit unless excused in writing by the department. A major in Physical Education for Men—Teaching must also complete a minor.

Required: 37:14; 37:15; 37:110; 37:176; 37:190;	
38:15; 38:16; 38:107; 38:115; 38:150; 84:38	23 hours
Sports Theory: At least three of the following: 38:101;	
38:102; 38:103; 38:104; 38:125	6 hours
Electives: At least two courses from the following: 37:10;	
37:111; 37:131; 37:132; 37:152; 37:153; 37:174;	
37:180; 38:172	5 hours
	<hr/> 34 hours

PHYSICAL EDUCATION FOR MEN MAJOR

A prospective major will take 38:4 and 38:6 instead of 38:1 in the freshman or sophomore years. 38:1; 38:4; 38:6 are not included in the minimum hours of the major.

Courses elected from the following three groups within the limits indicated.

Physical Education: 21:131; 37:10; 37:180; 38:15; 38:16; 38:101; 38:102; 38:103; 38:104; 38:107; 38:115; 38:125; 38:150	8-14 hours
Health and Safety: 20:112; 20:140; 21:188; 30:30; 30:132; 37:15; 37:110; 37:113; 84:140	8-14 hours
Recreation: 21:145; 33:155; 37:131; 37:132; 50:30; 50:52; 50:130; 50:139; 50:154; 60:37; 60:50; 60:55; 60:80; 60:160; 60:174; 94:34; 98:153	8-14 hours
	30 hours

At least one-half the work in the major must be in courses numbered 100 or above.

Students interested in going on to graduate work in physical therapy may be permitted to substitute courses in psychology, science, and sociology on any course group within the major with permission of the major department.

PHYSICAL EDUCATION FOR MEN MINOR-TEACHING

A student must take 38:4 and 38:6 instead of two 38:1's.

Courses elected from the following two groups within the limits indicated.

Physical Education: 37:14; 37:131; 37:176; 37:190; 38:107; 38:115; 38:150	10 hours
Sports Theory: 38:15; 38:16; 38:101; 38:102; 38:103; 38:104; 38:125	8 hours
	18 hours

PHYSICAL EDUCATION FOR MEN SUBJECT FIELD— Junior High School Major

Students declaring this subject field will have the requirements of the physical education major modified to suit the individual student. The department will prepare upon request the individual program and provide copies for the student, his adviser, and the Registrar.

Required: 30 hours

38:1. Physical Education. This work in 38:1 required of all men students is selected from the following courses: badminton, baseball, basketball, boxing, cross-country, football, games, golf, gymnastics, handball, modified activities, six-man football, soccer, softball, speedball, beginning swimming, advanced swimming, tennis, touch football, track and field, volleyball, and wrestling.

38:4. Minor Team Sports—1 hr. F-S. Team activities for junior and senior high schools, physical education and recreational programs. Majors and minors are required to substitute this course for one (1) 38:1 course. 2 days.

38:6. Minor Individual Sports—1 hr. F-S. Individual activities for junior and senior high schools, physical education and recreational programs. Majors and minors are required to substitute this course for one (1) 38:1 course. 2 days.

38:15. Gymnastics—1 hr. S. Elementary exercises on bars, horse, mats, and other apparatus. 2 days.

38:16. Swimming—1 hr. S. Teaching swimming and diving. Opportunity for Red Cross Senior Life Saving Certificate. Prerequisite: ability to swim. 2 days.

38:101. Football—3 hrs. F. Individual and team offense and defense. Daily.

38:102. Basketball—3 hrs. F. Fundamentals of offensive and defensive tactics with individual and team formations. Daily.

- 38:103. **Baseball**—2 hrs. S. Fundamentals, individual position play, offensive and defensive team strategy and management. 2 days.
- 38:104. **Track and Field**—2 hrs. S. Rules and techniques in standard track events. Demonstration and coaching of each event required. Meet management stressed. 2 days.
- 38:107. **Games and Rhythmic Activities**—2 hrs. F-S. For elementary, junior, and senior high school. 4 days.
- 38:115(g). **Training Techniques**—2 hrs. F-S. Demonstration and work in the prevention and treatment of athletic injuries; diet, care of equipment, physiotherapy. TO ACCOMPANY STUDENT TEACHING.
- 38:125. **Wrestling**—2 hrs. F. Fundamentals, elementary and advanced skills, conditioning, strategy, and administration of wrestling. 2 days.
- 38:150(g). **Anatomy and Kinesiology**—3 hrs. F-S. Attention to the skeleton, the muscular system, and to joint construction. Application to analysis of skills and techniques used in teaching physical education. No credit for a student with credit in 37:50 or 37:151.
- 38:172. **Group Leadership**—1 hr. F-S. Group leadership of different activities. Prerequisite, or corequisite: 37:190.
- 38:275. **Organization and Administration of Competitive Sports**—3 hrs. A study of the organization, administration, and management of interscholastic, intercollegiate, and intramural sports programs.

Physical Education for Women

Bontz, Head. Anthony, Beitel, E. Crawford, J. Crawford, Croom, Darling, Moon, Potter, Ramsay, B. M. Swanson, Van Ness, Winsberg, Yager.

PHYSICAL EDUCATION FOR WOMEN MAJOR—TEACHING

Required: 84:34; 84:38; 37:14; 37:15; 37:50;	
37:110; 37:151; 37:152; 37:176; 37:183; 39:80;	
39:191; 39:193	34 hours
Required: 39:6; 39:7; 39:108; 39:109 or equivalent	8 hours
Elective	2 hours
	<hr/> 44 hours

PHYSICAL EDUCATION FOR WOMEN MINOR—TEACHING

Required: 39:191; 39:193; 37:183	8 hours
Twelve to sixteen physical education activities	4 hours
Electives chosen from 37:10; 37:13 or 37:14; 37:15;	
37:110; 37:151; 37:152; 37:153; 37:174; 37:176;	
39:108; 39:109	6 hours
	<hr/> 18 hours

Student should consult with the head of the department in selection of activities.

PHYSICAL EDUCATION FOR WOMEN MINOR

Physical Education activities chosen from: 39:6; 39:7;	
39:108; 39:109	8 hours
Health and Safety chosen from: 37:10; 37:15; 37:111;	
37:113	2-4 hours
Physical Education and Recreation chosen from: 37:13;	
37:50; 37:131; 37:132; 37:151; 37:181; 39:33;	
39:194; 84:38	8-10 hours
	<hr/> 20 hours

PHYSICAL EDUCATION FOR WOMEN SUBJECT FIELD—

Junior High School Major

Physical Education Activities: 39:6; 39:7; 39:108; 39:109 . . .	6 hours
Health and First Aid, choose two: 37:10; 37:15; 37:110	4 hours
Physical Education Theory and Sciences:	
Required: 37:14; 37:50; 37:151; 39:191; 39:193	14 hours
Electives chosen from: 37:174; 37:176; 37:183; 39:194;	
84:38	6 hours
	—
	30 hours

It is recommended that the student confer with the head of the Department of Physical Education for Women in selecting activities, and that an outlined program be prepared for the student, her adviser, the department, and the Registrar.

All students taking a PE activity course must wear the uniform or apparel which has been approved by the department.

39:1. Physical Education—1 hr. F. 3 class periods. An activity in conjunction with work in basic physical education concerned with total fitness, individual problems, daily living skills, and the values inherent in physical activity.

39:2. Physical Education—1 hr. S. 3 class periods. An activity in conjunction with work in basic physical education concerned with principles of movement and the development of awareness of the qualities involved in efficient movement.

39:3. Physical Education—1 hr. F-S. 2 class periods. Physical education activities (two 9-week periods). (Some of these sections will be offered as 37:1.)

39:6. Freshman Major Activities—2 hrs. F-S. Open only to prospective majors and minors in Physical Education. 4 periods. Soccer and speedball, tennis, basketball, volleyball, modern dance, softball, and swimming.

39:7. Sophomore Major Activities—2 hrs. F-S. Open only to majors and minors in Physical Education. 8 periods. Hockey, tennis, archery, golf, badminton, stunts and tumbling, folk dance, American country dance, social dance, modern dance, body mechanics, lifesaving, swimming, diving.

39:33. Camp Leadership—3 hrs. S. The camping movement. Leadership techniques and laboratory experience. Discussion, 2 periods; lab., 2 periods.

39:80. Introduction to Physical Education—2 hrs. Orientation to the fundamentals of movement education and physical education as a profession. Meets 3 times weekly.

39:108. Junior Major Activities—1 hr. F-S. Open only to majors and minors in Physical Education. 4 periods. May be elected to develop further skill in activities.

39:109. Senior Major Activities—1 hr. F-S. Open only to majors and minors in Physical Education. 4 periods. Seniors may use to improve physical skills.

39:112(g). Sports Techniques—2 hrs. Experience in analysis of skill, elementary strategy, and problems of teaching specific team and individual sports. For the teacher in the field. Two or more sports included each session. Offered summer only. May be repeated once for credit.

39:191. Methods and Materials in Physical Education—1-4 hrs. F-S. May be repeated for credit to total 4 hours. Up to 3 hours as a course in education for a student whose major is physical education. Meets 2 hours for each hour of credit. Prerequisite: 6 hours of 39:6 and 39:7 or equivalent. No credit for students with credit in 37:190.

39:193. Dance in Education—3 hrs. S. Methods and materials in the elementary and secondary school. 4 periods.

39:194. Teaching of Swimming and Aquatics—2 hrs. S. Prerequisite: Life-saving or approved equivalent. 3 periods.

Science

McCullum, Head. Allegre, W. I. Anderson, Chang, Clausen, W. E. DeKock, Dowell, Engardt, Goss, Grant, Haman, R. Hanson, Hoff, V. Jensen, Kercheval, Lantz, Lyon, Orr, Picklum, Poppy, Richter, Riggs, Rogers, Sauer, Simpson, Sloan, TePaske, Wilmain, L. Wilson, Winier.

SCIENCE MAJOR-TEACHING

Required: Two of the following sequences: 84:34 and 36;	
86:44 and 46°; 88:54 and 56	16 hours
82:191 or 82:192†	3 hours
Electives in science	19 or 27 hours
	38 or 46 hours

*86:48 may be substituted for 86:46.

†If both 82:191 and 82:192 are taken, only one can be counted to meet required major hours.

Prospective majors may substitute 84:128 for 82:22.

Students who choose the 38-hour major must also complete a minor outside the department. Students who do not choose a minor will complete a 46-hour minimum major. No science major-teaching may take a formal minor in the Science field.

Fields of emphasis in chemistry, physics, earth science and general science may be approved by the Department of Science and carry recommendation to teach in the field of emphasis under the following conditions:

Chemistry—24 hrs. in chemistry

Physics—24 hrs. in physics

Earth Science—The chemistry and physics sequences of the major, 82:192 and 17 to 24 hours in earth science depending on whether the 38- or 46-hour major is chosen.

General Science—All three sequences listed under the major requirements plus 87:31; 87:35. 46-hour majors only.

21:178 recommended in addition to major requirements.

SCIENCE MAJOR

Required: Two of the following sequences: 84:34 and 36;	
86:44 and 46 or 48; 87:31 and 35; 88:54 and 56	16 hours
Electives in science	22 hours
	38 hours

Prospective majors may substitute 84:128 for 82:22.

The equivalent of at least 10 hours in a foreign language is strongly recommended.

SCIENCE SUBJECT FIELD—Junior High School Major

Required: 84:34; 84:36; 86:44; 86:46; 88:54;	
88:56; 82:191 or 82:192*	27 hours
Electives in science	8 hours
	35 hours

*If both courses are taken, only one can be counted to meet the required hours of the field.

Strongly recommended: 87:31; 87:35; 87:108; 87:180.

It is recommended that consideration be given to taking additional hours appropriate to the major in Science with an emphasis in general science, and that the completion of this major would be a desirable goal.

GENERAL COURSES IN SCIENCE

82:20. The Physical Sciences I—3 hrs. F-S. Basic concepts of physical science and their significance. Methods of science. Discussion, 3 periods.

82:22. The Biological Sciences I—4 hrs. F-S. Basic principles of biology with primary attention given to the organizational attributes of living matter. Recommend that 82:20 precede this course.

82:120(g). The Physical Sciences II—3 hrs. F-S. Fundamental concepts of physics, chemistry, astronomy, meteorology, and geology. To follow and extend the content of 82:20. Discussion, 2 periods; lab., 2 periods. Prerequisite: 82:20 or equivalent. Not to be taken by science majors, minors or students with credit in 82:118.

82:122(g). The Biological Sciences II—3 hrs. F-S. Fundamental concepts of botany and zoology. To follow and extend the content of 82:22. Discussion, 2 periods; lab., 2 periods. Prerequisite: 82:22 or equivalent. Not to be taken by science majors, minors or students with credit in 84:115.

82:175. The Nature of Science—2 hrs. F-S. Science as a field of subject matter, with consideration of its nature, development, and methods, using a chronological approach with a philosophical emphasis. Special attention is paid to the interrelations of the various sciences, the relations of science (including the social sciences and psychology) to other fields such as philosophy, religion, and art, and the interactions of science and these other areas of thought and culture throughout history and in current times. Discussion, 2 periods.

82:191. The Teaching of Biological Sciences—3 hrs. F-S. Credit also as a course in education for a student whose major is science. Prerequisite: 10 hours of biology. Should precede student teaching. Discussion, 2 periods; lab., 2 periods.

82:192. The Teaching of Physical Sciences—3 hrs. F-S. Credit also as a course in education for a student whose major is science. Prerequisite: 10 hours of physics or chemistry or the physical sciences. Should precede student teaching. Discussion, 2 periods; lab., 2 periods. Laboratory to be offered in two sections: 1. Chemistry, 2. Physics.

82:198. Independent Study. See pp. 47, 70.

82:200. History and Philosophy of Science—2 hrs. No credit for a student with credit in 82:175.

82:202. Physical Science Techniques—2 hrs. Devising and building equipment for demonstrations and experiments in the laboratory out of locally obtainable, less expensive materials. Discussion, 1 period; lab., 2 periods.

82:280. Seminar in Science Teaching—2 hrs.

82:299. Research. See pp. 138, 149, 163.

BIOLOGICAL SCIENCE

BIOLOGY MAJOR—TEACHING AND LIBERAL ARTS

Required: 84:34 and 36; 84:128; 86:44 and 46 or 48;

86:124; 86:126; 82:175 30 hours

For the 38-hour major at least one course from each
of two categories below 8 hours

For the 46-hour major at least one course from each of the
categories below 16 hours

Teaching majors will substitute 82:191 for 3 hours chosen from the categories. Liberal Arts majors are strongly recommended to complete the equivalent of at least 10 hours in a foreign language.

Category I: 84:103; 84:104; 84:105; 84:160; 84:166; 84:168.

Category II: 84:106; 84:108; 84:112; 84:120; 84:130; 84:170; 84:172.

Category III: 84:38; 84:114; 84:122; 84:140; 84:142; 84:151.

Students under proper conditions may meet the requirements of a category by work in 84:198, Independent Study.

BIOLOGY MINOR—TEACHING AND LIBERAL ARTS

Required: 86:44 and 86:46 or 48 8 hours
 Required: 84:34 and 84:36 8 hours
 One elective in biology from Category I above and
 One elective from Category III above or 84:33 or 84:128 .. 7 hours

23 hours

84:31. **Anatomy and Physiology**—4 hrs. F. Open only to nurses in training. Discussion, 3 periods; lab., 2 periods.

84:33. **Principles of Microbiology**—3 hrs. The basic concepts and practical applications of microbiology in daily life are stressed. The course is designed for students majoring in areas other than science. Sections may be offered exclusively for nurses in training, in which case the proportions of the content will be varied somewhat and the prerequisite may be waived. Discussion, 2 periods; lab., 2 periods.

84:34. **General Zoology**—4 hrs. F-S. Activities, structure, methods of reproduction, and relationships of major types of animal life. Discussion, 2 periods; lab., 4 periods.

84:36. **General Botany**—4 hrs. F-S. Activities, structure, methods of reproduction, relationships, and uses of major types of plant life. Discussion, 2 periods; lab., 4 periods.

84:38. **Human Physiology**—3 hrs. F-S. Anatomy and functioning of the organ systems of the human body. Discussion, 2 periods; lab., 2 periods.

84:103(g). **Conservation of Iowa Resources**—3 hrs. F-S. Even years. Natural resources of Iowa including soil, forest, wildlife, minerals and water; their interrelationships with the economics and social development of the state and nation; techniques of natural resources management. Discussion, 3 periods.

84:104(g). **Iowa Conservation Problems I**—3 hrs. Forests, wildlife and ecology relationships. Field experience. Preparation of visual aids, demonstrations and projects. Offered only at Iowa Teachers Conservation Camp.

84:105(g). **Iowa Conservation Problems II**—3 hrs. Soil, water, and mineral resources. Field experience. Preparation of visual aids, demonstrations and projects. Offered only at Iowa Teachers Conservation Camp.

84:106(g). **Comparative Anatomy of the Vertebrates**—4 hrs. F. Comparison of the origin, development, and anatomy of the classes of vertebrates. Prerequisite: 84:34. Discussion, 2 periods; lab., 4 periods.

84:108(g). **Vertebrate Embryology**—4 hrs. S. Development of vertebrate organism. Formation and development of germ cells; fertilization; growth and differentiation. Prerequisite: 84:34; 84:106 recommended. Discussion, 2 periods; lab., 4 periods.

84:109(g). **Fundamentals of Biology I**—4 hrs. Modern aspects of biology considered from historical, philosophical, and experimental point-of-view. Enrollment limited to graduate students with special departmental approval. Discussion, 2 periods; lab. and field work, 4 periods.

84:110(g). **Fundamentals of Biology II**—4 hrs. Continuation of 84:109.

84:112(g). **Invertebrate Zoology**—4 hrs. Anatomy of physiology of type forms of the invertebrate phyla. Prerequisite: 84:34. Discussion, 1 period; lab., 4 periods.

84:114(g). **Animal Physiology**—4 hrs. A physio-chemical analysis of basic functions and processes common to most animals. Prerequisite: 84:34 and one year of chemistry or physics. Discussion, 2 periods; lab., 4 periods.

84:120(g). **Plant Morphology**—3 hrs. Structure and evolution of plant phyla with emphasis upon algae, fungi, mosses, and ferns. Prerequisite: 84:36. Discussion, 1 period; lab., 4 periods.

84:122(g). **Plant Physiology**—4 hrs. Physiological processes of plants with emphasis on plant metabolism. Responses of plants to stimuli. Prerequisite: 84:36. Discussion, 2 periods; lab., 4 periods.

84:128(g). **Cell Biology**—4 hrs. F-S. Fundamental physiological processes of cellular function with emphasis on metabolism, respiration, photosynthesis, and molecular controls. Prerequisite: 86:126. Discussion, 3 periods; lab., 2 periods.

84:130(g). Protozoology—3 hrs. Prerequisite: 84:112. Discussion, 1 period; lab., 4 periods.

84:140(g). Genetics—4 hrs. F-S. Discussion, 3 periods; laboratory projects arranged.

84:142(g). Organic Evolution—2 hrs. F. History, theory, and mechanics of evolution. The course of evolution as indicated by fossil records and other lines of evidence. Evolution and the modern synthesis of biology.

84:151(g). General Microbiology—4 hrs. The physiology, morphology, taxonomy, and pathogenicity of microbes are considered. Special reference is made to microbial applications in agriculture, sanitation, and industry. Prerequisite: 86:46 or 86:48. Discussion, 2 periods; lab., 4 periods. No credit for a student with credit in 84:33.

84:160(g). Field Zoology of Vertebrates—4 hrs. S. Native animals of the state, as seen on field trips. Prerequisite: 84:34. Discussion, 2 periods; lab. and field work, 4 periods. Also offered during the summer at the Iowa Lakeside Laboratory.

84:166(g). Plant Taxonomy—4 hrs. F. Field recognition, identification, economic importance, and evolution of seed plants of our native flora, as seen on field trips. Prerequisite: 84:36. Discussion, 2 periods; lab. and field work, 4 periods. Also offered during the summer at the Iowa Lakeside Laboratory.

84:168(g). Ecology—4 hrs. S. Relationships of plants, animals and environments with emphasis on the principles of community structure and dynamics. Prerequisite: 84:34 and 84:36. Discussion, 2 periods; lab., 4 periods.

84:170(g). Entomology—3 hrs. Insects and their relation to man. Prerequisite: 84:34, or equivalent. Discussion, 2 periods; lab., 2 periods.

84:172(g). Plant Anatomy—4 hrs. Ontogeny, growth and differentiation of simple and complex tissues of root, stem, leaf, and reproductive organs of higher plant groups. Prerequisite: 84:36. Discussion, 2 periods; lab., 4 periods.

84:198. Independent Study. See pp. 47, 70.

84:210. Biological Techniques—3 hrs. Biological techniques of the teacher of biology. Lab., 6 periods.

84:220. Advanced Plant Morphology—4 hrs. Life histories of representatives of the plant phyla. Morphological and physiological advancements which have resulted in the gradual evolution of flowering plants. Discussion, 2 periods; lab. and field work, 4 periods.

84:225. Aquatic Biology—4 hrs. The biological, physical and chemical aspects of aquatic environments with special emphasis on collection and identification of aquatic organisms. Discussion, 2 periods; lab. and field work, 4 periods.

84:230. Special Problems in Biology—1 to 6 hrs. Credit determined at registration. Individual problems of the student. Prerequisite: departmental approval.

84:251. Experimental Microbiology—4 hrs. Prerequisite: 84:151 or equivalent. Discussion, 2 periods; lab., 4 periods.

84:292. Research Methods in Biology—3 hrs.

CHEMISTRY

A student on the teaching program who is interested in a major in chemistry should major in science and declare chemistry as his field of emphasis.

CHEMISTRY MAJOR

Required: 86:44; 86:48; 86:124; 86:126; 86:132;	
86:140; 80:45; 80:46	32 hours
Electives in science or mathematics	8 hours
	<hr/> 40 hours

It is strongly recommended that a student planning to continue graduate work in chemistry take 88:54 and 88:56.

The equivalent of at least 10 hours in a foreign language is strongly recommended.

CHEMISTRY MINOR—TEACHING AND LIBERAL ARTS

Required: 86:44 and 86:46 or 86:48	8 hours
Electives in chemistry	12 hours
	—
	20 hours

86:41. Chemistry for Nurses—3 hrs. S. Inorganic, organic, and physiological chemistry for nurses in training. Discussion, 2 periods; lab., 2 periods.

86:44. General Chemistry I—4 hrs. F-S. Structure of matter, its physical properties and laws describing them, the periodic table and its relation to atomic structure, and chemical properties, and non-metallic elements and their compounds. Students who have had one unit of high school chemistry or equivalent may, if they show sufficient proficiency by examination, enter 86:46 or 86:48. Discussion, 2 periods; lab., 4 periods.

86:46. General Chemistry II—4 hrs. S. Continuation of 86:44 with emphasis on chemistry of non-metals, metals and metallurgy, chemical equilibrium, organic and physiological compounds. For science majors and others who do not take organic chemistry. Majors with chemistry emphasis see 86:48. Prerequisite: 86:44 or equivalent preparation. Discussion, 2 periods; lab., 4 periods. No credit for a student with credit in 86:48.

86:48. Inorganic Chemistry—4 hrs. F-S. Continuation of 86:14 with emphasis on chemistry of non-metals, metals, chemical and ionic equilibrium, and separation and identification of ions. Discussion, 2 periods; lab., 4 periods. Prerequisite: 86:44 or equivalent. For pre-professional students and science majors with a special interest in chemistry. Others may enroll. No credit for a student with credit in 86:46.

86:61. Applied Inorganic Chemistry—3 hrs. F. Principles of chemistry as applied to the home and industry. For home economics students and non-science majors. Discussion, 2 periods; lab., 2 periods. No credit for a student with credit in 86:44.

86:63. Applied Organic and Physiological Chemistry—5 hrs. S. No credit for a student with credit in 86:124. For home economics students and non-science majors. Prerequisite: 86:61 or equivalent. Discussion, 3 periods; lab., 4 periods.

86:124(g). Organic Chemistry I—4 hrs. F. Essentials of organic chemistry including lipids and carbohydrates. For science majors and those preparing for dentistry or medicine. Prerequisite: 86:46 or 84:48. Discussion, 2 periods; lab., 4 periods.

86:126(g). Organic Chemistry II—4 hrs. S. A continuation of 86:124. Prerequisite: 86:124. Discussion, 2 periods; lab., 4 periods.

86:128(g). Fundamentals of Chemistry I—4 hrs. Quantitative relationships of substances based upon atomic structure. Enrollment limited to graduate students with special departmental approval. Discussion, 2 periods; lab., 4 periods.

86:129(g). Fundamentals of Chemistry II—4 hrs. Continuation of 86:128.

86:132(g). Quantitative Analysis I—4 hrs. F. Volumetric and gravimetric analysis. Prerequisite: 86:46 or 86:48. Discussion, 2 periods; lab., 4 periods.

86:134(g). Quantitative Analysis II—2 to 4 hrs. Instrumental methods of analysis. Theory of instrumentation and practical experience in such areas as potentiometric, titration, polarography, electroanalysis, spectrophotometry, and gas chromatography. Prerequisite: 86:132.

86:140(g). Physical Chemistry I—4 hrs. F. Application of the laws of physics to chemical phenomena. Prerequisite: 86:132; 80:60 or permission of the instructor. Discussion, 2 periods; lab., 4 periods.

86:141(g). Physical Chemistry II—4 hrs. S. Continuation of Physical Chemistry I which is prerequisite. Discussion, 2 periods; lab., 4 periods.

86:142(g). Principles of Physical Chemistry—3 hrs. Physical aspects of chemistry for the needs of the high school and college physics and chemistry teacher. Prerequisite: departmental approval. Discussion, 2 periods; lab., 2 periods.

86:144(g). **Advanced Inorganic Chemistry**—3 hrs. The structure of the elements and their consequent physical and chemical properties and their relations to the periodic chart. Discussion, 2 periods. Prerequisite: departmental approval.

86:208. **Biochemistry**—3 hrs. Chemistry of life processes. Prerequisite: departmental approval. Discussion, 2 periods; lab., 2 periods.

86:240. **Special Problems in Chemistry**—1-6 hrs. Credit determined at registration. Problems selected according to needs of students. Prerequisite: departmental approval.

86:260. **Radiochemistry**—3 hrs. Radioactivity, principles of nuclear reactions, production and uses of radioisotopes. Practical experience in simple instrumentation and safe handling techniques of radioactive materials. Emphasis on uses of radioisotopes by the high school and college science teacher. Prerequisite: departmental approval. Discussion, 2 periods; lab., 2 periods.

86:292. **Research Methods in Chemistry**—3 hrs.

EARTH SCIENCE

87:31. **Physical Geology**—4 hrs. Agencies producing land forms; rocks and rock structure; diastrophism and vulcanism. Discussion, 3 periods; lab., 2 periods. No credit for a student with credit in 87:184.

87:35. **Historical Geology**—4 hrs. Methods and principles of historical geology; history of selected areas; evolution of life. Prerequisite: 87:31. Discussion, 3 periods; lab., 2 periods.

87:108. **Astronomy**—3 hrs. No credit for a student with credit in 88:108.

87:132(g). **Mineralogy-Lithology**—4 hrs. Investigation of the more important minerals, including their origin, crystal forms and physical properties, with emphasis on the relationship of physical properties to structure, composition and bonding. Field trips. Prerequisite: 86:44; 87:31. Discussion, 2 periods; lab., 4 periods.

87:134(g). **Field Geology**—3 hrs. An analysis of geological field procedures and problems, including measurements, observations, sampling, and mapping. Prerequisite: 87:31; 87:35; elementary knowledge of trigonometry. Lab., 2 three-hour sessions.

87:136(g). **Principles of Stratigraphy**—3 hrs. An investigation of layered rocks, sedimentary processes and environments of deposition. Laboratory work in lithographic and paleontological correlation. Field trips. Prerequisite: 87:35. Discussion, 2 periods; lab., 2 periods.

87:180(g). **Meteorology**—3 hrs. Meteorological elements and their application to weather; interpretation of weather maps. Prerequisite: 88:54.

PHYSICS

A student on the teaching program who is interested in a major in physics should major in science and declare physics as his field of emphasis.

PHYSICS MAJOR

Required: 88:54; 88:56; 88:138; 88:152 or 88:154;	
88:160	21 hours
Electives in physics	9 hours
	30 hours

A minor in mathematics including 80:61 is required.

It is strongly recommended that a student who plans to continue graduate work in physics take 86:44 and 86:48.

The equivalent of at least 10 hours in a foreign language is strongly recommended.

PHYSICS MINOR—TEACHING AND LIBERAL ARTS

Required: 88:54 and 88:56	8 hours
Electives in physics	12 hours
	—
	20 hours

88:52. Principles of Physics—3 hrs. F-S. For students of industrial arts and non-science majors. Does not count toward a major or minor in physics. No credit for a student with credit in 88:54 or 88:56. Prerequisite: 82:20. Discussion, 2 periods; lab., 2 periods.

88:54. General Physics I. Mechanics and Heat—4 hrs. F-S. Prerequisite: 82:20 and working knowledge of algebra and trigonometry. Discussion, 3 periods; lab., 2 periods.

88:56. General Physics II. Sound, Light, Electricity, and Magnetism—4 hrs. F-S. Prerequisite: 88:54. Discussion, 3 periods; lab., 2 periods.

88:138(g). Modern Physics—5 hrs. Introduction to the electrical nature of matter, structure of atoms, nature of radiant energy, x-rays, radio activity, nuclear structure, and atomic energy. Prerequisite: 88:54 and 88:56. Discussion, 4 periods; lab., 2 periods.

88:152(g). Measurements in Electricity—3 hrs. Instruments for measuring resistance, voltage, current, power, capacitance, inductance, and magnetic field strength. Prerequisite: 88:56 or equivalent preparation. Discussion, 2 periods; lab., 2 periods.

88:154(g). Alternating Currents—4 hrs. Industrial alternating currents, high frequency currents, A. C. circuits, radio, and television. Prerequisite: 88:54 and 88:56. Discussion, 3 periods; lab., 2 periods.

88:157(g). Fundamentals of Physics I—4 hrs. Basic principles of mechanics, heat, sound, light, electricity and modern physics. Enrollment limited to graduate students with special departmental approval. Discussion, 3 periods; lab., 2 periods.

88:158(g). Fundamentals of Physics II—4 hrs. Continuation of 88:157.

88:160. Intermediate Physics—5 hrs. F. A non-laboratory course devoted to more advanced phases of mechanics, heat, and electricity with emphasis on solving problems in these fields. Discussion, 5 periods. Prerequisite: 88:54 and 80:60 or concurrently.

88:161(g). Acoustics and Optics—4 hrs. Prerequisite: 88:56 or equivalent preparation. Discussion, 3 periods; lab., 2 periods.

88:170(g). Solid State Physics—3 hrs. Relationships of the basic physical properties of solids. Topics include crystal structure, metallic conduction phenomena, superconductivity, semi-conductors, transistors, dielectrics, ferromagnetism and antiferromagnetism, ferroelectricity, and imperfections in solids. Prerequisite: 88:56 and 80:60. Discussion, 3 periods.

88:250. Special Problems in Physics—4-6 hrs. Credit determined at registration. Problems selected according to needs of students. Prerequisite: departmental approval.

88:254. Thermodynamics—3-4 hrs. Nature and measurement of heat, kinetic theory of gases, relationships between heat and other forms of energy, thermodynamic processes and cycles, and thermal radiation. Prerequisite: 88:54, 88:56, and 80:60. Discussion, 3 periods; lab., optional.

88:264. Atomic Physics—4 hrs. Structure of atoms including nuclear and extranuclear systems. Nature of energy changes occurring within the atom in emission and absorption or radiation and in radioactive disintegrations. Problems of nuclear fission and applications of the energy made available. Prerequisite: 88:54 and 88:56.

88:266. Analytical Mechanics—4 hrs. Principles of mechanics from a mathematical viewpoint. Calculus used as a way of solving problems and a mode of thinking. Prerequisite: 88:54 and 80:61.

88:292. Research Methods in Physics—3 hrs.

Social Science

Howard, Head. Alberts, Bultena, Cheng, Chung, Clark, Claus, Cummings, Eiklor, Hoffmann, Jones, Kirby, Knott, R. Kramer, Leavitt, Metcalfe, H. Nelson, Nijim, Pendergraft, Plaehn, Poage, Quirk, G. Robinson, Ross, Ryan, Sage, E. Smith, Talbott*, H. Thompson, M. Thompson, Tulasiewicz, Whitnah, Winter, Wohl.

SOCIAL SCIENCE MAJOR—TEACHING

General Education applicable:	
68:21; 68:22 (credit as social science)	4 hours
90:23; 90:24; 90:25	11 hours
Additional basic requirements:	
History: 96:14 or 96:114 and electives	8 hours
Economics: 92:52 and electives	6 hours
Political Science: 94:14 and electives	6 hours
Sociology: 98:58 and electives	6 hours
Geography elective	3 hours
Methods: 90:190	2 hours
Electives in social science	6 hours
	52 hours

A transfer student who does not present equivalent courses in general education must show total hours by areas as follows: history, 12; economics, 8; political science, 8; sociology, 8; and geography, 6.

Emphasis: A student on the teaching program must choose a minor outside the social science field or an emphasis within that field. One who plans to teach only in the social studies or who wishes to do graduate work in social science should complete an emphasis in one specific discipline. An emphasis may be acquired by completing at least 20 hours in one field by means of additional courses: history, 8; economics and sociology, 4; political science, 12; geography, 14.

Foreign Language: Reading proficiency in a foreign language is recommended for all social science majors on the teaching program, particularly those planning to do graduate work.

SOCIAL SCIENCE MAJOR

Required in area of chosen emphasis (Economics, Political Science, or Sociology)	25 hours
Six hours required in each of two other areas, (Economics, Geography, Political Science, History, Sociology)	12 hours
Electives excluding 90:190	3 hours
	40 hours

62:164; 80:172; and 82:175 may be used toward meeting the emphasis in Sociology and this major.

Courses used to meet General Education or other degree requirements may not be used to meet minimum requirements of the major.

Reading proficiency in a foreign language is required.

SOCIAL SCIENCE SUBJECT FIELD—

Junior High School Major

Required: 90:190; 94:131; 96:14; 96:114; 96:155 and a regional course in geography	20 hours
Either 97:114 or 97:143	3 hours

*On Leave 1965-67

Electives chosen from the following: 92:52; 98:58; 98:156;
 another regional geography course, other courses in history
 or political science 7 hours
 30 hours

Highly recommended electives are 96:130; 96:136; 96:140.

It is recommended that consideration be given to taking additional hours appropriate to the major in social science; the completion of this major would be a desirable goal.

SUBJECT FIELD FOR CORE TEACHER in Social Science and the Language Arts on the Junior High School Major

Social Science:
 Required: 90:190; 94:14; 96:14; 96:114; 96:155 18 hours
 Geography, regional courses 6 hours
 Language Arts:
 Required: 62:31; 62:103; 62:162; 62:164; 62:165;
 62:190; 50:31 20 hours
 Electives: any course in literature or 62:170 3 hours
 47 hours

Notes:

1. Both 68:21 and 68:22 should precede the social science sequence.
2. 68:21 and 68:22 each provide 2 hours credit in history.
3. 64:116 and 65:144 count as credit on either social science major.
4. 68:123 counts as credit on either social science major, the history emphasis, the history major, or the history minors.

HUMANITIES

68:21. Ancient Times Through the Reformation—4 hrs. F-S. Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization. Credit: 2 hours in history and 2 hours in English.

68:22. From the Seventeenth Century to the Present—4 hrs. F-S. This course is a continuation of 68:21: Credit: 2 hours in history and 2 hours in English.

68:123(g). Oriental Civilization—3 hrs. Religion, philosophy, literature, and the arts of East Asia. Credit toward a social science major or a history minor.

68:124(g). Foreign Area Studies—China—3 hrs. An historical treatment of significant elements of Chinese culture and major aspects of modern China's transformation since the mid-nineteenth century.

68:125(g). Foreign Area Studies—India—3 hrs. An historical treatment of significant elements of Indian culture and major aspects of modern India's transformation under British rule and since independence.

GENERAL COURSES IN SOCIAL SCIENCE

90:10. Contemporary Affairs A—1 hr. May be repeated for credit.

90:23. Man in Society I—4 hrs. F-S. Problems relative to personality and social groups. Prerequisite: 20:8.

90:24. Man in Society II—4 hrs. F-S. Continuation of 90:23 with emphasis on economic and governmental problems. Prerequisite: 90:23.

90:25. World Resources—3 hrs. F-S. Distribution and utilization of arable land, grasslands, and forests in various types of climates; man's response to natural environment; power and metal resources; manufacturing regions. 82:22 should precede this course.

90:110. Contemporary Affairs B—1 hr. May be repeated for credit.

90:123. Problems in American Civilization—2 hrs. F-S. Problems facing the United States in its world relationships. TO ACCOMPANY STUDENT TEACHING.

90:190. **The Teaching of the Social Studies**—3 hrs. F-S. Credit also as a course in education for a student whose major is social science. Prerequisite: 12 hours in social science. Ordinarily should precede student teaching.

90:198. **Independent Study.** See pp. 47, 70.

90:199(g). **Study Tour, Europe**—6 hrs. Residence study at leading European universities, followed by study tour of the Continent, including visits to historical and cultural centers.

90:199(g). **Study Tour, Latin America**—6 hrs. Six weeks' study in Latin America with emphasis on the social aspects of countries visited.

90:280. **Social Science Seminar**—1-3 hrs. Usually one section each semester drawn from (1) Social Science, (2) American History, (3) European History, (4) Political Science, (5) Economics, or (6) Sociology. May be repeated for a maximum of 6 hours. Prerequisite: departmental approval.

90:285. **Individual Readings**—1-3 hrs. F-S. Directed readings and reports in areas drawn from (1) History, (2) Political Science, (3) Economics, (4) Sociology, or (5) Geography. Readings may be repeated for a maximum of 6 hours. Prerequisite: departmental approval.

90:291. **Problems in Teaching the Social Studies**—2 hrs.

90:292. **Behavioral and Historical Analysis**—2 hrs.

90:299. **Research.** See pp. 138, 149, 163.

ECONOMICS AND SOCIOLOGY

A student on the teaching program who wishes to major in economics and sociology should major in social science and declare an emphasis in economics and sociology.

ECONOMICS AND SOCIOLOGY MINOR—TEACHING

Required: 90:23, 90:24, credit as economics & sociology ..	6 hours
92:52, 92:53, 98:58, and 98:156 or 98:175	12 hours
Electives in economics or sociology	3 hours
	21 hours

ECONOMICS

ECONOMICS MINOR

Required: 92:52 and 92:53	6 hours
Electives in economics	9 hours
	15 hours

92:52. **Principles of Economics I**—3 hrs. Micro-economics, emphasizing determination of price and the theory of consumption and demand. Sophomore standing recommended.

92:53. **Principles of Economics II**—3 hrs. Micro-economics, emphasizing national income and product; saving; consumption and investment; theory of production and marginal products. Sophomore standing recommended.

92:113(g). **Money and Banking**—3 hrs. F. Role of the individual bank and the banking system in the distribution of credit, the creation of money, and society's attempt to control. International monetary problems.

92:115(g). **Corporation Finance and Investments**—3 hrs. F. Odd years. Financing of business enterprises; corporate and individual investments; failures and reorganizations.

92:116(g). **Industrial Relations**—3 hrs. S. Labor organizations and their policies of industrial management; the public interest in employer-employee relations.

92:117(g). **Public Finance**—3 hrs. S. Expenditures, sources, and administration of public funds.

- 92:134(g). Business Cycles—3 hrs. S. Source, nature, and correction of the general business depression and its relation to the business cycle.
- 92:135(g). Industrial Combinations and Public Control—3 hrs. F. Even years.
- 92:136(g). Foreign Trade Problems—3 hrs. F. International trade; foreign exchange; trade policies and tariffs; international debts.
- 92:137(g). Comparative Economic Systems—3 hrs. S. The capitalistic and socialistic systems examined through the work of the major defenders as well as the critics.
- 92:213. History of Economic Thought—3 hrs. Su.
- 92:220. Economic Growth—3 hrs.

SOCIOLOGY

SOCIOLOGY MINOR

Required: 98:58 and 98:156	6 hours
Electives in sociology	9 hours
	15 hours

- 98:58. Principles of Sociology—3 hrs. F-S. A scientific approach to the analysis and understanding of culture, human groups and institutions, personality, self, and social control. Sophomore standing recommended.
- 98:117. Individual and Collective Behavior—3 hrs. Human behavior as a social process.
- 98:119(g). The Family—2 hrs. F. The institutional aspects of family life.
- 98:141(g). Sociology of Religion—3 hrs.
- 98:151(g). Social Welfare Services—2 hrs. Types of social welfare agencies, and their activities in American communities; an introduction to social work processes.
- 98:152(g). Population—3 hrs. S. Composition and theories of population; improvement of racial quality; growth of population and its bearing upon wages and standards of living.
- 98:153(g). Crime and Delinquency—4 hrs. F. Types and causes of crime and delinquency; criminal behavior systems in American culture; punishment and penal institutions; correctional treatment and crime prevention.
- 98:156(g). General Anthropology—3 hrs. F. Findings of anthropologists regarding men and their culture.
- 98:157(g). Minority Group Relations—3 hrs. Social relations of minority groups within the larger American society with special reference to Negro-Caucasian relations.
- 98:173(g). The Community—4 hrs. F. Forces affecting social life in the urban and rural areas.
- 98:174(g). Area Anthropology—3 hrs. S. Odd years. The culture of a particular area or people. Choice of subject cooperatively determined by students and instructor. Prerequisite: 98:156.
- 98:175(g). Culture and the Individual—3 hrs. How anthropology explains the development of individual types in different cultures.
- 98:177(g). American Class Structure—3 hrs. The social class order as related to our urban-industrial stage of economic development, our West-European cultural heritage, and to the circumstances of settlement in a new continent.
- 98:214. Sociological Theory—3 hrs. A critical comparison and examination of the theoretical approaches to sociological knowledge and research.

POLITICAL SCIENCE

A student on the teaching program who wishes to major in political science should major in social science and declare an emphasis in political science.

POLITICAL SCIENCE MINOR—TEACHING

Required: 90:24 credit as political science	2 hours
94:14 and 94:124 or 94:135	6 hours
Electives in political science	10 hours
	18 hours

POLITICAL SCIENCE MINOR

Required courses in political science	15 hours
Strongly recommended courses: 94:14; 94:111; 94:124; 94:135.	

94:14. Introduction to American Government—3 hrs. F-S. The processes and functions of American government in relation to concepts of American democracy and to practices of other governments. Sophomore standing recommended.

94:34. Parliamentary Law—1 hr. S.

94:111(g). Introduction to Political Science—3 hrs. Not limited to American government. Recommended for students seeking a political science emphasis.

94:112(g). Political Parties—2 hrs. F. Origin, organization, and operation of political parties in the United States.

94:124(g). International Relations—4 hrs.

94:131(g). State and Local Government—3 hrs. S. An analysis of the organization, functions and operation of state and local governments.

94:132(g). Municipal Government—3 hrs. F. Structure and functions of city government. Relation of the city to the state.

94:134(g). National Government and Administration—2 hrs. S. Legislative, executive, and judicial powers and procedures of the national government.

94:135(g). Modern European Governments—3 hrs. S. The dynamics of political decision-making in England, France, Germany, and the Soviet Union with emphasis on contrasts between democratic and totalitarian regimes.

94:141(g). Constitutional Law—3 hrs. The Constitution of the United States as fundamental law.

94:143(g). International Law—3 hrs. Legalistic rules studies in the context of a case-by-case analysis and synthesis.

94:145(g). School Laws of Iowa—3 hrs. Su.

94:148(g). Public Administration—3 hrs. Even years. The place of public servants in the functioning of government and recent trends in the expansion of administration.

94:150(g). Political Opinion and Public Policy—3 hrs. The formation and development of political opinion by interest groups and mass media in the shaping of public policy.

94:152(g). Government and Business—3 hrs. The dynamics and legalities of regulatory administration.

94:160(g). Western Political Thought—3 hrs. The development of political thought from Plato to the present, with primary emphasis upon the relationship between man and the state.

94:165(g). East Asian Governments and Politics—3 hrs. The political structures and institutions of China, Japan, and Korea, with emphasis on the modernization process since the middle of the 19th century.

94:211. Major Political Philosophers—2 hrs. S. Odd years. Origin and development of the State as reflected in the writings of political philosophers.

94:213. Politics and Democracy—3 hrs. A seminar focusing on political thought and behavior.

94:292. Research and Bibliography—3 hrs.

HISTORY

A student on the teaching program who wishes to major in history should major in social science and declare an emphasis in history.

HISTORY MAJOR

Required: 96:14; 96:114; 96:154; 96:155; 96:193	18 hours
Electives in history	12 hours
Courses chosen from at least two related fields of Economics, Geography, Political Science, Sociology, Philosophy, Literature, and Religion comparable to those taught at this college	10 hours

40 hours

Courses used to meet General Education or other degree requirements may not be used to meet minimum requirements of the major.
Reading proficiency in a foreign language is required.

HISTORY MINOR—TEACHING

Required: 96:14, 96:114, 96:154, 96:155	16 hours
Electives in history	3 hours

19 hours

HISTORY MINOR

Electives in history excluding courses used to meet general education requirements

96:114 and 96:155 are strongly recommended.

96:14. American History to 1877—4 hrs. F-S. A student with credit in 96:11 should consult the head of this department before registering for this course.

96:114. American History since 1877—4 hrs. F-S. A student with credit in 96:11 should consult the head of this department before registering for this course.

96:130(g). History of Iowa—2 hrs. F-S.

96:134(g). American Economic History—3 hrs. Credit may be counted as economics.

96:136(g). American Colonial History—3 hrs. S.

96:138(g). American Foreign Relations—3 hrs. Three hours of American history should precede this course.

96:140(g). History of the West—3 hrs. The westward-moving frontier and its influence. Three hours of American history should precede this course.

96:142(g). American Constitutional History—3 hrs. Three hours of American history should precede this course.

96:144(g). American Intellectual History—3 hrs. F. Three hours of American history should precede this course.

96:150(g). Greek and Roman Civilization—3 hrs. From 3000 B.C. to 476 A.D.

96:151(g). The Ancient Near East—3 hrs. The artistic, literary, political, religious, and social accomplishments of Near Eastern people of ancient times.

96:152(g). Medieval Civilization—3 hrs. From the Fall of Rome to the 15th century.

96:153(g). The Renaissance and Reformation—3 hrs. The intellectual artistic, economic, and political developments of the Italian and the Northern Renaissance, culminating in an examination of the 16th century Reformation.

96:154. Modern Europe to 1815—4 hrs. F-S. France, Spain, England, Prussia, Russia, Austria, the Netherlands, and the Italian States to 1815.

96:155. Modern Europe since 1815—4 hrs. F-S. Continuation of 96:154.

96:160(g). Twentieth Century Europe—3 hrs. Seeks the reasons for an age of conflict; political philosophies and personalities of the period.

96:162(g). European Intellectual History—3 hrs. Selected ideas and men in the 19th and 20th centuries. Prerequisite: junior standing.

96:166(g). English History—4 hrs.

96:168(g). The British Empire and Commonwealth—3 hrs. British possessions throughout the world since 1815.

96:170(g). Russia—4 hrs. The political, social, and economic history of Russia and its world relationships with emphasis on the Near East.

96:172(g). Modern Germany—3 hrs. Social, political, and intellectual history of Germany with emphasis on the 19th and 20th centuries.

96:174(g). History of France—3 hrs. Surveys the cultural, economic and political history of France with emphasis on the period 1760 to the present.

96:180(g). Latin American History—3 hrs. Development of the Latin American states and their relations to the United States.

96:185(g). The Far East—3 hrs. History of China, Japan, and Korea in modern times.

96:187(g). Modern Chinese History—3 hrs. Political, social, economic, and intellectual developments in China with special emphasis on the period from the Revolution of 1911 to the present.

96:189. Readings in History—3 hrs. A student will choose one of the following areas at registration: (1) Ancient; (2) Medieval; (3) English; (4) French; (5) German; (6) Russian; (7) American; (8) Latin American; or (9) Far Eastern (India, China, Japan). Prerequisite: Approval of the department head; for the field of American history, 10 semester hours in American history; for each of the other fields, 9 semester hours in history other than American, which must include 3 hours related to the particular field to be studied.

96:193(g). Historians and Philosophy of History—2 hrs. S. Odd years. A study of the methodology and philosophy of history, illustrated by the history of historical writing. Strongly recommended for those declaring an emphasis in history. Prerequisite: junior standing.

GEOGRAPHY

A student on the teaching program who wishes to major in geography should major in social science and declare an emphasis in geography.

GEOGRAPHY MAJOR

Courses in geography including 90:25, and may include
87:31 and 87:180 25 hours

Reading proficiency in a foreign language is required.

A minor is required. It may be in another social science discipline or in any other department.

GEOGRAPHY MINOR—TEACHING

Required: 90:25 3 hours
Electives in geography 11 hours

14 hours

87:180 and 87:184 count as credit on this minor.

GEOGRAPHY MINOR

Required: 90:25 3 hours
Electives in geography 12 hours

15 hours

87:180 and 87:184 count as credit on this minor.

97:101(g). Maps and Map Interpretation—3 hrs. Cartographic drawing and map symbolism. Use and evaluation of maps. Field mapping and airphoto interpretation. Lecture, 2 periods; lab., 2 periods.

97:114(g). Historical Geography of the United States—3 hrs. S. Even years.

- 97:143(g). Anglo-American—3 hrs. F-S. Major regions of the United States and Canada. Prerequisite: 90:25.
 97:145(g). Geography of Middle America—2 hrs. S. Odd years. Mexico, Central America, and the West Indies. Prerequisite: 90:25.
 97:147(g). Geography of South America—3 hrs. F. Odd years. Prerequisite: 90:25.
 97:149(g). Geography of Europe—3 hrs. F. Even years. Prerequisite: 90:25.
 97:165(g). Geography of Asia—3 hrs. S. Odd years. Survey of Asia with detailed analysis of Japan, China, Indonesia, India, Pakistan, and the Asian Middle East. Prerequisite: 90:25.
 97:167(g). Geography of Africa—3 hrs. S. Even years. Prerequisite: 90:25.
 97:169(g). Geography of the Soviet Union—2 hrs. S. Even years. Emphasis on interregional and international relations. Prerequisite: 90:25.
 97:170(g). Political Geography—3 hrs. Prerequisite: 90:25; junior standing recommended.
 97:182(g). Conservation of Natural Resources—3 hrs. S. Odd years. Natural resources of the United States and their exploitation. Problems in their conservation. Prerequisite: 90:25.
 97:185(g). Population Geography—3 hrs. Regional variations in population characteristics with emphasis on the world's modernizing areas. Prerequisite: 90:25.

Speech

Thorne, Head, Brinkman, M. Davis, Dennis, Eblen, Finkel, Jackson, C. Lawton, Lentz, McDavitt, Neumann, Schwartz, Skaine, M. Smith, R. Smith, Townsend, L. Wagner, Williams, Wood.

SPEECH MAJOR—TEACHING

Required: 50:26; 50:30; 50:31; 50:32; 50:52;
 50:139; 50:154; 50:193; and either 50:143 or 50:152 25 hours
 Electives in speech excluding 50:61 and 50:130 6 hours

31 hours

A student who chooses a teaching major in speech must also complete a minor in English unless released by the head of the department. He also is expected to participate in organized extracurricular activities as directed by his adviser. Permission to continue as a speech major will be based in part on the student's record in extracurricular participation.

SPEECH MAJOR

Required: 62:166 3 hours
 Electives in speech excluding 50:26; 50:61; 50:130;
 50:170; 50:193; 50:194; 50:195 29 hours

32 hours

At least 9 hours must be from courses numbered 100 or above. Not more than 7 hours may be used from the following: 50:71; 50:171; 50:172; 50:173; 50:174; 50:175; 50:176.

The student must demonstrate, by examination, his competence in one foreign language. He may elect one of the following. A. Ancient languages—Latin or Greek. Ability to translate from standard classical authors with reasonable accuracy and speed with the aid of a lexicon. B. Modern languages—French, German, Italian, Russian, Spanish. Ability to communicate orally, i.e., to understand and be understood in everyday situations. Ability to read literary prose and poetry with but little recourse to a dictionary.

SPEECH CORRECTION MAJOR-TEACHING

Until August 1966 students who are majoring in speech correction will be recommended for certification on the basis of the following undergraduate program. After August 1966 recommendation for certification will be made only upon completion of the five-year program in speech correction as described on pp. 159-160.

Required: 50:32; 50:71; 50:171; 50:172; 50:173; 50:174; 50:175; 50:176; 50:195	29 hours
Electives from the following 20:100; 20:112; 21:180 or 80:172; 21:185; 50:30; 50:130; 50:176; 62:164; 84:38 ..	6 hours
	35 hours

A minor in psychology is highly recommended.

The completion of the undergraduate major or its equivalent will be considered adequate preparation for the graduate portion of the five-year program. Deficiencies in undergraduate preparation must be made up before the student can begin his graduate sequence in speech correction.

SPEECH MINOR-TEACHING

Required: 50:26; 50:30; 50:31; 50:52; 50:139; 50:154; 50:193	20 hours
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SPEECH MINOR

Electives in speech excluding 50:26; 50:61; 50:130; 50:170; 50:193; 50:194; 50:195	17 hours
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Not less than 6 hours must be from courses numbered 100 or above. Not more than 7 hours may be selected from 50:71; 50:171; 50:172; 50:173; 50:174; 50:175; 50:176.

SPEECH SUBJECT FIELD—Junior High School Major

Required: 50:26; 50:30; 50:31; 50:52; 50:130; 50:139; 50:154; 50:170; 50:193	25 hours
Electives in speech	5 hours
	30 hours

APPLIED SPEECH

A student may earn a maximum of 2 hours applicable toward a baccalaureate degree for participation in either Theatre or Forensics or a combination of the two. Permission for credit is determined by the Director of the activity. Not more than 1 hour can be earned in one semester. Credit not available in the summer.

50:10; 50:110. Applied Theatre—1 hour.

50:11; 50:111. Applied Forensics—1 hour.

50:26 is a prerequisite to all other courses in speech except 50:20, 50:32 and 50:71.

50:20. Introduction to Theatre—2 hrs. F-S. The place of the theatre is the life of man, with a critical appreciation of the various arts and skills involved. Emphasis on the creative function of the audience.

50:26. Fundamentals of Speech—3 hrs. F-S. Prereparation for intelligent public discourse on issues of consequence through the development of competence in research, the selection and organization of materials, and in the processes of oral communication.

50:30. Public Speaking—3 hrs. F-S. Application of the principles of psychology and composition to situations confronting the public speaker.

50:31. Oral Interpretation—3 hrs. F-S. Oral reading of prose and poetry. Prerequisite: 50:26 or equivalent.

50:32. Voice and Phonetics—2 hrs. F-S. The phonetic alphabet, formation

and classification of speech sounds, phonetic transcription. Introduction to the structure and function of the speech mechanism.

50:52. Stagecraft—3 hrs. F-S. Scenery construction and elementary stage lighting. Practical experience on current productions. Discussions, 2 periods; lab., 2 periods.

50:60. Fundamentals of Broadcasting—3 hrs.

50:61. Broadcasting Practice—3 hrs. Preparation and presentation of radio programs on the broadcasting schedule of station KYTC.

50:71. Introduction to Pathologies of Speech and Hearing—3 hrs.

50:130(g). Creative Dramatics for Children—3 hrs. F-S. Methods of teaching creative dramatics and choral speaking to children. Planning of programs suitable for home rooms, school assemblies, and special occasions.

50:131(g). Speech Composition—3 hrs. Construction and presentation of speeches of considerable length. Prerequisite: 50:30.

50:132(g). Advanced Interpretation—2 hrs. Application of the principles studied in Oral Interpretation to more advanced material. 1. Poetry; 2. Prose; 3. Readers Theatre. Additional credit may be earned by taking different sections of this course, but not by repeating the same section. Prerequisite: 50:31 or equivalent.

50:139. Discussion and Debate—3 hrs. F-S. Practical experience in dealing with contemporary problems through the methods of discussion and debate.

50:140(g). Persuasion—3 hrs. Study of the factors of oral discourse which are the determinants of beliefs and action. Prerequisite: 50:30.

50:141(g). History of the Theatre—3 hrs. S.

50:143(g). Advanced Discussion and Debate—3 hrs. Prerequisite: 50:139.

50:150(g). Costume and Make-up—3 hrs. S. Discussion, 3 periods; lab., 1 period.

50:151(g). Stage Design and Lighting—3 hrs. S. Discussion, 3 periods; lab., 1 period.

50:152(g). Directing—3 hrs. S. Each student will stage a one-act play. Prerequisite: 50:154.

50:153(g). Acting—3 hrs. F. Prerequisite: 50:31.

50:154(g). Play Production—3 hrs. F-S.

50:170(g). Speech Correction for the Classroom Teacher—2 hrs. F-S. The role of the classroom teacher in dealing with speech and hearing problems. Information on identification, causes, personality problems, referrals, and remediation procedures. Not to be taken by students majoring in Speech Correction.

50:171(g). Speech Science—5 hrs. Physical and psychological aspects of sound, anatomy and physiology of the vocal and hearing mechanism, factors in the intelligibility of speech, and the development of speech and language in the normal child. Prerequisite: 50:32 or instructor's approval.

50:172(g). Disorders of Articulation—4 hrs. Etiology, diagnosis, and remediation of articulation problems. Prerequisite: 50:32.

50:173(g). Stuttering: Theory and Therapy—3 hrs. S. Prerequisite: Instructor's approval.

50:174(g). Cleft Palate—2 hrs. Etiology, nature, and principles of remediation of speech problems resulting from cleft palate, and other structural facial deviations. Prerequisite: 50:172 or instructor's approval.

50:175(g). Hearing Problems and Testing—3 hrs. Types of hearing loss and audiometric measurement. Pertinent organic and psychological problems. Prerequisite: 50:171.

50:176(g). Clinical Practice—1-2 hrs. Clinical experience in diagnosis and remediation of the speech problems associated with disorders of articulation, cleft palate, stuttering, as well as experience in the testing of hearing. Prerequisite: 50:172 or instructor's approval. May be repeated for a total of 4 hours of credit.

50:177(g). Disorders of Voice—4 hrs. Etiology, diagnosis and treatment of organic and functional voice problems. Prerequisite: instructor's approval.

50:178(g). Neuropathologies of Speech—4 hrs. Nature, etiologies, principles of remediation of speech problems associated with cerebral palsy, aphasia, and related pathologies of the nervous system. A unit on basic anatomy and function of the nervous system is included. Prerequisite: instructor's approval.

50:185(g). Practicum: English as a Foreign Language—1 hr. Supervised practice in the skills of teaching new speech patterns to "non-native" speakers. One lecture, 3 labs. Prerequisite: 62:180.

50:193(g). Teaching of Speech—2 hrs. F-S. Credit also as a course in education for a student whose major is speech. Prerequisite: 12 hours of speech. Strongly recommended that this course precede student teaching.

50:194(g). Methods of Directing Forensics—2 hrs. Credit also as a course in education for a student whose major is speech.

50:195(g). Methods in Speech Correction—2 hrs. F. Credit also as a course in education for a student whose major is speech. Prerequisite: instructor's approval.

50:198. Independent Study. See pp. 47, 70.

50:212. Speech Criticism—2 hrs.

50:225. Bibliography and Methods of Research—3 hrs.

50:230. Psychology of Speech—3 hrs.

50:240. Classical Rhetoric—2 hrs. Rhetorical theory from 500 B.C. to about 100 A.D. Emphasis on the rhetorical theory of Aristotle, Cicero, and Quintilian. Modern theories examined in the light of the classical period.

50:241. British and American Rhetoric and Oratory—3 hrs. From the eighteenth century to the twentieth.

50:275. Communication Problems of the Hard of Hearing—4 hrs. Speech reading, speech therapy, auditory training and oral language for the hard of hearing and deaf.

50:276. Advanced Clinical Practice—1-4 hrs. Clinical experience in diagnosis and remediation of the speech problems associated with aphasia, cerebral palsy, hearing loss, and disorders of voice. Prerequisite: 50:176. May be repeated for a total of 4 hours of credit.

50:282. Seminar in Theatre—2 hrs. Problems of theatre production in the secondary schools and colleges. Class interest determines the emphasis: (1) direction, (2) technical production, or (3) theatre literature. May be repeated for a maximum of 4 hours.

50:283. Seminar in Teaching Speech—2 hrs. Emphasis on (1) problems related to organizing and teaching speech courses in the public schools and (2) directing of extracurricular speech activities. May be repeated for a maximum of 4 hours.

50:285. Seminar in Public Address—2 hrs. Class interest determines whether the emphasis will be upon (1) persuasion, (2) rhetoric, or (3) debate and discussion. May be repeated for a maximum of 4 hours.

50:286. Seminar in Speech Correction—2 hrs. Offered in four sections: (1) Stuttering, (2) Articulation Theory, (3) Disorders of Language, (4) Experimental Phonetics.

50:299. Research. See pp. 138, 149, 163.

Teaching

Nielsen, Head. Albrecht, Aldrich, Aurand, Bebb, Blackman, Bridges, M. D. Brown, S. Brown, Butzier, Cannell*, Darrow, Davids, Diamond, Duea, Findlay, Marjorie Fink, Finnessy, Finsand, Gilloley, Gjerde, Gohman, Hale, Hantula, Happ, Harmon, Harper, Hartwell, Helff, Hofsommer, Holmberg, Hoy, Hutcherson, Immerzeel, M. A. Jackson, Lattin, Lavallee, Lynch, Mahon, Mantor, Maricle, Mazula, McBride, C. A. Middleton, C. O. Middleton, Mohn, Moon, Morris, D. Nelson, J. Nelson, O. Nelson, Oppleman, Otten, Paulson, Phillips, A. Potter, L. Potter, Price, Riechmann, Roberson, Roth, Schmitt, Schools, Schwandt, Scovel*, Soy, Stokstad, Stone, Strub, Struble, Tarr, Tuley, Vander Beek, Welch, Wiederanders, Wineke.

The completion of an undergraduate teaching curriculum requires 8 hours' credit in student teaching. Student teaching credit earned in other colleges does not meet the student teaching requirements of the State College of Iowa. A student who has 3 semester hours or more in student teaching in another college in the same area as his major at the State College of Iowa will be held for at least 4 hours in student teaching at this college. A student who completed either the old two-year curriculum or the 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 8 hours of work in student teaching but only 10 hours of credit in the Department of Teaching may be applied toward the requirements for graduation. For the student who chooses to take additional work in student teaching, an effort is made to provide the specialized experiences most needed by the student, such as the teaching of reading, the preparation of instructional aids and materials, and the use of new instructional procedures.

Undergraduates do their required work in student teaching during their senior year although some juniors may be recommended for assignment.

Student teaching is offered in an 8-week block requiring the student's full time for nine weeks. During the other nine weeks of the student teaching semester, the student will take work in professional education, philosophy or religion, and his major. Courses are specially scheduled for this purpose. If a student is given permission to take additional student teaching, the work will be specially scheduled by the Director of Student Teaching and the Registrar.

The aim in student teaching is to give the student experience in breadth and depth in the various duties and responsibilities of the public school teacher. This broad pattern of experiences, provided in either the campus laboratory school or off-campus affiliated schools, includes preparing and teaching units of work, conferring with coordinators and supervising teachers, evaluating pupil progress, participating in extra-class activities, working with special-area consultants, utilizing school and community resources in the instructional program and analyzing the teaching-learning process.

The scholarship average required before a student is permitted to register for student teaching is the same as that required for graduation (See p. 65). A student must also have been approved on a teacher-education program and must file application for student teaching no less than three months prior to the beginning of the semester in which the work is to be taken. (Watch for announcements in the College Eye and on bulletin boards.)

28:134. Lower Elementary Teaching. Prerequisite: 8 hours of psychology and education.

28:135. Special Education Teaching. Prerequisite: 8 hours of psychology and education. Limited to those approved for special education.

28:136. Upper Elementary Teaching. Prerequisite: 8 hours of psychology and education.

*On Leave 1965-66

28:137. Junior High School Teaching. F-S; not available in summer. Prerequisite: 20:16.

28:138. High School Teaching. F-S; not available in summer. Prerequisite: 20:16. Special methods course in major field ordinarily should precede student teaching.

28:150. Laboratory Practice—Elementary. Designed for experienced teachers who have not fulfilled the student teaching requirements for certification and to give a depth of experience. Opportunities available include practice in modern teaching procedures, construction and use of classroom instructional materials, analysis of the teaching-learning process, meeting the needs of exceptional children, classroom supervision and school-parent relations. Special seminar arranged. Departmental recommendation and approval required.

28:151. Laboratory Practice—Secondary. Designed for experienced teachers who have not fulfilled the student teaching requirement for certification and to give a depth of experience. Opportunities available include practice in modern teaching procedures, construction and use of classroom instructional materials, analysis of the teaching-learning process, meeting the needs of exceptional children, classroom supervision and school-parent relations. Special seminar arranged. Departmental recommendation and approval required.

28:250. Advanced Laboratory Practice—2-4 hrs. 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. This course may be repeated for a total of 4 hours. Approval of Head of the Department of Teaching required.

21:191(g). Supervision of Student Teaching—3 hrs. Designed primarily for those presently or potentially involved in the supervision of student teachers. It covers the selection and preparation of student teachers; readiness for student teaching; principles of supervision, including the identification and analysis of good classroom procedures; desirable experiences for the student teacher in the total school program; professional responsibilities of the student teacher in the school and community; evaluation of student teachers, and the supervising teacher's role in the selection of teachers for the profession. It also covers the selection and preparation of student teaching centers, qualifications of supervising teachers, and the role of the coordinator of student teaching.

The Graduate Program



THE GRADUATE PROGRAM at the State College of Iowa has grown to meet the increasing demands of higher education. In 1951 the college was authorized by the State Board of Regents to offer a program of graduate work leading to the Master of Arts in Education degree; the program began with the summer session of 1952. In 1960 the graduate program was extended with the addition of a sixth-year program leading to the Specialist in Education degree. These programs were developed to prepare professionally competent personnel in education—highly qualified teachers, supervisors, administrators, school psychologists and specialists in various fields for elementary and secondary schools as well as for colleges.

In 1965, in recognition of a more general need for advanced study, the graduate program was further expanded with the addition of the Master of Arts degree. Available for students interested in doing advanced work in teaching fields—elementary, secondary, and college—the Master of Arts degree is also open to those who plan to pursue careers in fields other than education. Graduate majors are available in most departments, and graduate-level courses are offered by all departments of the college.

The State College of Iowa now offers three graduate degrees:

Master of Arts in Education

Master of Arts

Specialist in Education

A cooperative program leading to the Ph.D. degree in educational administration is also available. (See p. 169.)

Those who wish to continue their professional and cultural growth without fulfilling the requirements for a graduate degree may do so if they satisfy the requirements for admission to graduate study. All students taking work beyond the bachelor's degree, whether they are studying for an advanced degree or not, are classified as graduate students.

Admission to Graduate Study

(This section applies to all students taking graduate courses at the State College of Iowa after receiving the bachelor's degree.)

APPLICATION

Anyone possessing the bachelor's degree from this or any other recognized institution who wishes to register for either undergraduate or graduate credit in this college must make application for admission to graduate study through the Registrar. Seniors in this college who are within five semester hours of graduation and who wish to register for graduate credit must apply for admission to graduate study. Students who complete all requirements for the bachelor's degree during the first half of a teaching semester may begin graduate work during the second half of that semester.

A student who expects to earn a graduate degree at this college must file a transcript from the college granting the baccalaureate degree if other than the State College of Iowa. A student who has earned graduate credit at another college or university must file an official transcript of such credit. A student who does not hold a teaching certificate and expects this college to recommend him for an original certificate must also file an official transcript. However, students who do not expect to become degree candidates and who do not expect the State College of Iowa to recommend them for certificates do not need to file transcripts. An official statement of the degree and date awarded will be sufficient.

A Health Record, filled out by the family physician, is required of all new graduate students except those enrolled as undergraduates in this college during the year preceding application for admission to graduate study.

TYPES OF 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 National Council for Accreditation of Teacher Education or by the North Central Association of Colleges and Secondary Schools or by 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 he is of doubtful promise as a graduate student.
2. Conditional admission to graduate study may 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 the bachelor's degree at the time he applies for admission to graduate study.
3. Probational admission to graduate study may be granted a student if:
 - a. He is a graduate of a college that at the time of his graduation was not accredited by the National Council for Accreditation of Teacher Education or by the North Central Association of Colleges and Secondary Schools or by a corresponding regional accrediting agency.
 - b. His undergraduate record and other data indicate that he 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 may be removed by the Registrar when the student has earned 8 hours of graduate credit in this institution with an average grade of B or higher.

FEES—See pp. 42-43.

REGULATIONS AFFECTING REGISTRATION

Each student admitted to graduate study is assigned an adviser. The adviser will assist the student in the registration process, involving the selection of courses and such other matters as:

1. *The General Graduate Examinations.* These examinations are administered by the Bureau of Research and Examination Services during the period of the graduate student's first registration. The Miller Analogies Test, a test of general academic ability, is required of all graduate students. The General Professional Examination, an instrument measuring professional interests, attitudes, and understandings, is required of all graduate students except those on the M.A. thesis plan. These students are encouraged but not required to take the General Professional Examination.
2. *Maximum academic load.* The maximum graduate student load during each semester of the academic year is 15 hours; that permitted during the eight-week summer session is 8 hours; that during the two-week post session, 2 hours. A full-

time teaching employee may not register for more than 6 hours of graduate credit in any semester.

3. *Level of courses.* Graduate students normally take 100-level courses (open primarily to juniors, seniors, and graduate students) if followed by a (g) and 200-level courses (open primarily to graduate students). However, a graduate student may take courses numbered less than 100 for undergraduate credit, but only 100-level courses followed by a (g) will provide graduate credit.
4. **CREDIT FROM OTHER INSTITUTIONS.** A maximum of 8 semester hours of graduate credit earned in another accredited institution may be applied toward meeting the minimum requirements for a master's degree at the State College of Iowa.
5. **VETERANS.** All veterans planning to enroll under a Veterans Administration program must file proper authorization from the Veterans Administration in the Office of the Registrar before registering.

To receive full subsistence the student ordinarily is expected to enroll for 15 hours if under Public Law 894 and 14 hours if under Public Law 634. The Registrar has been appointed as the Veterans Coordinator and has been authorized to make certain exceptions in the matter of registration of veterans doing graduate work. He should be consulted if the student has questions concerning the regulations for veterans.

Graduate Assistantships

Three types of assistantships are available to qualified graduate students who are working toward a graduate degree at SCI: graduate assistantships, research assistantships, and teaching assistantships.

1. **GRADUATE ASSISTANTSHIPS** are available for graduate students who are in residence through the academic year. These assistantships require the students to carry 12 hours of work each semester. Assistantships for students working toward the master's degree carry a stipend of not more than \$1500 for the academic year; a few with a stipend of not more than \$1750 are available for students working toward the Specialist in Education degree. Certain non-teaching duties of approximately 10 hours per week are assigned each graduate assistant.
2. **RESEARCH ASSISTANTSHIPS** are available for graduate students who are in residence through the academic year. These provide a maximum stipend of \$1,750 for the academic year. The work of the assistant will be so arranged that he may normally complete his degree in one academic year and the

equivalent of two summer sessions. Research assistants aid staff members who are engaged in research, but these assistantships become available only if a staff member is engaged in an approved project and has need for a graduate student to assist in the research.

3. **TEACHING ASSISTANTSHIPS** are available for graduate students who hold the master's degree and are working on the Specialist in Education degree and who are in residence through the academic year. These provide a maximum stipend of \$3,500 for the academic year. Teaching assistants will carry a partial course-work load and will instruct, under careful supervision, introductory courses; the combination of teaching load and course-work load may not exceed 12-15 credit hours per semester.

With the exception of the student activities fee which is required of all students and which is subject to change without notice, all assistantships include a remission of the basic fees for the academic year as well as for the summer session, provided the student carries at least 6 hours of graduate work during the summer.

Application blanks may be obtained from the Office of the Dean of Instruction or the department in which the student is majoring. Applications should be filed by March 1 with the department in which the student is applying for an assistantship. Recommendations for awarding of assistantships are made by department heads to the Dean of Instruction.

Master of Arts in Education Degree

THIS DEGREE IS DESIGNED specifically for those whose work is primarily in professional education. The following majors are available:

- Elementary Education
- School Administration and Supervision
- Student Personnel Services
- Educational Psychology

Although a special curriculum is not available for supervisors of student teaching, a student can arrange a program which will qualify him for such a position.

Two plans of study leading to the degree of Master of Arts in Education are available: one plan requires the writing of a thesis; the other does not. The program prescribed for each student depends upon his undergraduate preparation, his experience, and his future plans. The needs of the student as determined by him, his

adviser, and his departmental committee are the guiding factors in program planning. Regardless of the plan of study followed, graduate work leading to the degree of Master of Arts in Education should constitute a cohesive, logically planned program, not merely an accumulation of credit in a variety of courses. Only selected students are admitted to candidacy.

Admission to Candidacy

Admission to candidacy is not the same as admission to graduate study. A student may wish to take only selected courses and have no intention of becoming a degree candidate. A student who wishes to earn the degree of Master of Arts in Education must first be admitted to graduate study (see pp. 132-133) and then seek admission to candidacy for the degree. Admission to candidacy is granted after the conditions, explained below, have been met.

Application for candidacy is normally made during the first semester of residence work, and candidacy must be approved before the beginning of the semester or summer session in which the student expects to receive his degree. The forms on which the application is made are available in the Office of the Department of Education and Psychology. The application is left with the head of the department. Unconditional admission to graduate study is a prerequisite for the approval of candidacy for the degree.

The department head may recommend the applicant to the Dean of Instruction for approval as soon as:

1. The General Graduate Examinations have been successfully completed (see p. 133).
2. The student has earned or is eligible for an Iowa Professional Certificate or its equivalent.*
3. The Departmental Candidacy Examination has been successfully completed.

This examination is prepared and administered by the Department of Education and Psychology. The examination may be either written or oral or a combination of the two. Students should consult with the department head concerning the nature and content of the examination.

The departmental examination is given periodically and the student should consult the head of the department as to the time and place. The student will usually take this examination during the first semester of residence.

4. Either the thesis or the non-thesis plan of study has been selected.
5. A program of studies prepared by the candidate and his adviser has been approved by the departmental committee.

*Except for these with an emphasis in College Student Personnel Services.

This committee, with the student's adviser, has responsibility for the review of the student's program of studies to insure balance, breadth, and needed specialization.

6. The departmental committee recommends candidacy.
7. The application has been approved by the department head.

The Dean of Instruction may approve the application at once or may delay action until scholarship or other data are available or may return it to the department with comments. The Dean of Instruction is in general charge of each graduate student's program.

THESIS COMMITTEE. For the student following the thesis plan, the thesis committee is appointed by the Dean of Instruction after his approval of the student's application for candidacy. It consists of the student's adviser as chairman and two additional faculty members. The committee assists the student in further defining his course work, in supervising his research and writing, and eventually accepts or rejects the thesis.

The nature of the thesis is described on pp. 139-140.

SELECTION OF THESIS TOPIC. The student following the thesis plan of study is urged to make at least a tentative selection of a topic by the end of his first semester in residence. The course 21:294 Educational Research, which the student ordinarily takes during his first semester in residence, provides an opportunity to explore suitable topics. The delineation of an exact topic is not necessary before applying for candidacy, but the designation of a probable area of study must be made.

Graduation Requirements

HOURS OF CREDIT. THESIS PLAN: At least 30 semester hours of graduate credit including 3 semester hours for the thesis. At least 22 semester hours must be earned at the State College of Iowa.

NON-THESIS PLAN: A minimum of 38 semester hours of graduate credit of which at least 30 semester hours must be earned at the State College of Iowa. At least 7 semester hours must be taken in departments other than that of the graduate major.

On both plans the total must include:

1. A minimum of 12 hours of work (thesis plan) or 15 hours of work (non-thesis plan) in courses numbered 200 and above.
2. The 5-hour professional core, consisting of:
21:294 Educational Research—3 hrs.
20:214 Advanced Educational Psychology—2 hrs.,
or
21:234 Philosophy of Education—2 hrs.
3. The course requirements for a specific major (see "Requirements

for Various Majors," pp. 142-145) and any additional courses designated by the departmental committee.

On both the thesis and non-thesis plan certain limitations on the amount and kinds of credit must be observed:

1. **RESEARCH CREDIT.** A maximum of 3 hours of research credit may be applied on the master's degree.

Registration for 299 Research will not be accepted until the student has submitted a statement or outline of the proposed research project and has secured the approval of the person directing the research project and the head of the appropriate department. A copy of the completed research report, approved by the director of the research project and the department head, will be filed in the departmental office.

Research carries residence credit and may be pursued either on campus or off campus, but NOT in an extension class. There is no prerequisite, although it is strongly recommended that 21:294 Educational Research be completed before registering for Research. It is expected that the work will be completed during a semester or a summer session. However, the department head may report an unfinished grade in Research and thus gain for the student additional time, up to six months or two weeks before graduation, whichever comes first. Work not completed at the end of the extended time will be automatically recorded as failing.

2. **TRANSFER CREDIT.** Graduate credit from other approved institutions will be accepted to a maximum of 8 semester hours, but the total of transfer credit and extension credit combined cannot exceed 10 hours. However, regardless of the amount of such transfer credit, the student must complete the residence requirement of a minimum of one semester of 10 hours or two summer sessions of 6 hours each, and 22 or 30 semester hours of graduate credit at this college, depending on whether the thesis or non-thesis plan is chosen. No credit may be used toward the master's degree if earned in a course which was not a graduate course when taken.
3. **RECENCY OF CREDIT.** Courses taken more than 10 years prior to the granting of the degree cannot be used to meet degree requirements.
4. **EXTENSION CLASS CREDIT.** A maximum of 6 semester hours of graduate credit earned in extension classes may be applied toward the degree. However, the total of extension credit and transfer credit combined cannot exceed 10 hours.
5. **CORRESPONDENCE CREDIT.** No graduate credit earned through correspondence study may be applied toward the master's degree.
6. **SATURDAY AND EVENING CLASS CREDIT.** During the academic year some classes are scheduled in the evenings or on Saturdays,

especially for the convenience of persons within driving distance of the campus. They differ from other residence classes only in that they involve fewer meetings and longer single sessions. A separate list of these classes may be secured by writing the Registrar during the month preceding the opening of either the fall or the spring semester.

7. RADIO AND TELEVISION CLASS CREDIT. Credit earned in radio and television classes usually may not be applied toward the master's degree.

SCHOLARSHIP. A cumulative grade index of 3.00 (B average) must be earned in all courses attempted at the graduate level. No credit toward graduation is allowed for a course in which a grade below C is earned.

CANDIDACY. The requirements for candidacy are described on pp. 136-137.

RESIDENCE. THESIS PLAN: 20 semester hours of graduate credit in residence including one semester, or two summer sessions, of *full-time graduate work in residence*.

By "full-time residence" is meant the completion of 10 or more hours of work in one semester or 6 or more hours in a summer session on this campus.

NON-THESIS PLAN: 28 semester hours of graduate credit in residence including one semester, or two summer sessions, of full-time graduate work in residence as defined above.

After a student has been admitted as a candidate for the master's degree in this college, and provided that prior arrangements have been made with the Dean of Instruction, he may take work at the University of Iowa or Iowa State University of Science and Technology for which residence credit may be given at the State College of Iowa.

EXAMINATIONS. THESIS PLAN: In addition to whatever examinations are required for each course, the candidate for the degree on the thesis plan will take (1) the General Graduate Examinations (see p. 133), and (2) the Departmental Candidacy Examination (see p. 136). Further, if final written and oral examinations are required by his thesis committee and his major department, the candidate will be required to pass them.

NON-THESIS PLAN: The candidate for the degree on the non-thesis plan is required to take the same examinations required on the thesis plan and, in addition, (3) a written Final Comprehensive Examination, which is prepared and administered by the Department of Education and Psychology.*

THESIS. A thesis is required of all candidates who choose the thesis plan of study. Because the thesis is considered to serve a

*Results must be reported to the Office of the Dean of Instruction at least one week before Commencement.

functional need, a wide variety of areas of study is considered appropriate and no attempt is made to limit the topics considered acceptable for the thesis, except to stress that they should bear some relationship to teaching.

The thesis may take the form of studies, experiments, surveys, compositions, creative work, and projects, and may concern itself with such matters as methodology, understanding children, and materials of instruction, or may delve rather deeply into some aspect of a specialized academic field. Whatever the nature of the subject, its development into an acceptable thesis is considered to contribute to the growth of such attributes as maturity of judgment, initiative, writing ability, and organizing ability. While the thesis may make no significant contribution to the world's knowledge, its preparation should develop in the writer a broader understanding of the world's knowledge and a more genuine appreciation of the research efforts of others. Three semester hours of credit are awarded upon satisfactory completion of the thesis; the student does not register for thesis credit.

FILING OF THESIS. The thesis must be presented in final form to the thesis committee at least 30 days before graduation. A specimen title page and form for final approval may be obtained in the Office of the Dean of Instruction. The student must present two acceptable copies, an original and one carbon copy, both on bond paper of either 16- or 20-pound weight; these are retained by the college library. The student's major department may request a third copy for its files. After the thesis committee has accepted the thesis, the student must transmit the two copies to the Dean of Instruction not later than two weeks before graduation. When the student has been notified of acceptance of his thesis, he will secure a fee card to cover the thesis binding cost of \$6 for the library copies and will pay this fee at the business office.

FILING OF ABSTRACT OF THESIS. An abstract or summary of his thesis is required of each candidate following the thesis plan toward the master's degree. The abstract will be approximately 500 words in length and will be filed in duplicate in the Office of the Dean of Instruction at least two weeks before graduation.

SUMMARY OF HOUR REQUIREMENTS

A summary of the hour requirements for both the thesis and the non-thesis plans is listed below:

	Thesis	Non- Thesis
Minimum graduate hours required	30*	38
Minimum hours earned at SCI	22	30
Minimum hours of residence credit at SCI (in- cluding 1 semester of 10 hours, or 2 summer sessions of 6 hours each)	20	28

*Includes 3 semester hours for thesis.

Maximum usable hours of extension credit	6	6
Maximum usable hours of transfer credit	8	8
Maximum usable hours combined in extension and transfer credit (no credit may be used for correspondence, radio, or TV courses)	10	10
Minimum hours required in courses numbered 200 and above	12	15
Minimum hours outside the graduate major	6**	7
Research credit usable	3	3

**Some work outside the major must be taken; 6 hours recommended.

CERTIFICATION. For approval in most graduate majors, a student must have earned or be eligible for an Iowa Professional Certificate or its equivalent endorsed in an area appropriate to the graduate major. Credit earned in education, psychology, or teaching to secure a teaching certificate as a prerequisite to candidacy for the master's degree may not be used toward the master's degree. For information on certification consult the Registrar.

The master's degree and four years of successful teaching experience entitle the student to an Iowa Permanent Professional Certificate with appropriate endorsements.

TEACHING CERTIFICATES AND ENDORSEMENTS. Students interested in securing certificates to teach in another state should secure information directly from the State Department of Public Instruction in that state and consult the Registrar of this college.

TEACHING EXPERIENCE. The curricula in (1) school guidance and counseling and (2) school administration and supervision require a minimum of one year of successful teaching experience before the degree of Master of Arts in Education is awarded and before certain required courses can be taken. The following courses also require at least one year as a prerequisite for enrollment: 21:241 Supervision of the Elementary School; 21:288 Organization and Administration of the Guidance Program; 21:275 Administration of the Secondary School; and 21:245 Administration of the Elementary School.

APPLICATION FOR GRADUATION. The candidate for the master's degree must make application for graduation not later than the end of the ninth week of the semester or the fourth week of the summer session in which he plans to receive the degree. The application form may be secured in the Office of the Registrar. Applications received after the dates designated will be placed with those for the following session.

ATTENDANCE AT COMMENCEMENT. The candidate for the master's degree is expected to secure the appropriate academic costume and to appear at Commencement for the awarding of the degree.

Requirements for Various Majors

On each curriculum and for each major, the student who plans to receive the degree of Master of Arts in Education must meet the graduate requirements described on pp. 137-141.

Many programs at this level carry with them the requirements for certificate endorsement. In some cases, the student may be building up his competency in a field in which he has had little or no preparation at the bachelor's level. For these reasons some of the programs must carry with them a substantial number of specific requirements. Whenever possible, however, an effort is made to keep the specific course requirements for each major at a minimum so that the student, with the help of his adviser and the departmental committee, may plan the graduate program which will best meet his individual needs.

Worksheets showing the specific requirements of each major and emphasis are available in the office of the Department of Education and Psychology.

MAJOR IN ELEMENTARY EDUCATION

The student must be fully certified to teach in the elementary schools prior to his completing this major. In addition to the professional core, if the student has not had the following courses or their equivalent, he will be required to satisfactorily complete them or a proficiency equivalent as a part of his major:

- 21:180 Statistical Methods in Education and Psychology—2 hrs.
- 20:181 Group Evaluation Techniques—3 hrs.
- 20:100 Child Psychology—2 hrs.

Additional requirements of the various emphases are as follows:

1. GENERAL ELEMENTARY TEACHING

This emphasis has been designed to include a maximum amount of flexibility to permit the student, his adviser and the committee to plan his program in such a way as to assure that it will strengthen him as an elementary teacher. No specific course requirements have been set. For some student, it will permit a maximum amount of depth in one or more subjects; for another, it will allow for breadth; for still another, it may eliminate deficiencies in his preparation. However, the program will be carefully planned early in the career of the student to assure maximum benefits.

2. EDUCATION OF THE GIFTED CHILD

- 21:185 The Exceptional Child—2 hrs.
- 21:187 The Gifted Child—4 hrs.
- 20:285 Individual Intelligence Testing—3 hrs.
- 21:289-6 Seminar in Education: Special Education—2 hrs.

20:194 Clinical Experience—1 to 4 hrs.

or

28:250 Advanced Laboratory Practice (with gifted students)
—2 to 4 hrs.

Electives from a selected list—5 hrs.

3. EDUCATION OF THE RETARDED CHILD

21:185 The Exceptional Child—2 hrs.

20:186 Mental Retardation—3 hrs.

21:186 Curriculum for the Retarded Child—3 hrs.

20:285 Individual Intelligence Testing—3 hrs.

21:289-6 Seminar in Education: Special Education—2 hrs.

20:194 Clinical Experience—1 to 4 hrs.

or

28:250 Advanced Laboratory Practice (with retarded children)—2 to 4 hrs.

Electives from a selected list—5 hrs.

This major carries with it certification endorsement to teach in this field.

4. REMEDIAL READING

21:147 Remedial Reading—3 hrs.

21:184 Guidance in the Elementary School—2 hrs.

21:160 Diagnosis of Reading Problems—2 hrs.

20:285 Individual Intelligence Testing—3 hrs.

20:286 Analysis of the Individual—3 hrs.

20:194 Clinical Experience—1 to 4 hrs.

or

28:250 Advanced Laboratory Practice (with children with reading problems)—2 to 4 hrs.

A list of recommended electives is made available.

MAJOR IN SCHOOL ADMINISTRATION
AND SUPERVISION

The student must complete the usual degree and certification requirements as well as those for the particular endorsement he seeks. He must complete a minimum of one year of successful teaching appropriate to the emphasis prior to graduation with the major.

In addition to the general requirements, a student with this major will be required to complete:

21:235 Principles of School Administration—3 hrs.

21:231 School and Community Relations—3 hrs.

or

21:239 School Personnel Administration—3 hrs.

A course in child growth and development, guidance and counseling, educational psychology, or in the area of the exceptional child.

Practicum in an appropriate area

Additional requirements of the various emphases are as follows:

1. SECONDARY PRINCIPALSHIP

21:275 Administration of the Secondary School—3 hrs.

21:272 Curriculum Development in the Secondary School—3 hrs.

or

21:141 Principles of Supervision—2 hrs.

2. ELEMENTARY PRINCIPALSHIP

21:245 Administration of the Elementary School—3 hrs.

21:243 Curriculum Development in the Elementary School—3 hrs.

or

21:141 Principles of Supervision—2 hrs.

3. ELEMENTARY SUPERVISION

21:245 Administration of the Elementary School—3 hrs.

21:141 Principles of Supervision—2 hrs.

21:241 Supervision of the Elementary School—3 hrs.

21:243 Curriculum Development in the Elementary School—3 hrs.

NOTE: Superintendency

The program for the preparation of the superintendency of schools is a two-year program. Please see the Specialist in Education degree program for details, pp. 164-165.

MAJOR IN STUDENT PERSONNEL SERVICES

The student must complete the usual degree and certification requirements and those for the particular endorsement he seeks.

Students majoring in school guidance and counseling (elementary or secondary) are required to complete:

21:180 Statistical Methods in Education and Psychology—2 hrs.

20:181 Group Evaluation Techniques—3 hrs.

20:286 Analysis of the Individual—3 hrs.

21:287 Techniques of Counseling—3 hrs.

Practicum in an appropriate area.

One year of teaching experience in an appropriate area is required prior to graduation for those who plan to work in school guidance and counseling.

Two emphases are available in school guidance and counseling; one emphasis is available for student personnel work at the college level.

1. SECONDARY GUIDANCE AND COUNSELING

In addition to the above requirements, the student will complete:

21:182 Introduction to Guidance and Counseling—3 hrs.

- 21:183 Educational and Occupational Information—2 hrs.
- 20:285 Individual Intelligence Testing—3 hrs.

or

- 21:283 Group Procedures in Guidance and Counseling—3 hrs.
- 21:288 Organization and Administration of the Guidance Program—2 hrs.

2. ELEMENTARY GUIDANCE AND COUNSELING

In addition to the above requirements, the student will complete:

- 21:184 Guidance in the Elementary School—2 hrs.
 - 20:285 Individual Intelligence Testing—3 hrs.
 - 21:283 Group Procedures in Guidance and Counseling—3 hrs.
- or
- 21:183 Educational and Occupational Information—2 hrs.
 - 21:289-7 Seminar in Education: School Guidance—2 hrs.

3. COLLEGE STUDENT PERSONNEL SERVICES

Certification to teach is *not* required for this emphasis.

In addition to the general requirement for the degree, the student will complete:

- 21:265 Student Personnel Programs in Higher Education—3 hrs.
 - 21:287 Techniques of Counseling—3 hrs.
 - 21:289-9 Seminar in Education: College Student Personnel Services—2 hrs.
- Two different practicum experiences—4 hrs.
Electives from a selected list—8 hrs.

MAJOR IN EDUCATIONAL PSYCHOLOGY

In addition to the general requirements for the degree, including 20:214 Advanced Educational Psychology (2 hours), the student will be required to show proficiency in general psychology, general experimental psychology, and child or adolescent psychology. He will also be required to complete:

- 21:180 Statistical Methods in Education and Psychology—2 hrs.
 - 20:181 Group Evaluation Techniques—3 hrs.
- Electives from a selected list—15 hrs.

A minimum of 20 semester hours must be taken in courses numbered with the prefix 20.

A student who expects to teach in college should take:

- 21:201 Teaching in College—3 hrs.
- 21:203 Current Issues in Higher Education—2 hrs.

The major in Educational Psychology may be utilized as the first half of a two-year program designed to prepare certified School Psychologists as described under the Specialist in Education degree program, pp. 167-168.

Master of Arts Degree

A NUMBER OF CURRICULA lead to the degree of Master of Arts. Programs are available for advanced preparation of elementary and secondary teachers, for college teaching, including programs for Iowa Public Junior College certification, and for graduate study without reference to teaching. The following majors are offered.

Art	Mathematics
Biology	Music
Business	Physical Education
Business Education	Physics
Chemistry	Political Science
Counseling	Science
English	Social Science
History	Speech
Industrial Arts	Speech Correction

The Master of Arts program is a highly flexible one. The plan of study prescribed for each student depends upon his undergraduate preparation, his experience, and his future plans. The needs of the student as determined by him, his adviser, and his departmental committee are the guiding factors in course selection. It should be stressed, however, that regardless of the plan of study followed, graduate work leading to the degree of Master of Arts should constitute a cohesive, logically planned program, not merely an accumulation of credits in a variety of courses. On most programs both the thesis and non-thesis plans are available. Only selected students are admitted to candidacy.

Admission to Candidacy

Admission to candidacy is not the same as admission to graduate study. A student may wish to take only selected courses and have no intention of becoming a degree candidate. A student who wishes to earn the master's degree must first be admitted to graduate study (see pp. 132-133), and then seek admission to candidacy for the degree. Admission to candidacy is granted after the conditions (explained below) have been met.

Application for candidacy is normally made during the first semester of residence work and candidacy must be approved before the beginning of the semester or summer session in which the student expects to receive his degree. The forms on which the application is made are available in departmental offices. The application is left with the head of the major department. Unconditional admission to graduate study is a prerequisite for the approval of candidacy for the master's degree.

The department in which the application for candidacy is filed may recommend the applicant to the Dean of Instruction for approval as soon as:

1. The General Graduate Examinations have been completed successfully. (See p. 133).
2. The Departmental Candidacy Examination has been completed successfully.

This examination is prepared and administered by the department in which the student plans to pursue a major. The examination may be either written or oral or a combination of the two. Performance tests related to the special skills needed by teachers of such subjects as music, speech, and business education may be included as part of the candidacy examination for students pursuing majors in these areas. Each student should consult with his department head concerning the nature and content of these examinations.

The departmental examinations are conducted periodically and the student should consult the head of the department as to the time and place. The student will usually take this examination during the first semester of residence.

3. Either the thesis or the non-thesis plan of study has been selected. The thesis plan is open to all. The non-thesis plan is available to (a) persons who hold or are eligible for the Iowa Professional Certificate or equivalent (except where five years is required for a first certificate) and who complete Professional Core A; or (b) persons who complete Professional Core B.
4. A program of studies prepared by the candidate and his adviser has been approved by the departmental committee. This committee, with the student's adviser, has responsibility for the review of the student's program of studies to insure balance, breadth, and needed specialization. Each department offering a graduate major has one or more departmental committees.
5. The departmental committee recommends candidacy.
6. The application has been approved by the department head.

The Dean of Instruction may approve the application at once or may delay action until scholarship or other data are available or may return it to the department with comments. The Dean of Instruction is in general charge of each graduate student's program.

THESIS COMMITTEE. For the student following the thesis plan, the thesis committee is appointed by the Dean of Instruction after his approval of the student's application for candidacy. It consists of the student's adviser as chairman and two additional faculty members. The committee assists the student in further defining his

course work, in supervising his research and writing, and eventually accepts or rejects the thesis.

The nature of the thesis is described on p. 151.

SELECTION OF THESIS TOPIC. The student following the thesis plan of study is urged to make at least a tentative selection of a topic by the end of his first semester in residence. The delineation of an exact topic is not necessary before applying for candidacy, but the designation of a probable area of study must be made.

Graduation Requirements

HOURS OF CREDIT. THESIS PLAN:

1. A minimum of 30 semester hours of graduate credit, including 3 semester hours of credit for the thesis. At least 22 semester hours must be earned at the State College of Iowa.
2. A minimum of 12 semester hours of work in courses numbered 200 or above.
3. The course requirements for a specific major and any additional courses designated by the departmental committee.
4. Some work, preferably 6 semester hours of graduate work, taken in departments other than that of the graduate major.

NON-THESIS PLAN:

1. A minimum of 38 semester hours of graduate credit of which at least 30 semester hours must be earned at the State College of Iowa.
2. A minimum of 15 semester hours of work in courses numbered 200 or above.
3. The course requirements for a specific major and any additional courses designated by the departmental committee.
4. Professional Core A or Professional Core B:

Professional Core A (Prerequisite: Iowa Professional Certificate or equivalent)

20:214 Advanced Educational Psychology—2 hrs.

or

21:234 Philosophy of Education—2 hrs.

21:294 Educational Research—3 hrs.

or

A departmental course in Research and Bibliography

A special methods course in the major field or any additional course numbered 200 and above in the Department of Education and Psychology or in the Department of Teaching

Professional Core B (Professional Core B and an appropriate distribution of courses in one or more subject areas are required in order to receive Iowa Public Junior College certification)

21:201 Teaching in College—3 hrs.

21:203 Current Issues in Higher Education—2 hrs.

:297 Practicum—2 hrs.

5. At least 7 semester hours of graduate work taken in departments other than that of the graduate major; these 7 hours may include 21:294 and either 20:214 or 21:234.

On both the thesis and non-thesis plan certain limitations on the amount and kinds of credit must be observed:

1. **RESEARCH CREDIT:** A maximum of 3 hours of research credit may be applied on the master's degree.

Registration for 299 Research will not be accepted until the student has submitted a statement or outline of the proposed research project and has secured the approval of the person directing the research project and the head of the appropriate department. A copy of the completed research report, approved by the director of the research project and the department head, will be filed in the departmental office.

Research carries residence credit and may be pursued either on campus or off campus, but NOT in an extension class. There is no prerequisite, although it is strongly recommended that 21:294 Educational Research or a departmental course in research be completed before registering for Research. It is expected that the work will be completed during a semester or a summer session. However, the department head may report an unfinished grade in Research and thus gain for the student additional time, up to six months or two weeks before graduation, whichever comes first. Work not completed at the end of the extended time will be automatically recorded as failing.

2. **TRANSFER CREDIT.** Graduate credit from other approved institutions will be accepted to a maximum of 8 semester hours but the total of transfer credit and extension credit combined cannot exceed 10 hours. However, regardless of the amount of such transfer credit, the student must complete the residence requirement of a minimum of one semester of 10 hours or two summer sessions of 6 hours each, and 22 or 30 semester hours of graduate credit at this college, depending on whether the thesis or non-thesis plan is chosen. No credit may be used toward the master's degree if earned in a course which was not a graduate course when taken.
3. **RECENCY OF CREDIT.** Courses taken more than 10 years prior to the granting of the degree cannot be used to meet degree requirements.
4. **EXTENSION CLASS CREDIT.** A maximum of 6 semester hours of graduate credit earned in extension classes may be applied toward the degree. However, the total of extension credit and transfer credit combined cannot exceed 10 hours.

5. **CORRESPONDENCE CREDIT.** No graduate credit earned through correspondence study may be applied toward the master's degree.
6. **SATURDAY AND EVENING CLASS CREDIT.** During the academic year some classes are scheduled in the evenings or on Saturdays especially for the convenience of persons within driving distance of the campus. They differ from other residence classes only in that they involve fewer meetings and longer single sessions. A separate list of these classes may be secured by writing the Registrar during the month preceding the opening of either the fall or the spring semester.
7. **RADIO AND TELEVISION CLASS CREDIT.** Credit earned in radio and television classes usually may not be applied toward the master's degree.

SCHOLARSHIP. A cumulative grade index of 3.00 (B average) must be earned in all courses attempted at the graduate level. No credit toward graduation is allowed for a course in which a grade below C is earned.

CANDIDACY. The requirements for candidacy are described on pp. 146-147.

RESIDENCE. THESIS PLAN: 20 semester hours of graduate credit in residence including one semester, or two summer sessions, of full-time graduate work in residence. By "full-time residence" is meant the completion of 10 or more hours of work in one semester or 6 or more hours in a summer session on this campus.

NON-THESIS PLAN: 28 semester hours of graduate credit in residence including one semester, or two summer sessions, of full-time graduate work in residence as defined above.

After a student has been admitted as a candidate for the master's degree in this college, and provided that prior arrangements have been made with the Dean of Instruction, he may take work at the University of Iowa or Iowa State University of Science and Technology for which residence credit may be given at the State College of Iowa.

EXAMINATION. THESIS PLAN: In addition to whatever examinations are required for each course, the candidate for the degree on the thesis plan will take (1) the General Graduate Examinations (see p. 133), and (2) The Departmental Candidacy Examination (see p. 147). Further, if final written and oral examinations are required by his thesis committee and his major department, the candidate will be required to pass them.

NON-THESIS PLAN: The candidate for the degree on the non-thesis plan is required to take the same examinations required on the thesis plan and, in addition, (3) a written Final Comprehensive Examination, which is prepared and administered by the major department.*

*Results must be reported to the Office of the Dean of Instruction at least one week before Commencement.

THESIS. A thesis is required of all candidates who choose the thesis plan of study. Because the thesis is considered to serve a functional need, a wide variety of areas of study is considered appropriate and no attempt is made to limit the topics considered acceptable for the thesis.

The thesis may take the form of studies, experiments, surveys, compositions, creative work, and projects and may concern itself with such matters as methodology, understanding children, and materials of instruction, or may delve rather deeply into some aspect of a specialized academic field. Whatever the nature of the subject, its development into an acceptable thesis is considered to contribute to the growth of such attributes as maturity of judgment, initiative, writing ability, and organizing ability. While the thesis may make no significant contribution to the world's knowledge, its preparation should develop in the writer a broader understanding of the world's knowledge and a more genuine appreciation of the research efforts of others. Three semester hours of credit are awarded upon satisfactory completion of the thesis; the student does not register for thesis credit.

FILING OF THESIS. The thesis must be presented in final form to the thesis committee at least 30 days before graduation. A specimen title page and form for final approval may be obtained in the Office of the Dean of Instruction. The student must present two acceptable copies, an original and one carbon copy, both on bond paper of either 16- or 20-pound weight; these are retained by the college library. The student's major department may request a third copy for its files. After the thesis committee has accepted the thesis, the student must transmit the two copies to the Dean of Instruction not later than two weeks before graduation. When the student has been notified of the acceptance of his thesis, he will secure a fee card to cover the thesis binding cost of \$6 for the library copies and will pay this fee at the business office.

FILING OF ABSTRACT OF THESIS. An abstract or summary of his thesis is required of each candidate following the thesis plan toward the master's degree. The abstract will be approximately 500 words in length and will be filed in duplicate in the Office of the Dean of Instruction at least two weeks before graduation.

SUMMARY OF HOUR REQUIREMENTS

A summary of the hour requirements for both the thesis and the non-thesis plans is listed below:

	Thesis	Non- Thesis
Minimum graduate hours required	30*	38
Minimum hours earned at SCI	22	30
Minimum hours of residence credit at SCI (in- cluding 1 semester of 10 hours, or 2 summer sessions of 6 hours each)	20	28

Maximum usable hours of extension credit	6	6
Maximum usable hours of transfer credit	8	8
Maximum usable hours combined in extension and transfer credit (no credit may be used for correspondence, radio, or TV courses)	10	10
Minimum hours required in courses numbered 200 and above	12	15
Minimum hours outside the graduate major	6**	7
Research credit usable	3	3

*Includes 3 semester hours for thesis.

**Some work outside the major must be taken; 6 hours recommended.

CERTIFICATION. For approval in some graduate programs, a student must have earned or be eligible for an Iowa Professional Certificate or its equivalent endorsed in an area appropriate to the graduate major. Credit earned in education, psychology, or teaching to secure a teaching certificate as a prerequisite to candidacy for the master's degree may not be used toward the master's degree. For information on certification consult the Registrar.

TEACHING CERTIFICATES AND ENDORSEMENTS. Students interested in securing certificates to teach in another state should obtain information directly from the State Department of Public Instruction in that state and should consult the Registrar of this college.

For students with an Iowa Professional Certificate, the master's degree and four years of successful teaching experience entitle the student to an Iowa Permanent Professional Certificate with appropriate endorsements.

APPLICATION FOR GRADUATION. The candidate for the master's degree must make application for graduation not later than the end of the ninth week of the semester or the fourth week of the summer session in which he plans to receive the degree. The application form may be secured in the Office of the Registrar. Applications received after the dates designated will be placed with those for the following session.

ATTENDANCE AT COMMENCEMENT. The candidate for the master's degree is expected to secure the appropriate academic costume and to appear at Commencement for the awarding of the degree.

Requirements for Various Majors

On each curriculum and for each major, the student who plans to receive the master's degree must meet the graduate requirements described on pp. 148-152.

MAJOR IN ART

Each student's program will be determined by his needs and in

consultation with his adviser. Considering his undergraduate and graduate work together, he must have reasonable breadth and must have completed at least 60 semester hours of art, of which 20 hours must be taken as a graduate student.

It is strongly recommended that each degree candidate shall have completed at least 6 semester hours of art history at the undergraduate level and that he will include at least 6 additional hours at the graduate level.

This major prescribes no additional required courses unless the student wishes to complete the requirements for a certificate endorsement as a supervisor of art. In this event, the student must have four years of successful teaching experience and include in this graduate program the following courses:

- a. 60:296 The Supervision of Art—3 hrs.
- b. At least 7 hours from the following:
 - 21:271 Supervision of the Secondary School—2 hrs.
 - 21:272 Curriculum Development in the Secondary School—3 hrs.
 - 21:141 Principles of Supervision—2 hrs.
 - 21:241 Supervision of the Elementary School—2 hrs.
 - 21:243 Curriculum Development in the Elementary School—3 hrs.

If the art major is following the thesis plan, his thesis may be of the conventional type, or it may involve creative work in art.

In the latter event, the amount and quality of the work are subject to the approval of the student's thesis committee and the Dean of Instruction. All works will be retained by the department as a partial fulfillment of the degree requirements. In addition, a written statement of the purpose of the project, the problems involved, an evaluation of the results, and photographs of the productions themselves will be submitted in triplicate, two copies to be filed in the college library with the other retained by the Department of Art.

Before the master's degree is conferred, the student whose major is art must demonstrate his proficiency in a selected creative area through presentation of an exhibit.

MAJOR IN BIOLOGY

A student must complete 82:200 History and Philosophy of Science (2 semester hours), unless he has credit in 82:175 The Nature of Science (2 semester hours).

A student must complete 84:292 Research Methods in Biology (3 hours), unless he is taking Professional Core A or B, in which case he may complete either 21:294 Educational Research (3 hours), or 84:292 Research Methods in Biology (2 hours).

Students not taking Professional Core A or B must take at least

6 hours outside the area of biology, usually in mathematics, chemistry, earth science, or physics.

MAJOR IN BUSINESS

MAJOR IN BUSINESS EDUCATION

The major in Business is available only to students selecting the thesis option. The Major in Business Education is available on both the thesis and non-thesis plans.

The candidate for the master's degree in business education taking Professional Core A must take 15:203 Foundations in Business Education (2 hours); this course is recommended for a student taking Professional Core B.

Except for students completing Professional Core A, graduate and undergraduate work combined must total at least 60 semester hours in business, business education, and related fields, including 6 semester hours of economics.

A student must take 15:292 Business Research (3 hours), unless he completes Professional Core A or B, in which case he may take either 15:292 Business Research (3 hours), or 21:294 Educational Research (3 hours).

The remainder of the program will be determined in consultation with the adviser and the departmental committee.

MAJOR IN CHEMISTRY

This major is available only to students taking Professional Core A or B.

A student must complete 82:200 History and Philosophy of Science (2 hours), unless he has credit in 82:175 The Nature of Science (2 hours).

A student must complete 21:294 Educational Research (3 hours), or 86:292 Research Methods in Chemistry (3 hours).

MAJOR IN COUNSELING

This program is available only to students selecting the thesis option.

The program is designed for persons who plan to counsel in non-school settings such as churches, industry, student centers, employment services, domestic peace corps, job corps, and similar situations. Students who major in this area will complete a basic core of courses applicable to all preparing for work as counselors. Courses in psychology and measurement are provided as a background. Specific areas of interest and the professional field in which the person plans to work will determine the supporting course work and the appropriate electives. Since persons working on this major will be interested in counseling activities in settings other than that of education, there will be no necessity for the student to hold a teaching certificate. The student's baccalaureate degree, however, may be in liberal arts or a profession, including teaching.

Worksheets giving complete details are available in the office of the Department of Education and Psychology.

Students must complete the following courses:

- 21:294 Educational Research—3 hrs.
- 20:181 Group Evaluation Techniques—3 hrs.
- 21:183 Educational and Occupational Information—2 hrs.
- 21:287 Techniques of Counseling—3 hrs.
- 21:290-8 Practicum—Non-School Counseling—2 hrs.

A minimum of 6 hours must be selected from the following:

- An appropriate statistics course.
- 20:108 Psychology of Personality—3 hrs.
- 20:112 Mental Hygiene—2 hrs.
- 20:140 Social Psychology—3 hrs.
- 20:142 Abnormal Psychology—3 hrs.
- 20:286 Analysis of the Individual—3 hrs.
- 21:283 Group Procedures in Guidance and Counseling—3 hrs.
- A minimum of 8 hours from a selected list.

MAJOR IN ENGLISH

All students must take:

- 62:201 Bibliography and Methods of Research—3 hrs.

Students taking Professional Core A or B must include the following courses:

- 62:193 The Teaching of Writing—3 hrs.
- 62:202 Analysis of Literary Forms—3 hrs.

At least one semester before the degree will be conferred, the student majoring 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 2,000 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.

MAJOR IN HISTORY

This major is designed for students desiring an intensive concentration in history and is considerably more specialized and more rigorous than the general program in Social Science with an emphasis in history. It is especially appropriate for those who have a strong undergraduate background in history, who plan to earn a Ph.D. in history, or who are teaching or plan to teach solely in the area of history.

Students must take the following courses:

- 90:292 Behavioral and Historical Analysis—2 hrs.
- 96:193 Historians and Philosophers of History—2 hrs.

Students must take a final comprehensive examination, both written and oral.

Students must have a reading proficiency in a foreign language unless they take Professional Core A or B.

Students who do not take Professional Core A or B must take 3-6 semester hours outside the field of history.

MAJOR IN INDUSTRIAL ARTS

All students must take the following:

33:226 Foundations of Industrial Education—4 hrs.

33:292 Industrial Arts Research Methods—2 hrs.

21:180 Statistical Methods in Education and Psychology—2 hrs.

Such additional courses as are considered essential by the departmental committee, including at least 40 semester hours credit in industrial arts, counting both undergraduate and graduate courses.

To be admitted as a candidate for the degree with a major in industrial arts a student must have a minimum of 20 semester hours of credit in industrial arts.

Students not taking Professional Core A or B must take 8 semester hours in either chemistry, mathematics, or in physics (may be satisfied by taking courses numbered below 100(g), but such courses will not be counted for graduate credit).

MAJOR IN MATHEMATICS

This major prescribes no additional required courses, but the student taking Professional Core A will select as an area of emphasis either the teaching of elementary mathematics or the teaching of secondary mathematics.

MAJOR IN MUSIC

To be accepted as a graduate major in 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 X). It is highly desirable for the graduate major in music to have attained Grade XVI or higher.

By audition before a jury, a student will be classified in as many performance media as he chooses. An ability grade of IV will permit him to earn graduate applied credit in that performance medium. A grade of VIII or above will make him eligible for 200 level credit in that medium. Students who fail the theory entrance tests will take 58:180 Theory Survey (3 hours) without credit toward a graduate degree. All students (except those taking Professional Core B) must take 52:221 Music Research and Bibliography (2 hours).

Students taking Professional Core A must also take:

54:2— Applied Music—2 hrs.

57:281 Seminar in Chorus—2 hrs.

or

57:290 Seminar in Band—2 hrs.

or

57:291 Seminar in Orchestra—2 hrs.

Students taking Professional Core B must demonstrate artistic and/or scholarly performance in one of the following: applied music, music composition (theory), or writing; and, before a jury, demonstrate an acceptable proficiency at the piano. The program must also contain work from each of the following:

General Music—2-5 hrs.

Applied Music—2-8 hrs.

Music Methods—4-10 hrs.

Music Theory—8-12 hrs.

Music Literature—6-10 hrs.

Students on the thesis plan may complete a conventional type of thesis or may satisfy the thesis requirement by creative work or by a recital when accompanied by a paper devoted to style analysis of designated periods and composers. The recital and paper submitted will be evaluated by a thesis (recital) committee.

By including 21:272 or 275 and 21:243 or 245 in the student's graduate program and with the required four years of successful teaching experience, the student may become eligible for a certificate endorsement in music supervision.

MAJOR IN PHYSICAL EDUCATION

This major is available only to students taking Professional Core A or B.

The student must complete 37:273 Physical Education in the Public Schools (3 hours), and other courses recommended by the departmental committee. He must have at least 40 semester hours of physical education at the undergraduate and graduate level exclusive of activity courses. A candidacy examination will test knowledge and understanding of principles and practices in physical education; various activities and their place in the school program; sciences basic to physical education such as anatomy, human physiology, kinesiology, and psychology; and problems of administration of the physical education program.

For certificate endorsement as a supervisor of physical education, the student must have four years of successful teaching experience and include in his program of study:

37:276 Supervision of Physical Education—2 hrs.

At least 6 hours from the following:

21:132 Materials of Instruction—3 hrs.

21:191 Supervision of Student Teaching—3 hrs.

21:243 Curriculum Development in the Elementary School—3 hrs.

- 21:272 Curriculum Development in the Secondary School—3 hrs
28:250 Advanced Laboratory Practice—2-4 hrs.

MAJOR IN PHYSICS

This major is available only to students taking Professional Core A or B.

A student must complete 82:200 History and Philosophy of Science (2 hours), unless he has credit in 82:175 The Nature of Science (2 hours).

A student must complete 21:294 Educational Research (3 hours) or 88:292 Research Methods in Physics (3 hours).

MAJOR IN POLITICAL SCIENCE

Students must take the following courses:

90:292 Behavioral and Historical Analysis—2 hrs.

94:292 Research and Bibliography—3 hrs.

Students must take a final comprehensive examination, both written and oral.

Students must have a reading proficiency in a foreign language unless they take Professional Core A or B.

Students who do not take Professional Core A or B must take 6 hours outside Political Science.

Students on the non-thesis plan may (with departmental approval) take as much as 12 hours in a related discipline.

MAJOR IN SCIENCE

This major is available only to students taking Professional Core A or B.

A student must complete 82:200 History and Philosophy of Science (2 hours), unless he has credit in 82:175 The Nature of Science (2 hours).

A student must complete one of the following courses:

21:294 Educational Research—3 hrs.

84:292 Research Methods in Biology—3 hrs.

86:292 Research Methods in Chemistry—3 hrs.

88:292 Research Methods in Physics—3 hrs.

MAJOR IN SOCIAL SCIENCE

This major is available only to students taking Professional Core A or B. A student, if he desires, may select as an area of emphasis one of the following:

History

Political Science

Economics

Sociology

Students must take 90:292 Behavioral and Historical Analysis (2 hours).

MAJOR IN SPEECH

All students must take:

50:225 Bibliography and Methods of Research—3 hrs.

Students taking Professional Core A or B must also take the following courses:

50:230 Psychology of Speech—3 hrs.

50:283 Seminar in Teaching of Speech—2 hrs.

MAJOR IN SPEECH CORRECTION

(FIFTH YEAR OF A FIVE-YEAR PROGRAM)

This major is available only to students taking Professional Core A or B.

The professional program in speech correction is a five-year program of both undergraduate and graduate courses leading to a Master of Arts degree. After August, 1966, recommendation for certification in speech correction will be made only upon completion of the five-year program. This program is designed primarily to prepare students for careers as clinicians providing remedial services to the speech and hearing handicapped, with emphasis on children in public schools.

A student on this program must complete all the requirements for the B.A. degree, Speech Correction Major—Teaching, and must meet all the requirements for admission to graduate work at SCI, and complete all other requirements for the master's degree.

The completion of the undergraduate major or its equivalent will be considered adequate undergraduate preparation for the graduate portion of the program. Deficiencies in undergraduate preparation must be made up before the student can begin his graduate sequence in speech correction. The requirements listed below include both graduate and undergraduate courses considered essential to certification and the master's degree. Starred (*) courses will normally have been completed at the undergraduate level and must precede additional work in speech correction.

a. Required courses in speech correction:

*50:32 Voice and Phonetics—2 hrs.

*50:71 Introduction to Pathologies of Speech and Hearing—3 hrs.

*50:171 Speech Science—5 hrs.

*50:172 Disorders of Articulation—4 hrs.

*50:173 Stuttering: Theory and Therapy—3 hrs.

*50:174 Cleft Palate—2 hrs.

*50:175 Hearing Problems and Testing—3 hrs.

*50:176 Clinical Practice—1-2 hrs.

50:177 Disorders of Voice—4 hrs.

50:178 Neuropathologies of Speech—4 hrs.

*50:195 Methods in Speech Correction—2 hrs.

50:275 Communication Problems of the Hard of Hearing—4 hrs.

50:276 Advanced Clinical Practice—1-4 hrs.

Students taking Professional Core A must also include:

50:225 Bibliography and Methods of Research—3 hrs.

b. Required 15 hours in psychology, including the following:

20:8 General Psychology—3 hrs.

20:100 Child Psychology—2 hrs.

20:112 Mental Hygiene—2 hrs.

21:180 Statistical Methods in Education and Psychology—2 hrs.,

or

80:172 Fundamentals of Statistical Methods—3 hrs.

c. Electives to be chosen in consultation with the student's adviser.

The following are recommended:

21:146 Reading and Language Arts—5 hrs.

21:152 Elementary Curriculum—3 hrs.

21:185 The Exceptional Child—2 hrs.

50:30 Public Speaking—3 hrs.

50:130 Creative Dramatics for Children—3 hrs.

50:176 Clinical Practice—1-2 hrs.

62:164 Semantics—3 hrs.

84:38 Human Physiology—3 hrs.

50:230 Psychology of Speech—3 hrs.

50:286 Seminar in Speech Correction—2 hrs.

50:299 Research

Other electives from related areas may be selected depending upon each student's particular interest.

Second Master's Degree

To receive a second master's degree a student must meet all the requirements for the second degree with the exception that eight hours of work from the first degree might be used for the second degree. The requirements for work in residence, "200" work, and all other specific requirements shall be met for the second degree in addition to work completed for the first degree.

	MASTER OF ARTS IN EDUCATION	MASTER OF ARTS
A. Purposes and Objectives	1. For preparation of school service personnel <ul style="list-style-type: none"> a. administrators b. supervisors c. counselors 2. For advanced preparation of elementary teachers	1. For graduate study in field of specialization 2. For advanced preparation of elementary and secondary teachers 3. For preparation for college teaching and for qualifying for Iowa Public Junior College certification*
B. Program Options	1. Thesis plan 2. Non-thesis plan	1. Thesis plan (open to all) 2. Non-thesis plan—available to: <ul style="list-style-type: none"> a. persons who hold or are eligible for Iowa Professional Certificate or equivalent**, and who complete Professional Core A; or b. persons who complete Professional Core B
C. Eligibility for Candidacy	1. Unconditional admission to graduate study 2. General graduate examinations and department candidacy exams successfully completed 3. Hold or be eligible for Iowa Professional Certificate or equivalent**	1. Unconditional admission to graduate study 2. General graduate examinations and department candidacy exams successfully completed
D. Program Requirements	1. 21:294 Educational Research—3 hrs. 20:214 Advanced Educational Psychology—2 hrs. or 21:234 Philosophy of Education—2 hrs.	1. Thesis plan: Some work outside the major; preferably 6 hours 2. Non-thesis plan: <ul style="list-style-type: none"> a. Professional Core A <ul style="list-style-type: none"> (1) 20:214 Advanced Educational Psychology—2 hrs. or 21:234 Philosophy of Education—2 hrs. (2) 21:294 Educational Research—3 hrs. or department course in Research and Bibliography (3) Special methods course in major field, or 200 level course in the Dept. of Education and Psychology or Teaching b. Professional Core B* <ul style="list-style-type: none"> (1) 21:201 Teaching in College—3 hrs. (2) 21:203 Current Issues in Higher Education—2 hrs. (3) —:297 Practicum—2 hrs.

*Student must complete Professional Core B and have an appropriate distribution of courses in one or more subject areas in order to receive Iowa Public Junior College certification.

**Except for majors in College Student Personnel Services and in Speech Correction.

Specialist in Education Degree

THE SPECIALIST IN EDUCATION DEGREE is designed to serve a qualitative need for highly trained specialists in various fields of educational endeavor. Many salary schedules have recognized advanced preparation beyond the master's degree, but such recognition is often based on a collection of hours not necessarily representing a planned program of study. The Specialist in Education degree requires careful planning with the resultant advantages. It is a program designed to meet the needs of students in professional areas in which the master's degree is not sufficient, but in which the rigorous research emphasis of the doctorate is not necessary. The sixth year of preparation is being recognized in certification requirements of several states and as a membership requirement in the American Association of School Administrators.

The program at the State College of Iowa leading to the Specialist in Education degree involves breadth of preparation as well as depth in a particular field of specialization. Persons majoring in a professional area of specialization will take work in cognate fields to help develop this broadened base of understanding. At the same time the program is flexible enough to permit variation in accord with individual backgrounds and aspirations. The flexibility is such that persons with the master's degree in either professional education or in an academic area may participate in the program.

The following majors are available:

- School Administration
- Curriculum and Supervision
- Student Personnel Services
- Educational Psychology
- Industrial Arts

The program leading to this degree is open to students who hold a master's degree from an accredited graduate school, who have had at least one year of teaching experience, and who meet the requirements set forth below.

With special approval the student may work directly toward the Specialist in Education degree without going through a master's degree program.

Admission to Candidacy

A fully admitted graduate student who holds a master's degree from another college must successfully complete the following examinations: (a) Miller Analogies, (b) General Professional, and (c) Departmental. He must also hold an Iowa Professional Certificate or its equivalent.

A student's acceptability and program must be approved by the

departmental committee, the head of his department, and the Dean of Instruction. Normally, he may be admitted to candidacy during the first semester of enrollment following the receipt of the master's degree, but capable students may be admitted to candidacy for the Specialist in Education degree at any time after being admitted to candidacy for the master's degree.

Graduation Requirements

The student shall complete the general requirements for the Specialist in Education degree and shall meet the requirements as specified by the departmental committee using a combination of graduate courses taken for the master's degree and beyond. The student must be eligible for certification as a teacher before the degree will be granted. Appropriate certification endorsement will be recommended for those who meet the standards set by the college in conjunction with the appropriate certification agency.

HOURS OF CREDIT. A student must earn a minimum of 30 semester hours of graduate credit beyond the master's degree. Credit earned in excess of that required for the master's degree may be applied toward the 30-hour requirement if that credit is earned during the final period of enrollment for the master's degree.

For students who write a master's thesis, a minimum of 27 hours of work in courses numbered 200 and above is required; for those who do not write a master's thesis, 30 hours of work in courses numbered 200 and above is required.

Certain limitations on the amount and kinds of credit must be observed:

1. **RESEARCH CREDIT.** The provisions regarding research credit are the same as those for the master's degree, and in addition to the amount of such credit used toward the master's degree. (See p. 138)
2. **RECENCY OF CREDIT.** A student may not apply credit which is more than seven years old toward the Specialist in Education degree.
3. The regulations regarding amounts of credit allowable through transfer, extension classes, correspondence courses, and radio and television classes are the same as those for the master's degree. (See pp. 138-139)

SCHOLARSHIP. A student must earn a cumulative grade index of 3.00 in all graduate courses taken after receiving the master's degree.

CANDIDACY. The requirements for admission to candidacy are described on pp. 136-137.

RESIDENCE. A student must have completed at least 20 hours in residence, including one semester or two summer sessions of full-time enrollment in residence after the master's degree.

EXAMINATIONS.

- (a) A student must pass a comprehensive oral examination, including a defense of the thesis, if any. The examination will be conducted and evaluated by the departmental committee and a faculty member designated by the Dean of Instruction, although other members of the faculty may participate.
- (b) A student may be required by the departmental committee to pass a written comprehensive examination. If required, it should precede the oral examination.

THESIS. A student who did not complete a thesis for the master's degree must complete one for the Specialist in Education degree. A department may require a student who has written a master's thesis to write a thesis for the Specialist in Education degree also. The thesis must be presented in the style and form prescribed for the master's thesis. It must have the approval of the student's advisory committee and the Dean of Instruction. Three semester hours of credit are awarded upon satisfactory completion of the thesis.

The Dean of Instruction will appoint three members of the Graduate Faculty as an advisory committee to guide the student in selecting and completing an appropriate research project.

FILING OF THESIS AND ABSTRACT OF THESIS. The same regulations apply as for the master's degree. See p. 140.

APPLICATION FOR GRADUATION. The same regulations apply as for the master's degree. See p. 141.

ATTENDANCE AT COMMENCEMENT. The same regulations apply as for the master's degree. See p. 141.

Requirements for Various Majors

Course work requirements for the Specialist in Education degree are defined in terms of a two-year graduate program, including work taken on the master's degree. A minimum of 60 semester hours is required for completing the program.

Worksheets giving complete details of the various majors and emphases are available in the office of the Department of Education and Psychology.

MAJOR IN SCHOOL ADMINISTRATION

The sixth-year program in administration prepares qualified people to serve as superintendent, assistant superintendent, business manager, or principal.

GENERAL REQUIREMENTS:

21:294 Educational Research—3 hrs.

20:214 Advanced Educational Psychology—2 hrs., *or*

- 21:234 Philosophy of Education—2 hrs.
 21:235 Principles of School Administration—3 hrs.
 21:237 School Finance—3 hrs.
 21:238 School Buildings and Sites—2 hrs.
 21:231 School and Community Relations—3 hrs., *or*
 21:239 School Personnel Administration—3 hrs.
 21:141 Principles of Supervision—2 hrs.
 21:180 Statistical Methods in Education and Psychology—2 hrs.
 20:181 Group Evaluation Techniques—3 hrs.
 21:289-3 Seminar in Education: Administration—2 hrs.
 21:290 Practicum in Education and Psychology—2 hrs.
 94:145 School Laws of Iowa—3 hrs.*
 One course in psychology or guidance
 Non-professional course work—15 hrs.

EMPHASIS REQUIREMENTS:

Superintendent

- 21:245 Administration of the Elementary School—3 hrs.
 21:243 Curriculum Development in the Elementary School—3 hrs.
 21:275 Administration of the Secondary School—3 hrs.
 21:272 Curriculum Development in the Secondary School—3 hrs.

Elementary Principal

- 21:245 Administration of the Elementary School—3 hrs.
 21:243 Curriculum Development in the Elementary School—3 hrs.
 21:241 Supervision of the Elementary School—2 hrs.

Secondary Principal

- 21:275 Administration of the Secondary School—3 hrs.
 21:272 Curriculum Development in the Secondary School—3 hrs.
 21:271 Supervision of the Secondary School—2 hrs.

*May be used for non-professional requirement.

MAJOR IN CURRICULUM AND SUPERVISION

The program in curriculum and supervision provides preparation to serve as curriculum director or consultant in city and county systems.

GENERAL REQUIREMENTS:

- 21:294 Educational Research—3 hrs.
 20:214 Advanced Educational Psychology—2 hrs.
 21:234 Philosophy of Education—2 hrs.
 21:141 Principles of Supervision—2 hrs.
 21:131 Audio-Visual Education—2 hrs.
 21:132 Materials of Instruction—3 hrs.
 21:180 Statistical Methods in Education and Psychology—2 hrs.
 20:181 Group Evaluation Techniques—3 hrs.

- 21:231 School and Community Relations—3 hrs., *or*
- 21:239 School Personnel Administration—3 hrs.
- 21:290 Practicum in Administration and Psychology—2 hrs.
Non-professional course work—15 hrs.

EMPHASIS REQUIREMENTS:

Curriculum Coordinator

- 21:243 Curriculum Development in the Elementary School—3 hrs.
- 21:272 Curriculum Development in the Secondary School—3 hrs.
- 21:241 Supervision of the Elementary School—2 hrs.
- 21:271 Supervision of the Secondary School—2 hrs.

Elementary Consultant

- 21:243 Curriculum Development in the Elementary School—3 hrs.
- 21:241 Supervision of the Elementary School—2 hrs.

Secondary Consultant

- 21:272 Curriculum Development in the Secondary School—3 hrs.
- 21:271 Supervision of the Secondary School—2 hrs.

MAJOR IN STUDENT PERSONNEL SERVICES

The program in student personnel services may lead to counseling work in either the elementary or secondary schools, colleges, or universities.

GENERAL REQUIREMENTS:

- 21:294 Educational Research—3 hrs.
- 20:214 Advanced Educational Psychology—2 hrs.
- 21:234 Philosophy of Education—2 hrs.
- 21:180 Statistical Methods in Education and Psychology—2 hrs.
- 20:181 Group Evaluation Techniques—3 hrs.
- 21:287 Techniques of Counseling—3 hrs.

EMPHASIS REQUIREMENTS:

School Guidance and Counseling

- 21:290-3 Practicum in Education: School Personnel Services—2 hrs.
- 21:288 Organization and Administration of the Guidance Program—2 hrs.
- 20:286 Analysis of the Individual—3 hrs.
- 20:285 Individual Intelligence Testing—3 hrs.
- 21:184 Guidance in the Elementary School—2 hrs.
- 21:183 Educational and Occupational Information—2 hrs.
- 21:182 Introduction to Guidance and Counseling—3 hrs.
- 20:142 Abnormal Psychology—3 hrs.
- 20:118 Systems of Psychology—3 hrs.
- 20:112 Mental Hygiene—2 hrs.
- 20:108 Psychology of Personality—3 hrs.

- 21:281 Topics in Statistical Analysis—3 hrs.
 15 semester hours in non-professional course work including two courses in sociology (may include academic psychology already required).

College Student Personnel Services

- 21:203 Current Issues in Higher Education—3 hrs.
 21:265 Student Personnel Programs in Higher Education—3 hrs.
 21:289-9 Seminar in College Student Personnel Programs (may be repeated once)—2 hrs.
 21:290 Practicum: (three required)
 Sec. 4 College Counseling Services—2 hrs.
 5 College Student Housing—2 hrs.
 6 College Student Personnel Administration—2 hrs.
 7 College Student Activities—2 hrs.
 8 semester hours chosen from a list of restricted electives.
 15 semester hours chosen from non-professional courses including academic psychology.

MAJOR IN EDUCATIONAL PSYCHOLOGY

The emphasis in school psychology prepares a student for work in educational psychology at the public school and college levels. The emphasis in evaluation provides preparation in the area of research and measurement in schools and in higher education.

GENERAL REQUIREMENTS:

- 21:294 Educational Research—3 hrs.
 20:214 Advanced Educational Psychology—2 hrs.
or
 21:234 Philosophy of Education—2 hrs.
 20:287 Advanced Psychological Testing—3 hrs.
 20:286 Analysis of the Individual—3 hrs.
 20:285 Individual Intelligence Testing—3 hrs.
 21:281 Topics in Statistical Analysis—3 hrs.
 20:181 Group Evaluation Techniques—3 hrs.
 21:180 Statistical Methods in Education and Psychology—2 hrs.
 20:108 Psychology of Personality—3 hrs.

EMPHASIS REQUIREMENTS:

School Psychology

The student should demonstrate competency in general psychology, general experimental psychology and child or adolescent psychology.

- 21:289-8 Seminar in Education: School Psychology—2 hrs.
 21:287 Techniques of Counseling—3 hrs.
 20:194 Clinical Experience—2 hrs.
 21:185 The Exceptional Child—2 hrs.

- 21:184 Guidance in the Elementary School—2 hrs.
20:142 Abnormal Psychology—3 hrs.
20:118 Systems of Psychology—3 hrs.
20:112 Mental Hygiene—2 hrs.
6 semester hours selected from a list of restricted electives.
15 semester hours in non-professional courses including one course in philosophy, sociology, or anthropology, and 50:170 Speech Correction for Classroom Teachers—3 hrs. (may include academic psychology).
Supervised internship under the direction of a certified school psychologist.

Evaluation

- Either 20:214 Advanced Educational Psychology—2 hrs., or
21:234 Philosophy of Education—2 hrs., if not taken above (both required)
21:289-4 Seminar in Education: Research Problems—2 hrs.
-2 Seminar in Education: Evaluation—2 hrs.
21:280 Theory and Construction of Tests—2 hrs.
21:243 Curriculum Development in the Elementary School—3 hrs.
21:182 Introduction to Guidance and Counseling—3 hrs.
15 semester hours in non-professional courses including 80:172 Fundamentals of Statistical Methods—3 hrs. (may include academic psychology).

MAJOR IN INDUSTRIAL ARTS

The Specialist in Education degree program with a major in Industrial Arts offers qualified persons an opportunity to prepare for such leadership positions as master teacher in public or private secondary schools, supervisor of student teaching, college teacher, technical institute teacher, supervisor, or director of industrial arts. The student should have established an aim so that his sixth-year program can be designed to help attain his goal.

GENERAL REQUIREMENTS:

- 21:294 Educational Research—3 hrs.
20:214 Advanced Educational Psychology—2 hrs. or
21:234 Philosophy of Education—2 hrs.
21:180 Statistical Methods in Education and Psychology—2 hrs.
15 hours of work in cognate fields, including:
80:153 Probability Theory—3 hrs.
92:116 Industrial Relations—3 hrs.

INDUSTRIAL ARTS COURSES:

- 33:214 Problems in Teaching Industrial Arts—4 hrs.
33:226 Foundations of Industrial Education—4 hrs.
33:228 Contemporary Theories—2 hrs.

15 hours in one of the following: drafting, electricity-electronics, graphic arts, metal, power mechanics, or wood. The number of hours in Industrial Arts courses, counting both graduate and undergraduate hours, must total at least 60.

Cooperative Doctoral Program in Educational Administration

An agreement has been worked out between the State College of Iowa and the University of Iowa to provide for transfer of graduate credit earned at the State College of Iowa at the sixth-year level to apply on the Doctoral Program in Educational Administration at the University of Iowa (U of I). A student may transfer at any time during the sixth year. If a student completes the Specialist in Education program at SCI, it would be possible for an eligible candidate to complete the requirements for the Doctor of Philosophy degree at the U of I in three semesters (two semesters must be consecutive) of full-time residence work. The Office of the Dean of Instruction will provide further details upon request.

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1966-1967

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	Director of Teacher Education,
	Professor of History
B.A., Yankton College; M.A., Ph.D., University of Iowa	
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	Assistant to the President
	Professor of History
B.A., Buena Vista College; M.A., Ph.D., University of Iowa	

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	Director of Summer Session
	Professor of Education
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	Director of Technical Services and Planning
	Professor of History
B.A., Marion College, Indiana; M.A., Ph.D., University of Wisconsin	
Merrill Fink	Associate Registrar
B.A., Central Michigan University; M.A., University of Michigan	
Jack Wielenga	Assistant Registrar
B.A., M.A., State College of Iowa	
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	Professor of Education
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B.A., State College of Iowa; M.S., Iowa State University	
Donald O. Rod	Director of Library Services
	Head, Department of Library Science
	Associate Professor of Library Science
B.A., Luther College; B.A. in Library Science, University of Michigan	

State College of Iowa

Everett L. Howell Assistant Director of Library Services
B.A., State College of Iowa; M.A. in Library Science, University of Michigan

Division of Student Personnel

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B.A., Montana State University; M.A., Teachers College, Columbia University; Ph.D., University of Iowa

Mavis L. Holmes Associate Dean of Students
B.A., M.A., Ph.D., Northwestern University

Dennis P. Jensen Director of Financial Aids
B.A., M.A., State College of Iowa

Paul C. Kelso Coordinator of Counseling
B.A., Northeast Missouri State Teachers College; M.Ed., Ed.D., University of Missouri

Leonard R. Davis Counseling Psychologist
B.A., Coe College; M.S., University of Iowa

Harold E. Bernhard Director of the Bureau of Religious Activities
Professor of Religion
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S. C. Henn Director of Student Health Service
B.A., Colorado College; M.S., University of Chicago; M.D., Rush Medical College

James F. Gerken Associate Director of Student Health Service
B.S.C., M.D., University of Iowa

Mrs. JoAnn Carlo Cummings Personnel Assistant
B.A., M.A., Colorado State College

Dennis Hendrickson Assistant in Advising and Counseling
B.A., State College of Iowa

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B.A., M.A., Michigan State University

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B.S., North Dakota State University

John S. Zahari Assistant Director of Dining Services
B.A., Michigan State University

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Director of Extension Services
B.A., Iowa Wesleyan College; M.A., Ph.D., University of Iowa

Herbert V. Hake Director of Radio and Television
B.A., Central Wesleyan College, Missouri; M.A., University of Iowa

Milo Lawton Director of Alumni Affairs
B.A., State College of Iowa; M.A., University of Iowa

Ernest C. Fossum Director of the Placement Bureau
B.A., Augustana College, South Dakota; M.A., Ph.D., University of Iowa

Division of Business and Plant

Philip C. Jennings Business Manager
Financial Secretary
B.S., M.S., Iowa State University

James L. Bailey Assistant Business Manager
Treasurer
B.A., M.A., University of Minnesota

Melvin M. Manion Director of Department of Physical Plant
B.S., Iowa State University

Office of College Relations

- George H. Holmes Director of College Relations
 B.A., M.A., University of Michigan
 Donald A. Kelly Assistant Director of College Relations
 B.A., M.A., University of Iowa

Administrative Assistants

Division of Student Personnel

The Union

- Mrs. Ethel Winier Union Program Director
 B.A., State College of Iowa

Residence Halls

- Janet C. Schumack Director, Bartlett Hall
 B.A., M.S. in Ed., Western Illinois University
 Loydene Bartholomew Assistant Director, Bartlett Hall
 B.A., State College of Iowa
 Kathryn R. Allen Director of Lawther Hall
 B.A., University of Maine; M.A., Ohio State University
 Beverly A. Travis Assistant Director, Lawther Hall
 B.A., State College of Iowa
 Shirley Posson Director, Campbell Hall
 B.A., Luther College; M.A., University of Iowa
 Judy E. Spain Assistant Director, Campbell Hall
 B.A., State College of Iowa
 Norma M. Prehm Director of Women's Housing, Hagemann Hall
 B.A., M.A., State College of Iowa
 Ruth A. McQuigg Assistant Director of Women's Housing, Hagemann Hall
 B.A., State College of Iowa
 Daniel A. Hallenbeck Director, Shull Hall
 B.A., State College of Iowa; M.A., Michigan State University
 Ward Larry Markley Director, Rider Hall
 B.A., State College of Iowa

Student Health Service

- Maude E. Haines R.N., Supervisor
 Mrs. Reherda W. Cole R.N., Nurse
 Mrs. Lorna E. Krogstad R.N., Nurse
 Cathryn Weber R.N., Nurse
 Mrs. Mary A. Rhomberg R.N., Nurse
 Mrs. Angeline Knoll R.N., Nurse, Laboratory School
 Lucille Caswell R.N., Nurse, Women's Residence Halls

Division of Field Services

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 B.S., Iowa State University

Office of College Relations

- Richard E. Dietl News-Information Assistant
 B.A., Luther College
 Berne R. Ketchum Graphic Arts Assistant
 B.S., University of Iowa
 William G. Omohundro News-Information Assistant
 B.A., Southeast Missouri State College

Data Processing Service

- Paul Mahon Director
 B.A., Lake Forest College

Emeritus Faculty

- R. L. Abbott Professor of Biology
 B.A., State College of Iowa; M.S., Ph.D., University of Wisconsin
- Verna J. Adney Associate Professor of Teaching
 B.A., State College of Iowa; M.A., Columbia University
- Lucile E. Anderson Associate Professor of Teaching
 B.A., State College of Iowa; M.A., University of Chicago
- Mary C. Anderson Assistant Professor of Teaching
 B.A., State College of Iowa; M.A., University of Iowa
- Olive L. Barker Assistant Professor of Voice
 B.A., State College of Iowa; M.A., Columbia University
- Paul F. Bender Dean of Students
 B.A., University of Iowa; M.A., Columbia University; Ed.D., New York University
- ° Benjamin Boardman Business Manager
 B.Ph., University of Iowa
- A.E. Brown Professor of Education
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- Clara E. Campbell Instructor
 Campus School Librarian
 B.A., Irving College; B.S., Carnegie Institute of Technology; M.S., Columbia University
- E. E. Cole Director of Physical Plant
 B.S., Iowa State University
- Fred D. Cram Professor of Education
 B.A., State College of Iowa; M.A., University of Iowa
- E. C. Denny Professor of Education and Head of the Department
 B.A., Indiana University; M.A., University of Chicago; Ph.D., University of Iowa
- Arthur D. Dickinson Associate Professor of Physical Education for Men
 B.A., State College of Iowa; M.A., University of Iowa
- Margaret Divelbess Associate Professor of Teaching
 B.A., Grinnell College; M.A., Columbia University
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- V. D. French Director, Student Health Service
 B.S., Drake University; M.D., Rush Medical College
- Robert W. Getchell Professor of Chemistry
 B.A., State College of Iowa; M.S., Ph.D., University of Wisconsin
- E. W. Goetch Director of the Placement Bureau
 Placement Consultant
 B.A., M.A., Ph.D., University of Iowa
- Agnes Gullickson Associate Professor of Teaching
 B.A., State College of Iowa; M.A., Columbia University

° Deceased

Emeritus Faculty

- Rose L. Hanson Assistant Professor of Teaching
 B.S., University of Nebraska; M.A., University of Iowa
- Harald B. Holst Associate Professor of Voice
 B.Mus., M.Mus., American Conservatory of Music
- Mrs. Elisabeth Sutherland Howes Professor of Home Economics
 Head, Department of Home Economics
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George G. Ball	Professor of Education and Psychology
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- Patricia Beitel Temporary Instructor in Physical Education for Women
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- Harold E. Bernhard Professor of Religion
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B.A., St. Martial College, Haiti; M.Ed., Montreal University
- Alfred C. Moon Professor of Teaching
Coordinator of Student Field Experiences
B.S., M.S., Ed.D., University of Missouri
- Dorothy L. Moon Assistant Professor of Physical Education
B.Ed., Northern Illinois University; M.A., Northwestern University
- Dorlan D. Mork Instructor and Materials Coordinator
B.A., Luther College; M.A., Western Carolina College
- Mrs. Alvira M. Morris Temporary Instructor in Teaching
B.A., State College of Iowa
- Raul Munoz Instructor in Spanish
B.A., M.A., University of Nebraska
- Eleanor McBride Assistant Professor of Teaching
B.Ed., Illinois State University; M.A., University of Illinois
- Clifford G. McCollum Professor of Science
Head of the Department of Science
B.S., M.A., Ed.D., University of Missouri
- Mrs. Joyce M. McCrea Instructor in Business Education
B.A., M.A., State College of Iowa
- Elaine McDavitt Professor of Speech
B.S., M.A., Northwestern University; Ph.D., University of Michigan
- G. Douglas McDonald Assistant Professor of Marketing
B.S., University of Pennsylvania; M.S., University of Minnesota
- Donald A. Nelson Assistant Professor of Teaching
B.A., State College of Iowa; M.A., Colorado State College
- Herman L. Nelson Professor of Earth Science and Geography
B.A., State College of Iowa; M.S., University of Iowa; Ph.D., Clark
University, Massachusetts
- Jerry W. Nelson Instructor in Teaching
B.A., Ed.S., State College of Iowa; M.S., San Jose State College
- Mrs. Margaret B. Nelson Professor of Education
B.A., Lawrence College, Wisconsin; B.S., M.A., Ph.D., University of
Minnesota
- Owen N. Nelson Instructor in Teaching
B.A., St. Olaf College; M.S., University of Wisconsin
- Dale R. Neumann Instructor in Speech
B.S., University of Wisconsin; M.A., University of Minnesota
- Ross A. Nielsen Professor of Teaching
Head of the Department of Teaching
B.A., Wartburg College; M.S., Ph.D., University of Iowa
- Basheer K. Nijim Assistant Professor of Geography
B.A., Augustana College, Illinois; M.A., Indiana University
- Samuel Nodarse Instructor in Spanish
Doctorate in Social Sciences, Doctorate in Law, University of Havana,
Cuba
- Robert James O'Brien Temporary Instructor in English
B.A., Louisiana State University; M.A., University of Iowa
- Karl Edward Odwarka Assistant Professor of German
B.A., M.A., Wayne State University

State College of Iowa

- Dan L. Oppleman Associate Professor of Teaching
 Coordinator of Student Teaching
 B.A., Lynchburg College, Virginia; M.A., Ed.D., George Peabody College
 for Teachers
- Alan R. Orr Assistant Professor of Biology
 B.A., Simpson College; M.S., Ph.D., Purdue University
- John Dale Otten Temporary Instructor in Teaching
 B.A. in Ed., Nebraska State College, Wayne
- John H. Page, Jr. Professor of Art
 B. of Design, University of Michigan; M.F.A., University of Iowa
- Henry Herbin Parker Assistant Professor of Latin
 B.A., St. Thomas College, St. Paul; M.A., University of Minnesota
- Charles A. Patten Instructor in Physical Education for Men
 B.A., State College of Iowa; M.S., University of Oregon
- Robert L. Paulson Associate Professor of Teaching
 B.S., M.A., University of Iowa
- Joaquin L. Penalver Instructor in Spanish
 Bachelor's degree, Institute of Havana, Havana, Cuba; Doctor of Law,
 Doctor of Social Science, Havana University, Havana, Cuba; B.A.,
 Indiana State University, Terre Haute
- Daryl Pendergraft Executive Dean
 Assistant to the President
 Professor of History
 B.A., Buena Vista College; M.A., Ph.D., University of Iowa
- Rex W. Pershing Instructor in Industrial Arts
 B.S., Western Illinois University; M.A., State College of Iowa
- Bela F. Petheo Instructor in Art
 M.A., University of Budapest, Hungary; M.F.A., University of Chicago
- Garth F. Petrie Assistant Professor of Education
 B.S., M.A., Murray State College, Murray, Kentucky; Ed.D., Indiana
 University
- Cecil K. Phillips Professor of Teaching
 Coordinator of Student Teaching
 B.S., Southwest Missouri State College; M.Ed., Ed.D., University of
 Missouri
- Warren Picklum Assistant Professor of Biology
 B.A., Colorado State College; M.S., Ph.D., Iowa State University
- Mrs. Mildred D. Pierce Temporary Instructor in Education
 B.A., M.A., State College of Iowa
- Erma B. Plaehn Professor of Political Science
 B.A., Cornell College; M.A., Ph.D., University of Iowa
- George R. Poage Professor of History
 B.A., State College of Iowa; M.A., Ph.D., University of Iowa
- Willard J. Poppy Professor of Physics
 B.Ed., Wisconsin State College, Oshkosh; M.S., Ph.D., University of Iowa
- Germana Portesan Temporary Instructor in English
 B.A., College of St. Catherine, St. Paul, Minnesota; M.A., University of
 Rhode Island
- Albert A. Potter Assistant Professor of Teaching
 B.A., Nebraska State Teachers College, Chadron; M.A., University of
 Iowa
- Mrs. Jeanette R. Potter Associate Professor of Physical
 Education for Women
 B.A., State College of Iowa; M.S., University of Wisconsin; Ed.D., Uni-
 versity of Oregon
- Mrs. Lois S. Potter Associate Professor of Teaching
 B.A., Yankton College; M.A., University of Iowa; Ph.D., University of
 Wisconsin
- James William Price Instructor in Teaching
 B.S.Ed. and B.A., University of Missouri; M.A., State College of Iowa

Instructional Staff

- Joe Przychodzin Associate Professor of Education
 B.Ed., Southern Illinois University; M.S., University of Illinois; Ed.D.,
 University of Missouri
- Charles E. Quirk Assistant Professor of History
 B.A., Carroll College, Wisconsin; B.D., McCormick Theological Seminary
- Virginia Ramsay Assistant Professor of Physical Education
 for Women
 B.S., Northwest Missouri State College; M.A., University of Iowa
- Ned Harry Ratekin Assistant Professor of Education and Psychology
 B.A., Parsons College; M.A., Ph.D., University of Iowa
- Barry Lynn Reece Instructor in Business Education
 Field Instructor in Distributive Education
 B.A., M.A., State College of Iowa
- Howard O. Reed Professor of Industrial Arts
 Head of the Department of Industrial Arts and Technology
 B.S., Bradley University; M.A., Northwestern University; M.Ed., Ed.D.,
 University of Illinois
- Jack Charles Reed Assistant Professor of Business Education
 Teacher Educator in Office Education
 B.A., M.A., State College of Iowa
- Dennis Remmert Temporary Instructor in Physical Education for Men
 B.A., State College of Iowa
- H. W. Reninger Professor of English
 Head of the Department of Languages and Literature
 B.A., M.A., Ph.D., University of Michigan
- Basil J. Reppas Associate Professor of Education
 B.A., Athens University, Athens, Greece; M.A., American University of
 Beirut, Lebanon; Ph.D., University of Iowa
- Gordon J. Rhum Coordinator of Research and Evaluation
 Professor of Education
 B.A., Iowa Wesleyan College; M.A., Ph.D., University of Iowa
- Erwin W. Richter Instructor in Physical Science
 B.S., Northern Michigan University; M.A., State College of Iowa
- Ferdinand C. Riechmann Assistant Professor of Teaching
 B.A., M.A., University of Iowa
- Dixon L. Riggs Assistant Professor of Biology
 B.A., Marietta College, Ohio; M.S., University of Michigan
- James B. Roberson Assistant Professor of Teaching
 Coordinator of Student Teaching
 B.S., Middle Tennessee State College; M.A., George Peabody College
 for Teachers
- Dora Maline Robinson Temporary Instructor in Art
 B.F.A., University of Tennessee; M.F.A., University of Wisconsin
- Donald O. Rod Director of Library Services
 Head of the Department of Library Science
 Associate Professor of Library Science
 B.A., Luther College; B.A. in Library Science, University of Michigan
- Robert A. Rogers Professor of Physics
 B.A., Miami University; M.S., Ph.D., University of Iowa
- Robert L. Ross Assistant Professor of Political Science
 B.A., State College of Iowa; M.A., Columbia University
- Betts Ann Roth Associate Professor of Teaching
 B.S., George Peabody College for Teachers; M.A., Columbia University
- Leo A. Ruggle Temporary Instructor in Accounting
 B.A., Loras College
- Myron E. Russell Professor of Woodwind Instruments
 Head of the Department of Music
 B.Mus., Kansas State University; M.Mus., Eastman School of Music,
 University of Rochester; Ph.D., University of Michigan

State College of Iowa

- Edward Rutkowski Assistant Professor of Education
B.S., Marquette University; M.A., Ph.D., Michigan State University
- Thomas G. Ryan Assistant Professor of History
B.S.C., M.A., University of Iowa
- Leland L. Sage Professor of History
B.A., Vanderbilt University; M.A., Ph.D., University of Illinois
- Joel Salzberg Assistant Professor of English
B.A., City College, New York; M.A., Indiana University
- Thaddeus John Sarnacki Instructor in Spanish
B.A., Mexico City College, University of the Americas; M.A., University of Michigan
- Denver Sasser Instructor in English
B.A., M.A., Indiana University
- Pauline L. Sauer Associate Professor of Biology
Director of Museum
B.Ed., Chicago Teachers College; M.A., University of Michigan; Ph.D., Cornell University
- Otis Rhea Schmidt Instructor in English
B.J., M.J., University of Texas, Austin; M.A., Sam Houston State College
- Mary Margaret Schmitt Assistant Professor of Teaching
B.A., State College of Iowa; M.Ed., University of Minnesota
- *Virginia Schnepf Assistant Professor of Education
B.A., University of Iowa; M.A., University of Chicago
- Marshall School Assistant Professor of Teaching
B.S., Mary Washington College; M.A., George Peabody College for Teachers
- Augusta L. Schurrer Professor of Mathematics
B.A., Hunter College; M.A., Ph.D., University of Wisconsin
- Lynn C. Schwandt Instructor in Teaching
B.A., Coe College; M.A., State College of Iowa
- Ralph J. Schwartz Assistant Professor of Speech
B.S., Northwestern University; M.A., Marquette University; Ph.D., Purdue University
- Ralph S. Scott Associate Professor of Education and Psychology
Director of the Educational Clinic
B.A., Luther College; M.S., University of Wisconsin; Ph.D., University of Chicago
- *Donald A. Scovel Assistant Professor of Teaching
B.A., State College of Iowa; M.A., University of Iowa
- Stanley B. Sheriff Assistant Professor of Physical Education for Men
B.S., M.A., California State Polytechnic College
- Jane K. Sherwin Temporary Assistant Professor of French
B.A., Rockford College; M.A., Middlebury College; Ph.D., University of Michigan
- Mrs. Edna Shores Assistant Professor of Home Economics
B.S., M.A., Columbia University
- Donald F. Showalter Temporary Professor of Psychology
B.A., M.A., University of Nebraska; Ph.D., University of Kansas
- Mrs. Ina Mae Silvey Temporary Assistant Professor of Mathematics
B.S., Central Missouri State College; M.A., State College of Iowa
- Wray D. Silvey Professor of Education
Coordinator, School Counselor Education Program
B.S., Central Missouri State College; M.Ed., Ed.D., University of Missouri
- Robert J. Simpson Assistant Professor of Biology
B.A., Houghton College; M.S., Ph.D., University of Illinois
- Margaret A. Sjolander Associate Professor of Home Economics
Head of the Department of Home Economics
B.A., Stout State University; M.S., University of Wisconsin

*On Leave 1965-66

Instructional Staff

- James Cole Skaine Assistant Professor of Speech
B.A., Sioux Falls College; M.A., University of South Dakota
- Raymond L. Sloan Instructor in Biology
B.A., M.A., State College of Iowa
- David T. Smalley Instructor in Voice
B.Mus., M.Mus., University of Michigan
- Ernestine L. Smith Associate Professor of Geography
B.A., M.S., University of Michigan
- Francis E. Smith Professor of English
B.A., University of Massachusetts; M.A., Ph.D., University of Iowa
- M. B. Smith Associate Professor of Speech
B.S., Northern State Teachers College, South Dakota; M.A., Ph.D.,
University of Minnesota
- Robert G. Smith Assistant Professor of Speech
B.A., Augsburg College, Minnesota; M.A., Washington University, St.
Louis; Ph.D., University of Minnesota
- Mrs. Eloise P. Soy Temporary Instructor in Teaching
B.A., M.A., State College of Iowa
- Julia L. Sparrow Professor of Education
B.S., St. Cloud State College; M.A., Ph.D., University of Iowa
- Norman C. Stageberg Professor of English
Administrative Assistant for Foreign Languages
B.S., University of Minnesota; M.A., University of Iowa; Ph.D., Univer-
sity of Wisconsin
- Jacob Stein Assistant Professor of Psychology
B.S.S., College of the City of New York; M.A., New York University;
Ph.D., Michigan State University
- Mrs. Joan Kroutil Stein Temporary Instructor in Art
B.F.A., Illinois Wesleyan University; M.F.A., Southern Illinois University
- Norman E. Stewart Assistant Professor of Physical Education for Men
B.S., M.Ed., University of Missouri
- Lloyd J. Stokstad Assistant Professor of Teaching
B.S., M.S., University of Wisconsin
- Myrtle Stone Professor of Teaching
B.A., Washington State University; M.B.A., University of Washington;
Ed.D., New York University
- Richard F. Strub Instructor in Teaching
B.A., State College of Iowa; M.A., Colorado State College
- Marguirette May Struble Professor of Teaching
B.A., M.A., Ph.D., University of Iowa
- Richard Ray Stumbo Temporary Instructor in English
B.A., Carleton College; M.A., University of Kansas
- Mrs. Barbara Andresen Swanson Temporary Instructor in English
B.A., M.A., State College of Iowa
- Betty M. Swanson Assistant Professor of Physical Education
for Women
B.S., University of Minnesota; M.S., University of Southern California
- *Nathan M. Talbott Associate Professor of Political
Science and Far Eastern Studies
B.A., Western Michigan University; M.A., University of Michigan; Ph.D.,
University of Washington
- John E. Tarr Assistant Professor of Teaching
B.S.C., University of Iowa; M.A., State College of Iowa
- Loren F. Taylor Assistant Professor of English
B.A., M.F.A., University of Iowa
- E. Russell TePaske Assistant Professor of Biology
B.A., Westmar College; M.A., State College of Iowa; Ph.D., Oklahoma
State University

*On Leave 1965-67

State College of Iowa

- Howard J. Thompson Associate Professor of History
 B.A., M.A., University of Iowa; Ph.D., Harvard University
- Mrs. Nancy Price Thompson Temporary Instructor in English
 B.A., Cornell College; M.A., State College of Iowa
- Thomas H. Thompson Professor of Philosophy
 B.A., M.A., Ph.D., University of Iowa
- Edward J. Thorne Associate Professor of Speech
 Head of the Department of Speech
 B.A., University of Pittsburgh; M.A., Ph.D., Northwestern University
- William R. Thrall Associate Professor of Physical
 Education for Men
 B.S., Wisconsin State College, LaCrosse; M.S., University of Colorado;
 Ph.D., University of Iowa
- Patricia Ann Townsend Assistant Professor of Speech
 B.S., M.A., Stephen F. Austin State College, Texas; Ph.D., University of
 Wisconsin
- J. Bruno Tulasiewicz Professor of Economics
 B.A., State College, Stanislawow, Poland; M.A., Jan Kazimierz, Lwow,
 Poland; M.B.A., University of Foreign and Domestic Trade, Lwow,
 Poland; Jur. D., Jan Kazimierz, Lwow, Poland; Ph.D., University of
 Michigan
- Robert J. Tuley Assistant Professor of Teaching
 B.M., M.A., Murray State College, Kentucky
- Howard Vander Beek Professor of Teaching
 B.A., University of Iowa; M.A., Ed.D., Columbia University
- Francis D. Vilmain Assistant Professor of Physics
 B.A., State College of Iowa; M.S., University of Wisconsin
- Guy W. Wagner Professor and Director of the
 Curriculum Laboratory
 B.A., State College of Iowa; M.A., Ph.D., University of Iowa
- Lillian R. Wagner Professor of Speech
 B.A., University of South Dakota; M.A., University of Iowa; Ph.D.,
 University of Wisconsin
- Willis H. Wagner Associate Professor of Industrial Arts
 B.S., Central Missouri State College; M.Ed., University of Missouri
- Andre Walther Assistant Professor of French
 B.A., State College of Iowa; M.A., Michigan State University
- Robert J. Ward Assistant Professor of English
 B.A., University of Akron; M.A., Ohio State University
- Carl O. Wehner Instructor in Mathematics
 B.A., M.A., State College of Iowa
- James D. Welch Assistant Professor of Teaching
 B.S., M.Ed., University of Missouri
- Donald B. Wendt Assistant Professor of Woodwind Instruments
 B.M., Northwestern University; M.A., State College of Iowa
- Charles Wheeler Assistant Professor of English
 B.A., University of California; M.A., New Mexico Highlands University
- Donald R. Whitnah Associate Professor of History
 B.A., M.A., Ph.D., University of Illinois
- Mrs. Elaine Inez Whittlesey Instructor in Mathematics
 B.A., South Dakota State University; M.A., University of Southwestern
 Louisiana
- Donald E. Wiederanders Assistant Professor of Teaching
 B.S., Wartburg College; M.A., University of Minnesota
- Julius Wiesenfeld Assistant Professor of Mathematics
 B.S., Roosevelt University, Illinois; M.S., University of Chicago
- Jack D. Wilkinson Instructor in Mathematics
 B.A., M.A., State College of Iowa

- David Terry Williams Instructor in Speech
 B.A., Grove City College, Pennsylvania; M.A., Bowling Green State
 University
- Leland L. Wilson Professor of Chemistry
 B.S., Eastern Kentucky State College; M.S., University of Kentucky;
 Ph.D., George Peabody College for Teachers
- Robley Wilson Temporary Instructor in English
 B.A., Bowdoin College
- Dorothy Wineke Assistant Professor of Teaching
 B.S., M.S., University of Wisconsin
- Leonard Winier Professor of Biology
 B.S., Winona State College; M.A., Ed.D., Columbia University
- Shirley Winsberg Professor of Physical Education for Women
 B.S., University of Illinois; M.S., Wellesley College; Ph.D., University of
 Iowa
- Francis Joe Winter Assistant Professor of Political Science
 B.A., University of Dubuque; M.A., University of Iowa
- James H. Witham Professor of Physical Education for Men
 Head of the Department of Physical Education for Men
 B.S., Bemidji State College; M.Ed., University of Minnesota; H.S.D.,
 Indiana University
- Harold B. Wohl Associate Professor of History
 B.A., M.A., Ph.D., University of Iowa
- Stanley G. Wood Professor of Speech
 B.A., State College of Iowa; M.A., Western Reserve University
- William C. Worrell, Jr. Instructor in Psychology
 B.A., Florida State University; M.A., West Virginia University
- Lawrence S. Wright Professor of Industrial Arts
 B.S., M.S., Stout State University; Ed.D., University of Missouri
- Mrs. Lucille E. Wright Instructor in Business Education
 Teacher Educator in Distributive Education and Office Education
 B.S., Ohio State University; M.A., Ed.S., State College of Iowa
- Barbara Yager Associate Professor of Physical Education
 for Women
 B.S., M.A., Ohio State University; Ph.D., University of Southern
 California
- Emily Josephine Yeager Assistant Professor of Home Economics
 B.S., Louisiana State University; M.S., University of Colorado

Librarians

- Donald O. Rod Director of Library Services
 Head, Department of Library Science
 Associate Professor of Library Science
 B.A., Luther College; B.A. in Library Science, University of Michigan
- H. Wendell Alford Acquisitions Librarian
 Coordinator of Technical Services
 B.A., Stetson University, Florida; B.D., Southwestern Baptist Theological
 Seminary, Texas; B.S. in Library Science, North Texas State College
- Mrs. Eleanor L. Crownfield Temporary Cataloguer
 B.A., Smith College; M.S., Simmons College, Boston, Massachusetts
- Mary Dieterich Reference Librarian
 Archives Librarian
 B.A., Grinnell College; B.S., Columbia University
- Mary K. Eakin Youth Collection Librarian
 B.A., Drake University; B.L.S., M.A., University of Chicago
- Margaret G. Fullerton Cataloguer
 B.A., State College of Iowa; M.A., B.S. in Library Science, Columbia
 University
- Duane E. Hendricks Fine Arts Librarian
 B.S., Valley City State Teachers College, North Dakota; M.A. in Library
 Science, University of Denver
- Everett Howell Assistant Director of Library Services
 B.A., State College of Iowa; M.A. in Library Science, University of
 Michigan
- Fred Y. M. Ma Head Cataloguer
 B.L.L., Sun Yat-sen University, China; M.A., B.S. in Library Science,
 University of Minnesota
- Evelyn J. Mullins Order Librarian
 B.A., Grinnell College; B.S., Columbia University
- Ellen Mary Murphy Cataloguer
 B.S., M.S., University of Wisconsin
- David E. Pownall Head of Reader Services
 B.M., University of Wisconsin; M.M., University of Tulsa; M.A., in
 Library Science, Indiana University
- Robert C. Smith Cataloguer
 B.S., Kansas State Teachers College, Emporia; M.A., University of Denver
- Edward F. Wagner Reference Librarian
 B.S., M.S. in Library Science, University of Wisconsin

Committees

(Chairman's name indicated by asterisk. Year in which faculty member's term expires indicated in parentheses. E indicates election by faculty or Senate; others appointed.)

I. FACULTY SENATE

David Bluhm (E '66)
 Mary Dieterich (E '66)
 H. V. Hake (E '66)
 Fred Lott (E '66)
 Donald Whitnah (E '66)
 F. E. Smith (E '66)
 James Witham (E '66)
 F. E. Smith (E '66)
 R. Paul Brimm (E '67)

Mavis Holmes (E '67)
 Augusta Schurrer (E '67)
 Shirley Winsberg (E '67)
 Wallace L. Anderson (E '68)
 Kenneth Butzier (E '68)
 *Leonard Keefe (E '68)
 Margaret Nelson (E '68)
 Myron Russell (E '68)
 Leland Wilson (E '68)

II. FACULTY COMMITTEES

A. Permanent Committees Responsible to the Senate

ADMINISTRATION OF FACULTY PERSONNEL

*Bernard DeHoff (E '66)
 Esther Hult (E '66)
 James Kercheval (E '66)
 Len Froyen (E '67)
 George Poage (E '67)
 Edward Thorne (E '67)
 Howard Vander Beek (E '67)

ADMISSION AND RETENTION

Associate Dean of Students
 Coordinator of Counseling
 Dean of Instruction or Representative
 Dean of Students
 Registrar or Associate Registrar
 (Exec. Sec'y.)

ATHLETIC BOARD

Business Manager
 Director of Athletics (Sec'y.)
 Paul Kelso
 Fred Lott
 Cecil Phillips
 Leland L. Sage
 *R. J. Schlicher
 Edward Thorne

COMMITTEES

R. Paul Brimm (E '66)
 Clifford McCollum (E '66)
 Donald Howard (E '67)
 *John Cowley (E '68)
 Howard Knutson (E '68)

CURRICULA

James Kercheval (E '66)
 Jean Bontz (E '67)
 Ross Nielsen (E '67)
 Lawrence Wright (E '68)
 Dean of Instruction
 *Dean of Undergraduate Studies
 Registrar

EDUCATIONAL POLICIES COMMISSION

(Responsible to the Faculty)
 Walter DeKock ('66)
 *Philip Hahn ('66)
 Gordon Rhum (E '66)
 Mrs. Katherine Humphrey ('67)
 Caryl Middleton (E '67)
 Ross Nielsen (E '67)
 Patricia Townsend ('67)
 James LaRue (E '68)
 Margaret Nelson (E '68)
 M. B. Smith (E '68)
 William Thrall ('68)

EXTENSION ADVISORY COMMITTEE

*Howard Reed ('66)
 Frank Martindale ('67)
 John Mitchell ('68)

GRADUATE COUNCIL

John Cowley (E '66)
 Gordon Rhum (E '66)
 Barbara Yager (E '66)
 M. R. Beard (E '67)

GRADUATE COUNCIL (Cont.)

C. L. Bishop (E '67)
E. W. Hamilton (E '67)
Clifford McCollum (E '67)
Associate Dean of Instruction
(Sec'y)

*Dean of Instruction

HONORS BOARD

Leland Sage ('66)
Walter D. DeKock ('67)
Augusta Schurrer ('68)
Assistant Director of Honors
Program

*Dean of Undergraduate Studies

TEACHER-EDUCATION STAND-
ARDS AND PRACTICES

Associate Registrar
Coordinator of Counseling
Dean of Instruction's Office
(Howard Knutson)
Director of Placement
*Head, Dept. of Educ. and Psy.
Head, Dept. of Teaching or
representative
Norman Stageberg ('67)
Clifford G. McCollum ('68)

B. Permanent Committees Responsible to an Administrative Office

ADMINISTRATION OF
CLERICAL PERSONNEL

Clifford L. Bishop
Merrill Fink
*Harry Guillaume
Marilyn Oleson
Betty Stover
June Wolfensperger

BOARD IN CONTROL OF
STUDENT PUBLICATIONS

James L. Bailey
David Delafield
Director of College Relations
Terry Williams
Five students (one to be chairman)
selected by Student Senate

ADVISORY COMMITTEE ON
STUDENT DISCIPLINE

*Edna Shores (E '66)
Robert Claus (E '67)
George Ball (E '68)
Two students selected by Student
Senate

BOARD OF HEALTH

Associate Dean of Students
Coordinator of Counseling
Dean of Instruction or his repre-
sentative
Dean of Students
*Director of Health Services
Director of Technical Services and
Planning
Head, Dept. of Phys. Educ.
for Women
Head, Dept. of Phys. Educ.
for Men

ALL-COLLEGE CONFERENCE
ON INTERNATIONAL
AFFAIRS

Dean of Students
*William Metcalfe
Augusta Schurrer
Lawrence Wright
Four students selected by Student
Senate

CIVIL DEFENSE

Director of Physical Plant
*Ivan Eland
Daryl Pendergraft
Willard Poppy

ARTISTS SERIES

*Howard Jones
Stanley Wood
Four students selected by Student
Senate

COMMENCEMENTS

Associate Dean of Students
*Cecil Phillips
Dennis P. Jensen
Registrar
M. B. Smith

BOARD IN CONTROL OF KYTC

James L. Bailey
*Herbert V. Hake
Carl Jenkins

CONVOCATIONS

Associate Dean of Students
*Harold E. Bernhard
Bernard DeHoff
Mrs. Katherine Humphrey
Dennis P. Jensen

COORDINATING GROUP

Associate Dean of Students
 Business Manager
 Dean of Students
 Director of College Relations
 Director of Field Services
 Director of Technical Services and
 Planning, and Registrar
 Executive Dean and Assistant to
 the President
 *President
 Vice President and Dean of
 Instruction

COST STUDIES

Marshall R. Beard
 Philip C. Jennings
 Fred Lott

EDUCATIONAL CONFERENCES

R. Paul Brimm
 *Director of Field Services
 Nellie Hampton

EDUCATIONAL PUBLICATIONS

Director of College Relations
 *Director of Curriculum Laboratory
 Director of Extension Service
 Reference Librarian—Edward
 Wagner

FOUNDATION ADVISORY
COMMITTEE

Emil Bock
 John Bruha
 Director, Alumni Office
 William Dreier
 Clifford Herrold
 Jeanette Potter
 Myrtle Stone
 Bruno Tulasiewicz
 *Guy Wagner

HOMECOMING

JoAnn Cummings
 Richard Dietl
 *Len Froyen
 Milo Lawton
 Larry Markley
 Mardelle Mohn
 Norma Prehm
 Eight students selected by Stu-
 dent Senate, one of whom serves
 as co-chairman

INSURANCE AND
RETIREMENT

Edna Shores ('67)
 Betty Stover (Clerical, '67)
 Harry Dahl (Phys. Plant, '68)
 *Leonard Keefe
 Charles Leavitt ('68)
 Business Manager
 Chairman of Committee on
 Administration of Faculty Per-
 sonnel

INTERINSTITUTIONAL
AFFILIATION PROJECT

*Wallace L. Anderson
 Everett Howell
 Agnes Lebeda
 Basil Reppas
 Norman Stageberg
 Two students selected by Stu-
 dent Senate

INTERNATIONAL PROGRAM
COUNCIL

*Wallace L. Anderson
 Marshall Beard
 Harold E. Bernhard
 Roy Chung
 Alden Hanson
 William Metcalfe
 George Poage
 Two students

MERCHANT SCHOLARSHIP

Executive Dean and Assistant to
 the President
 Milo Lawton, Secretary
 Ross Nielsen
 *Howard Reed
 Edward Thorne

RECREATION PARK

James R. Clark
 *E. W. Hamilton
 Shirley Winsberg

RESEARCH AND CURRICULUM
DEVELOPMENT

Dean of Undergraduate Studies
 *Coordinator of Research and
 Evaluation
 Roy Eblen
 Donald Whitnah

STUDENT WELFARE

- °Dean of Students
- Director of Religious Activities
- Mary Graves

TRAFFIC AND SAFETY

- °Ivan Eland
- Rollin F. Evers
- Dennis Jensen
- Robert Claus
- Melvin Manion
- Peter Mazula
- Four students selected by Student Senate

C. Special Committees

ADMINISTRATIVE REORGANIZATION

- °Marshall Beard
- James Blanford
- R. Paul Brimm
- Daryl Pendergraft
- H. W. Reninger
- Myron Russell
- Augusta Schurrer

**FACULTY DEVELOPMENT
LEAVE COMMITTEE**

- Dean of Instruction or representative (non-voting)
- E. W. Hamilton
- James Kercheval
- Thomas H. Thompson

UNION POLICY BOARD

- Patricia Townsend ('66)
- William Thrall ('67)
- An Alumnus (Mrs. Berdena Beach)
- Business Manager
- Dean of Students
- Director of Union (Secretary)
- Seven students, one of whom is elected chairman

USE OF FACILITIES

- Committee on Administration of Faculty Personnel
- °Director of Technical Services and Planning

**ADVISORY COMMITTEE ON
FUTURE DEVELOPMENT**

- °H. W. Reninger
- James Blanford
- Jean Bontz
- R. Paul Brimm
- Robert Claus
- Donald G. Finegan
- Clifford G. McCollum
- Augusta Schurrer
- Two students from Student Senate

INDEX

A

Absences	45
Abstract of Thesis	140, 151, 164
Academic Load	10
Certification	31, 67, 68, 140, 141, 146, 151, 152
Extension Students	31, 65, 138, 149
Graduate Students	133, 134
Undergraduate Students	44
Veterans	45, 134
Academic Program	40
Accident and Sickness Insurance	27
Accounting (See: Business and Business Education, area of emphasis)	
Accreditation of college	6, 162
Accredited rooming houses	17
Administration, Veterans	45, 134
Administrative Assistants	173
Administrative Officers	171-173
Admission and Retention (faculty), Committee on	46-47, 193
Admissions	
Candidacy for	
Master of Arts degree	146-148, 161
Master of Arts in Education degree	136-137, 161
Specialist in Education degree	162-168
Cooperative Doctoral Program in Educational Administration	169
Extension class work	138
Graduate students	13, 39, 132-133
Undergraduate students	13, 32-35, 38-39
Tests (See: Examinations and/or Tests)	
Transfer students	34-35, 149
Admissions Officer	34-35, 38, 39
Advisee	8
Adviser and/or counselor	8
Graduate	22-25, 26, 44, 52, 133, 137, 142, 146, 147, 153
Undergraduate	18, 20, 22, 25, 26, 44, 52
Advisory Committee on Future Development	196
Alumni Affairs, Director of	172, 195
Alumni Scholarship, General	19-20
Alumnus (publication for SCI alumni)	30
American Association of Colleges for Teacher Education	6
American Association of Collegiate Registrars and Admissions Officers	34
American Association of School Administrators	162
American College Tests	32
American Registry of Physical Therapists	52, 63
American Society of Clinical Pathologists	51, 63
Registry of Medical Technology	51, 63
Answers to questions of prospective students	11-12
Application for	
Admission to	
Candidacy for	
Cooperative Doctoral Program in Educational Administration	169
Master of Arts degree	146-147, 161
Master of Arts in Education degree	136-137, 161
Specialist in Education degree	162-163
Graduate study	13, 22, 23, 39, 132-133
Independent study	37, 70
Undergraduate study	13, 32, 33-35, 38-39

Assistantships, Graduate	134-135
Awards, loans, and scholarships	18-21
Graduation with	
Bachelor's degree	66
Master's degrees	152
Specialist degree	164
Housing for married students	13, 17
in private homes	17
Rooms in residence halls	16, 17
Art	
Awards and/or scholarships	19, 20, 21
Endorsements as elementary teacher	51, 68
Honors organizations	24
Master of Arts program	52, 131, 146, 152-153, 160, 161
Preparation for college	39, 40
Staff	70
Study tour	53, 70, 148
Subject field	55, 57, 59
Undergraduate major and/or minor for	
Non-teaching and teaching programs	50, 51, 53-61, 70-73
Artists Series	22, 25
Committee	103, 194
Assistant to the President, and Executive Dean	171, 176, 186, 195
Assistantships, graduate, research, and teaching	134-135
Associate Dean of Students	11, 172
Associated Women Students, The	23
Community Council	23
Association of Men's Residence Halls	23-24
Athletic Board (faculty)	22, 193
Athletics	20, 22, 107
Attendance	
Class	45
Commencement	152, 164
Audit (See also: Visitor)	8, 11
Fee	43
Audio-Visual Center	28
Audio-Visual Instruction	28, 80
Awards	20, 23

B

Bachelor of Arts degree programs, non-teaching and teaching	11, 49-52
Curricula	38-39, 53-64
General education requirements	53-55
Second	66
Baker Hall, George T.	16-17
Director (See: Men's Housing, Director of)	
Bands, concert and marching	22, 102, 103, 104, 105
Bartlett Hall	16, 42
Director	173
Basic Business (See: Business and Business Education, area of emphasis)	
Biological Science (See Science, areas of special interest or emphasis)	
Board and Room, and refunds for	11, 16, 42, 43
Board of Regents, State	6, 7, 19, 29, 33-38, 43, 131, 170
Books and Supplies, approximate cost and availability	12
Buildings and Grounds	6
Bureau of Religious Activities	24
Director	24, 172, 177, 194, 195
Business and Business Education	
Awards and scholarships	19-21
Emphases	73-74
Honor organizations	24

Master of Arts program	52, 131, 146, 154, 161
Master of Arts in Education major	52, 131, 140-141, 161
Preparation for college	39-41
Staff	73
Subject field	55, 57, 58, 59-60, 74-75
Undergraduate major and/or minor for non-teaching, and teaching programs	50, 51, 53-54, 55, 56, 60-61, 73-78
Business Manager	172, 195, 196

C

Calendar, College	4-5
Campbell Hall	16, 42
Staff	173
Campus, description of	6
Card, housing (See: Application for housing)	
I.D. (identification card)	10, 44
Certificate (or transcript) of High School credits	13, 32
Certificates, teaching	7
College recommendation	67, 68, 161
Endorsements	68, 141, 143, 144, 152, 153, 157, 158, 163
Extension credit which may be used	138, 149
For approval in various graduate majors	141, 152
In other states	67, 141, 152
Iowa Public Junior College	146
Prerequisite to graduate degrees	147, 162
Reinstatement	12
Renewal	12
Residence, credit and minimum time	68
Temporary	67
Types	68
Change of Degree Program	52
Change of Registration	43, 45
Chemistry (See: Science, areas of special interest or emphasis)	
Chemistry and Physics honor organization	24
Choruses	22, 104
Civil Defense Committee	194
Classification of students	36-38, 44, 69
Clinics (See: Education, Speech and Hearing, Writing Improvement)	
College Courts	24
College Eye	25, 129
College office holidays	41
Hours	41
College policies	32-48
College preparation	39-41
College Relations and Information Services	29-30
Staff	29, 173, 194
College Terminology	8-11
Commencement attendance	152, 164
Committees	
Admissions and Retention	46-47, 193
Departmental	137, 142, 147, 148, 154, 163
Faculty	19-21, 38, 39, 46-47, 137, 142, 147, 151, 157, 163-164, 193, 194, 195, 196
Faculty and Clerical Staff	9, 194
Faculty and Students	25, 194, 195, 196
Student	22, 23, 24, 25
Thesis	147, 150, 151, 157, 164
Common professional sequence (undergraduate)	55, 57
Commons, The	17
Communication	
Competence	40, 64, 65, 66
General education requirements	53, 64, 65

State College of Iowa

Community classes	31, 43
Concert Chorale	22, 103, 104
Conditional admission to graduate study	39, 133
Conferences	28
Conservation Camp, Iowa Teachers	27
Consultants, elementary and secondary	30, 165-166
Consultative service	30
Contents, Table of	3
Contracts, room	15, 16
Cooperative Doctoral Program	131, 169
Cooperative Programs	52
Coordinating Group (faculty)	195
Coordinator of	
Counseling	52, 172, 194
Curriculum requirements for	142-145, 164-169
Materials	175
Research and Evaluation	171, 187, 193, 195
Student field experiences	185
Student teaching	130, 163, 181, 184, 185, 186, 187, 193
Veterans	45, 134
Correspondence study	31, 43
Cost for	
Board and room	11, 16, 42
Books and supplies	11, 12
Council	
Interfraternity	25
Intersorority	25
Married students	24
Religious activities	24
Counseling	26
Coordinator (See: Coordinator of Counseling)	
Psychologist	172
Counselor (See: Adviser)	
Courses	8
Additional required for undergraduates	64, 66-67
Descriptions	69-130
Dropping	46
Levels	69, 125
Non-teaching	71, 74, 78, 84, 85, 86, 87, 88, 90, 91, 93, 94, 95, 96, 97, 99, 102-104, 108, 111, 112-114, 115-117, 118, 119-120, 123, 124, 125, 126-128, 152-161
Numbers common to many departments	70
Numbers of	69
Of instruction	69-130
Transfer adjustment of	63-64
When offered	69
Credit	8, 12
Activities	66, 103
Additional required for undergraduates	64, 66-67
Advanced courses	65
By examination	43
Community class	31
Correspondence	31, 65, 138, 140, 150
Extension class	30, 31, 65, 138, 140, 149, 152
Independent study	47
Limitation of non-resident	65, 138, 139, 150, 163
Loss of	45, 66
Non-thesis plan	137, 148, 150
Physical education	65, 66
Radio and television	65, 139, 140, 150, 152
Recency of	138, 149, 163

Release from activities	65
Residence	45, 65, 139, 140, 150, 151, 163
Research	138, 149, 152, 163
Saturday and evening classes	138, 150
Second Baccalaureate degree	66
Student teaching	64, 67, 129
Study tours	48, 70, 120
Thesis plan	148, 150, 163, 164
Time limit for using	65, 138
Transfer	35, 134, 138, 141, 149, 152, 163, 169
Workshops	28, 48
Cultural opportunities	22-25, 48, 103
Curricula	
Adjustments for transfer students	34-35, 63
Committee for	
Graduate	
Cooperative Doctoral program in Educational Administration	169
Master of Arts program	52, 131, 146-160, 161
Master of Arts in Education program	52, 131, 135-136, 137-147, 161
Second Master's degree program	160
Undergraduate	
Cooperative programs	52
Joint programs	51-52
Non-teaching programs	51-52
Pre-professional (or joint) programs	51-52
Teaching programs	49-51, 53-61, 66-67
Curriculum Laboratory	28
Curriculum and Supervision	131-132, 135-136, 161, 162, 165-166

D

Dean, Executive and Assistant to the President	171, 176, 186, 195
Dean of Instruction	171, 176
Approval or permission of	45, 47, 70
As member of committees	193, 194, 195, 196
Relation to graduate program	136, 137, 139, 140, 147, 150, 151, 153, 163, 164
Dean of Instruction, Associate	171, 183, 193, 194
Dean of Students	11, 172, 194, 195, 196
Dean of Undergraduate Studies	171, 176, 193, 194, 195
Debate, awards and scholarships	11, 19, 20, 21
Honor organization	24
Degree requirements for	
Bachelor of Arts (non-teaching)	51-52, 53-54, 60-62
Bachelor of Arts (teaching)	50-51, 53-54, 55-60, 64, 66-67
Change in	52
Master of Arts	52, 131, 146-160, 161
Master of Arts in Education	52, 131, 135-146, 161
Second Bachelor of Arts	66
Second Master of Arts	160
Specialist in Education	52, 131, 162-169
Departmental Committees (See: Committees, departmental)	
Director of	
Financial Aids	18, 21, 172
Information Services	29-30
Publications	30
Summer Session	41, 171, 183
Teacher Education	171
Technical Services and Planning	171, 194, 195, 196
Writing Improvement Services	91
Distributive Education Teacher-Coordinator (See: Business and Business Education, area of emphasis)	

Divisions of	
Business and Plant	172
Field Services	172
Instruction and Research	171-172
Student Personnel	172, 173
Doctoral Program in Educational Administration, Cooperative	169
Dormitories (See: Residence Halls)	
Dramatics	
Awards and scholarships	19-21
Courses (See: Speech)	
Extracurricular activities	9, 21-25
Honor organizations	24-25
Dropping courses	46

E

Earth Science (See: Science, areas of special interest or emphasis)	
Economic Opportunity Act	18
Economics and Sociology (See: Social Science, areas of emphasis)	
Education (See requirements for various areas)	
Educational Clinic	26
Educational Policies Commission	193
Elective	9
Elementary Education	
Awards and scholarships	19-21
Master of Arts in Education major	52, 131, 135, 140, 142-144
Preparation for college	39-41
Staff	78
Undergraduate major	50-51, 53-60, 78-83
Elementary principals' curriculum (See: Supervision elementary and secondary)	
Emeritus staff	174-175
Emphasis, concentration, or specialization	9
Employment of students	11, 15, 17-18
English	
Awards and scholarships	19, 20, 21
Master of Arts program	52, 131, 146, 155, 161
Preparation for college	39-41
Staff	89
Subject field	59-60, 91
Undergraduate major and/or minor for non-teaching and teaching programs	49-50, 53-56, 57, 59, 60-63, 90-93
Enrollment and registration	41-43
Enrollment times	12
Evening classes	29, 138, 150
Examinations and/or Tests	
Admission	32, 35, 39, 64
Aptitude	19, 25
Candidacy for	
Master of Arts degree	148-150
Master of Arts in Education degree	136-141
Comprehensive	51, 61, 62, 63, 71, 102, 156, 158, 164
Credit	31, 93, 138
Departmental	136, 147, 150
Entrance	25-26, 34, 51, 90, 93, 94, 95, 96, 115, 156
Foreign language	71, 78, 90, 94, 118, 125, 155, 158
General, for graduate study	133, 136, 147, 162
Health, or physical	27, 32, 41, 132
Non-thesis plan	139, 150
Orientation	25-26, 64
Rehabilitation, vocational	26, 51
Thesis plan	139, 150, 164
Transfer	34, 35, 93, 134, 138

Executive Dean, and Assistant to the President	171, 176, 186, 195
Exhibits	28, 29, 71, 153
Expenses (See: Cost, and Fees)	
Extension Services	
Advisory committee	193
Bureau of	30
Classes	31
Consultative	30
Credit	31
Director of	31, 172, 195
Publications	31
Extracurricular Activities	9, 21-25

F

Faculty	
Committees	193-196
Emeritus	174-175
Instructional	176-191
Senate	193
Family Life Education	84
Fee exemption (awards, loans, scholarships)	19-21
Fees	9, 32
Activity	42
Advance	15, 33, 43
Application	15, 33, 43
Basic	11, 41-42, 43, 135
Board and Room	11, 15, 16, 41
Change of registration	43
Community classes	31, 43
Correspondence study	31, 43
Credit by examination	43
Exemptions	19, 26, 29, 135
Extension credit	31
Housing	11, 15, 16, 42
Insurance	27, 43
Late enrollments	43
Medical and hospital	26, 27, 43
Music	9, 11, 43
Non-resident	11, 38
Partial load	43
Placement	29
Refunds	15, 32, 43, 44
Replacement of I.D. Card	44
Summer session	11, 42, 43, 135
Thesis binding	43
Transcript	43
Visitor	43
Field Services, Division of (See: Divisions of)	
Director	172
Financial Aids Director	18, 21, 172
Food Service	17
Foreign Languages (ancient and modern)	
Competence	71, 90, 99, 102, 111, 112, 114, 116, 118, 125, 155, 156, 158
Preparation for college	39-41
Subject field	55, 57, 60, 93
Undergraduate majors and/or minors for non-teaching and teaching programs	51, 53, 56, 57, 60, 93-97
Forensics	22, 125-128
Four-year curricula	49-52
Fraternalities, honor, and social	24
French (See: Foreign Languages)	

G

General Business (See: Business and Business Education, areas of emphasis)	
General Science (See: Science, areas of special interest or emphasis)	
General education	9
Objectives	49-52
Requirements	53-54
General information (graduate and undergraduate)	15-31, 131-135, 161, 162
Geography	
Undergraduate area of emphasis, elective, and/or minor for non-teaching and teaching programs	50, 56, 124, 125
German (See: Foreign Languages)	
Government (See: Political Science)	
Grade Points	9
Requirements	46
Graduate	
Assistanships	134-135
Bulletin	13
Council	193-194
Study	10
Admissions	132-133
Majors for	
Master of Arts program	146-160
Master of Arts in Education program	135-145
Specialist in Education program	162-169
Graduation	
Applications	66, 141, 152
Requirements for	
Bachelor of Arts degree	64-67
Master of Arts degree	148-151
Master of Arts in Education degree	137-140
Specialist in Education degree	163-164
Greek	125
Grubb, Aubrey and Winslow loan fund	18
Guidance and Counseling on	
Master of Arts program	154-155
Master of Arts in Education program	144-145
Specialist in Education program	166-167

H

Hagemann Hall	16, 42
Director of	173
Health Service, Student	26-27
Director of	26, 172
Examination	27, 32, 41, 132
History (See: Social Science, area of interest)	
Holidays for	
Office personnel	41
Students	4-5
Home Economics	
Awards and scholarships	19-21
Honor organizations	25
Preparation for college	39-41
Staff	83
Subject field	55, 57, 84-85
Undergraduate major and/or minor for	
non-teaching and teaching programs	55, 56, 60-61, 83-86
Vocational	51, 83-84
Honor organizations	23, 25
Programs	70

Honors	
Board	194
Directors of	194
Readings	70
Seminar	70
Hospital service	27
Housing	
Applications	13, 15
Contracts	13, 15, 16
Married Students	17, 24
Occupancy regulations	16
Off-campus	17
Residence halls	15, 16-17
Units, men's and women's	16, 17, 23-24
Humanities	
General education requirements	53
Undergraduate courses in the	86-87

I

I.D. (identification) card	10, 42, 44
Incomplete work	45
Independent study	47, 70
Individual instruction	47
Industrial Arts and Technology	87
Awards and scholarships	19-21
Master of Arts program	52, 131, 146, 156
Preparation for college	39-41
Specialist in Education program	52, 162, 168-169
Staff	87
Subject field	55, 57, 59
Undergraduate major and/or minor for non-teaching and teaching programs	55, 56, 60-61, 87-89
Vocational	51
Information Services	29-30
Instruction, for others than college students in music	43
Instructional staff	176-191
Instrumental Music	103-104
Insurance, Student Health and Accident	27
Intercollegiate Association of Women Students	23
Interest organizations	24
Intermediate Grade teaching (See: Elementary Education)	
Inter-Residence Council	23
Interfraternity Council	25
Intersorority Council	25
Iowa Lakeside Laboratory	28
Iowa Public Junior College program	146, 161
Iowa State Department of Public Instruction	8, 12, 31, 68, 141, 152
Iowa Teachers Conservation Camp	27-28
Iowa T.V. Schooltime programs	30
Italian (See: Foreign Languages)	

J

Joint Programs	51, 52, 62-63
Journalism School	97
Junior High School Education	
Awards and scholarships	19-21
Preparation for college	39-41
Undergraduate major and/or subject field	50-51, 55, 56-57, 71, 74-75, 84-85, 88, 91, 93, 98, 100, 102, 108, 110, 111, 118-119, 126, 130

K

K Y T C (Campus radio station)	25
Board of Control	194
Broadcasting courses	126-127

L

Laboratory, Curriculum	28
Lakeside Laboratory, Iowa	28
Languages (See Foreign Languages)	
Language Art, Subject field	59, 91
Late enrollment and registration	45
Latin (See: Foreign Languages)	
Law	63
Lawther Hall	16, 42
Staff	173
Liberal Arts	29, 51, 99, 103, 112, 113-114, 115-116, 117
(See also: Courses on other non-teaching programs)	
Library	18-19
Staff, professional	192
Library Science	
Awards and scholarships	19-21
Staff	98
Subject field	57, 59, 98
Undergraduate major and/or minor for teaching program	50-51, 53-54, 56, 57, 59, 98
Load, academic	10, 44, 133-134
Loan funds	18
Lower Elementary teaching	58, 129
(See also: Elementary Education)	

M

Major	10
Graduate	
Master of Arts program	146
Master of Arts in Education program	135
Second, or Double	56
Undergraduate programs	56-57
Making up work	45
Married Students Council	25
Marketing (See: Business and Business Education, area of emphasis)	
Marking system	46
Mathematics	
Awards and scholarships	19-21
Honor organizations	24
Master of Arts program	52, 131, 146, 156
Preparation for college	39-41
Staff	99
Subject field	57, 58, 60, 100
Undergraduate major and/or minor for	
non-teaching and teaching programs	51, 53, 54, 55, 56, 57, 60, 61, 99-102
Matriculation	10
Medical service	26-27
Medical Technology	51, 52, 62
Allen Memorial School of	52
Registry of	63
Medicine	62
Men's housing	
Director	172
Units	16-17, 23-24

Men's Union	23-24
Minors	10, 56, 60, 61
Music	
Activities	21-22, 103
Areas or fields of special interest or emphasis	103, 156-157
Awards and scholarships	19-21
Honor organizations	24, 103
Master of Arts program	52, 131, 146, 156
Preparation for college	39-41
Special fees	43
Staff	102
Subject field	57, 58, 102
Undergraduate major and/or minor for non-teaching and teaching programs	51, 53, 54, 55, 56, 57, 60, 61, 102-105

N

National Association of Schools of Music	6
National Council for the Accreditation of Teacher Education	6, 39, 132, 133
National Defense Education Act	18
Non-teaching programs (or Liberal Arts programs)	
Graduate	52, 131, 146-160
Undergraduate	50, 51, 52, 53-54, 60-63
Non-thesis plan	135, 136, 137, 139, 147, 161
North Central Association of Colleges and Secondary Schools	6, 34, 39, 132, 133
Notice to prospective students	8
Numbering of areas, departments, and courses	69, 70, 134
Nursing, Allen Memorial School of	52

O

Objectives, College	6-7, 49-50, 131, 161, 162
Office Education Teacher-Coordinator (See: Business Education, area of emphasis)	
Office holidays	41
Officers of Administration	171-173
Old Gold	25
Orchestra credit	103, 104
Organization by semesters	12, 41
Organizations, Student	21-25
Orientation and Counseling	4, 5, 26, 44, 52, 144-145, 154, 166-167

P

Partial fee exemptions (Student Aid Scholarships and graduate assistantships)	19-20, 134-135
Philosophy courses	97-98
Physical Education for Men	
Activities	22, 65-66, 106, 107
Awards and scholarships	19-21
Master of Arts program	52, 131, 146, 157-158
Preparation for college	39-41
Requirements for graduation	64-66, 107
Staff	107
Subject field	55, 57, 108-109
Undergraduate major and/or minor for non-teaching and teaching programs	50-51, 53, 54, 55, 56, 57, 60-61, 65-66, 106-108
Physical Education for Women	
Activities	22, 106, 110

Awards and scholarships	19-21
Master of Arts program	52, 131, 146, 157-158
Preparation for college	39-41
Requirements for graduation	64-66
Staff	109
Subject field	55, 57, 110
Undergraduate major and/or minor for non-teaching and teaching programs	50-51, 53, 54, 55, 56, 57, 60-61, 65-66
Physical examinations	27, 32, 41, 132
Physical Plant Director	172
Physical Therapy	51, 63
American Registry of Physical Therapists	52, 63
Physics (See: Science, areas of special interest or emphasis)	
Placement	
Bureau	29, 67
Director of	172
Tests	25-26, 34, 64, 93, 94, 95, 96, 115
Political Science (See: Social Science, area of emphasis)	
Practicum	70
Preparation for college	39-41
Pre-professional curricula or programs	51-52, 62-63
Prerequisite	10
Principal's curricula, elementary and secondary, requirements for	
Master of Arts in Education program	52, 131, 135, 143-144, 161
Specialist in Education program	52, 131, 164-165
Probation	10
Graduate students	133
Transfer students	35
Undergraduate students	34, 46
Professional cores (graduate)	147, 148-149, 156, 158, 159
Professional semester	58
Professional Sequence, Common (undergraduate)	55
Programs	
Graduate	
Master of Arts	52, 131, 146-160, 161
Master of Arts in Education	52, 131, 135-145, 161
Second Masters	160
Specialist in Education	131, 162-169
Undergraduate	
Bachelor of Arts (non-teaching)	
Joint, Liberal Arts, Other, Vocational, Pre-professional, Cooperative	11, 50-52
Bachelor of Arts (teaching)	11, 50, 51
Honors	70
Psychiatric referral	26
Psychology courses	79
Publications	
Director of	30
Extension Service	31
Graduate Bulletin	13
On admission and retention	39
Scholarship materials	21
Student	25, 129
Workshops and Study Tours	48

Q

Quarter and semester differences	12, 41
Questions and answers	11, 12

R

Radio, and Television Education and Service	25, 30, 127, 139
Director of	172, 193
Reading, Speaking, and Writing competence requirements	40, 64, 65
Recency of credit	138, 149, 163
Recreation	21-22, 25, 103
Regents, State Board of	6, 7, 19, 29, 43, 170
Registration (See: Enrollment and Registration)	
Rehabilitation testing, vocational	26
Reinstatement of certificates	12
Religion	24
Religious Activities	24
Bureau of	24
Council of	24
Director of	24, 172, 177, 194, 195
Literature	97
Organizations	24
Renewal of certificates	12
Required subjects	10
Requirements for graduation from	
Bachelor of Arts degree on	
Non-teaching programs	64-66
Teaching programs	64-68
Master of Arts program	148-152
Master of Arts in Education	137-141
Specialist in Education	163-164
Research	
Assistantships	134-135
Graduate Credit on	
Master of Arts program	149, 151
Master of Arts in Education program	138
Specialist in Education program	163
Undergraduate credit in many departments	70
Research and Curriculum Development Committee	195
Research and Evaluation, Coordinator of	171, 187, 193, 194, 195
Residence credit	
Graduate	
Master of Arts program	150, 151
Master of Arts in Education program	139
Specialist in Education program	163
Undergraduate	65
Residence halls	
Application for rooms	15
Advance deposit for rooms	15
Assignment of rooms	16
Contracts for rooms	15, 16
Deposit refunds	15, 16
Men's	15, 16-17
Occupancy of rooms	16
Rates and payments	16
Women's	16
Residence for married students	17
Review Committee	38
Rider Hall	17, 42
Staff	173
Room and Board, and refunds for	11, 15, 16
Rooming houses	17
Russian (See: Foreign Languages)	

S

Safety education, undergraduate	
Courses	83
Minor	56, 83
Saturday and evening classes	29, 138-139, 150
Schedule	10
Scholarship requirements on	
Graduate	
Master of Arts program	150
Master of Arts in Education program	139
Specialist in Education program	163
Undergraduate	34, 35, 46-47, 65, 129
Scholarships and awards	19, 21, 23
School Journalism	97
Science	
Areas of special interest or emphasis	111
Awards and scholarships	19-21
Honor organizations	24
Master of Arts program	52, 131, 146, 153, 154, 158
Preparation for college	39-41
Staff	111
Subject field	57, 59-60, 111
Undergraduate majors and/or minors for non-teaching and teaching programs	50, 51, 53, 54, 56, 59-60, 61, 62-63, 111-117
Second Bachelor of Arts degree	66
Second Master's degree	160
Secretarial (See: Business and Business Education, area of emphasis)	
Secondary principals' curriculum (See: Principals)	
Secondary teacher's curricula (See: Curricula, requirements for)	
Seerley, Homer H. Foundation loan fund	18
Semesters, organized by	12, 41
Professional	58
Sequence, Common Professional (undergraduate)	55
Shull Hall	17, 62
Staff	173
Sixth-year program	162
Social Life and Cultural Opportunities	21-24
Director of	172, 173, 196
Social organizations	25
Social Program Council	22
Social Science	
Areas of special interest or emphasis	118
Awards and scholarships	19-21
Honor organizations	24
Master of Arts program	52, 131, 146, 155, 158
Preparation for college	39-41
Staff	118
Study tours	48, 53, 70, 120
Subject field	57, 59-60, 118, 119
Undergraduate majors and/or minor for non-teaching and teaching programs	50, 51, 53, 54, 56, 61, 63, 118-125
Sociology (See: Social Science, areas of interest or emphasis)	
Sororities, honor and social	24-25
South Courts	24
Spanish (See: Foreign Languages)	
Speaking, Reading, and Writing competency requirement	64, 65
Special Services	25-30
Specialist in Education degree program	52, 131, 162-169
Speech and Hearing Clinic	26, 64

Speech, and Speech Correction	
Awards and scholarships	19-21
Honor organizations	24-25
Master of Arts program	52, 131, 146, 159-160
Preparation for college	39-41
Staff	125
Subject field	55, 57, 126
Undergraduate major and/or minor for non-teaching and teaching programs	50-52, 55, 56, 61, 125-128
State Board of Public Instruction, Iowa	12, 33-38
State Board of Regents	6, 7, 19, 29, 33-38, 43, 131, 170
Committees	170
Establishment of scholarships	19
Fees subject to change	43
Governs	6, 7, 33-38, 131
Membership	170
Public Relations program	29
Student Council of Religious Activities	24
Student Counseling (See: Orientation and Counseling)	
Student Fees (See: Fee)	
Student Government	22-23
Student Health Service	26-27
Student Loan funds	18
Student newspaper	25, 129
Student organizations	22-25
Student orientation (See: Orientation and Counseling)	
Student Personnel Division	15, 172
Services	15, 17, 18, 21, 45
Student Publications	25, 29, 30, 122
Student Publishing Association	25
Student Senate	22, 23, 24, 194, 195, 196
Student Teaching	
Aim	129
Application	67, 129
Areas	129-130
Certification requirement	67-68
Credit	67
Limitation in amount	67, 129
Prerequisites	64, 67, 129
Scholarship requirement	129
Staff	129
Summer sessions	67
Time spent (block of time)	129
Transfer credit	67
Study Tours	48, 53, 70, 120
Sub-collegiate instruction in music	43
Subject fields	55, 57, 58-59
Summer session	13, 16, 28, 41, 42, 44, 46, 48, 65, 135, 139, 163, 171, 183
Sunset Village	24
Superintendency	
Specialist in Education degree program	52, 131, 135, 162, 164-165
Supervision, Curriculum and Elementary	52, 131, 135, 162, 164-165
Supplies and books, approximate cost of	11, 12
Suspensions, readmission, and probation	46-47
Swimming requirement	107

T

Table of Contents	3
Teacher-Education Standards and Practices (Faculty), Committee on	39, 47, 194

State College of Iowa

Teaching Certificates (See: Certificates, teaching)	
Teaching experience requirements	141, 142, 143, 144, 152, 160
Teaching, Student (See: Student teaching)	
Technical Institute Major—Teaching	87
Tests and/or Examinations (See: Examinations and/or Tests)	
Television (See: Radio and Television, etc.)	
Textbooks and supplies, availability of	11, 12
Theme groups	70
Thesis and non-thesis plans, graduation requirements for	137-141
Transcripts of credits	
Fees	43
Filing	13, 32, 34-35, 132, 160
Transfer credit and curricular adjustments	34, 63-64, 132, 133, 138, 149, 169
Tuition (See: Fees)	
Typing, competency requirement	65, 66

U

Undergraduate	11
Awards and scholarships	19-23
Curricula	49-68
Union, Director of The	172, 196
Policy Board	22, 196
Upper Elementary Teaching	129
(See also: Elementary Education)	

V

Veterans	45, 134
Administration program for	134
Coordinator	134
Excused from required activity courses	45
Visiting days	41
Visitor (See also: Audit)	8, 11, 43
Vocal Music	22, 43, 102, 103, 104, 105
Vocational rehabilitation assistance	26

W

Withdrawal from a course (change of registration)	43
From college	44
Women's chorus	22, 103, 104
Women's Housing Units	15, 16, 23
Work (See: Employment of students)	
Workshops	28, 48
Work-Study Program	18
Writing, Reading, Speaking and, competency requirements	64, 65

STATE COLLEGE OF IOWA BULLETIN, CEDAR FALLS