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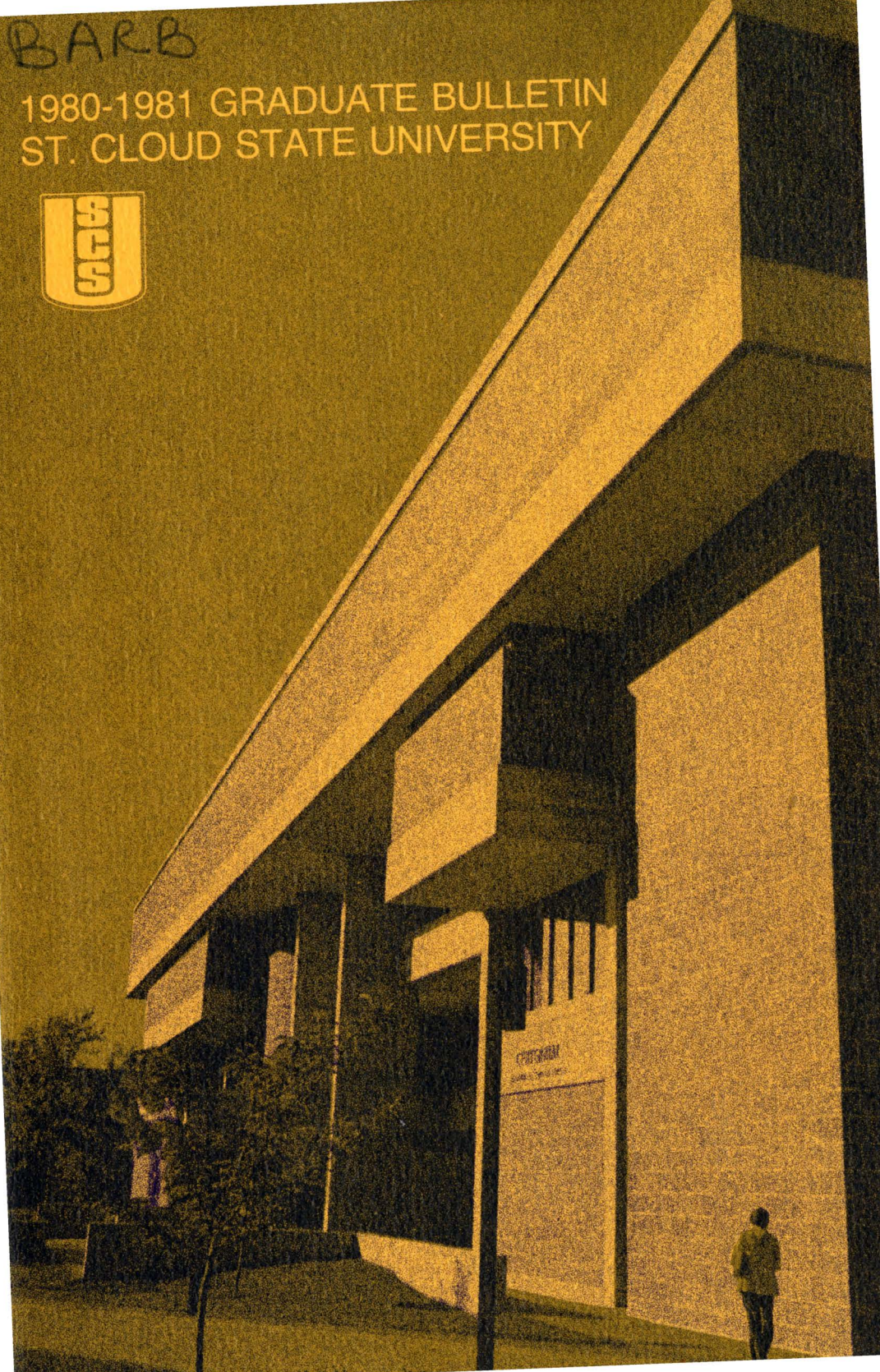
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BARB

1980-1981 GRADUATE BULLETIN
ST. CLOUD STATE UNIVERSITY



Changes in 1980-81 Undergraduate Bulletin and 1980-81 Graduate Bulletin

St. Cloud State University

Portions of the 1980-81 Undergraduate Bulletin and 1980-81 Graduate Bulletin have been revised. Please note the following changes:

TUITION

Undergraduate resident tuition is \$12.20 per credit hour.

FEES

Student Activity Fees, Student Union Fees and Health Service Fee are assessed to students on the basis of \$3.25 per credit hour, with a maximum charge of \$48.75 per quarter. (Effective Fall Quarter 1980.)

APPROVED GENERAL EDUCATION COURSES

The following courses have been designated as appropriate for general education effective Fall Quarter 1980. Students are reminded that any courses designated general education in previous undergraduate bulletins which are not on this list may no longer be taken for general education credit.

COLLEGE OF BUSINESS

BEOA 101*, 167, 208, 216, 419

COLLEGE OF EDUCATION

ECFS 220

ED 207, 374, 403

HLTH 125

HURL 201

IM 104*, 204

PE 111, 119, 120, 121, 122, 123, 125, 126, 130, 131, 132, 133, 136, 138, 139, 140, 144, 145, 150, 152, 159, 160, 180, 190, 200, 201, 202, 203, 210, 212, 213, 219, 222, 223, 225, 226, 228, 230, 231, 232, 234, 235, 236, 238, 240, 241, 242, 243, 245, 250, 264, 266, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 290, 307, 308, 309

PSY 111*, 121, 270, 390

SPED 401

COLLEGE OF FINE ARTS

ART 120, 121

MUSM 100, 101, 123, 124, 125, 130, 229

MUSP 101, 102, 103, 104, 106, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 138, 140, 142, 144, 146, 148, 151, 152, 153, 154, 155, 156, 157, 160, 162, 164, 167, 169, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 238, 240, 242, 244, 246, 248, 258, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 338, 340, 342, 344, 346, 348, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 438, 440, 442, 444, 446, 448

TH 140, 244, 260, 270, 280

COLLEGE OF INDUSTRY

DTS 290, 393, 394*, 481

IND 130*, 161*, 186, 192, 285

TECH 101, 165, 175, 305, 405

COLLEGE OF LIBERAL ARTS AND SCIENCES

AMST 101, 102, 302, 409

ANTH 250

BIOL 101, 102, 104, 106, 107

CHEM 102, 201, 208, 215, 216

CJS 100, 101, 201, 325

COMM 220, 273

CSCI 169

DAN 131, 132

EAST 363, 364

ECON 259, 273, 274, 281, 360

ENGL 124, 164, 290, 293, 294

ENV 210

ESCI 104, 109, 150, 206

FREN 131, 132, 133, 211, 212, 243

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GERM 131, 132, 133, 211, 212, 243

HIST 101, 105, 140, 141, 200

LAST 250

MATH 121, 251, 254, 440

PHIL 101, 120, 122, 140, 160

PHYS 103, 106, 107, 207, 208

POL 201, 202, 211, 215, 251

RUSS 131, 132, 133, 211, 212, 243

SCI 110

SOC 260, 261, 273, 277

SPAN 131, 132, 133, 211, 212, 243

SPC 223, 226, 275, 280, 324, 331

SSCI 104, 204, 301, 460, 470

SSPA 220, 230, 324, 468

URB 200

WS 201

*effective only Fall and Winter Quarters



ST. CLOUD STATE UNIVERSITY GRADUATE BULLETIN 1980-1981

College of Business

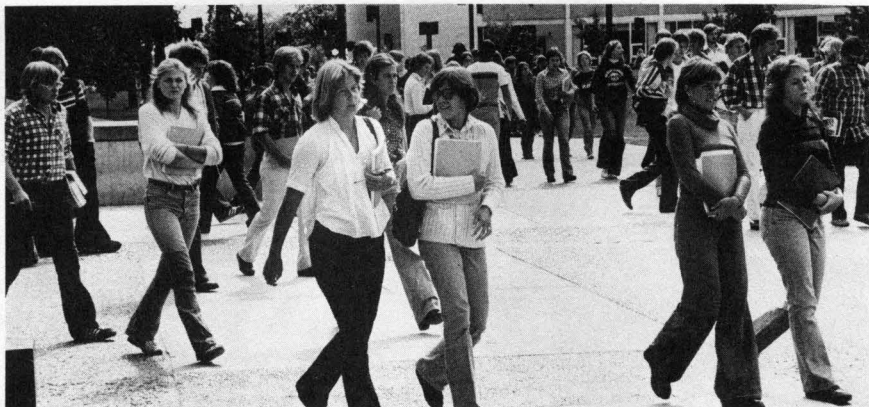
College of Education

College of Fine Arts

College of Industry

College of Liberal Arts & Sciences

ST. CLOUD/MINNESOTA 56301



IMPORTANT

Graduate students are expected to become thoroughly familiar with the contents of this *Bulletin* and are to assume responsibility for complying with the provisions that pertain to them. All provisions within this *Bulletin* are subject to change without notice.

OFFICE HOURS: GRADUATE STUDIES

Regular Academic Quarter

8:00 A.M. until 4:30 P.M.
After 4:30-by appointment

Summer Quarter

7:30 A.M. until 4:00 P.M.

Evening Schedule

During the regular academic year, the Graduate Studies Office is open in the evenings during the first week of each quarter.

UNIVERSITY INFORMATION PHONE NUMBERS

	Area Code 612
University Switchboard	255-0121
Academic Affairs	255-3143
Admissions and Records	255-2111
Business Office	255-3133
Career Planning/Placement	255-2151
Continuing Studies	255-3081
Financial Aids	255-2047
Graduate Studies	255-2113
High School/Community College Relations	255-2243
Housing Office	255-2166
Information Services	255-3151

Lowell R. Gillett

Dean, School of Graduate Studies

Vernon L. Ludeman

Associate Dean of Graduate Studies

Terrence MacTaggart

Associate Dean of Continuing Studies



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please refer to the Index in the back of this
Bulletin.

ABBREVIATIONS

Coreq.	Corequisite
Cr.	Credit
Gr.	Graduate
Lab.	Laboratory
Prereq.	Prerequisite
Undgr.	Undergraduate
ACCT	Accounting
AMST	American Studies
ANTH	Anthropology
ART	Art
BEOA	Business Education and Office Administration
BIOL	Biological Sciences
CHEM	Chemistry
COMM	Mass Communications
CSCI	Computer Science
DTS	Driver Training and Traffic Safety
ECON	Economics
ED	Education
EDAD	Educational Administration
EDT	Student Teaching
ELED	Elementary Education
ENGL	English
ESCI	Earth Sciences
ECFS	Early Childhood and Family Studies
FREN	French
GEOG	Geography
GER	German
HLTH	Health
HIST	History
HPER	Health, Physical Education and Recreation
HURL	Human Relations
IM	Information Media
IND	Industrial Education
MATH	Mathematics
MGMF	Management and Finance
MKGB	Marketing and General Business
MUS	Music
PE	Physical Education
PHIL	Philosophy
PHYS	Physics
POL	Political Science
PSY	Psychology
QMIS	Quantitative Methods and Information Systems
REC	Recreation
SEED	Secondary Education
SOC	Sociology
SPAN	Spanish
SPC	Speech Communication
SPED	Special Education
SSCI	Social Science
SST	Social Studies
SSPA	Speech Science, Pathology and Audiology
SW	Social Work
TECH	Technology
TH	Theatre

BUILDING KEY

The following abbreviations are used throughout the SCSU campus.

AS	Administrative Services Building
AH	Alumni House
AC	Atwood Memorial Center
AMC	Atwood Memorial Center
BTH	Benton Hall (Women's and Men's Residence)
BH	Brown Hall (Offices and Classrooms)
BB	Business Building
CRH	Carol Hall (Administrative Offices)
CSH	Case Hall (Men's Residence)
CH	Centennial Hall (Learning Resources & Center for Library and Audiovisual Education)
CLS	Gray Campus Lab School
EH	Eastman Hall
EB	Education Building
GC	Garvey Commons (Food Services)
HAH	Halenbeck Hall (Physical Education)
HH	Headley Hall (Industry)
HM	Heating and Maintenance Building
HiH	Hill Hall (Women's Residence)
HOH	Holes Hall (Women's and Men's Residence)
KVAC	Kiehle Visual Arts Center
LH	Lawrence Hall (Faculty Offices)
MS	Mathematics and Science Center
MH	Mitchell Hall (Women's Residence)
PA	Performing Arts Center (Music, Speech, Theatre)
R	Riverview Building (English)
SBH	Sherburne Hall (Women's and Men's Residence)
SMH	Shoemaker Hall (Women's and Men's Residence)
STH	Stearns Hall (Women's and Men's Residence)
SH	Stewart Hall (Administration and Classrooms)
WH	Whitney House (Administration)

KEY TO SYMBOLS

Quarterly course designations are provided to assist in program planning. Courses are scheduled to be offered in the quarter specified; however, circumstances and problems may necessitate change. Consult the current class schedule for further information.

QUARTER OFFERED

Fall	F
Winter	W
Spring	S
Summer	SUM
Offered upon sufficient demand	DEMAND
Offered alternate years	ALT

ACADEMIC CALENDAR 1980-1981

1980 SUMMER QUARTER

	First Summer Term
Monday June 9	Registration and payment of fees.
Tuesday June 10	Classes begin.
Friday June 13	Deadline for class changes and fee payment. Late fee assessed.
Monday June 23	Deadline for graduation applications.
Friday July 4	Independence Day (Holiday).
Monday July 7	Deadline for dropping courses.
Friday July 11	First Summer Term ends at 4:00 p.m.
	Second Summer Term
Monday July 14	Registration and payment of fees.
Tuesday July 15	Classes begin.
Friday July 18	Deadline for class changes, fee payment and deadline for graduation applications. Late fee assessed.
Monday August 11	Deadline for dropping courses.
Thursday August 14	Summer Commencement.
Friday August 15	Second Summer Term ends at 4:00 p.m.

1980 FALL QUARTER

Tuesday September 2	Faculty Workshop and New Student Day. Residence Halls open 8:00 a.m. Registration for new students 1:00-4:00 p.m.
Wednesday September 3	General Registration.
Thursday September 4	Classes begin.
Tuesday September 9	Late fee assessed.
Wednesday September 10	Deadline for class changes.
Wednesday September 17	Last day to pay fees.
Monday October 6	Deadline for graduation applications.
Thursday October 9	Second half of quarter classes begin.
Monday October 13	Columbus Day. (No classes. Holiday for unclassified employees.)
Friday October 17	MEA Representative Assembly. (No classes.)
Tuesday October 28	Deadline for dropping courses.
Tuesday November 11	Veterans' Day. (Classes in session. Holiday for classified employees.)
Monday November 17-	
Thursday November 20	Final Examinations.
Friday November 21	Fall Commencement.
Monday November 24	Deadline for final grades, 2:00 p.m. (Faculty duty day).
Thursday November 27	Thanksgiving Day (Holiday).
Friday November 28	Holiday; No classes; Offices closed. (Non-duty day for Faculty.)

The University calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, interruption of utility services, acts of God, civil disorder and war. In the event of such occurrences, the University will attempt to accommodate its students. It does not, however, guarantee that courses of instruction, extra curricular activities or other University programs or events will be completed or rescheduled. Refunds will be made to eligible students in accordance with State University Board policy.

1980-1981 WINTER QUARTER

Monday December 1	General Registration.
Tuesday December 2	Classes begin.
Friday December 5	Late fee assessed.
Monday December 8	Deadline for class changes.
Monday December 15	Last day to pay fees.
Friday December 19	Christmas vacation begins 5:00 p.m.
Thursday December 25	Christmas Day (Holiday).
Thursday January 1	New Years Day (Holiday).
Monday January 5	Classes resume.
Friday January 9	Deadline for graduation applications.
Monday January 19	Second half of quarter classes begin.
Tuesday February 3	Deadline for dropping courses.
Monday February 16	Presidents' Birthday (Holiday).
Monday February 23	
Thursday February 26	Final Examinations.
Friday February 27	Winter Commencement.
Monday March 2	Deadline for final grades, 2:00 p.m. (Faculty duty day).

1981 SPRING QUARTER

Monday March 9	General Registration.
Tuesday March 10	Classes begin.
Friday March 13	Late fee assessed.
Monday March 16	Deadline for class changes.
Monday March 23	Last day to pay fees.
Friday March 27	IFO/MEA Delegate Assembly (No classes).
Monday April 6	Deadline for graduation applications.
Wednesday April 15	Second half of quarter classes begin.
Tuesday April 28	Deadline for dropping courses.
Monday May 18	
Thursday May 21	Final Examinations.
Friday May 22	Spring Commencement.
Monday May 25	Memorial Day (Holiday).
Tuesday May 26	Deadline for final grades, 2:00 p.m. (Faculty duty day).

1981 SUMMER QUARTER

First Summer Term	
Monday June 8	Registration and payment of fees.
Tuesday June 9	Classes begin.
Friday June 12	Deadline for class changes and fee payment.
	Late fee assessed.
Monday June 22	Deadline for graduation applications.
Friday July 3	Independence Day Holiday.
Monday July 6	Deadline for dropping courses.
Friday July 10	First Summer Term ends at 4:00 p.m.
Second Summer Term	
Monday July 13	Registration and payment of fees.
Tuesday July 14	Classes begin.
Friday July 17	Deadline for class changes and deadline for graduation applications. Last day to pay fees. Late fee assessed.
Monday August 10	Deadline for dropping courses.
Thursday August 13	Summer Commencement.
Friday August 14	Second Summer Term ends at 4:00 p.m.

ST. CLOUD STATE UNIVERSITY



HISTORY

The institution which is now St. Cloud State University first opened its doors as the Third State Normal School in September, 1869. The original building was the Stearns House, a hotel purchased by the State Legislature for \$3,000 and remodeled for use as a school. Classrooms were on the first floor, the "model school" was on the second floor, and a women's dormitory was on the third floor. The faculty consisted of Principal Ira Moore and four assistants. The student body included 42 women and 11 men. In the years since this modest beginning, the school has developed into a university of established reputation with 29 buildings and a faculty in excess of 500 members.

This progression from normal school to university follows closely the pattern of development of similar state institutions of higher education throughout the nation. Until 1898, St. Cloud Normal School was essentially a secondary school with a few students of college rank. Beginning in 1898, the school began offering a full junior college curriculum. In 1914 the high school portion of the program was dropped. In 1921 the institution was authorized by the State Legislature to adopt the name of St. Cloud State Teachers College.

Granting of the first four-year degree, Bachelor of Education, was authorized in 1925. The name of the degree was changed to Bachelor of Science in 1940. The 1953 Legislature enabled the institution to grant the Master's degree and the 1967 Legislature authorized the Specialist degree.

Although the University has been a teacher preparation institution during most of its history, students are now enrolled in many other programs available to them. Authorization was obtained in 1946 to grant the Bachelor of Arts degree to students not majoring in education. A two-year associate degree was added in 1948. In recent years the University has added

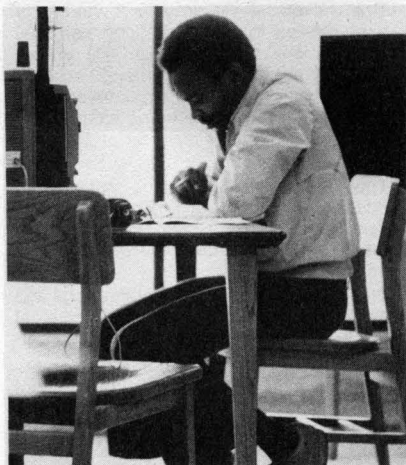
Bachelor of Music and Bachelor of Elective Studies degrees in addition to an External Studies Program.

Today the University is a multi-purpose and comprehensive institution offering a broad range of undergraduate and graduate programs of study in the College of Liberal Arts and Sciences, College of Business, College of Education, College of Fine Arts, College of Industry, and the Graduate School.

PHILOSOPHY

St. Cloud State University is committed to the pursuit of excellence in all aspects of higher education within its mission. The University strives to provide an environment which will challenge students to develop their talents, extend their intellectual abilities and interests, stimulate them to expand their creative abilities, and provide the impetus to a life-long respect and enthusiasm for learning. Students are provided the opportunity to develop the knowledge, skills, and attitudes required for entrance into a variety of careers. The University assists students to develop an appreciation for both continuity and change and to recognize that knowledge serves to identify and preserve past human achievement as well as to provide the foundation for further progress. Students are encouraged and assisted to develop greater self-understanding; to develop respect and concern for individual worth and human dignity; to become more sensitive to the values held by other persons or groups; and to understand and assume their responsibilities to individuals, to society, and to their environment.

In this setting, it is anticipated that these experiences will prepare persons to continue to learn, to appraise their values and the values of society, and to accept their responsibility to participate in the decisions required of citizens in a rapidly changing world.



ACCREDITATION AND MEMBERSHIP

St. Cloud State University is a member of many academic and professional associations, including the North Central Association of Colleges and Schools, American Council on Education, American Association of State Colleges and Universities, American Association of Colleges for Teacher Education and Council of Graduate Schools in the United States. It is accredited by the North Central Association of Colleges and Schools, National Council for Accreditation of Teacher Education, and National Association of Schools of Music.

EQUAL OPPORTUNITY

St. Cloud State University is an equal opportunity employer. Through an active and continuing affirmative action program, the University provides equal opportunity and treatment in employment, admissions and all academic programs.

NON-DISCRIMINATION POLICY

St. Cloud State University (SCSU) acknowledges its legal and moral responsibility to ensure equal employment and educational opportunities without regard to race, creed, color, religion, national origin, sex, age, reliance on public assistance, physical disability, marital status, or inclusion in any group or class against which discrimination is prohibited by state or federal law, including Vietnam era veterans. Furthermore, SCSU will continue to develop and implement timely and comprehensive affirmative action procedures aimed at removing barriers to equal employment opportunity.

STUDENT RECORDS AND DIRECTORY INFORMATION

Pursuant to the Family Educational Rights and Privacy Act of 1974, students at St. Cloud State University are entitled to review records, files, documents and other materials containing information directly related to them which are maintained by the University. In accordance with regulations issued by the Secretary of Health, Education and Welfare, students may request a hearing to challenge the content of education records to insure that the records are not inaccurate, misleading or otherwise in violation of their rights. A student may insert in his or her records a written explanation respecting the contents of such records if suggested corrections or deletions are not made by the University.

Access and review is subject to the following conditions:

1. The University has 45 days to comply with a student's written request to review his or her records;
2. All information declared confidential by the Act or excluded from the definition of "education records" in the Act is not available for inspection;
3. After reviewing records, a student may request the unit maintaining the record to remove or modify information the student believes is misleading, inaccurate or inappropriate. If the request is refused, the student may insert in the records a written explanation respecting the contents objected to or the student may file an appeal with the office in charge of the records. This appeal will be heard by a person or committee appointed by the director of the office involved.

The Act further states that certain information can be construed to be directory information which is available to the public. These are the items the University declares to be directory information available to the public: name, address, telephone listing, date of birth, major field of study, class schedule, class status (freshman, sophomore, etc.), participation in officially recognized activities and sports, weights and heights of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended. A student has the right to inform the University that any or all of the above information should not be released without his or her prior consent. Students who wish to restrict the release of this information must complete a written request to that effect at the Admissions and Records Office. After the required written request has been made, appropriate offices will be notified so that they can begin to comply with the request as soon as possible.

Any information other than the items listed above will not be released by the University without the student's specific written permission except as provided by law.

GENERAL INFORMATION



GRADUATE TUITION AND FEES*

Tuition for on-campus and off-campus courses:

	Effective June 1980
Regular Year	
Graduate-resident	\$15.60
**Graduate non-resident	31.35
Graduate—off campus	26.30
Summer	
Graduate-resident	\$15.60
(on and off campus)	
**Graduate non-resident	31.35
(on and off campus)	

FEES*

Student Activity Fees, Student Union Fees and Health Service Fees are assessed to students on the basis of \$2.90 per credit hour, with a maximum charge of \$43.50 per quarter.

Exceptions: Fees will not be charged for:

1. Courses offered by the Center for Continuing Studies or other off-campus courses as defined by the State University Board.
2. Courses numbered 588, 595, or 695 (temporary workshops).
3. Courses numbered 510 (tours).

The Student Activities Committee will consider other requests for exclusion from the fee structure, forwarding recommendations to the President.

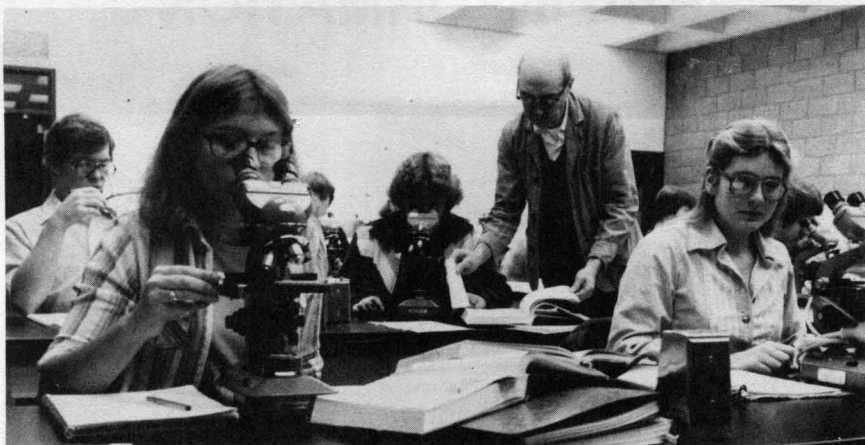
Note: There is no reduction in tuition or fees for students who audit courses.

NON-PAYMENT OF MONIES DUE THE UNIVERSITY. The student must discharge all financial and other obligations to the university. Students who have financial obligations to the university will not be permitted to register, receive grade reports, or receive or have official transcripts issued until such obligations are satisfactorily discharged. This policy will become effective September 1, 1980.

*Tuition and fees are subject to change by action of the State University Board.

**Under a reciprocal agreement, North Dakota, South Dakota, and Wisconsin residents are charged in-state tuition fees at St. Cloud State University. The in-state fee assessment for North Dakota, South Dakota, and Wisconsin students applies to all of the other state universities in the State University System.

All students nominated for a graduate assistantship at St. Cloud State University pay in-state graduate tuition fees.



SENIOR CITIZENS. Minnesota residents 62 years of age or older may enroll in courses at St. Cloud State University without paying tuition or fees, providing space is available after tuition-paying students have enrolled. An administration fee of \$2 per credit hour is required when a course is taken for credit. The student also must bear the cost of laboratory fees, books and materials.

Registration is not considered completed until all fees have been paid. Students may, with permission, register within a period no longer than ten class days after a regular quarter begins or four class days after a summer term begins. For a regular quarter the late registration fee is \$5 after the third class day and \$2 for each succeeding class day. For a summer term the late registration fee is \$5 after the third class day. Students may register for off-campus courses no later than the second class meeting. Late registration fees do not apply to off-campus courses.

A fee of \$2 is charged students who desire to alter their programs after classes begin. All fees and regulations are subject to change by action of the State University Board.

ACADEMIC YEAR

St. Cloud State University operates on the quarter system. There are two five-week summer terms during the summer quarter, each offering a broad spectrum of the regular academic year courses. Credits earned during the summer terms may be applied toward fulfillment of requirements of graduate programs in the same manner, and subject to the same regulations, as credits earned during the academic year.

The *Summer Bulletin* may be obtained by writing to the Director of Summer School, Office of Graduate Studies. Other quarterly schedules may be obtained by writing to the Office of Admissions and Records.

EVENING CLASSES

St. Cloud State University offers a number of graduate courses on campus during evenings of the regular school year. These courses may be used to satisfy graduate degree requirements.

Each quarter a listing of on-campus evening courses is published. Copies may be obtained by writing the Office of Admissions and Records.

PART-TIME EMPLOYMENT

There are many opportunities for students who desire part-time employment. A limited number of these are available on campus. The Office of Financial Aids will assist graduate students who need part-time employment.

Graduate students who carry the full academic load should not plan to devote any time to outside employment. In cases where it is necessary to devote time to outside employment, the student's academic load should be reduced accordingly.

A number of assistantships are available. Interested students should contact the chairperson of the major department for further information and details for application requirements. Stipends vary according to percentage of time devoted to the work assignment.

STUDENT LIFE AND DEVELOPMENT

LIVING ACCOMMODATIONS. Graduate students may contact the Housing Office, Carol Hall, St. Cloud, Minnesota 56301 to make application for on-campus housing. A contract and information regarding housing will be sent. Please complete and submit this material to the housing office. A \$25 room reservation deposit should accompany your housing application. Residents pay in advance quarterly for room and board and sign a contract for the entire academic year (exception - Shoemaker Hall is a room only contract with board option available.)

Graduate students recently accepted by the University will receive information from the Housing Office shortly after acceptance. We also assist graduate students in locating suitable off-campus housing. A listing file is maintained in the Housing Office. Students wishing to locate suitable housing in the community are requested to visit our office well in advance of actual need.

RESIDENCE HALL FACILITIES. Graduate students may request residence in the upperclass halls: Sherburne, Benton and Shoemaker. Most of the residence halls are of recent construction and include features and furnishings designed for comfortable, convenient living in an atmosphere conducive to academic achievement. All halls have areas set aside for study, activities, typing and laundry. The University furnishes the mattress, pillow, drapes, wastebasket, study desk, adequate study lighting, room chairs and closet space. Residents provide their own linen, blankets and bedspread for a twin size bed. Linen service may be purchased from a private launderer.

RATES AND AGREEMENTS. Room and board fees in residence halls are approximately \$1,245.00 per academic year for a double room. Charges for room and board are payable in advance by the quarter. Students may pay on a monthly basis if arrangements are made through the Business Office. Information about payment dates is included with each hall assignment.

All residence hall contracts for room and meals are for the full school year. The halls will be closed and no meals will be served during the days between quarters and during University holidays as listed in the graduate and undergraduate *Bulletins*. The reservation fee also serves as a damage deposit fee and is refunded when the student properly checks out of a residence hall. The damage deposit fee must be kept at \$25 while a student is in residence. The \$25 deposit will be forfeited unless the student notifies the Housing Office 60 days before fall quarter or 45 days before the beginning of winter or spring quarter of his/her intent to leave the campus.

Room and board charges are subject to change by the action of the State University Board. No discount is made for absences. Room without board is available for summer quarter students at \$100 each per term when two share a room and \$125 for a single room. Meals may be obtained a la carte at Atwood Center.

HANDICAPPED STUDENT SERVICES. Handicapped Student Services are designed to assist disabled students with their special problems. Students can receive assistance in typing, test taking, studying, and a variety of other areas. These services will be provided upon request in room 142 of Atwood Center or call 255-3111.

HEALTH SERVICE. Graduate students who pay student activity fees are eligible for the same health service privileges as the undergraduate students. Preventive and remedial health services are provided. These services include physical examinations, communicable disease control measures, some laboratory services, consultation concerning individual health problems, some hospital and medical care, and health education.

CO-CURRICULAR ACTIVITIES. Graduate students are invited to participate in undergraduate activities (including drama, orchestra, band, and vocal music groups) which do not involve intercollegiate competition.

The University has an intramural athletic department that offers all students opportunities to participate in recreational activities of an athletic nature.

The major programming agencies bring to the campus a variety of entertainment furnished by nationally recognized artists representing music, dance, drama, and lecture. The programs are financed by the student activity fee; there is no admission charge to any activity except the performing artists series and major pop concerts.

Opportunities for participation in student activities cover a large area of interest. Graduate students are urged to maintain a well-balanced co-curricular program to supplement their academic endeavors.

St. Cloud State University will not assume a liability for injuries or damage which may be sustained by individuals or their personal equipment while they are participating in any or all phases of the Intramural Program.

GRADUATE STUDY



GENERAL PURPOSES

The program of graduate studies is adapted to the increased maturity, the richer background, the stronger professional motivation, and the greater range of intellectual interests which characterize post-baccalaureate students who are accepted as candidates for the advanced degree at this university. The program is planned cooperatively by learner and teacher and is rooted in the important aspects of study which find focus in the recognition and definition of a problem, gathering of data, and interpretation and application of the learnings secured.

Emphasis is placed on directed reading, techniques of primary investigation, independent and constructive thinking. High standards of performance in the ability to organize and evaluate evidence and defend conclusions are required.

The purposes of graduate study at this university are:

- A. To increase the professional and academic competence of students who show promise of becoming superior workers. The programs are designed to meet the needs of those who wish to continue preparation in their major fields by extending and augmenting their professional and cultural understandings and skills.
- B. For students in professional education programs, to provide for the concentrated study of the more strictly professional phases of preparation for teaching, especially where the undergraduate program did not provide for those phases.
- C. To develop appreciation, attitudes, and understandings characteristic of educated persons.
- D. To provide some preparation and experience in research to the end that sensitivity to change and an attitude of intelligent inquiry may be fostered.

ADMINISTRATION OF THE GRADUATE PROGRAM

Administration of the graduate program is delegated by the President of the University to the Graduate Dean who meets with the Faculty Association Graduate Council to consider all policy matters affecting the programs of graduate study at St. Cloud State University. The Faculty Association Graduate Council consists of fifteen members elected on a prorated basis by graduate faculty members in the Colleges of Business, Education, Fine Arts, Industry, and Liberal Arts and Sciences.

The Faculty Association Graduate Council has the responsibility to discuss and recommend policy changes within the broad context of graduate education.

SUMMARY OF GRADUATE PROGRAMS

St. Cloud State University awards the following graduate degrees: Master of Arts, Master of Business Administration, Master of Science, and the Specialist degree. The Sixth Year Program is available in Educational Administration. The Fifth Year Program in Teacher Education is also offered.

THE MASTER OF ARTS DEGREE (M.A.) offers the candidate the opportunity to specialize in a particular subject-matter field. It is open to students with undergraduate liberal arts backgrounds as well as students who have completed teacher education programs. Programs of study leading to the

Master of Arts degree have been approved for the following majors: art, biology, English, history, and mathematics. All Master of Arts programs require a thesis, creative work, or starred paper(s). Information concerning the program requirements for a particular major may be found with the course offerings for the department.

THE MASTER OF BUSINESS ADMINISTRATION DEGREE (M.B.A.) program provides an opportunity for advanced study in the field of business management. This program is intended to provide students with analytical tools, knowledge of the functional areas of business, understandings of the business environment and opportunities for further study in business areas of particular interest. These areas might include accounting, management, finance, economics, marketing, or quantitative methods and information systems. Program requirements may be found on page 32.

THE MASTER OF SCIENCE DEGREE (M.S.) is designed to provide preparation in a variety of professional fields. Included are programs in accounting, community counseling, rehabilitation counseling, information media, early childhood and family studies, special education (TMR only), speech science, pathology and audiology and a wide range of teaching fields. Eligibility for the programs in teacher education is limited to students whose undergraduate preparation qualifies them for teacher licensure.

Early Childhood and Family Studies. This program centers around the study of young children in the context of parents and families. Students are provided with course work as well as practical experience with children and families. A pre-kindergarten teaching license is available along with majors in early education, administration, and special needs children. For detailed information see page 51.

Elementary Education. This program is designed to strengthen and broaden the academic and professional preparation of elementary classroom teachers. This program is available on Plans A, B, and C. For specific program requirements, consult page 105 of this bulletin.

Secondary School Curriculum and Instruction. Programs are available in both junior high and senior high school education. These programs are designed for teachers who are or plan to become career secondary school teachers. Special seminars and programs related to the junior and senior high school age students are included. Candidates are required to complete a concentration in subject-matter area(s). Two teaching fields are recommended for the junior high school program; one field is required for the senior high school program. Programs are available on both thesis and non-thesis plans. For specific program requirements, refer to page 107.

Secondary School Teachers. These programs are designed for teachers who desire to pursue specialization in a secondary teaching field. A minimum of an undergraduate minor is required for admission to most of the secondary majors at the graduate level. In some programs an undergraduate major is required for admission. Professional courses in foundations, curriculum and instruction are part of the program. Specialization is offered in the following areas: art, business education, English, geography, health and physical education, history, industrial education, mathematics, music, social science and physical science. A few of these programs are available under the thesis plan only. For detailed program requirements, consult the course and program listings under the major department.

Educational Administration. Programs are offered for elementary school principals, secondary school principals, school business managers, and community education directors. These programs have been approved by the Minnesota State Department of Education and are available under non-thesis plan only. For program requirements, applicants interested in the elementary principalship should consult page 58; those interested in secondary school principalship should refer to page 58; those interested in the community education program should refer to page 58.

Minnesota licensure requires the completion of the Specialist degree to qualify for the elementary and secondary school principalship as well as the school superintendency.

Library and Audiovisual Education (Information Media). The Master's degree program is available for holders of all baccalaureate degrees. With the current emphasis on all media formats the graduate program in information media has been developed to support persons in media for all levels of responsibility. Encompassed in the information media major are concepts dealing with print and non-print materials. Information media majors will become qualified for professional positions with library, education, business, government, and health fields. Programs also are available leading to licensure as a media generalist and media supervisor for elementary schools.

Reading Consultants. In addition to background courses, students enrolled in the program for reading consultants are given opportunities to practice in the analysis and correction of reading disabilities under supervised conditions. Successful completion of this program qualifies the person for licensure as a remedial reading teacher, developmental reading teacher, or reading consultant. This program is available on both thesis and non-thesis plans. Detailed program requirements may be found on page 67.

Special Education Personnel. The major in special education with emphasis in mental retardation, learning disabilities (SLD), or administration is available on both thesis and non-thesis plans. The thesis plan is primarily for students who have already met teacher licensure requirements and who desire advanced work. For students who are working for initial licensure the non-thesis plan is recommended. For program requirements, consult page 99.

Community Counseling. The community counseling program is designed to prepare counselors to work in a variety of roles in many different human services agencies. The student has the opportunity through consultation with his or her adviser to plan an individualized program of study. Both thesis and non-thesis plans are available. Program requirements may be found on page 92.

Rehabilitation Counseling. The rehabilitation counseling program is designed to prepare counselors to assist disabled individuals to the fullest possible mental, social, physical, vocational, and economic restoration. Thesis and non-thesis plans are available. For more detailed information on the program requirements, consult page 92.

Secondary School Counseling. The secondary school counseling program meets the basic licensure requirements of the Minnesota State Department of Education for counseling in grades 7-12. Formal course work is followed by an on-campus practicum and a field internship in a school setting. Available on Plan A or B. Program requirements may be found on page 93.

Speech and Hearing Clinicians. This program offers a combination of course work in the basic areas, seminars, clinical practicum, and research to qualify the graduate for the Certificate of Clinical Competence awarded by the American Speech and Hearing Association. Available on Plan A or B. An outline of the program and descriptions of course offerings can be found on page 103.

SPECIAL STUDIES PROGRAMS (M.A. or M.S.). The master's degree with a major in Special Studies is intended to meet the specialized needs of students whose educational or career goals can best be served by carefully designed programs which provide advanced study in two to three related academic disciplines. To be considered for approval, Special Studies programs must provide a clear focus on a field of study which combines the contributions of these academic disciplines in a multidisciplinary major.

To request consideration of a Special Studies program, the student must prepare a written proposal which contains the following elements: proposed title for the multidisciplinary major, a discussion of the contributions of the disciplines which would comprise the program, a preliminary list of potentially applicable courses, and a summary of the student's educational and career objectives, philosophy and background. Each Special Studies applicant will be interviewed by a four-member committee chaired and appointed by the Graduate Dean. The committee will review the program proposal and will make a recommendation based upon the appropriateness of the proposal as a field for graduate study, the availability of adequate curricular and other resources to insure a strong program, and the qualifications of the individual applicant.

For further information concerning application procedures and program requirements, contact the graduate dean.

THE SPECIALIST DEGREE is designed to serve a qualitative need for highly trained specialists in various fields. The emphasis in a Specialist degree program is placed on the development of competencies needed for a specific job category. A program for this degree is designed to meet the needs of students in professional areas where a master's degree is not sufficient. The program requires one full year of graduate study beyond a master's degree.

Specialist degree programs are offered by the Center for Library and Audiovisual Education and the Center for Educational Administration and Leadership. The graduate program offered by the Center for Library and Audiovisual Education in information media has been developed to support persons in media, library science and audiovisual education for all levels of responsibility. The Specialist degree program offered by the Center for Educational Administration and Leadership is designed for four distinct groups: the elementary school principal, the secondary school principal including the junior high school principal, the superintendent of schools, and administrator of special education programs. For information regarding specific requirements for the Specialist degree, consult the programmatic section of this bulletin for the major of your interest.

A sixth year program in school administration is also available. For further information, refer to page 60.

FIFTH YEAR PROGRAM IN TEACHER EDUCATION. A planned fifth year program is available for those teachers who do not desire to work for a master's degree or for those who do not otherwise qualify to work for a master's degree. Through careful advising, it is anticipated that the fifth year of work will be integrated with the first four years of the student's preparation. A minimum of 45 credits is required, about one-third of which must be taken at the graduate level. The minimum grade point average required for successful completion of this program is 2.25 (C+). For further details on the Fifth Year program, see page 30.

PROGRAM OPTIONS

- Masters:** Departments offering the Master's degree may provide one or more of three different options.
- Plan A:** Under Plan A, a master's thesis is required; however in some departments, a creative work alternative may be specified. Plan A requires a minimum of 45 credits including the credits earned for the thesis or creative work. A final oral examination is required.
- Plan B:** Under Plan B, a minimum of 48 credits is required. Some departments require one or more starred papers. Students completing Plan B programs without starred papers must complete a final written comprehensive examination. Students completing starred papers are required to complete a final oral examination and, at the option of the department may also be required to complete a final written comprehensive examination.
- Plan C:** Under Plan C, a minimum of 54 credits is required. Students under Plan C programs are required to complete a final oral examination focusing on a portfolio of projects and papers which are submitted in accordance with the requirements of the program. Students are encouraged to engage in a continuing planning process with their adviser to develop an acceptable portfolio of projects for the Final Oral Examination.
- Specialist:** All Specialist degree programs require a field study. Specialist degree programs require a minimum of 45 credits including the credits awarded for the field study.

Under each of the program options, the departmental requirements may exceed the minimum established as graduate school policy. Please review the departmental requirements and the sections on academic regulations and final evaluation procedure for additional information relating to the program requirements.

ADMISSION PROCEDURES

A student who wishes to pursue a program of graduate study at St. Cloud State University should contact the Dean, School of Graduate Studies, St. Cloud State University, St. Cloud, Minnesota 56301 for application materials. All application materials should be returned to the Graduate Studies Office far enough in advance of the proposed date of registration to allow adequate time for complete processing of the application prior to registration. The following materials are required:

1. Completed "Application for Admission to Advanced Study" accompanied by a \$10 non-refundable matriculation fee made payable to St. Cloud State University.
2. Recommendations. The Graduate Studies Office will send the required form to the references listed on the application form.
3. Official transcripts. Two copies of the applicant's official transcripts must be sent directly to the Graduate Studies Office by each college or university previously attended. Applicants who apply before receiving the baccalaureate degree will be required to submit supplementary transcripts showing that the degree has been conferred. **Transcripts which the student submits personally are not acceptable** (see Provisional Admission to Graduate School). Graduates of St. Cloud State University are not required to send transcripts of credit earned at this institution.
4. Entrance test score. Students seeking the Master of Arts degree, Master of Science degree, Sixth Year program, or the Specialist degree are required to take and submit official scores for the *Graduate Record Examination, Aptitude Test*. Advanced tests are required by many major departments. (See Admissions Test Information, page 19.) Students seeking the *Master of Business Administration* degree must take the *Graduate Management Admission Test*.

When all these materials are complete, the Graduate Studies Office will conduct the initial evaluation. Applicants who satisfy the requirements of the graduate school will be processed to the appropriate graduate department for their recommendation. Students should respond immediately to all departmental correspondence regarding their admission to graduate school. Following receipt of the departmental recommendation, the Graduate Studies Office will notify the applicant of the action taken on the graduate application submitted for admission. When an applicant is accepted for graduate study, an adviser will be assigned by the department. The adviser will help the student formulate a plan of study leading to the accomplishment of the student's objectives in pursuing graduate work.

For additional departmental admission information, students should refer to the appropriate departmental requirements and course listings.



ADMISSION POLICY

Admission to Master's Degree Programs. To be considered for admission to a master's degree program an applicant must have been granted a baccalaureate degree from an accredited college or university and have achieved a 2.60 grade point average over the last two years of undergraduate education (6 full quarters or equivalent) OR have achieved an acceptable score on the required entrance examination. All students, however, must furnish a score on the appropriate entrance test required.

Applicants who do not meet the standard admission requirements may be permitted to demonstrate their scholarship and qualify for acceptance by completing a limited program of graduate course work. Further information pertaining to this alternative may be obtained from the graduate dean.

Higher standards for admission to the degree program may be established by a department.

Applicants who hold a baccalaureate degree from an unaccredited college or university may be considered for acceptance to a master's degree program. A careful examination of the applicant's previous record and the entrance examination scores will be used as the basis for recommendation for admission. (Applicants who are admitted under these conditions will be re-evaluated upon completion of 12 graduate credits earned at St. Cloud State University.)

Admission to Specialist Degree Programs. To be considered for admission to a specialist degree, an applicant must have been granted a master's degree in the appropriate field from an accredited college or university. Test scores on the Graduate Record Examination Aptitude section are required. Two official transcripts of the applicant's undergraduate and graduate education should be sent directly from the granting institution to the Graduate Studies Office.

Specific grade point averages covering the master's degree program have been established for admission by each academic department which offers the Specialist degree program. Certain programs also require the Advanced Test of the Graduate Record Examination. See the program description under the appropriate departmental listings for the specific requirements.

Admission to the Sixth Year Program. The Sixth Year program is available only in educational administration. Admission to the program requires completion of a master's degree in educational administration or the equivalent with a grade point average of 3.00. The Graduate Record Examination Aptitude Test and Advanced Test in Education are required. Two copies of both the undergraduate and graduate transcripts should be sent directly from the granting institution to the Graduate Studies Office.

Provisional Admission to Graduate Study (Master of Science and Master of Arts degree programs only). If an applicant is presently in the final stages of undergraduate education and has achieved a minimum of 2.60 grade point average in the last 96 quarter hours of credit (or equivalent), provisional acceptance may be granted prior to being awarded an undergraduate degree and/or prior to completion of entrance test requirements. Two transcripts of the applicant's incomplete undergraduate record must be sent by the undergraduate school. Final transcripts must be submitted when the baccalaureate degree is completed. The required entrance test battery (GRE) must be taken prior to or during the first quarter of graduate work taken on this campus.

Students who are pursuing graduate course work under a provisional admission may be denied further registration for failure to fulfill the provisions of their admission.

ADMISSION TEST INFORMATION

Regulations for graduate education require that all students seeking a degree take either the Graduate Record Examination Aptitude Test or the Graduate Management Admission Test. Many departments also require the Graduate Record Examination Advanced Test in the major field. The following majors require the Advanced Test as indicated:

Major

Administration of Special Education
Biology
Community Education Administration
Curriculum and Instruction
Elementary School Administration
Elementary Teaching
English
Geography
General School Administration
History
Music
Reading Consultant
School Business Management Administration
Secondary School Administration

Advanced Test

Education
Biology
Education
Education
Education
Education
Literature in English
Geography
Education
History
Music
Education
Education
Education

These tests should be taken at least three months prior to the date the student intends to begin classes. Pre-registration directly with the Educational Testing Service is required several weeks in advance of test administration dates. Detailed information regarding the test and registration forms may be obtained from the Graduate Studies Office or from the Educational Testing Service, Box 955, Princeton, New Jersey 08541 or 1947 Center Street, Berkeley, California 94704.

An applicant who has taken the Graduate Record Examination more than five years prior to the date of application to graduate school will be required to repeat the examination.

TOEFL: Foreign Students. All foreign students whose native language is other than English must take the Test of English as a Foreign Language and request that the score be sent to the School of Graduate Studies. This score is submitted as evidence of the applicant's ability to utilize English as a language of instruction. Under normal circumstances a score of 575 is required on the TOEFL for admission to a graduate degree program.

The *Test of English as a Foreign Language* does not replace the *Graduate Record Examination* or the *Graduate Management Admission Test* entrance tests. The TOEFL is required of all foreign students in addition to the GRE or GMAT. When requesting information which pertains to the TOEFL, write to: Educational Testing Service, Box 899, Princeton, New Jersey 08540. For information on the GRE or the GMAT, write directly to: Educational Testing Service, Box 955, Princeton, New Jersey, U.S.A. 08540.

Foreign students are required to follow the same procedures for entrance into graduate school as all other applicants. For entrance and admission requirements to a master's degree program at this university, please read pages 17, 18, and 19 of this bulletin.

REGISTRATION

Registration procedures are established by the Office of Admissions and Records and published with the quarter or summer schedules.

Students intending to pursue course work toward a graduate degree who have not completed all admission requirements and who have not been formally accepted into a degree program must register as special students subject to all regulations of that category.

Late Registration. Students may, with permission, register within a period no longer than ten class days after a regular quarter begins or four class days after a summer term begins. For a regular quarter the late registration fee is \$5 after the third class day and \$2 for each succeeding day. For a summer term the late registration fee is \$5 after the third class day. Students may register for off-campus courses no later than the second class meeting. Late registration fees do not apply to off-campus courses.

A fee of \$2 is charged students who desire to alter their programs after classes begin. All fees and regulations are subject to change by action of the State University Board.

Special Student. This is a classification for those students who do not intend to pursue a graduate program at this institution or who wish to register for course work prior to their formal acceptance into a graduate program. A maximum of 9 credits earned as a special student or the credits completed in the first quarter of registration (whichever is greater) may be applied to a graduate degree program. Credit

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may be applicable to a degree program by meeting all requirements for admission to graduate study and submitting a petition to the Graduate Office. A special student will be admitted to classes only after degree students have been accommodated.

Special students are considered to be pursuing post-graduate study and are not classified as graduate students. However, only students who have completed a baccalaureate degree may register for graduate-numbered courses (500-600) as a special student.

Registration by Undergraduate Students. Undergraduate students who are in their last quarter and who have 12 quarter hours or less to complete for graduation from this university, may petition to enroll in graduate courses not to exceed the normal load. (Petition forms are available in the Graduate Office.) Approval of the petition will be based on the potential admissibility of the student to the graduate program. The maximum load permitted is 16 quarter hours of undergraduate and graduate credit combined. Only 9 quarter hours of graduate credit earned at St. Cloud State University prior to formal acceptance by the department to a graduate program will be permitted to apply toward completion of a master's or a specialist degree.

PROGRAM APPROVAL

Program approval is required for all master's and specialist degree candidates. Students are required to develop a program of studies which must be approved by the student's adviser and the Graduate Dean. Those students writing a thesis or field study must schedule a preliminary thesis or field study conference to obtain approval of the preliminary research outline.

Program approval may take place at any time after the student has been admitted to a graduate program, but prior to the completion of 24 credits applicable to the graduate program (including transfer credits). Each student must contact the Graduate Studies Office to request the program forms.

To be eligible, the student must have:

1. Satisfied all conditions attached to admission.
2. Satisfactorily completed the departmental examination(s). (Contact adviser of the Graduate Studies Office to determine if required.)

The Graduate Studies Office will review the student's record to determine eligibility for an approved program according to the criteria listed above, and notify the adviser of the student's status.

The student should develop a proposed program of course work in consultation with the assigned adviser, according to procedures established by the major department. The student should review the program requirements outlined in this bulletin. Upon being approved, all three copies of the program should be returned to the Graduate Studies Office by the adviser.

The Dean, School of Graduate Studies, will review the proposed program and give final approval. In cases where changes are required, before final approval is given, the Dean will consult with the adviser and the student.

Once the program has been approved, any deviation from it must receive prior approval of the adviser and the graduate dean through the petition process. These petitions for change are available in the Graduate Studies Office and must be submitted via the adviser to the Graduate Studies Office.

When the approved program is given final approval, the student will receive notification that it meets the requirements for the Master's or Specialist degree program.

FIELD STUDIES, THESES, CREATIVE WORKS, AND STARRED PAPERS

PRELIMINARY THESIS OR FIELD STUDY CONFERENCE. Students on Plan A (thesis) or the Specialist degree program must arrange for a preliminary thesis or field study conference. This conference may be scheduled at any time after the student has been fully accepted into a graduate program, but at least one quarter prior to the *Final Oral Examination*. In consultation with the student's adviser, an outline of the proposed thesis or field study shall be prepared and four copies submitted to the Graduate Studies Office two weeks prior to the time requested for the research conference. The student should then request the Graduate Studies Office to schedule a preliminary thesis or field study conference. The student's adviser, one other graduate faculty member from the major department, and one other graduate faculty member from a related field (approved by the Graduate Dean) shall comprise the faculty representation. These conferences are not held during final examination week.

PREPARATION OF THESIS OR FIELD STUDY. The following procedures and regulations govern the preparation of a thesis or a field study:

1. A master's thesis or a field study for the Specialist degree shall be carried out under the supervision of the research committee, appointed at the preliminary research conference, and

- consisting of the student's adviser, a graduate faculty member from the major department, and another graduate faculty member from a related department (approved by the Graduate Dean) chosen on the basis of his/her potential advisory value in the area of the research undertaken. This committee shall comprise the membership of the student's Final Evaluation Committee.
- Registration for a master's thesis or field study is completed in the same manner as all other course work; however, the credits for thesis or field study may be spread over more than one registration period. The student will be required to have an arranged course form signed by his/her adviser when he/she comes to register for the course. These can be obtained through the Admissions and Records Office. Consult the department program requirements and course lists for the correct course number and credits.
 - The satisfactory completion of the research will be reported as S (satisfactory). If all requirements for the research have not been met by the end of the quarter or term in which it was registered, the work will be reported as in progress. A master's thesis must be completed within the 7-year time limit set for the completion of a master's degree. A field study must be completed within the 5-year time limit set for the completion of a specialist degree.
 - Four copies of the thesis or field study, each containing an abstract, shall be filed with the Graduate Studies Office no later than three weeks before the completion of work for the appropriate degree. Before the material is submitted, it must have the approval of the respective committee. When the Final Evaluation Committee has approved the research in its final form, four copies shall be submitted to the Graduate Studies Office for binding. An additional thesis or field study is required if the student wants a personal copy. All copies shall be bound in black buckram covers, and the title shall be printed in gold lettering on the front cover and back edge.
 - Three additional copies of the abstract of not more than 400 words shall be submitted to the Graduate Studies Office; the abstract shall include the signature of the chairperson indicating approval before it is submitted to the Graduate Studies Office. All abstracts are reprinted and submitted for publication, and therefore, must follow the style sheet of the St. Cloud State University which is available upon request in the Graduate Studies Office.
 - The student should contact the Graduate Studies Office to obtain *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)*. This manual provides detailed information and instructions.
 - Standards for the preparation of field studies (for the Specialist degree), theses, creative works, and starred paper(s) are those published by the Graduate Studies Office, *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)*, and those embodied in *Form and Style in Thesis Writing* authored by William G. Campbell and Stephen V. Ballou, and published by Houghton Mifflin, unless otherwise specified by the department and approved by the Graduate Studies Office. When a conflict exists in standards, format, or style, the manual published by the Graduate Studies Office will take precedence over any other manual approved for department use.

CREATIVE WORK—Statement of Qualifications. A student interested in completing creative work (in lieu of the traditional master's degree thesis or as may be required by a specific department) must show evidence of creative ability before being accepted as a candidate for the advanced degree. This evidence submitted by the students from the departments of Art, English, and Music (creative projects, play-writing, performance or production, etc.) must be presented to a designated committee for critical review and approval. Four copies of the creative work shall be filed with the Graduate Studies Office at least two weeks prior to the date set for the *Final Oral Examination*. An additional copy of the creative work is required if the student wants a personal copy.

In certain areas of the fine arts, a student may be required to produce evidence of creative skill by submitting critical reviews, letters of recommendation, and/or demonstration(s). For further information, contact the appropriate department chairperson.

Qualifying Conference. A qualifying conference is held prior to the student's registration for the final 15 credits of work. The purpose of the conference is to serve as an evaluation of the creative work accomplished prior to the time of the conference and to provide direction for the final creative work.

Registration for Creative Work. Registration for a creative work (698) will take place in the same manner as for all other course work. These credits, however, may be earned over more than one registration period. (For grading information on creative works, see MARKS on page 24.)

STARRED PAPERS. Certain Plan B programs require that starred paper(s) be written in conjunction with approved graduate courses in the student's major area of concentration. These courses must be identified on the approved program forms. Four copies of each starred paper must be submitted to the Graduate Studies Office at least three weeks prior to the end of the quarter or term the student plans to

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graduate. These papers are submitted to the examining committee and form the primary basis for the Final Oral Examination. (There is no separate registration for starred papers.) An additional copy of the starred paper(s) is required if the student wants a personal copy. At the option of the department, candidates also may be required to complete a final written examination.

The *Final Oral Examination* must be held prior to final examination week. As with the thesis, the examining committee is composed of the student's major adviser, another departmental member, and a third member from a related field approved by the graduate dean. When a starred paper(s) has been approved and signed by the evaluation committee, it shall be filed with the Graduate Studies Office for binding and distribution.

Prior to typing the starred papers, the student should contact the Graduate Studies Office for detailed instructions for the preparation and filing of these papers.

The creative work includes a written statement of artistic intent and such supporting materials as are applicable. Other than form and style of the text, the binding of the contents of the creative work shall be in accordance with standard thesis requirements.

The statement of artistic intent may contain such information as a description of the work undertaken, the technique(s) involved in the work, and related subject matter. This information and data shall be approved, bound, and placed on file as described in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)* which is available in the Graduate Studies Office.

FINAL EVALUATION PROCEDURE

A candidate for the Master's and the Specialist degree shall complete the final evaluation during the last quarter of the graduate program. Students who have earned less than a 3.0 (B) average in the major and in all graduate credits earned shall not be permitted to complete the final examination.

The final evaluation procedures vary according to the program option selected.

Plan A: Thesis, creative work and field study options must satisfy the requirements under Plan A. For further information see the section titled *Final Oral Examination* which follows.

Plan B: Plan B programs are of two types:

Programs which require starred papers

Students completing these programs must complete a final oral examination. A final written examination may also be required at the option of the department. For further information about these examinations consult the sections titled *Final Oral Examination* and *Final Written Comprehensive Examination* which follow.

Programs which do not require starred papers

Students completing Plan B programs which do not require starred papers are required to satisfactorily complete a final written comprehensive examination. For further information, refer to the section titled *Final Written Comprehensive Examination* which follows.

Plan C: Students completing Plan C programs must complete a final oral examination over the portfolio of materials which have been developed in consultation with the adviser. A final written comprehensive examination may also be required at the option of the department. For further information see the section titled *Final Oral Examination* taking note of the special requirements pertaining to the Plan C portfolio, and if appropriate, the section titled *Final Written Comprehensive Examination*.

FINAL ORAL EXAMINATION. Final oral examinations are required of all students whose programs require the completion of a thesis, field study, creative work, starred paper(s), or the Plan C portfolio. The specific requirements vary according to the nature of the project submitted.

Theses and Field Studies: At least three weeks prior to the close of the quarter in which graduation is anticipated, the student must request the Graduate Studies Office to schedule a final oral examination. At this time four copies of the thesis or field study, each containing an abstract, must be submitted to the Graduate Studies Office for approval of the form and style.

The *Final Oral Examination* is conducted by the Final Evaluation Committee, consisting of three members. Membership shall consist of adviser, another graduate faculty member from the major department, and one graduate faculty member appointed by the Graduate Dean. A majority vote of the Final Evaluation Committee is required to pass the *Final Oral Examination*.

Theses and field studies shall be approved, bound, and placed on file as described in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)* which is available in the Graduate Studies Office.

Starred Papers: At least three weeks prior to the close of the quarter in which graduation is anticipated, the student must request the Graduate Studies Office to schedule a final oral examination. At this time four copies of the starred paper(s) must be submitted to the Graduate Studies Office for approval of the form and style.

The *Final Oral Examination* is conducted by the Final Evaluation Committee, consisting of three members. Membership shall consist of adviser, another graduate faculty member from the major department, and one graduate faculty member appointed by the Graduate Dean. A majority vote of the Final Evaluation Committee is required to pass the *Final Oral Examination*.

The starred paper(s) shall be approved, bound, and placed on file as described in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)* which is available in the Graduate Studies Office.

Creative Work: Arrangements for the *Final Evaluation Conference* must be made through the Graduate Studies Office. The *Final Evaluation Conference* must take place during the last quarter or term of the student's graduate program.

The Final Evaluation Committee shall consist of three members who shall judge the artistic merits of the creative work. Membership shall consist of two graduate faculty members from the appropriate department and an artist or authority selected from outside the University. Before an artist or consultant from outside the University is selected as a committee member, the Graduate Studies Office must grant approval. Approval must be obtained at least 30 days in advance of the *Final Evaluation Conference*. A form for this purpose is available in the Graduate Studies Office. A fourth voting member may be selected from another department within the University if deemed appropriate by the major adviser and/or the graduate dean.

Four copies of the creative work must be submitted to the Graduate Studies Office at least two weeks prior to the date of the *Final Evaluation Conference*. Final evaluation conferences are not scheduled during final test week.

The members of the Final Evaluation Committee must sign the approval page to indicate their acceptance of the creative work. Four copies of the final creative work must be submitted to the Graduate Studies Office and approved for binding. The creative work shall be approved, bound, and placed on file as described in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)* which is available in the Graduate Studies Office.

Plan C, Portfolio: At least three weeks prior to the close of the quarter in which graduation is anticipated, the student must request the Graduate Studies Office to schedule the Final Oral Examination. At this time the student must prepare a list of the projects to be included in the portfolio, together with a brief description of each item, and submit four copies to the Graduate Office. All materials to be included in the portfolio must be submitted to the student's adviser at least one week prior to the final examination.

The department may exercise its option to retain any or all materials prepared for the professional portfolio.

FINAL WRITTEN COMPREHENSIVE EXAMINATION. Candidates for the Master's degree under Plan B are required to pass a final written comprehensive examination based on the major. Final written comprehensive examinations may be required under all other program plans at the option of the department. This examination is developed, administered, and evaluated by members of the staff responsible for the major program. All candidates must notify their adviser of their intention to complete the *Final Written Comprehensive Examination* at the beginning of the quarter in which completion of all degree requirements is anticipated. The candidate's adviser is the chairperson of this examination committee, which is appointed by the department chairperson, and which shall consist of at least three members. A majority vote of the examining committee is required to pass the *Final Written Comprehensive Examination*. A candidate who fails in the first attempt may, with the approval of the adviser, take the examination a second time, but the candidate may not re-take the examination during the same quarter or summer term in which the exam was failed. A third chance to pass the examination shall not be permitted.

GRADUATION

APPLICATION FOR GRADUATION. A candidate for the Master's or the Specialist degree, the Sixth Year Program or the Fifth Year Program must file an application for graduation with the Dean, School of Graduate Studies, at the beginning of the quarter or term in which the work for the degree is anticipated to be completed. Deadline dates for application for graduation are listed in the Academic Calendar section of this bulletin. In addition, a certificate of readiness for graduation must be filed in the student's behalf by the adviser.

Candidates completing a Plan B master's degree program which requires the submission of starred papers should refer to paragraph three under *Final Oral Examination*.

SUMMARY OF REQUIREMENTS FOR GRADUATION. It is the responsibility of the graduate dean to certify that a student has met all the following requirements for the degree sought.

1. Application for graduation must have been submitted at the beginning of the quarter which the degree is to be granted.
2. The student must have satisfactorily completed all courses required on the approved program. All changes must be substantiated by an approved petition.
3. The student must have maintained a 3.0 (B) average in the major and in the total course work. For the Specialist degree in Educational Administration, a grade point average of 3.25 is required over the course work taken in the Specialist degree program.
4. The student must have satisfactorily completed the required final examination(s), written, oral, or both.
5. A student completing a thesis, field study, creative work, or starred paper(s) must have submitted four approved copies to the Graduate Studies Office for binding. Three additional abstracts must have been submitted by those completing a thesis or field study.

CONFERRING OF DEGREES. Degrees are conferred and commencement exercises held at the close of each quarter. While attendance at these exercises is not compulsory, students are urged to participate. Students will receive instructions from the Academic Affairs Office.

ACADEMIC REGULATIONS

CREDIT EARNED BEFORE ADMISSION. Only 9 quarter hours of graduate credit earned at St. Cloud State University prior to formal acceptance by the department to a graduate program, or the credits completed in the first quarter of registration (whichever is greater) will be permitted to apply toward completion of a master's or specialist degree. (Credits earned the first and second summer term are considered as one quarter of graduate work.) In unusual circumstances, credit earned in excess of these figures may be considered for approval by the graduate dean by the petition procedure.

COURSE NUMBERING SYSTEM. Courses numbered from 500-699 may be used to satisfy the requirements of graduate degrees. Many courses carry double numbers, e.g. 450-550. These courses are open to advanced undergraduate and to graduate students. To receive graduate credit, the student must register for the 500 number. Courses open only to graduate students are numbered 600-699.

COURSE LOAD. The normal student load is 12 credits per quarter. A student may be permitted to carry a maximum load of 16 quarter hours. Requests for permission to carry loads in excess of 16 credits per quarter will not be approved.

During the summer quarter (two terms), the normal load is also 12 quarter hours. The maximum credits which can be earned in both terms is 16 quarter hours. The maximum load in any one term is 9 quarter hours.

GRADUATE ONLY COURSE WORK. All master's degree programs require a minimum of 15 credits in 600-level courses in the major field of concentration. In addition, Master of Science degree programs must include a minimum of 24 credits in 600-level courses in the total program (including the 15 credits of 600-level courses required in the major).

MARKS. The following marks are used in reporting the achievement of graduate students at this institution: A (excellent), B (good), C (acceptable), and D and E (unsatisfactory or failure). S (satisfactory) and U (unsatisfactory) are used for certain specialized courses in which a more precise mark is not deemed appropriate. Other non-credit marks which are recorded on official transcripts include: I (incomplete), V (audit), W (withdrawn), and X (in progress).

When the student has completed all of the requirements for a master's thesis, creative work or a specialist degree field study, the adviser will submit a mark of S (satisfactory).

When a student who is otherwise doing satisfactory work in a course is unable, for reasons beyond control, to complete all course requirements during the term, a grade of I (incomplete) will be recorded. Such incompletes must be removed by the student within one quarter, except that an incomplete given in spring quarter must be removed by the end of the following fall quarter. If it is not removed within the time limit, the I (incomplete) is changed to E.

If the student has not met all of the requirements of a master's thesis or a specialist degree field study by the end of the quarter or term in which it was registered, the research will be reported as X (in progress). A master's thesis must be completed within the seven year time limit set for the completion of a master's degree. A field study must be completed within the five year time limitation set for a specialist degree.

STANDARD OF SCHOLARSHIP. Calculation of grade point averages is based on a 4-point scale in which A = 4, B = 3, C = 2, D = 1, and Fail = 0. S grades are not included in the calculation of the grade point average, however, U grades are included on the basis that U = 0. Marks earned in courses accepted in transfer are not included in the calculation of the grade point average.

Candidates for a master's degree must maintain a 3.00 grade point average in the major field, the total program, and all graduate course work taken at this university.

Candidates for a specialist degree in information media must maintain a 3.00 or higher average in the major field, the total program, and all graduate course work taken at this university. Candidates for a specialist degree in educational administration must earn a 3.25 grade point average over the course work taken in the Specialist degree program, and a 3.00 grade point average in all graduate course work taken at this university.

Candidates for the Sixth Year program in educational administration must earn a 3.00 grade point average over the course work taken in the program, and a 3.00 grade point average in all graduate course work taken at this university.

Courses in which a mark of D or E was earned will not be accepted for graduate credit; however, the honor point deficiency created by such marks must be made up by marks of A in other courses. If a course is repeated, both marks are used in determining the total grade point average.

The scholarship standards established for each program must be satisfied at each of three formal check-points for program completion; application for program approval, application to take the final examination(s) required for the degree, and for graduation.

Continued registration may be denied at any time during the program based on unsatisfactory scholarship.

Graduate students, accepted as candidates for the Master's or Specialist degree, whose records show less than a 3.00 average (3.25 for the Specialist in educational administration) at the completion of the approved program of courses may be permitted to register for a maximum of 8 additional quarter hour credits to be earned in courses approved by the petition procedure. If, after the completion of these 8 additional credits, the average is still less than a 3.00 (3.25 for the Specialist in educational administration), the student will not be allowed to take additional graduate level work for the purpose of raising the average mark to qualify for the Master's or Specialist degree.

RESIDENCE REQUIREMENT. Candidates for the Master's or the Specialist degree must earn a minimum of 30 quarter hours in on-campus classes (day and night combined). Graduate courses offered at resident centers established by the University are considered on-campus credit.

Individual departments may establish residence policies requiring a period of full-time study. Each student should consult with the major department to determine specific departmental requirements.

TRANSFER POLICY. A maximum of 15 quarter hours of graduate work completed at other accredited colleges and universities or extension credit earned from this University may be considered for application to the program. To be considered for transfer, the credits must have been residence credits earned at an institution approved to give graduate work at the time the credit was earned, must be appropriate to the student's program, must be approved by the adviser and the Graduate Studies Office, and must be recorded on the approved program forms. The student must request that two official transcripts be sent directly to the Graduate Studies Office by the institution awarding the credit. The grade recorded for these credits must be B or above. No transfer credit shall be accepted that was earned more than seven years prior to completion of the degree.

With the prior approval of the graduate adviser and the Graduate Dean, a maximum of 24 quarter hours of appropriate graduate credit may be transferred from the other Minnesota state universities (Bemidji, Mankato, Moorhead, Southwest, Winona) and applied to a program at St. Cloud State University.

When transferring credit to a specialist degree program, a minimum of 30 of the last 45 credits must be taken at this institution.

After the student's program of study has been approved, no additional transfer credits will be accepted unless the student has received prior approval via the petition process.

ANY QUESTIONS OR CONCERNS ABOUT THE TRANSFERABILITY OF CREDIT EARNED AT OTHER INSTITUTIONS SHOULD BE DIRECTED TO THE GRADUATE OFFICE BEFORE A STUDENT ENROLLS FOR THAT CREDIT.

TIME LIMIT. All credits (including transfer credits) used in meeting requirements for a master's degree must be earned within seven years prior to the awarding of the degree.

All credits used in meeting the requirements for the Specialist degree must be completed within the five-year period prior to the awarding of the degree.

DROP POLICY. A student may change registration for course work prior to the start of classes. These withdrawals will not be recorded on the student's record.

To determine the last date on which students may withdraw with a mark of W, the student should check the appropriate regular or summer class schedule.

INDEPENDENT STUDY. Each department offers independent study opportunities for advanced students wishing to pursue a special problem in the major area of concentration. These courses carry the designation: (name of department or program) **600, Special Problems**. A maximum of 4 credits of special problems will be permitted on a graduate degree program.

WORKSHOP LIMITATION. Workshop courses may be applied to graduate degree programs within the following limitations:

Master of Arts/Science	Sixth Year program
Plan A—6 workshop credits	9 workshop credits
Plan B—9 workshop credits	Fifth Year program
Plan C—15 workshop credits	15 workshop credits
Specialist degree	
6 workshop credits	

Workshops which are covered by this regulation include permanent workshops which carry a special department number, temporary workshops which carry 595 or 695 numbers, and continuing education workshops which carry a 588 number and which require special approval for inclusion in a degree program.

501 CREDIT BY ARRANGEMENT. Under certain circumstances, upper division courses (300 or 400-level) may be applied to master's degree requirements. To obtain approval, the student must submit a petition for approval by the instructor, the adviser, the department chairperson, and the graduate dean prior to registering for the course, and the student must make arrangements to complete the special graduate requirements of the course.

Students who receive approval must register for (name of department or program) 501 (title of course).

A maximum of 9 credits earned under the 501 course number may be applied to a master's degree program.

This procedure is open only to students admitted to a graduate degree program.

FIELD TRIPS. No more than 9 credits earned through field trips may be counted toward completion of a master's degree. If field trips are registered as Independent Study 600, no more than 4 credits will be applicable to a degree program.

AUDIT. Students may enroll for courses for audit by securing the permission of the instructor of the course and the Dean, School of Graduate Studies. Auditors pay the regular fees.

Auditors are not permitted to take the course examinations nor will they be given credit for the courses audited. They must complete a separate registration and pay the regular course fees.

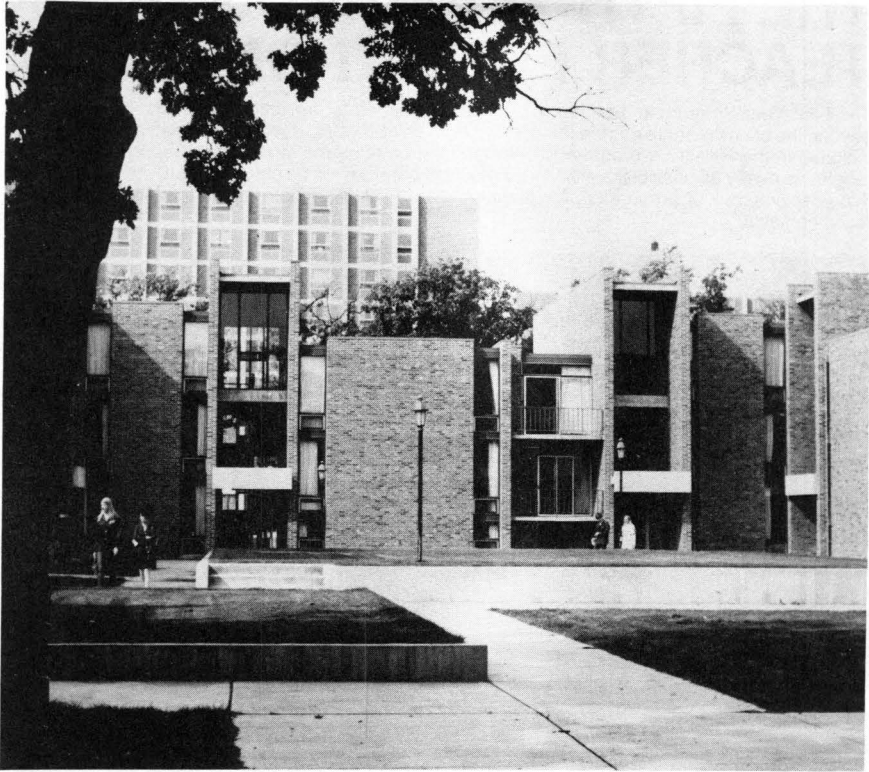
CORRESPONDENCE COURSES. Graduate correspondence courses are not offered by St. Cloud State University. Graduate credit earned through correspondence will not be accepted in transfer.

GENERAL STUDIES CORE. Some Master of Science degree programs require 9 credits in general studies. All general studies courses must be selected from disciplines other than the undergraduate major or minor, the graduate major and professional education.

A. A minimum of 6 credits must be taken in the following General Studies Core:

- BIOL 602 Modern Biological Concepts, 3 Cr.
- CHEM 601 (PHYS 601) Major Developments in Physical Science, 3 Cr.
- ED 610 The School and the Social Order, 3 Cr.
- ENGL 696 Literary Heritage, 3 Cr.
- IND 601 Technology and the Individual, 3 Cr.
- IM 604 Information Media in Society, 3 Cr.
- MUSM 620 Music in Western Civilization, 3 Cr.
- PHIL 542 History of American Philosophical Thought, 4 Cr.
- PSY 621 Psychology in Human Affairs, 3 Cr.
- SSCI 630 Problems in the Social Science, 3 Cr.

B. If the student elects to take the additional 3 credits in an area outside the General Studies Core, the course must be selected from disciplines other than the undergraduate major or minor, the graduate major, and professional education.



PROFESSIONAL EDUCATION CORE (Secondary Majors)

The basic intent of the Professional Education Core is to include one course from each of three broad professional education areas: educational foundations, curriculum, and instruction.

Courses presently approved for each of these areas include:

Educational Foundations

- ED 604 Organizational Development and the Teacher, 3 Cr.
- ED 605 The Adolescent and the School, 3 Cr.
- ED 606 Problems in American Education, 3 Cr.
- ED 607 The Student, the Teacher and the Law, 3 Cr.
- ED 609 Comparative Education, 3 Cr.
- ED 610 The School and the Social Order, 3 Cr.
- ED 611 History of American Education, 3 Cr.
- ED 612 Philosophy of Education 3 Cr.
- ED 632 Senior High School Seminar, 3 Cr.

Curriculum

- ED 625 Junior High School Seminar, 3 Cr.
- ED 647 Secondary School Curriculum, 3 Cr.
- ED 648 Curriculum Construction, 3 Cr.
- ED 649 Practicum in Curriculum Construction and Development, 3 Cr.

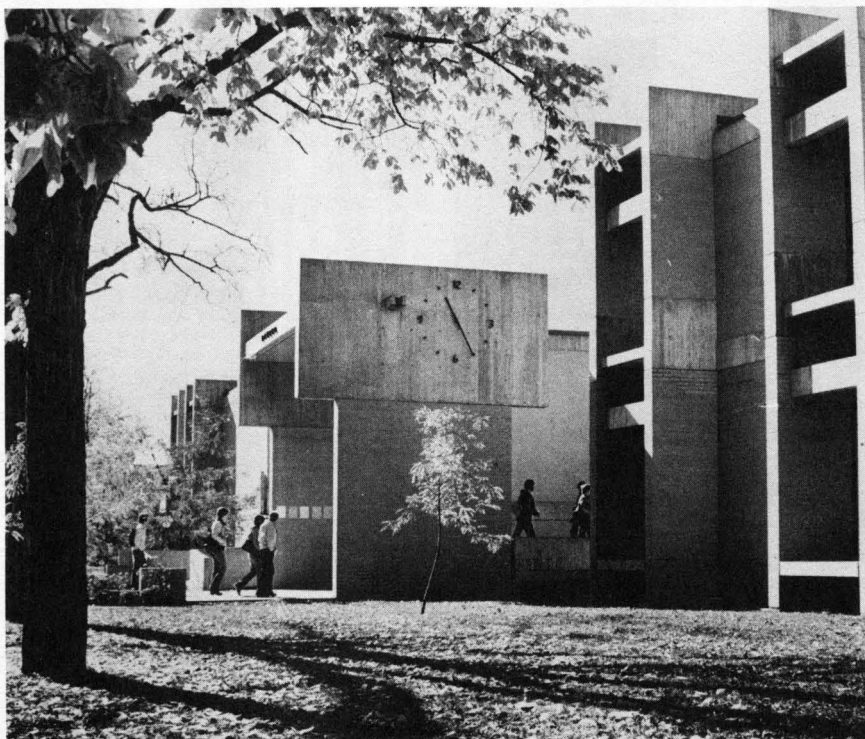
Instruction

- ED 624 Junior High School Theories and Practices, 3 Cr.
- ED 628 Modern Trends in Secondary Education, 3 Cr.
- ED 631 Senior High School Theories and Practices, 3 Cr.
- ED 654 Improvement of Secondary School Instruction, 3 Cr.
- ED 655 Teaching Strategies for Practitioners, 3 Cr.

Other courses may be approved for professional education with the prior approval of the secondary education adviser and the graduate dean.

THE FIFTH YEAR PROGRAM IN TEACHER EDUCATION

The Fifth Year Program in Teacher Education is intended to provide a systematic basis for study beyond the baccalaureate degree for teachers who do not plan to qualify for a master's degree. Work included in the Fifth Year program is selected to strengthen the student in area(s) taught or to be taught. As nearly as possible, a student's Fifth Year program will be planned to provide an integrated five-year program of preparation for teaching. The Fifth Year program is available in nearly all teaching fields.



ADMISSION. Students seeking admission to the Fifth Year program must complete the application form and submit it to the Graduate Studies Office. They must also make arrangements to have two official copies of the undergraduate transcript sent from the college or university where the work was completed to the Graduate Studies Office. All transfer work must be substantiated by two copies of official transcripts sent from the college or university where the work was taken.

An applicant will be granted admission to the Fifth Year program if a baccalaureate degree is held in teacher education from a college or university accredited by the National Council for Accreditation of Teacher Education, or the appropriate regional accrediting agency, or from an institution recognized by the state university of the state in which the college or university is located.

If the applicant holds a baccalaureate degree from an unaccredited institution, admission to the Fifth Year program may take place upon the submission of evidence that a valid teaching license is held in the state where the applicant teaches; and upon successful completion of 15 quarter hours of creditable work at this university.

Upon formal admission to the program, the student will be assigned an adviser. The adviser will assist in planning a program that has clear relevance to professional goals of the student.

PLANNING THE FIFTH YEAR PROGRAM. Before completion of 16 quarter hours of course work on the Fifth Year program, the student, with counsel from the adviser, must outline the courses to be completed to meet the Fifth Year program requirements. The necessary forms may be obtained from the Graduate Studies Office or the student's adviser. The program forms must be prepared in triplicate. After the adviser has endorsed each of the three copies, the student will send them to the Graduate Studies Office for processing and distribution. One copy will be placed in the applicant's file in the Graduate Studies Office; one copy will be returned to the adviser; and the third copy will be sent to the applicant. Any subsequent changes in the applicant's Fifth Year program must have the prior approval of the student's adviser and the Dean, School of Graduate Studies via the petition process. In order to complete the Fifth Year Program, the candidate must have met the following requirements:

1. The student must have earned a minimum of 45 quarter hours of creditable work: in secondary school programs, 15 of these credits must have been taken in courses open only to graduate students; in elementary school programs, 15 of these credits must have been taken at the graduate level.
 - a. The student must have earned a minimum of 33 quarter hours in the major and related areas.
 - b. The student must have earned a minimum of 9 quarter hours in professional education.
 - c. The student must have taken ED 614, Interpretation of Research, 3 Cr. or ED 615, Introduction to Research, 3 Cr.
2. At the beginning of the term or quarter when the student plans completion of the required course work, an application for graduation must be filed with the Dean, School of Graduate Studies. In addition, a certificate of readiness for graduation must be filed in the student's behalf by the adviser.

CREDITS APPLICABLE. Of the 45 credits required to complete the program, a minimum of 15 credits must be earned in residence at St. Cloud State University.

A combined total of 30 extension, transfer, T.V. and tour credits with marks of C or better may be accepted on the Fifth Year program; however, not more than 15 credits will be accepted in transfer.

- A. Graduate and advanced undergraduate credits earned at other accredited colleges and universities after the awarding of a bachelor's degree (maximum, 15 credits).
- B. Extension from St. Cloud State University (maximum, 15-30 credits).
- C. Tours and T.V. (maximum, 9 credits).
- D. Workshops (maximum, 15 credits).

COURSE LOAD. The maximum load for fifth year program students is 16 credit hours per quarter.

COURSE NUMBERING SYSTEM. Courses numbered in the 300, 400, 500, and 600 series are creditable in the Fifth Year program. Courses carrying numbers in the 100's and 200's may not be included in this program.

FEES. Students enrolled in the Fifth Year program will pay undergraduate fees when they enroll in undergraduate (300- and 400-numbered) courses and graduate fees when they enroll in 500- or 600-numbered courses.

MARKS. The academic achievement of students is recorded by the following system of marks: A (excellent), B (good), C (average), D (not acceptable), and E (failing). The mark X is given during the early quarter or quarters of a course which must be taken in a series of more than one quarter or sessions before any credit is earned. S means satisfactory performance in courses for which no more precise mark is generally available. U means unsatisfactory. Courses not completed during the regularly scheduled period will be recorded as I (incomplete). Such incompletes must be removed by students within the next quarter in order to receive credit for the course. For auditing, the mark recorded will be V.

STANDARD OF SCHOLARSHIP. Candidates for the Fifth Year program must maintain a grade point average of at least 2.25 in the major and in the total program.

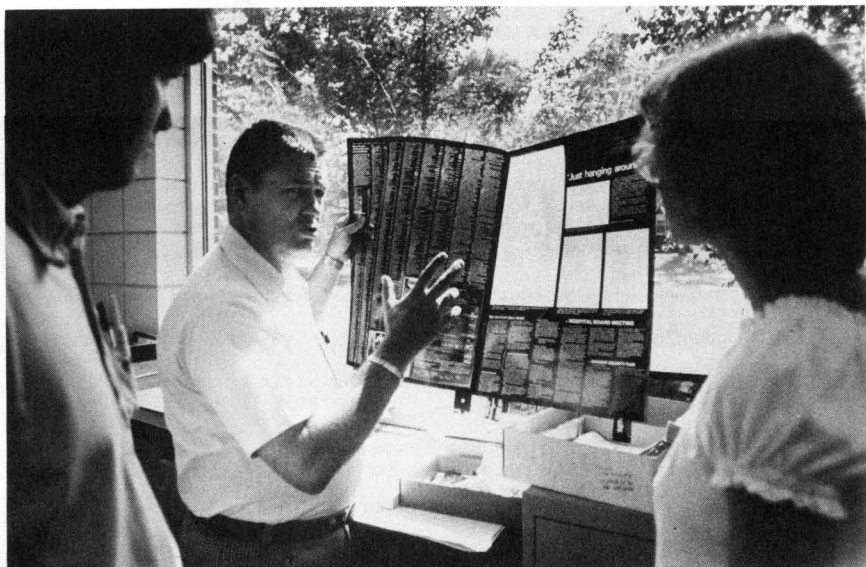
Courses in which a mark of D or E was earned will not be credited toward completion of the Fifth Year Program.

A fifth year student may repeat one time a course which was failed or in which a D was received. When a course is repeated, both the old and the new marks will appear on the student's record. Both marks earned will be used in computing the grade point average.

Only courses taken at St. Cloud State University are used in computing the grade point average.

TIME LIMIT. All credits used in completing the Fifth Year program must be earned within 10 years of the completion of the program.

COMPLETION OF THE FIFTH YEAR PROGRAM. The satisfactory completion of an approved Fifth Year Program in Teacher Education is verified by an appropriate statement on the transcript.



ALL UNIVERSITY COURSES

EDUCATIONAL TOURS

(Name of Department or Program) **510 Educational Tours.** Tours taken under supervision of the University. Exact nature of course will be defined by the department or program involved, subject to approval of the administration. 1-8 Cr.

EXPERIMENTAL COURSES

Departments may offer graduate courses on an experimental basis. Proposals for these courses must contain a syllabus with a title and description for the student's record and be approved through the curricular process as established by the Faculty Association and the administration on October 29, 1976.

Double-numbered courses are assigned numbers by the department from those available at the 400-500 level. Graduate only courses are assigned numbers from the block set aside for this purpose. (Name of Department or Program) **690-694. Selected Topics in** (Name of Department or Program): (Select special title for each offering). 1-4 Cr.

INDEPENDENT STUDY

600. Special Problems. Independent study for advanced students wishing to work out a special problem in the major area of concentration. 1-4 Cr.

TEMPORARY WORKSHOPS

Temporary workshops are of two types.

(Name of Department or Program) **595 and 695** (Special title for each offering). Area limited and specific subjects selected before workshop is announced. These workshops are intended to support established degree programs and may be included on a student's approved program within the workshop limitations established for each program option. (See Academic Regulations.)

(Name of Department or Program) **588** (Special title for each offering). Area limited and specific subjects selected before workshop is announced. These workshops are designed to meet the needs of graduate students for continuing education or enrichment. Workshops numbered 588 may be included as a part of the graduate degree only with the specific approval of the adviser and the graduate dean. This approval may be obtained either by inclusion of the course at the time of program approval or through the petition process.

COLLEGES



College of Business

James G. Marmas, Dean
Wayne G. Little, Associate Dean
David D. Krueger, Graduate Programs Coordinator
124 BUSINESS BUILDING/255-3212

DEPARTMENTS OFFERING GRADUATE DEGREE PROGRAMS

Accounting
Management and Finance
Marketing and General Business
Quantitative Methods and Information Systems
(Joint program leading to the M.B.A.)
Business Education and Office Administration
Business Education, M.S.

OBJECTIVES

Master of Business Administration (M.B.A.)

The purpose of the Master of Business Administration degree is to develop qualified business administrators for positions of management responsibility in a changing society. Specifically, the M.B.A. program is designed to prepare graduates who have attained:

- A. a comprehension of policy formulation and implementation.
- B. an awareness of environmental forces effecting the firm.
- C. a comprehension of the use of quantitative data and analytical techniques as they pertain to business administration.
- D. a working knowledge of the functional areas in business.
- E. the capability to communicate effectively, both orally and in writing.

Master of Science—Accounting (M.S.)

The Master of Science degree in accounting is oriented to those students who desire advanced education in accounting. The goal of the program is to prepare graduates who will have the special skills required to meet the needs of the accounting profession. These skills include:

- A. financial accounting theory and practice.
- B. auditing theory and practice.
- C. tax accounting.
- D. managerial accounting.
- E. professional research.
- F. communication skills.
- G. management advisory services.

Master of Science—Business Education (M.S.)

The Master of Science degree in business education is designed to:

- A. provide a comprehensive understanding of the field of business education.
- B. develop a working knowledge of the functional areas of business and education.
- C. integrate teaching methods and knowledge of subject matter content with an awareness of research to develop instructional and administrative skills in business education.
- D. expand communication capabilities, both written and oral.

MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

Admission Policy. The applicant for admission to the Master of Business Administration program must meet the following requirements:

1. a baccalaureate degree from an accredited college or university.
2. an acceptable score on the Graduate Management Admission Test (GMAT).
3. evidence of undergraduate scholarship.
4. demonstration of aptitude for successful graduate business study.

Admission is competitive and selection is based on an evaluation of the total factors. Information about the GMAT can be obtained at the Graduate Studies Office.

The candidate for the Master of Business Administration degree must satisfy the requirements for all master's degree programs as set forth by the School of Graduate Studies.

Applicants who have successfully met admission requirements may enroll in the M.B.A. program as full-time day students or on a part-time basis in evening courses. Full-time students should also expect to complete part of the program in the evening.

PHASE I - M.B.A.

M.B.A. candidates admitted into the program must have completed the equivalent of the following foundation courses before starting Phase II graduate courses:

MBA 242. Quantitative Analysis for Business. Selected topics from the quantitative methods area with major emphasis on applications in business. (For admitted graduate students only.) Prereq.: MATH 131 or equivalent. 4 Cr. F.



MBA 285. Financial Control. External and internal financial reporting systems and their role in planning, control, and evaluation of management action. (For admitted graduate students only.) 4 Cr. F.

MBA 369. Management of Organizations. Analysis of integrated organizational relationship concepts as they relate to organization change and as these relationship theories are applied. (For admitted graduate students only.) 4 Cr. S.

ECON 659. Business Analysis. Relevance of economic analysis to business decision-making. Demand, cost, capital and profit analysis and the theory of the firm. (For admitted graduate students only.) 4 Cr. F.

QMIS 250. Data Processing for Business. Role of the computer in information processing; components of a computerized business information center; manipulating, storing, and transmitting computerized information; tools for analysis and planning computer programs; introduction to procedure-oriented languages; and programming projects. 4 Cr. F, W, S, SUM.

MKGB 235. Business Law. Policy and rationale of the legal process, contracts, and sales. All law offerings emphasize the features of the legal system. 4 Cr. F, W, S, SUM.

MKGB 320. Introduction to Marketing. Analysis, planning and control of marketing functions viewed as a total operating system. 4 Cr. F, W, S, SUM.

MGMF 363. Production Management. Transformation of inputs (material-labor-management-capital) into outputs (goods and services) in manufacturing organizations; management, design, analysis, and control of production systems. 4 Cr. F, W, S, SUM.

MGMF 371. Managerial Finance. Financial analysis and methods involved for financing various enterprises. 4 Cr. F, W, S, SUM.

QMIS 441. Operations Research I. Deterministic models such as assignment problems, transportation problems, problems of traveling sales representatives, linear programming, dynamic programming and inventory models. Prereq.: MBA 242. 4 Cr. F, W, S, SUM.

Courses used to satisfy Phase I requirements may not be used to reduce the course requirements under Phase II. An average of B or above is required for course work taken in Phase I.

PHASE II M.B.A.

1. The following 40 quarter credits must be completed by all M.B.A. students. These courses are open to admitted M.B.A. students only.

MBA 629. Marketing Plans and Decision-Making. Analysis and planning for decision making in marketing; development of consumer oriented policy in the areas of product, price, logistics, and promotion. Not to be taken by undergraduate marketing majors. 4 Cr. S.

MBA 632. Decision-Making Techniques. Theory of business decision-making. Applications of analytical tools to business problems. Case study. 4 Cr. F.

MBA 634. Legal and Social Foundations of Business. Case study of business as it is affected by law and social pressures and needs. 4 Cr. F.

MBA 663. Production and Operations Management. Case studies of companies from selected industries that emphasize the direction of operating systems comprising people, material, facilities and information that create goods and/or services. 4 Cr. W.

MBA 670. Corporate Strategies. Analyses, case studies and outside readings in contemporary management problems. (This course must be taken in the last quarter of the M.B.A. program.) 4 Cr. F, S.

MBA 671. Financial Management Policy. Problems confronting corporate financial management in analyzing financial requirements. Prereq.: ECON 677 or permission of instructor. 4 Cr. S.

MBA 673. Management of Human Resources. Analysis of principles applicable to problems arising out of individual and group employment relations; theories of selecting, developing, motivating, and accounting for human resources. 4 Cr. W.

ECON 677. Business Economics. Economic analysis as an aid in business management and control. 4 Cr. W.

MBA 683. Managerial Accounting. Development of cost functions, cost-volume-profit relationships, performance measurement and evaluation and the allocation of scarce resources as an aid to the internal decision-making process. 4 Cr. W, SUM.

MBA 684. Corporate Financial Reporting. Accounting systems and their role in the valuation of assets, the determination of income, and the measurement of equities with concentration on the interpretation of published accounting statement. 4 Cr. F.

2. In addition to the required courses outlined above, the candidate must elect with the adviser's approval 8 graduate quarter credits. The candidate may use these electives to develop a concentration in one or more of the following areas:

- | | | |
|---------------|--------------|---|
| 1. Accounting | 3. Finance | 5. Quantitative Methods & Information Systems |
| 2. Management | 4. Marketing | 6. Economics |

The M.B.A. program will require graduate students to complete a minimum of 48 quarter credits with an average of B or above.

Course listings appropriate to this section may be found in the following departments: Accounting, Management and Finance, Marketing and General Business, Quantitative Methods and Information Systems, and Economics.

Scheduling Plan

The following course sequence is recommended:

	Phase I*		Phase II*	
Fall	MBA 285	Fall	MBA 632	MBA 634
	MBA 242		MBA 684	Elective
	ECON 659	Winter	MBA 683	MBA 663
	MKGB 235		ECON 677	MBA 673
Winter	MGMF 371	Spring	MBA 629	MBA 670
	QMIS 441		Elective	MBA 671
	QMIS 250			Comprehensive Exams
Spring	MGMF 363			
	MBA 369			
	MKGB 320			

Candidates should make every effort to complete Phase II in the order suggested. In no case shall a student enroll in any 600 level course unless prerequisites have been met.

***Students enrolled as full-time students may complete the M.B.A. program in two years or less, depending on the number of Phase I requirements completed prior to admission.**

MASTER OF SCIENCE (M.S.)

For information on the Master of Science degree program with a major in accounting, see the Department of Accounting, page 39. For information on the Master of Science degree program with a major in business education, see the Department of Business Education and Office Administration, page 48.

College of Education

Kenneth A. Ames, Dean
A110 EDUCATION BUILDING/ 255-3023

DEPARTMENTS AND CENTERS OFFERING GRADUATE DEGREE PROGRAMS

Center for Educational Administration and Leadership, M.S. and Specialist
Center for Educational Change
Early Childhood and Family Studies Program, M.S. Also see Human Relations
Health, Physical Education and Recreation, M.S.
Center for Library and Audiovisual Education
Information Media, M.S. and Specialist
Psychology
Counselor Education Programs, M.S.
Special Education, M.S.
Teacher Development
Curriculum and Instruction - Junior High School
Education Program, M.S.
Curriculum and Instruction - Senior High School
Education Program, M.S.
Elementary Education Program, M.S.
Reading Consultant Program, M.S.

OBJECTIVES

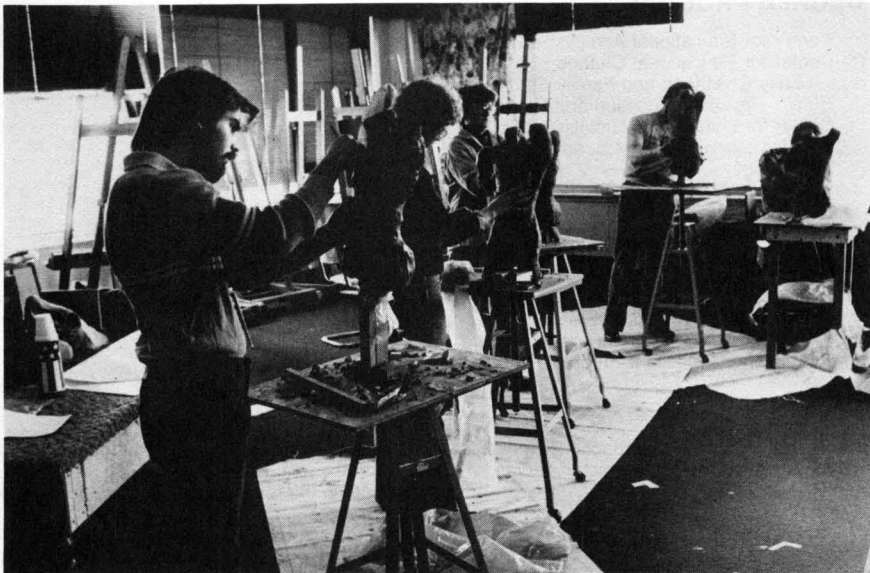
The College of Education proposes to meet today's educational needs as well as the broader, related needs of the communities which it serves. In concert with the total University mission, the faculty, administration, and staff of the College of Education endorse the following goals as guides to the development and implementation of programs and services.

- 1) We shall continue to strive for excellence in education, committed to the total human development of all participants within the context of respect for the academic freedom and individual rights of staff, students, faculty, and administration of the College.
- 2) We shall pursue excellence in education by accepting the challenge and responsibility of research and by supporting the design, experimentation, implementation, and evaluation of educational programs and services.
- 3) We seek the development of educational programs and services designed through the collaborative efforts of faculty, students, administration, and appropriate advisory personnel.
- 4) We shall place emphasis on the development of educational environments characterized by open communication, trust and cooperation among students, staff, faculty, and administration.
- 5) We place high value on the concept of life-long learning and will support the concept as a vital consideration for all persons involved in college programs and services.
- 6) We shall continue to emphasize the development of excellent programs of study generally characterized by an integration of theory and practice, programs providing well-balanced learning experiences, taking advantage of technological advances in the systematic design and delivery of instruction.
- 7) We shall seek to enhance the quality of our educational programs and services by encouraging the exchange of talents and ideas between college personnel and various community groups and agencies.
- 8) We shall foster and provide for educational evaluation, research and service activities; it is imperative that these activities be maintained both within the College as well as in relationship to area educational and community agencies which are vital to the improvement of programs and services, and to the general improvement of the quality of life for all those persons involved in or affected by those programs and services.
- 9) We shall continue to provide academically rigorous pre-service, continuing education, and graduate programs of study for the preparation of such personnel as elementary and secondary school teachers; counselors; administrators; teaching specialists (e.g., special

educators, information media specialists); non-degree orientated community persons; community-based persons in programs such as health, recreation, and psychology; persons interested in the helping services; coaches of athletics; persons interested in the study of psychology.

10) We support programs of an all-university nature.

In addition to the courses and activities offered to support the programs available through departments and centers in the College of Education, there are also some courses offered as service courses to programs available through other departments in the University.



College of Fine Arts

William Bunch, Dean

111 KIEHLE VISUAL ARTS CENTER/255-3093

DEPARTMENTS OFFERING GRADUATE DEGREE PROGRAMS

Art, M.A. and M.S.

Music, M.S.

DEPARTMENTS OFFERING SUPPORTING GRADUATE COURSES

Theatre

OBJECTIVES

Graduate programs in the College of Fine Arts serve differing kinds of needs: the needs of persons preparing for professional careers in one of the arts; the needs of certified elementary, secondary, vocational or junior college teachers preparing to specialize in an art; the needs of graduate students preparing for a career in research and teaching on the university level; and the needs of college and university graduates who wish to continue their personal or professional development. The College stresses high performance capability in a graduate specialization built upon a wide undergraduate base.

College of Industry

A. A. Lease, Dean
216 HEADLEY HALL/255-3137

DEPARTMENTS OFFERING GRADUATE DEGREE PROGRAMS

Industrial Education, M.S.

DEPARTMENTS AND CENTERS OFFERING SUPPORTING GRADUATE COURSES

Center for Driver and Traffic Safety
Technology and Industrial Engineering

OBJECTIVES

Among the goals of the College of Industry is a commitment to provide graduate programs and post-graduate courses in an effort to support specific professional preparation for graduate students, and to provide broadly based courses for persons who are interested in being informed and be able to take an active part in the technological/educational world in which they live. Life-long learning is recognized as a requisite for continued professional and personal growth, as well as being a catalyst for helping to solve the problems of a dynamic society.



College of Liberal Arts and Sciences

Louise H. Johnson, Dean
Jonathan N. Lawson, Associate Dean
101 WHITNEY HOUSE/255-2192

DEPARTMENTS OFFERING GRADUATE DEGREE PROGRAMS

Biology, M.A. and M.S.
Chemistry
 Physical Science Program, M.S.
Economics
 Social Science: Economic Education Program, M.S.
English, M.A. and M.S.
Geography, M.S.
History, M.A. and M.S.

Interdisciplinary Studies
 Social Science Program, M.S.
 Also see American Studies, Social Studies
Mathematics and Computer Science
 Mathematics Program, M.A. and M.S.
Physics
 Physical Science Program, M.S.
Speech Science, Pathology and Audiology, M.S.

DEPARTMENTS OFFERING SUPPORTING GRADUATE COURSES

Earth Sciences
Foreign Languages and Literature
Mass Communications
Philosophy

Political Science
Sociology, Anthropology and Social Work
Speech Communication

OBJECTIVES

Through its 17 departments, one center, and many interdepartmental programs, the College of Liberal Arts and Sciences provides education in a variety of professional skills at the post-graduate and graduate levels. It is our purpose to prepare students to assume various roles in society and provide them with the skills and knowledge necessary not only for useful and gainful employment or further graduate study, but also for an understanding of the varieties of the human condition, its experiences, and its possibilities.

As in its undergraduate programs, the College of Liberal Arts and Sciences strives to:

1. Foster independence of thought by encouraging an analytical attitude toward ideas and ways of doing things.
2. Promote innovative thinking and the acceptance of both continuity and change as two fundamental principles that guide the life of any society.
3. Provide the foundation of knowledge and learning so necessary if both criticism and innovation are to be serious, well-considered, and responsible.
4. Develop broader perspectives on the issues affecting the student's personal life, community, nation and world so he may act with the wisdom and civility that should be the hallmark of a democratic society.
5. Educate the student in the knowledge and skills important today in a wide array of occupations in the public and private sectors and at both professional and preprofessional levels.
 - a) Owing to the need in many occupations for increased knowledge about the social and physical world within which people carry out their occupational responsibilities, the College seeks to acquaint the student with 1) the social, historical, and philosophical factors in people's values, attitudes, needs, and behavior; and 2) the physical processes and geographic realities that underlie and affect resource availability and utilization.
 - b) The College seeks to give students the tools, or methods, with which to gather, analyze, and evaluate information, as well as the skills to communicate their thinking to others.

DEPARTMENTS, CENTERS, AND PROGRAMS



ACCOUNTING (ACCT)

310 BUSINESS BUILDING/255-3038

Chairperson: Lawrence Sundby

Graduate Faculty: R. Carlson, Gerber, D. Lu, Roser, Schwieger, Sundby

MASTER OF SCIENCE—Accounting

Admission Policy. The applicant for admission to the Master of Science in accounting program must meet the following requirements:

1. a baccalaureate degree from an accredited college or university.
2. an acceptable score on the Graduate Management Admission Test (GMAT).
3. evidence of undergraduate scholarship.
4. demonstration of aptitude for successful graduate business study.

Admission is competitive and selection is based on an evaluation of the total factors.

Information about the GMAT can be obtained at the Graduate Studies Office.

The candidate for the Master of Science degree in accounting must satisfy the requirements for all master's degree programs as set forth by the School of Graduate Studies.

Applicants who have successfully met admission requirements may enroll in the Master of Science degree in accounting program as full-time day students or on a part-time basis in evening courses. Full-time students should also expect to complete part of the program in the evening.

Graduate Degree Requirements

Plan B, 48 Cr.

- I. General: 24 Cr.
 - MBA 670 Corporate Strategies, 4 Cr.
 - Courses selected by the student and adviser (at least 12 Cr. at 600 level), 20 Cr.
- II. Prescribed: 20 Cr.
 - ACCT 680 Professional Research, 4 Cr.
 - ACCT 682 Cost Accounting Theory, 4 Cr.

40 / Accounting (ACCT)

- ACCT 692 Advanced Financial Accounting Seminar, 4 Cr.
- ACCT 693 Advanced Tax Seminar, 4 Cr.
- ACCT 694 Advanced Auditing Seminar, 4 Cr.

III. Accounting Electives: 4 Cr.

One elective from:

- ACCT 588 Accounting Systems, 4 Cr.
- ACCT 590 Cost Accounting II, 4 Cr.
- ACCT 605 Business Seminar—Accounting, 4 Cr.
- ACCT 681 Income Determination Theory, 4 Cr.

IV. Candidates are required to successfully complete one starred paper with a final oral examination.

FOUNDATION COURSES

Applicants accepted into the M.S. in accounting program must have completed the following courses (or equivalent) prior to starting graduate courses:

- MBA 242. Quantitative Analysis for Business. Prereq.: MATH 131 or equivalent. 4 Cr. F.
- MBA 285. Financial Control. (For admitted graduate students only.) 4 Cr. F.
- MBA 369. Management of Organizations. (For admitted graduate students only.) 4 Cr. S.
- ECON 659. Business Analysis. (For admitted graduate students only.) 4 Cr. W, S, DEMAND.
- QMIS 250. Data Processing for Business. 4 Cr. F, W, S, SUM.
- MKGB 235. Business Law. 4 Cr. F, W, S, SUM.
- MKGB 320. Introduction to Marketing. 4 Cr. F, W, S, SUM.
- MGMF 363. Production Management. 4 Cr. F, W, S, SUM.
- MGMF 371. Managerial Finance. 4 Cr. F, W, S, SUM.
- QMIS 441. Operations Research I. Prereq.: MBA 242. 4 Cr. W.

For complete course descriptions, see page 32.

- ACCT 380. Cost Accounting I. Prereq.: MBA 285 or equivalent. 4 Cr. F, W, S, SUM.
- ACCT 381. Intermediate Accounting I. Prereq.: MBA 285 or equivalent. 4 Cr. F, W, S, SUM.
- ACCT 382. Intermediate Accounting II. Prereq.: 381. 4 Cr. F, W, S, SUM.
- ACCT 383. Intermediate Accounting III. Prereq.: 382. 4 Cr. F, W, S, SUM.
- ACCT 385. Income Tax. 4 Cr. F, W, S, SUM.
- ACCT 481. Advanced Accounting. Prereq.: 383. 4 Cr. F, S, SUM.
- ACCT 485. Advanced Income Tax. Prereq.: 385. 4 Cr. F, W, S, SUM.
- ACCT 486. Auditing Theory. Prereq.: 383. 4 Cr. F, S, SUM.
- MKGB 336. Business Law. 4 Cr. F, W, S, SUM.
- QMIS 351. Introduction to Management Information Systems. Prereq.: 250. 4 Cr. F, W, S.

For complete course descriptions, see Undergraduate Bulletin.

An average of B or above is required for all foundation and advanced graduate courses.

COURSE DESCRIPTIONS

ACCT 581. Advanced Accounting. Theory and practice of accounting for business combinations; parents and subsidiary accounting for consolidated financial statements. Consent of department chairperson. (Not open to M.S. in accounting majors.) 4 Cr. F, S, SUM.

ACCT 585. Advanced Income Tax. Federal income taxation of partnerships, corporations, trusts, and estates; Federal estate and gift taxation with emphasis placed on tax planning and tax research. Prereq.: 385. (Not open to M.S. in accounting majors.) 4 Cr. F, W, S, SUM.

ACCT 586. Auditing Theory. Nature of the audit function; nature of the audit evidence; audit standards and procedures; professional ethics; audit reports. Consent of department chairperson. (Not open to M.S. in accounting majors.) 4 Cr. F, S, SUM.

ACCT 587. Auditing Problems and Cases. Nature of internal auditing, auditing in an EDP environment and the use of statistical sampling in auditing. Prereq.: 383. 4 Cr. W.

ACCT 588. Accounting Systems. System planning, design, and applications; emphasis is placed on the interaction of computers and accounting in the development of management information systems. 4 Cr. F.

ACCT 590. Cost Accounting II. A study of the essential issues of cost analysis emphasizing the development and use of cost data appropriate for implementation of long and short run decision making, control and evaluation models. Prereq.: 380, MATH 231, QMIS 141. 4 Cr. S, SUM.

ACCT 596. Accounting for Non-Profit Organizations. Nature, usefulness and limitations of accounting information as a tool for program planning and control in non-profit organizations. (Not open to M.S. in accounting majors.) 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

ACCT 605. Business Seminar—Accounting. Selected topics related to accounting theory and practice. Consent of department chairperson. 4 Cr. DEMAND.

ACCT 680. Professional Research. A research seminar for graduate students. 1-4 Cr. DEMAND.

ACCT 681. Income Determination Theory. The evolution of accounting thought as it relates to income determination, i.e. the balance sheet, the service, the value, and the information theory approaches. 4 Cr. DEMAND.

ACCT 682. Cost Accounting Theory. Cost accounting concepts and techniques with emphasis on the goals of the firm and the possible aid in achieving these goals through cost control, cost analysis, budgets, and forecasting. 4 Cr. DEMAND.

ACCT 692. Advanced Financial Accounting Seminar. Advanced study of institutions which currently impact on the development of financial accounting and reporting standards. 4 Cr. F.

ACCT 693. Advanced Tax Seminar. Study of federal tax system involving theory and evolution, including comprehensive coverage of taxation of corporate distributions, liquidations and reorganizations, estates and trusts, and tax research. 4 Cr. W.

ACCT 694. Advanced Auditing Seminar. Advanced study of auditing in an EDP environment. Planning, evaluation of internal controls, use of computer audit techniques, statistical sampling, documentation, and communication of audit findings will be emphasized. 4 Cr. S.

AMERICAN STUDIES (AMST)

104C STEWART HALL/255-2097

Director: Eleanor Simpson

Also see Interdisciplinary Studies Department.

COURSE DESCRIPTION

590. Contemporary American Culture. The exploration of one of the variety of cultures in contemporary America through its political, philosophical, literary and artistic creations and its relationship to the overall diversified cultural pattern. A general elective. 4 Cr. W, S.

ART (ART)

101 KIEHLE VISUAL ARTS CENTER/ 255-4283

Chairperson: James Roy

Graduate Faculty: Aiken, Alhelm, Brown, Coen, Ellingson, Gutteter, Halberg, Hluch, Korte, Mills, Roy, Wallin

MASTER OF ARTS

The applicant for admission to this program must have the equivalent of an undergraduate major in art. For unconditional admittance, the student must have an undergraduate honor point ratio of 2.8 or above; applicants whose undergraduate honor point ratio is less than 2.8 may be admitted conditionally. The applicant must also submit a portfolio of original work. Contact the Chairperson, Department of Art, for specific instructions of what should be included in the portfolio and how it should be submitted.

At least 15 credits must be earned in art courses in which enrollment is limited to graduate students.

Plan A: Min., 46 Cr.

- I. Min. of 18 Cr. earned in one major field of studio art. Majors available in ceramics, painting, printmaking, photography, fibers, sculpture, glassworking, and jewelry. Min. of 9 Cr. earned in one minor field of studio art. Minors available in any of the above major areas. Min. of 12 Cr. earned in art history. Min. of 4 Cr. of electives earned in art history or studio art. Min. of 3 Cr. of creative work (ART 698) in the candidate's major field of study. This is accomplished by a written analysis or description of the work and an abstract thereof.
- II. A quarterly review of studio work completed in the major field of study must show satisfactory achievement. The candidate will complete a successful exhibit of creative work during the last quarter of residence. The department reserves the right to keep work from the exhibition. This work becomes part of the permanent collection of the departmental gallery.

MASTER OF SCIENCE—Art Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in art in order to choose it as a major at the graduate level. In some cases, it may be necessary for the applicant to complete some prerequisite undergraduate work even though the student may have completed an undergraduate major or minor.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 46 Cr.**I. Research: Min., 9-12 Cr.**

ED 615 Introduction to Research, 3 Cr.

OR

ART 685 Research in Art Education, 3 Cr.

ART 699 Master's Thesis, 6-9 Cr.

II. Major: Min., 18 Cr.

Prescribed:

ART 687 History of Art Education in Europe and America, 2 Cr.

Minimum of 16 Cr. to be selected with major adviser.

III. Professional Education: Min., 9 Cr.

Credits to be selected with approval of professional education adviser.

IV. Electives: Min., 10 Cr.**COURSE DESCRIPTIONS**

530. Ancient and Classical Art. The art of the great ancient civilizations including Egyptian, Mesopotamian, Aegean, Greek, Etruscan, and Roman. 4 Cr. DEMAND.

531. Early Christian and Medieval Art. Christian art from the catacombs of Rome to the Gothic Cathedrals of Western Europe and the art of the Byzantine Empire. 4 Cr. DEMAND.

532. Renaissance Art. The art of the Italian Renaissance beginning with Giotto and including the masters of 15th and 16th century northern Europe. 4 Cr. DEMAND.

533. Baroque and Rococo Art. European art of the 17th and 18th centuries including El Greco, Rembrandt, Bernini, etc. 4 Cr. DEMAND.

534. European 19th Century Art. Neo-Classicism, Romanticism, Realism, Impressionism, and Postimpressionism are emphasized. 4 Cr. DEMAND.

535. History of American Art I. Art of America from the Indian cultures through the United States of the pre-Civil War period. 4 Cr. DEMAND.

536. History of American Art II. Painting, sculpture, architecture, prints, and crafts from the Civil War to present. 4 Cr. DEMAND.

537. Modern Art, 1900-1945. Movements and concepts of modernism in the first half of the 20th century, including Fauvism, Cubism, Constructivism, de Stijl, Dada, Surrealism. 4 Cr. W.

572. Ceramics Studio Equipment and Kiln Construction. Design and construction of clay working equipment, use of refractories and fuels in kiln technology. Prereq.: 370 or 371. 3-9 Cr. DEMAND.

573. Ceramic Studio Operation and Management. Apprenticeship and studio visitation. Prereq.: 470 or 471. 3-9 Cr. DEMAND.

574. Specified Culture or Area of Ceramic Art History. Guest lecturer. Prereq.: 270, 320. 4 Cr. DEMAND.

597. Art for the Exceptional Child. The role of creative art activity for the exceptional child. To include the physically and mentally handicapped as well as the gifted child. Prereq.: 290, 390, 490. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

606. Photography I. A studio-research course designed to increase the student's familiarity with contemporary notions of photographic art in relationship with his/her personal work and historical perspective. Prereq.: 2 courses in undergraduate photography or permission of the department chairperson. 3-9 Cr. F, W, S.

607. Photography II. Application of photography as a research tool in documenting reality with emphasis on the variables of perception and the technology of the media. Prereq.: 606. 3-9 Cr. F, W, S.

615. Life Drawing I. Practice in pictorial composition with various techniques and media of expression. Emphasis on anatomy of human body. 3-9 Cr. F, W, S.

616. Life Drawing II. Advanced practice in pictorial composition with various techniques and media of expression. Emphasis on anatomy of human body. 3-9 Cr. DEMAND.

620. Advanced Theory. Foundations of criticism, form analysis, psychology, and philosophy of art. 4 Cr. DEMAND.

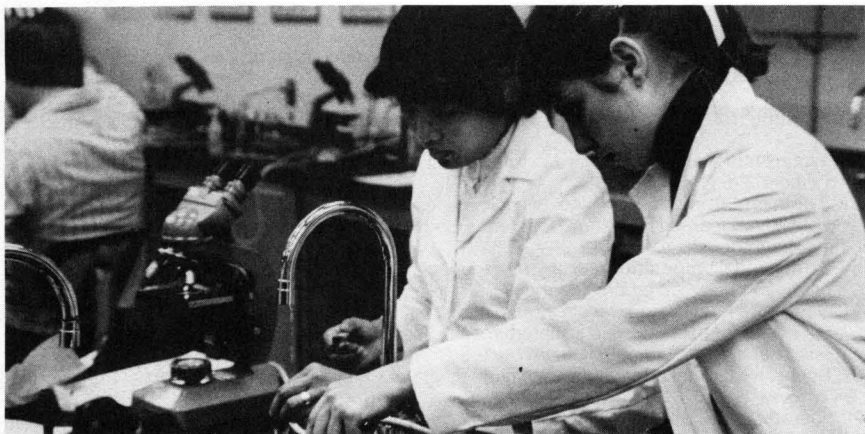
- 630. Art Seminar.** Lectures, readings and discussions on selected artists and their works. 1-4 Cr. May be repeated to max. of 9 Cr. F, W, S.
- 641. Painting I.** Advanced expression in the painting media; organization, color and technique. Prereq.: 2 undergraduate courses in painting or permission of the department chairperson. 3-9 Cr. F, W, S.
- 642. Painting II.** Continued work in painting media leading to development in individual expression. Prereq.: 541. 3-9 Cr. F, W, S.
- 643. Watercolor Painting.** Practice in transparent watercolor painting, casein, tempera, and combined media. 2-6 Cr. DEMAND.
- 651. Prints and Composition I.** Advanced experience in printing methods and composition. Developing previously learned techniques. Prereq.: 2 undergraduate courses in printmaking or permission of the department chairperson. 3-9 Cr. F, W, S.
- 652. Prints and Composition.** Advanced experiences in printing methods and composition. Intense concentration in a selected printing method. Prereq.: 651. 3-9 Cr. F, W, S.
- 661. Sculpture I.** Advanced work in three-dimensional organization of form; individual concentration toward competent expression in sculpture media. Prereq.: 2 undergraduate courses in sculpture or permission of the department chairperson. 3-9 Cr. F, W, S.
- 662. Sculpture II.** Continued work in sculpture media with emphasis on casting metals. Prereq.: 661. 3-9 Cr. F, W, S.
- 670. Ceramic Sculpture.** Creative expression in the ceramic media, composite construction. Prereq.: intermediate, undergraduate proficiency in ceramics and permission of the department chairperson. 3-9 Cr. F, W, S.
- 671. Throwing.** Advanced work utilizing the potter's wheel, glazing and firing. Prereq.: 2 undergraduate courses in ceramics or permission of the department chairperson. 3-9 Cr. F, W, S.
- 672. Ceramics.** Continued work in the ceramic media with emphasis on clay and glaze technology, kiln supervision. Prereq.: 670 or 671. 3-9 Cr. F, W, S.
- 676. Fibers.** Advanced creative experiences in design and production on various looms; characteristics of looms, principles of textile construction, and materials of the weaver. Prereq.: 2 undergraduate courses in weaving or permission of the department chairperson. 3-9 Cr. F, W, S.
- 677. Fibers II.** Emphasis upon the unique surface quality and surface decoration possibilities with fibers may include screening, canning, resist, batik, stitching, applique, quilting, etc. Prereq.: 676. 3-9 Cr. F, W, S.
- 681. Metals.** Advanced experience in jewelry design, silversmithing, and casting by the lost wax method. Prereq.: 2 undergraduate courses in jewelry and enameling or permission of the department chairperson. 3-9 Cr. F, W, S.
- 682. Metals II.** Advanced experiences in jewelry design, silversmithing, and casting by the lost wax method. Prereq.: 681. 3-9 Cr. F, W, S.
- 685. Research in Art Education.** Current experiments in art education and closely related fields. Required of students working for a master's degree in art. 3 Cr. DEMAND.
- 686. Current Problems in Art Education.** Statement, analysis and evaluation of art problems evidenced in contemporary living, in school, home and community. 3 Cr. DEMAND.
- 687. History of Art Education in Europe and America.** Historical development of philosophies in art education in the United States and Europe. Required for students working for a master's degree in art. 2 Cr. DEMAND.
- 688. Glassworking I.** Advanced work in glassworking techniques with emphasis on individual concentration toward competent expression in glass. Prereq.: 2 undergraduate courses in glassworking or permission of the department chairperson. 3-9 Cr. F, S.
- 689. Glassworking II.** Continued advanced work in glassworking. Prereq.: 688. 3-9 Cr. F, S.
- 690. Special Areas - Visual Arts (Topical).** Experiences in special areas of the visual arts. Credits and meetings by arrangement. 1-4 Cr. May be repeated with different topics to max. of 9 Cr. DEMAND.
- 696. Supervision of Elementary School Art.** Methods and practices of supervision in relation to art programs in the elementary school. Prereq.: 290, 390, 490. 3 Cr. DEMAND.
- 698. Creative Work.** 3-9 Cr. F, W, S, SUM.
- 699. Master's Thesis.** 3-9 Cr. F, W, S, SUM.

BIOLOGICAL SCIENCES (BIOL)

262 MATHEMATICS AND SCIENCE CENTER/255-2036

Chairperson: Wayland Ezell

Graduate Faculty: Barker, Bruton, Clapp, Coulter, Cronn, Ezell, Grewe, R. Gundersen, Hopkins, Hopwood, V. Johnson, K. Knutson, Kramer, S. Lewis, Lindstrom, McCue, D. Mork, Peck, D. G. Peterson, C. Pou, Rehwaldt, Torrence, Williams



MASTER OF ARTS

The applicant should have earned a minimum of 48 credits in biology and 12 credits in chemistry before admission to this program. In some cases it may be necessary for the student to complete additional prerequisite undergraduate work. At least 15 credits must be earned in courses in the major in which enrollment is limited to graduate students. A student may elect an emphasis in one of the following areas: Botany, Ecology, Fisheries, Genetics, Ichthyology, Immunology, Limnology, Microbiology, Ornithology, Parasitology, Physiology, or Wildlife Management. A minimum of 18 credits (which may include BIOL 600, 601, 603, 699) in one of the above areas must be completed to declare an emphasis. All students must successfully complete a departmental final written examination. Guidelines for the steps required to complete this degree are available in the biology office. Students are encouraged to obtain this information no later than the first quarter of enrollment.

Plan A, 45 Cr. (Thesis)

- I. Courses in biological sciences: Min., 30 Cr.
 - A. Prescribed: Min., 15 Cr. in courses such as
 BIOL 600, 601, 603, 630, and 699 to include:
 BIOL 630 Seminar in Biology (Topical), Min., 3 Cr.
 BIOL 696 Research Reporting, 3 Cr.
 BIOL 699 Master's Thesis, 6-9 Cr.
 - B. Electives: Min., 15 Cr. must be earned in approved biology courses other than those listed above.
- II. Related Fields: Max., 15 Cr. may be earned in approved related fields.

Plan B, 52 Cr. (Non-thesis)

- I. Courses in biological sciences: Min., 37 Cr.
 - A. Prescribed: Min., 9-12 Cr. in courses such as
 BIOL 600, 601, 603, 630 to include:
 BIOL 603 Research in Biology (Topical), Min., 3 Cr.
 BIOL 630 Seminar in Biology (Topical), Min., 3 Cr.
 BIOL 696 Research Reporting, 3 Cr.
 - B. Electives: Min., 25 Cr. must be earned in approved biology courses other than those listed above.
- II. Related Fields: Max., 15 Cr. may be earned in approved related fields.

MASTER OF SCIENCE

The applicant must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed a minimum of 48 undergraduate credits in biology. In some cases it may be necessary for the student to complete additional prerequisite undergraduate work. At least 15 credits must be earned in the major field of concentration in which enrollment is limited to graduate students. Plan B students must successfully complete a comprehensive final written examination.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3 Cr.
BIOL 696 Research Reporting, 3 Cr.
or
ED 615 Introduction to Research, 3 Cr.
BIOL 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr. Credits to be selected with major adviser.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Consent of secondary education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 12 Cr.

Plan C, 54 Cr.

- I. Research: Min., 3 Cr.
BIOL 603 Research in Biology (Topical), 3 Cr.
- II. Major: Min., 24 Cr.
Credits to be selected with major adviser.
- III. Educational Foundations: Min., 6 Cr.
Consent of secondary education adviser.
- IV. Electives: Min., 6 Cr.
Credits to be selected from major, related or cognitive fields, general studies, or statistical methods.
- V. Applications and Implementation: Min., 15 Cr.
- VI. Candidates are required to complete successfully a final exam, oral and/or written, covering the materials included in a professional folio to be developed as sanctioned by the adviser. The examination will be conducted by two members of the Department of Biological Sciences and one member from outside the department.

COURSE DESCRIPTIONS

502. Systematic Botany. Principles of plant taxonomy; species concept and speciation; methods in biosystematics, chemotaxonomy, and numerical taxonomy. Lab. Prereq.: 332 or 345. 4 Cr. DEMAND.

504. Protozoology. Taxonomy, ecology, physiology, economic importance of the protozoa. Lab. Prereq.: 203. 4 Cr. F ALT.

505. Radiation Biology. Introduction to radiation, laws governing its use, medical uses, and its effects on humans. Lab. Prereq.: 201, 203, or 464-564, 332, CHEM 215. 4 Cr. W.

506. Taxonomy of Grasses and Grasslike Plants. Collection and identification of grasses and grasslike plants; mainly of the Poaceae, Cyperaceae and Juncaceae families. Lab. Prereq.: 343 or 345. 4 Cr. S ALT.

508. Cell Metabolism. The metabolic processes of cells. Lab. Prereq.: 303, CHEM 213 or 216. 4 Cr. S ALT.

509. Biological Techniques. Collection, preparation, and display of biological materials. Lab. 2 Cr. S ALT.

511. Human Heredity. Fundamentals of inheritance; genetic disorders; medical, social and legal aspects; genetic counseling. Not applicable to biology major/ minor programs. 4 Cr. S.

512. Biology of Aging. Study and discussion of changes in the physiology of biological processes at the organism, organ, cell and subcellular levels. 3 Cr. S.

513. Electron Microscope Techniques. Specimen preparation, mechanics and operation of the transmission and scanning electron microscopes. Lab. Prereq.: 303. 4 Cr. F, W, S.

514. Applied Instrumentation in the Biological Sciences. The application of instrumentation in monitoring, quantifying and isolating biological entities. Lab. Prereq.: 303. 4 Cr. W.

515. Aquarium Science. Setting up and maintaining aquaria; testing and trouble shooting; nutrition and feeding; infections and infestations. 1 Cr. DEMAND.

519. Wildlife Parasitology. Host-parasite interactions, techniques for the collection, identification, and preservation of specimens. Lab. Prereq.: 201, 203, 439-539. 4 Cr. DEMAND.

520. Seminar. Lectures, readings, and discussion on selected topics. May be repeated once. 1 Cr. F, W, S, SUM.

521. Practicum: (Topical). Supervised experience in selected areas such as lab. management, greenhouse management, animal room management, aquarium management, museum/herbarium curator. Department approval required for enrollment. 1-4 Cr. May be repeated to a max. of 4 Cr. F, W, S, SUM.

522. Ichthyology. The systematics, anatomy, physiology, and natural history of fishes, with special emphasis on local freshwater forms. Lab. Prereq.: 203. 4 Cr. S.

523. Environmental Science for Teachers. Classroom and field techniques useful in the analysis and interpretation of the interrelations of biotic and abiotic environmental factors. Prereq.: 326 or consent of instructor. 3 Cr. F.

- 524. Common Plants of Minnesota.** Introduction to the common plants of Minnesota, their recognition and habitats. Not applicable to biology BA/MA major/minor programs. Field trips. 4 Cr. F.
- 525. Common Animals of Minnesota.** Recognition, habits, and economic importance of selected Minnesota animals. Not applicable to biology BA major/minor programs. Lab. 4 Cr. S ALT.
- 526. Herpetology.** The systematics, anatomy, physiology, and natural history of reptiles and amphibians. Lab. Prereq.: 203. 4 Cr. DEMAND.
- 529. Marine Biology.** The ocean and marine organisms; their relation to humans. Prereq.: 301. 3 Cr. W ALT.
- 532. Molecular Genetics.** Biochemical approach to inheritance and development. Lab. Prereq.: 332 and 344. 4 Cr. W.
- 533. Aquatic Plants.** Taxonomy and ecology of aquatic plants, including vascular plants, mosses and selected algae and fungi. Lab. Prereq.: 301 and 345. 4 Cr. SUM ALT.
- 534. Freshwater Algae.** Morphology, taxonomy and ecology of algae of lakes, ponds, streams, bogs and soils. Lab. Prereq.: 202. 4 Cr. F.
- 535. Comparative Animal Physiology.** Comparative study of functional mechanisms in the various phyla. Prereq.: 203, 303, CHEM 215. 3 Cr. S ALT.
- 536. Plant Physiology.** Principles of metabolic processes of higher plants. Lab. Prereq.: 202, 303; CHEM 215. 4 Cr. W.
- 537. Plant Morphology.** Survey of plant kingdom with emphasis on structure and form of primitive plants. Lab. Prereq.: 202. 4 Cr. W ALT.
- 538. Freshwater Invertebrates.** Collection, preservation and classification of local species. Lab. Prereq.: 341. 4 Cr. S ALT, SUM ALT.
- 539. General Parasitology.** Animal parasites and their relation to diseases of humans and other animals. Lab. Prereq.: 201, 203 or 464-564. 4 Cr. F, S.
- 540. Mycology.** Structure, development, and identification of fungi with emphasis on species of economic importance. Lab. Prereq.: 202. 4 Cr. F ALT.
- 541. Plant Ecology.** Relations between plants and their environment; field studies of plant communities and succession. Lab. Prereq.: 301, one course or concurrent registration in 343, or 345. 4 Cr. F ALT, SUM ALT.
- 542. Embryology.** Prenatal development of human body; laboratory emphasis on chick and pig. Lab. Prereq.: 203. 4 Cr. W.
- 543. Animal Behavior.** Behavior of animals as interpreted through comparative studies and experimentation. Lab. Prereq.: 203 or consent of instructor. 4 Cr. W.
- 545. Medical Bacteriology.** Morphology, classification, techniques of culture and rapid identification of pathogenic bacteria. Lab. Prereq.: 344. 4 Cr. S.
- 546. Immunology.** Systems of infection and immunity with antigen-antibody relationships; and their effect on humans with respect to protection and injury. Hypersensitivity; natural and acquired immunity. Prereq.: major or pre-professional. 3 Cr. F, W.
- 547. Laboratory Methods in Immunology.** Preparation of antibodies, immune reactions, protein estimation, electrophoresis, fluorescent antibody and column chromatography. Lab. Prereq.: 446-546 or concurrent enrollment. 2 Cr. W.
- 548. Limnology.** Lakes and streams, their physical environment, plant and animal life and dynamic interrelations. Lab. Prereq.: 301, CHEM 216. 4 Cr. F.
- 551. Animal Ecology.** Distribution, life histories, habitat requirements, and environmental interrelations of vertebrates and invertebrates. Lab. Prereq.: 301 and one of the following: 339, 341, 347, 422-522, 426-526. 4 Cr. S ALT.
- 552. Water and Sewage Microbiology.** Indicators of pollution, determination of numbers and kinds of micro-organisms, standards of pollution, purification of water, microbiology of sewage disposal. Lab. Prereq.: 344, CHEM 251. 4 Cr. F.
- 553. Invertebrate Zoology.** Classification, phylogeny, anatomy, physiology, and natural history of invertebrates. Lab. Prereq.: 203. 4 Cr. W ALT.
- 554. Wildlife Management.** General principles of wildlife management with detailed studies of selected species. Lab. Prereq.: 301. 4 Cr. F.
- 555. Physiology of Bacteria.** Comparative study of the metabolism of growth and reproduction of microbes. Lab. Prereq.: 303, 344, CHEM 251. 4 Cr. S.
- 556. Methods for Teaching Junior High School Science.** Modern approaches to teaching science in junior high school. Not open to B.A. or M.A. majors. Lab. 2 Cr. F, W, S.
- 557. Methods and Materials for Teaching Biology.** Modern approaches to teaching high school biology in classroom and laboratory; including materials of biological sciences curriculum study. Not open to B.A. or M.A. majors. Lab. 2 Cr. F, W.
- 558. Plant Anatomy.** The structure, organization and development of the plant body of higher plants. Lab. Prereq.: 202. 4 Cr. W ALT.
- 559. Biological Evolution.** History, evidence, and processes of evolution. Prereq.: 332. 3 Cr. W ALT.
- 560. Evolution and Sociobiology.** Theories and processes of biological evolution; origins of life; role of evolution in animal behavior; concepts of species and biological race. Not open to biology majors or minors. 4 Cr. S ALT.

- 561. Economic Entomology.** Life histories and control measures for economically important insects. Lab. Prereq.: 341. 2 Cr. DEMAND.
- 562. Medical Entomology.** Study of arthropods of medical and veterinary importance with emphasis on vector biology and disease ecology. Lab. Prereq.: 439-539 or consent of instructor. 2-4 Cr. S ALT.
- 563. Endocrinology.** A study of the morphology and physiology of the endocrine glands in physiological communication and regulation. Lab. Prereq.: 464-564, 465-565. 4 Cr. S.
- 564. Human Anatomy and Physiology I.** Structure and metabolic activity of organ systems including muscular, skeletal, nervous and integumentary. Lab. Prereq.: 303. 4 Cr. F, W, SUM.
- 565. Human Anatomy and Physiology II.** Structure and metabolic activity of organ systems including circulatory, respiratory, digestive, urinary, endocrine and reproductive. Lab. Prereq.: 464-564. 4 Cr. W, S, SUM.
- 566. Immunohematology.** The immunology of blood groups and its application to blood transfusions, hemolytic disease of the newborn, and detailed blood group typings. Lab. Prereq.: 446-546. 3 Cr. W.
- 567. Hematology I.** Blood cell formation and function; tests and procedures pertinent to clinical hematology. Prereq.: 309. 2 Cr. W.
- 568. Limnological Methods.** Theory and practice in limnological sampling and analysis, emphasis on plankton, physical and chemical parameters. Lab. Prereq.: 448-548. 4 Cr. DEMAND.
- 569. Soil Microbiology.** The role of micro-organisms in the soil, their identification, culture and environmental significance. Lab. Prereq.: 303, 344. 4 Cr. W.
- 570. Fisheries Biology.** Natural history, ecology, recreational and commercial aspects, and special methods. Lab. Prereq.: 301, 422-522. 4 Cr. F.
- 571. Medical Bacteriology II.** Taxonomy, morphology, cultural and biochemical activities, and pathogenesis of bacteria; basic mycology and virology; emphasis on humans as required for medical technology. Prereq.: 445-545. 3 Cr. F.
- 572. Plant Growth and Development.** Selected topics in plant physiology with emphasis on the hormonal control of plant growth and development. Lab. Prereq.: 436-536. 4 Cr. S ALT.
- 573. Diatoms.** The morphology, identification, culture, and scanning electron microscopy of diatoms with U.S. and foreign ecological and taxonomical literature evaluation. Lab. Prereq.: 434-534. 4 Cr. W ALT.
- 574. Fall Ornithology.** Migration patterns, fall plumage, feeding behavior, population studies. Lab. Prereq.: 347. By permission only. 4 Cr. F ALT.
- 575. Environmental Biology.** Readings and discussions relating to environmental problems as they concern humans and other organisms. Designed for students with little or no background in biology. Biology majors and minors by permission only. 4 Cr. F, SUM ALT.
- 577. Biology Institute.** Selected topics on biology for experienced teachers of science. Lab. 3-6 Cr. DEMAND.
- 580. Economic Botany.** Biology of plants and plant products which are useful to humans. Prereq.: 202, 332. 3 Cr. S ALT.
- 581. Fall Flora.** Field characteristics and collection of vascular plants; emphasis on fruits and seeds. Intensive study of selected families and genera. Three all-day Saturday field trips. Lab. Prereq.: 343 or 345. 4 Cr. F ALT.
- 584. Virology.** Structure, life cycles, classification, virus-host relationships, lysogeny transformation, tumor induction. Prereq.: 303, 344. 3 Cr. F.
- 585. Laboratory Methods in Virology.** Techniques of virus isolation, production, purification, enumeration and experimentation. Lab. Prereq.: 484-584 or concurrent enrollment. 2 Cr. F.
- 586. Pathophysiology.** Various abnormalities of human physiology; covering such abnormalities as seen in immunology, bacterial and viral invasion and disorders of various systems. Prereq.: 344, 465-565. 4 Cr. F ALT.
- 587. Hematology II.** Hematologic diseases, pathological findings and their interpretations, and introduction to coagulation chemistry. Prereq.: 467-567. 2 Cr. F.
- 589. Paleobiology.** Field and laboratory study of living and fossil species and geological aspects of the environment. Lab. Prereq.: 202, 203, ESCI 284 or consent of instructor. 4 Cr. S ALT.
- 598. The Nature of Biological Science.** Assumptions, methods and limitations of science. Historical roots of biology and the development of major concepts. Communication in biology and society. 3 Cr. F ALT.

COURSES FOR GRADUATE STUDENTS ONLY

- 601. Readings in Biology (Topical).** 1-4 Cr. F, W, S, SUM.
- 602. Modern Biological Concepts.** General education course in which modern concepts in physiology, genetics, and ecology are developed through selected laboratory experiences, reading, and discussion. Not open to biology majors or minors. 3 Cr. W ALT, SUM ALT.
- 603. Research in Biology (Topical).** 1-8 Cr. May be repeated; a max. of 8 Cr. may be applied toward a master's degree program. F, W, S, SUM.
- 630. Seminar in Biology (Topical).** 1-4 Cr. May be repeated to a max. of 9 Cr. F, W, S.

639. Advanced Parasitology. Selected topics in parasitology with emphasis on the interrelationships between the parasite and its host. Lab. Prereq.: 439-539. 4 Cr. DEMAND.

641. Advanced Entomology. Identification of selected insect groups; topics of insect taxonomy, physiology and behavior. Lab. Prereq.: 341 and a summer insect collection. 4 Cr. DEMAND.

644. Advanced Virology. Structure and properties of viruses, host-virus interactions, major groups, relation to disease, diagnostic techniques. Prereq.: 344, 484-584, CHEM 324 or equivalent. 3 Cr. DEMAND.

645. Molecular Biology. Dynamic aspects of cell structure and function at the molecular level. Lab. Prereq.: CHEM 251. 4 Cr. DEMAND.

647. Advanced Ornithology. Functional morphology and breeding biology of birds. Lab. Prereq.: 347. 4 Cr. S ALT.

648. Advanced Immunology. Theoretical basis, techniques, and applications of immunology. Lab. Prereq.: 446-546, 447-547. 4 Cr. DEMAND.

650. History of Biology. Origin and development of major ideas of biological thought. 3 Cr. W ALT.

652. Pollution Biology. Classification of pollutants and their effects on water and air quality, biota, and socio-economics. Remedial methods. Lab. Prereq.: 448-548. 3 Cr. DEMAND.

663. Advanced Genetics. Selected topics with emphasis on gene structure, mutations, complementation and other aspects of modern genetics. Prereq.: 332. 3 Cr. DEMAND.

666. Biogeography. Past and present distribution of biotic communities in relation to environmental and historic factors. Prereq.: 441-541. 3 Cr. W ALT.

669. Biology of Lakes. Lectures, readings, and discussions in the biology of lakes. Prereq.: 448-548, 468-568. 3 Cr. DEMAND.

670. Biology of Streams. Lectures, readings, and discussion on the limnology of streams. Prereq.: 438-538, 448-548, 468-568 recommended. 3 Cr. DEMAND.

696. Research Reporting. Research analysis and reporting. Students will be graded on an S/U basis. 3 Cr. W.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

BUSINESS EDUCATION AND OFFICE ADMINISTRATION (BEOA)

204 BUSINESS BUILDING/255-3248

Chairperson: L. Marilyn Stinson

Graduate Faculty: Lane, Madsen, Olson, Reha, Stinson

MASTER OF SCIENCE

Admission Requirements

An applicant for admission to the Master of Science in Business Education must meet the following requirements:

1. Hold a baccalaureate degree from an accredited college or university.
2. Hold a Minnesota Vocational Teacher Certificate in Business Education or have completed an undergraduate teacher education program from an accredited teacher preparation institution.
3. Have an acceptable score on the Graduate Record Examination and/or acceptable undergraduate scholarship.
4. Master of Science candidates admitted into the program must have completed the equivalent of the foundation courses in business.
5. Students pursuing a master's degree must earn a minimum of 15 credits in 600-level courses in the major field of concentration. In addition, students pursuing the Master of Science degree must earn a minimum of 24 credits in 600-level courses in the total program.

Plan A, 45 Cr.; Plan B, 48 Cr.; Plan C, 54 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.; Plan C, 3 Cr.
ED 615 Introduction to Research, 3 Cr. (or equivalent course)
BEOA 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plans B and C, 24 Cr.
Credits to be selected with approval of major adviser and should include BEOA 606.
- III. Professional Education: Min., Plans A and B, 9 Cr.; Plan C, 6 Cr.
Credits to be selected with approval of professional education adviser. Plan A and B will include PSY 678.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.; Plan C, 6 Cr.
- V. Educational Applications: Min., 15 Cr. (Plan C only)
Credits to be selected with approval of major adviser.

COURSE DESCRIPTIONS

505. Philosophy of Vocational Education. History, purpose, organization, philosophy of vocational education. 3 Cr. F, W, S, SUM.

506. Methods for Vocational Programs. Instructional methods, materials. 3 Cr. W.

507. Adult Education Programs. Planning, administering, supervising, evaluating adult programs. Selecting, training adult education instructors. 3 Cr. SUM.

508. Coordination Techniques. Guidance, selection, placing students in training stations; job adjustments; developing training programs. 3 Cr. S, SUM.

509. Organization and Administration of Vocational Programs. Principles, practices; local, state, federal regulations; reporting and evaluation; club programs; curriculum; affiliations. 3 Cr. F.

511. Advanced Topics in Records Management. Problems in creation, use, maintenance, storage, and disposition of records. Emphasis on records management as an administrative service which includes the management of forms, reports, correspondence and microfilming. Prereq.: 310 or consent of instructor. 4 Cr. S.

512. Office Environmental Relationships. Work and social relationships in the office; communications, needs and interpersonal attitudes; employer-employee relationships; survey of research. 4 Cr. W.

513. Office Management. Problems in planning and directing functions of business or professional offices, executive duties and responsibilities of office manager and private secretary, supervision of employees. 4 Cr. F.

514. Office Management II. Advanced analysis and problem-solving techniques related to administrative support functions. Prereq.: 413-51. 4 Cr. S.

517. Advanced Topics in Business Communication. Development of managerial communication skills; business report writing; strategies of business communications at organizational levels. 4 Cr. W.

519. Personal Finance. A study of banking and credit, budgeting, casualty and life insurance, investments and annuities. Federal income tax regulations, estate planning and wills from a personal or consumers point of view. 3 Cr. F.

COURSES FOR GRADUATE STUDENTS ONLY

601. Foundations in Business Education. Principles, philosophy, and curriculum development in business education. 3 Cr. SUM ALT.

602. Improvement of Instruction in Secretarial Subjects. Instructional materials, methods and procedures, standards of achievement, and other classroom problems. 3 Cr. SUM ALT.

603. Improvement of Instruction in Accounting. Objectives, courses of study, materials, teaching techniques and innovations for teaching bookkeeping and accounting. 3 Cr. SUM ALT.

604. Improvement of Instruction in The Basic Business Subjects. Objectives, courses of study, materials, teaching techniques, evaluation, curriculum, related classroom problems. 3 Cr. SUM ALT.

605. Seminar: _____. Discussion and evaluation of readings, current research, and teaching problems in business education. 1-3 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

606. Analysis of Research in Business Education. Analysis and application of formal and informal research affecting business teachers. Prereq.: ED 615. 3 Cr. SUM ALT.

608. Administration and Supervision of Business Education. Problems of teacher, department head, or supervisor beyond those involved in classroom teaching. Equipment and layout, budget making, publicity, curriculums, selection of textbooks, employment, rating, and related problems. 3 Cr. SUM.

616. Consumer Education. An examination of factors which impact on the consumer. A consideration of consumer options which creatively influence the direction of these factors. 4 Cr. SUM ALT.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

CHEMISTRY (CHEM)

358 MATHEMATICS AND SCIENCE CENTER/255-3031

Chairperson: John Carpenter

Graduate Faculty: Arndts, Carpenter, Dendinger, J. Erickson, James, Kennedy, Magnus, McMullen, Nickles, Sorensen, Weiskopf

MASTER OF SCIENCE—Physical Science

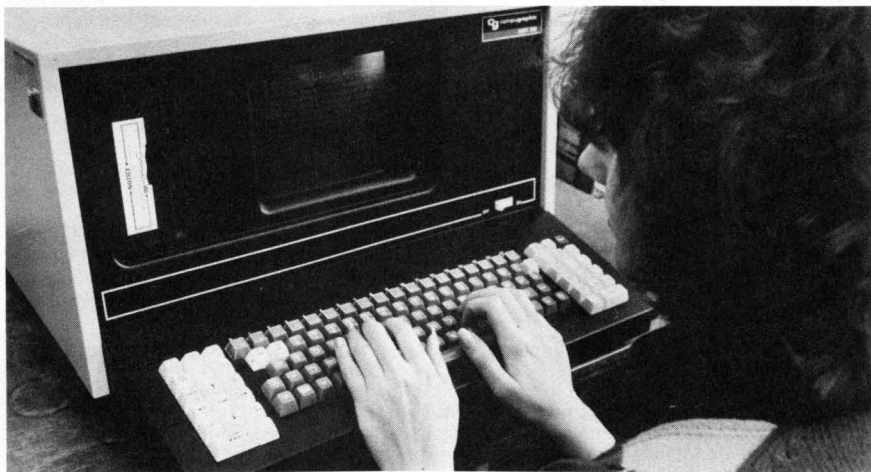
An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed an undergraduate major in either chemistry, physics or earth science with some work in the other fields and in mathematics. In

some cases the applicant may be required to complete additional undergraduate work even though the student may have completed a major in one of the three fields.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
 ED 615 Introduction to Research, 3 Cr. (or approved alternate)
 CHEM 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
 Selected course work in chemistry, physics or earth science. Courses to be approved by major adviser.
- III. Professional Education: Min., Plan A or B, 9 Cr.
 Courses to be approved by secondary education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.



COURSE DESCRIPTIONS

For courses with a laboratory, the number of lecture hours (listed first) and laboratory hours per week are given in parentheses following the course title.

512. Radiochemistry. Concepts of nuclear stability and structure; decay systematics and energetics; interactions of radiation with matter; applications to chemical problems. Basic calculus desirable. Prereq.: 213 or 216. 2 Cr. F, SUM.

513. Radiochemistry Laboratory. (0,4) Detection, characterization, and measurement of radiation; chemical operations and the application of radioisotopes to chemical and biochemical problems. Prereq. or concurrent registration: 512. 2 Cr. F, SUM.

525, 526, 527. Physical Chemistry. Application of fundamental laws and theoretical principles to atomic and molecular structure, gases, liquids, solids, solutions, phase equilibrium, chemical reactions (equilibrium and kinetics), and electrochemical processes; to understand the macroscopic in terms of molecular behavior. Prereq.: 325, PHYS 212, 213, MATH 243. 3 Cr. per quarter. 525-F, 526-W, 527-S.

528, 529. Physical Chemistry Laboratory. (0, 4) These are laboratory courses to complement the physical chemistry lecture sequence. A quantitative measurement of properties and phenomena of chemical interest and their interpretation by use of chemical principles. Prereq.: 525, 526, or concurrent registration. 2 Cr. per quarter. 528-W, 529-S.

534. Advanced Inorganic Chemistry I. (3, 2) Development of the concepts of inorganic chemistry; electronic structures of atoms; crystal structure; chemical bonding including molecular orbital theory; coordination compounds. Lab. Prereq.: or concurrent registration: 525, or consent of instructor. 4 Cr. F.

535. Advanced Inorganic Chemistry II. Application of the concepts of inorganic chemistry as applied to chemical elements and compounds. Further work in coordination chemistry including the ligand field theory. Prereq.: 534. 4 Cr. W.

540. Instrumental Analysis. (2, 6) Major instrumental methods of chemical analysis including spectroscopic, electrometric, and chromatographic methods. Lab. Prereq.: 525, 526, or concurrent registration. 4 Cr. W.

550. Qualitative Organic Analysis. (1, 12) Identification of several simple and mixed organic compounds by physical and organic qualitative methods. Prereq.: 293, 540. 4 Cr. S.

553. Biochemistry. (3, 4) Dynamic aspects of the intermediary metabolism of carbohydrates, lipids, proteins, and nucleic acids; energy production and utilization of living systems. Lab. Prereq.: 293, 527, or consent of instructor. 4 Cr. F ALT.

556. Methods and Materials for Teaching Sciences. Modern approaches to teaching science in junior or senior high school. Integrated lab. 2 Cr. F, W, S.

558. Methods and Materials for Teaching Chemistry. Modern approaches to teaching of high school chemistry in classroom and laboratory. Integrated lab. Prereq.: 556 or concurrent registration. 2 Cr. W.

560-569. Selected Topics in Chemistry. Non-sequence courses designed for intensive study of a special topic. Topic will be announced in class schedule. Departmental approval required for enrollment. 1-4 Cr. DEMAND.

572. Advanced Organic Chemistry. Topics such as condensations, rearrangements, conservation of orbital symmetry, polymers, benzenoid and non-benzenoid aromaticity. Prereq.: 293, 534, or consent of instructor. 4 Cr. S ALT.

581. Chemical Thermodynamics. Concepts of both classical and modern thermodynamics applied to problems encountered in chemistry. Prereq.: 525, 526. 4 Cr. S ALT.

590. Seminar. Lectures, readings, discussions on selected topics. May be repeated. 1 credit per quarter to a max. of 4 Cr. F, W, S.

COURSES FOR GRADUATE STUDENTS ONLY

610. History of Chemistry. The origin and historical development of chemical concepts. Prereq.: chemistry background or consent of instructor. 3 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

DRIVER EDUCATION AND SAFETY (DTS)

Basement WHITNEY HOUSE/255-4251

Director: Howard Matthias

COURSE DESCRIPTIONS

586. Advanced Traffic Safety Teaching Techniques. An analysis and practical application of advanced teaching methods in classroom and laboratory. Prereq.: 290, 390, 491, or teaching experience in traffic safety education. 3 Cr. W ALT.

587. Problems and Methods of Driver Education. The identification, analysis and appraisal of selected problems related to the administration and supervision of traffic safety programs. Prereq.: teaching experience in traffic safety education. 3 Cr. F, S.

590. Organization and Administration of Driver and Safety Education. Rules and regulations pertaining to driver and safety education will be investigated. Administrative aspects related to scheduling, record keeping, research, report writing and budgeting will be emphasized. 4 Cr. F, W.

EARLY CHILDHOOD AND FAMILY STUDIES (ECFS)

B124 EDUCATION BUILDING/255-3232

Coordinator: Jacob Mayala

Graduate Faculty: Mattick, Mayala

MASTER OF SCIENCE—Early Childhood and Family Studies

Three Master of Science degree options; Early Childhood and Family Studies: Early Education, Early Childhood and Family Studies: Administration, and Early Childhood and Family Studies: Special Needs Children, are offered within this program.

Early Childhood and Family Studies: Early Education, is a degree that is primarily for those persons who would like to gain advanced knowledge and skills about curriculum, methods and materials, and teaching/learning styles specifically pertaining to young children. Both Plan A and Plan B options are available to students who seek this degree.

Early Childhood and Family Studies: Administration, is a degree that has been designed for persons with experience in working with young children and who would like to assume administrative or director roles in early childhood programs. Both Plan A and Plan B options are available to students who seek this degree.

Early Childhood and Family Studies: Special Needs Children, is a degree that has been jointly developed with the Special Education Department. This degree is for those persons who would like to assume teaching positions in programs for young children with handicapping conditions or in programs working with parents of such children. Plan B is the only option available and it will lead to a teaching license in prekindergarten education.

Applicants for these degrees must meet the requirements for admission to the Graduate School at St. Cloud State University. It is anticipated that persons may come with a variety of background training and experience. It is desirable, but not required, that students have completed an undergraduate degree in a related major area.

The ECFS program is designed with the intent to individualize instruction as much as possible to allow for differences in students' backgrounds, interests and abilities. The students will be expected to demonstrate their understandings and skills in numerous field contacts. Much coursework will be taken as concurrent blocks of lecture and field experiences.

A program leading to recommendation for licensure as a nursery school teacher (pre-kindergarten) also is available. Students interested in licensure at the graduate level should write to: Center for Educational Change, College of Education, St. Cloud State University, St. Cloud, MN 56301. Students who wish to pursue licensure, but who do not intend to complete a master's degree are urged to complete a full application to the graduate school.

Students seeking admission to the Fifth Year Program in Teacher Education/Early Childhood must follow application procedures and credit requirements listed in the Graduate Bulletin. The Fifth Year Program requires 45 credits of course work to be selected with graduate adviser.

DEGREE REQUIREMENTS

Master of Science in Early Childhood and Family Studies: Administration

Master of Science in Early Childhood and Family Studies: Early Education

Plan A, 46 Cr.; Plan B, 51 Cr.

- I. Research Core: Plan A, 9-12 Cr.; Plan B, 3 Cr.
Choose from the following courses or equivalent with adviser's approval:
 - ED 602 Evaluation of the School Program, 3 Cr.
 - ED 614 Interpretation of Research, 3 Cr.
 - ED 615 Introduction to Research, 3 Cr.
 - ED 653 Current Instructional Research, 3 Cr.
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
 - ECFS 699 Master's Thesis, 3-6 Cr. (Plan A only)
 Under Plan B, 2 starred papers must be written in conjunction with approved courses.
- II. Early Childhood and Family Studies Core: Plan A, 25 Cr.; Plan B, 30 Cr.
 - ECFS 521 Development of Young Children, 3 Cr.
 - ECFS 640 Development of Infants and Toddlers, 3 Cr.
 - ECFS 661 Practicum in Development of Young Children, 4 Cr.
 - or
 - ECFS 671 Field Studies or Research in Development of Young Children, 4 Cr.
 - ECFS 522 Parent and Family Studies, 3 Cr.
 - ECFS 662 Practicum in Parent and Family Studies, 4 Cr.
 - or
 - ECFS 672 Field Studies or Research in Parent and Family Studies, 4 Cr.
 Plan B: Select one practicum and one seminar.
 - ECFS 621 Advanced Development of Young Children, 3 Cr.
 - ECFS 622 Advanced Studies of Parent and Family in Community, 3 Cr.
 - ECFS 661/671 Practicum and Field Experiences in Development, 2 Cr.
 - ECFS 662/672 Practicum and Field Experiences in Parent and Family, 2 Cr.
- III. Major Blocks:
 - Early Education
 - ECFS 523 Early Education, 3 Cr.
 - ECFS 623 Analysis of Early Education: Curriculum, 3 Cr.
 - (Optional for Plan A)
 - ECFS 623 Analysis of Early Education: Physical Environments, 3 Cr.

- ECFS 663 Practicum in Early Education, 2 Cr.
 ECFS 673 Field Experience in Early Education: Student Teaching, 4 Cr.
 Plan B students choose one of the following with adviser approval:
 ECFS 605 Issues and Topics in Early Childhood and Family Studies, 3 Cr.
 ED 608 Child and Student Rights, 3 Cr.
 ED 651 Kindergarten Education, 3 Cr.
 PSY 545 Psychology of Play and Childhood, 3 Cr.
 Administration
 ECFS 624 Administration and Facilitation of Early Childhood Programs, 3 Cr.
 ECFS 664 Practicum in Administration and Facilitation of Early Childhood Programs, 3 Cr.
 or
 ECFS 674 Field Experience in Administration and Facilitation of Early Childhood Programs, 3 Cr.
 ECFS 605 Issues and Topics in Early Childhood and Family Studies, Plan A, 3 Cr.; Plan B, 6 Cr.
 Plan A students choose one and Plan B students choose two from the following list of courses or equivalent with adviser approval:
 MGMT 560 Problems in Personnel Administration, 4 Cr.
 MGMT 572 Financial Institutions, 4 Cr.
 EDAD 601 Foundations of Educational Administration, 3 Cr.
 EDAD 650 School Law, 3 Cr.
 EDAD 649 Elementary School Administration, 3 Cr.
 EDAD 604 School Finance, 3 Cr.

Master of Science in Early Childhood and Family Studies: Special Needs Children

Plan B Only, 53 Cr.

- I. Foundations of Education: 3 Cr.
 ED 602 Evaluation of the School Program, 3 Cr.
 ED 606 Problems in American Education, 3 Cr.
 ED 612 Philosophy of Education, 3 Cr.
 ED 614 Interpretation of Research, 3 Cr.
 ED 653 Current Instructional Research, 3 Cr.
 PSY 678 Introduction to Graduate Statistics, 3 Cr.
- II. Development: 17 Cr.
 SSPA 568 Introduction to Children's Language Development, 3 Cr.
 ECFS 521 Development of Young Children, 3 Cr.
 ECFS 621 Advanced Development of Young Children, 3 Cr.
 ECFS 661 Practicum: Development of Young Children, 1 Cr.
 ECFS 661 Practicum: Development of Young Children (Special Needs), 1 Cr.
 ECFS 640 Development of Infants and Toddlers, 3 Cr.
 SPED 508 Developmental Screening and Assessment of Young Children, 3 Cr.
- III. Parent and Family Studies: 8 Cr.
 ECFS 522 Parent and Family Studies, 3 Cr.
 ECFS 622 Advanced Parent and Family Studies, 3 Cr.
 ECFS 662 Practicum: Parent/Family Studies, 1 Cr.
 ECFS 662 Practicum: Parent/Family Studies: Special Needs, 1 Cr.
- IV. Planning and Delivery of Education for Young Children with Special Needs: 25 Cr.
 ECFS 523 Early Education, 3 Cr.
 ECFS 605 Issues and Topics in Early Childhood and Family Studies, 3 Cr.
 ECFS 623 Advanced Methods in Early Education (including individualized planning), 3 Cr.
 ECFS 673 Practicum in Early Education, 4 Cr.
 SPED 520 Education of Severely and Profoundly Retarded, 3 Cr.
 SPED 620 Teaming, Community Resources, and Service Delivery Systems, 3 Cr.
 SPED 650 Practicum in Moderately, Severely, and Profoundly Handicapped, 3 Cr.
 ED 651 Kindergarten Education, 3 Cr.
 Select one of the following: 3 Cr.
 SPED 521 Program for Moderately Retarded, 3 Cr.
 SPED 505 Behavior Problems in the School, 3 Cr.
 SPED 506 Orthopedic Handicaps in School, 3 Cr.
 SPED 507 Education of Children with Learning Disabilities, 3 Cr.
 ECFS 624 Administration of Early Childhood Programs, 3 Cr.

The following courses are required for prekindergarten licensure:

- Required: 29 Cr.
 ECFS 521 Development of Young Children, 3 Cr.
 ECFS 661/671 Practicum and Field Study in Development, 2 Cr.
 ECFS 552 Parent and Family Studies, 3 Cr.
 ECFS 662/672 Practicum and Field Study in Parent/Family Studies, 2 Cr.
 ECFS 605 Issues and Topics in Early Childhood and Family Studies, 3 Cr.
 ECFS 523 Early Education, 3 Cr.
 ECFS 623 Analysis of Early Education, 3 Cr.
 ED 651 Kindergarten Education, 3 Cr.
 ECFS 673 Practicum in Early Education (Student Teaching), 4 Cr.
 ECFS 640 Development of Infants and Toddlers, 3 Cr.
 or
 SSPA 568 Introduction to Children's Language, 3 Cr.
 Plus (or equivalent)
 HURL 596 Human Relations and the Teacher Part I, 3 Cr.
 HURL 597 Human Relations and the Teacher Part II, 3 Cr.
 HPER 505 Mood Modifying Substances in Contemporary Society, 3 Cr.

COURSE DESCRIPTIONS

521. Development of Young Children. Development of normal and exceptional children (prenatal development through eight years). Theories of child development, impacts of early experience, developmental assessment and planning. Coreq.: 661 or 671. 3 Cr. F.

522. Parent and Family Studies. Models of parent and family, including special needs, education. Ways to involve parents, methods of parent education, family unit studies. Coreq.: 661 or 671. 3 Cr. W.

523. Early Education. Teaching techniques, curriculum selection and construction, and evaluation of instructional materials appropriate for early education programs. 3 Cr. F.

COURSES FOR GRADUATE STUDENTS ONLY

605. Issues and Topics in Early Childhood and Family Studies. A variable content course designed to address specialized areas of study related to early childhood education, child development, parent education, parenting practices, legislation, child advocacy or other topics which are of current concern to faculty and/or students. 1-6 Cr. DEMAND.

621. Advanced Development of Young Children. An in-depth study of developmental milestones, children at risk, pediatric experiences, and the effects of children's development on others. Prereq.: 521. May be taken twice on approval of adviser. 1-6 Cr. W, S.

622. Advanced Studies of Parents and Families in the Community. In-depth study of home/community coordination and education. Development of skills and sensitivities for dealing with families, family based child care, and research and development of parenting programs. Prereq.: 522. May be taken twice with approval of adviser. 1-6 Cr. F, S.

623. Analysis of Early Education. Evaluation, planning, designing learning environments, equipment/facilities, teaching roles, socialization of children in early childhood education. Prereq.: 523. May be taken twice on approval of adviser. 1-6 Cr. W, SUM.

624. Administration and Facilitation of Early Childhood Programs. Administrative proposal writing theory and current practice relating to early childhood and parent/family programs. This course covers administrative aspects such as budgeting, rules and regulations, employee concerns, personnel policies (hand-books), and practical problems related to direction of programs. 3 Cr. W.

640. Development of Infants and Toddlers. This course focuses on developing a profile of young children in the first three years of life. A major philosophy of this class is that the infant is competent. The roles and actions of caregivers will be discussed in relation to infant/toddler interaction. Evaluating and assessing the special needs of infants/toddlers is also a major component of this class. Prereq.: 521. Coreq.: 661 or 671. 3 Cr. S.

661. Practicum in Development of Young Children. Supervised practicum in early childhood programs. Will have experiences of observing and assessing, participating with and planning for children ages 0-8 years. Must be taken at same time as 521 or 621. 1-6 Cr. DEMAND.

662. Practicum in Parent and Family Studies. Supervised practicum working with parents and families participating in early childhood programs. Must be taken at same time as 522 or 622. 1-6 Cr. DEMAND.

663. Practicum in Early Education. Supervised practicum in early childhood programs. Will have experiences in early education settings with children from ages 0-8. 1-6 Cr. DEMAND.

664. Practicum in Administration and Facilitation of Early Childhood Programs. Supervised practicum in administering and coordinating early childhood programs. Must be taken at same time as 624. 1-6 Cr. DEMAND.

671. Field Experiences or Research: Development of Young Children. Students must complete a variety of assignments that must be done with young children and their families. Does not require assignment to a specific setting. Must be taken at same time as 521 or 621. Prereq.: permission of program director. 1-6 Cr. DEMAND.

672. Field Experiences or Research: Parent and Family Studies. Opportunity to utilize a variety of settings to advance the students' understanding of parent and family education or involvement. Alternative to practicum for those who can document considerable previous experience in parent and family education. Must be taken at same time as 522 or 622. Prereq.: permission of program director. 1-6 Cr. DEMAND.

673. Field Experiences and Research in Early Education. Supervised field experience (student teaching) for students in the early education block. Students are to complete the early education courses before enrolling for this field experience. 1-6 Cr. SUM.

674. Field Experiences or Research in Administration and Facilitation of Early Childhood Programs. Opportunity to participate in variety of administrative roles in early childhood programs. A practicum for students which will provide experience as an administrator or coordinator of early childhood programs. 1-6 Cr. DEMAND.

699. Master's Thesis. 6 Cr. F, W, S, SUM.



EARTH SCIENCES (ESCI)

46 MATHEMATICS AND SCIENCE CENTER/255-2009

Chairperson: Garry Anderson

Graduate Faculty: G. Anderson, C. Nelson, Shurr, Soroka, Watkins

COURSE DESCRIPTIONS

520. Seminar. Lectures, readings, discussion on selected topics. 1-4 Cr. May be repeated to max. of 9 Cr. F, W, S.

528. Glacial Geologic Processes. A survey of the mechanics of glaciers, the sediments and landforms they produce, followed by a discussion of the glacial geology of the upper midwest and Minnesota. Prereq.: 284. 3 Cr. W.

539. Stratigraphy and Earth History. Techniques of studying the stratigraphy of sedimentary rocks including correlation and mapping. Interpretations of ancient tectonic movements and sedimentary environments from these data. Prereq.: 285. 4 Cr. S.

556. Methods and Materials for Teaching Sciences. Modern approaches to teaching science in junior or senior high school. Integrated lab. 2 Cr. F, W.

560. Methods and Materials for Teaching Earth Sciences. Modern approaches to teaching junior high school science in classroom and laboratory, including work on the major junior high science curricula with emphasis on the earth science curriculum projects. Lab. 2 Cr. W.

577. Earth Sciences Institute. Selected topics in earth sciences for experienced teachers. 3-6 Cr. DEMAND.

ECONOMICS (ECON)

28 LAWRENCE HALL/255-2227

Chairperson: Harold Lofgreen

Graduate Faculty: Evanoff, Gleisner, Hendricks, Lange, Lofgreen, Luksetich, White

A graduate program in economics is available, Master of Science: Social Science (economics). See degree requirements under Social Science, page 97.

MASTER OF SCIENCE—Social Science (Economic Education)

This program is designed for K-12 teachers and supervisors who desire to improve their basic understanding of economics in order to effectively initiate, implement, and evaluate systematic programs in economic education in elementary and secondary schools. The program is designed to provide a basic background for those who have had little or no formal training in economic education. Each specific program will be developed by the appropriate advisers taking into account the individual's background and teaching/supervisory objectives.

Plan B, Min., 48 Cr.

- I. Research: Min., 3 Cr.
 - ED 614 Interpretation of Research, 3 Cr.
or
ED 615 Introduction to Research, 3 Cr.
- II. Major: Min., 24 Cr.
 - A. Required:
 - ECON 610 Economic Education, 4 Cr.
 - ECON 631 Seminar in Economic Education, 3 Cr.
For Secondary School Personnel, in addition to above:
 - SST 640 Recent Trends in Teaching Social Studies in Secondary School, 3 Cr.
 - B. Elective Courses in Economics, Min., 12 Cr. Courses selected must be approved by major adviser.
 - C. General Electives, Max., 7 Cr.
Any two graduate level courses from the following:
BEOA 516, 601, 607
IND 601, and/or any graduate offering from the following departments
(with prior consent of major adviser):
GEOG, ESCI, HIST, AMST, SST, SSPA, POL, SOC, ANTH.
- III. Professional Education: Min., 18 Cr.
 - A. Elementary School Level Personnel
Prescribed:
 - EDAD 696 Elementary School Supervision, 3 Cr.
 - ED 649 Practicum in Curriculum Construction and Development, 3 Cr.
 - B. Secondary School Level Personnel
Prescribed:
 - ED 654 Improvement of Secondary School Instruction, 3 Cr.
 - ED 649 Practicum in Curriculum Construction and Development, 3 Cr.
 - C. All Programs
Prescribed:
 - EDAD 601 Research and Theory in Educational Administration, 3 Cr.
- Electives in Professional Education: Min., 9 Cr. The courses to complete this requirement are to be approved by appropriate professional education adviser. The combination of required and elective courses must include at least one course in foundations of education, one course in curriculum development, and one course in instructional methodology.
- IV. General Electives: Min., 3 Cr.
(All programs other than secondary major, consent of adviser.)

COURSE DESCRIPTIONS

551. Resource and Environmental Economics. Analysis of problems of natural resource allocations, including air and water quality control. Economic efficiency, externalities, and long-run implications. Prereq.: 273, 274, or consent of instructor. 4 Cr. S ALT, DEMAND.

560. Public Finance. The role of government in the economy with emphasis upon analysis of public revenues and expenditures, tax structure, intergovernmental fiscal relations, fiscal policy and public debt measurement. 4 Cr. W.

561. Public Economics: State and Local. The economics of state and local government. Public projects, tax and revenue structures, and intergovernmental relations. Some emphasis on Minnesota. Prereq.: 273, 274, or consent of instructor. 4 Cr. S.

565. Urban and Regional Economics. Analysis of regions, including the city as a regional center. Emphasis on regional development, location theory, central Place theory, financing. Some emphasis on Central Minnesota. Prereq.: 273, 274. 4 Cr. F, DEMAND.

570. Business Cycles and Forecasting. Factors causing fluctuations in business activity and national income; proposed methods of stabilization; business forecasting techniques. Prereq.: 273, 274. 4 Cr. DEMAND.

571. Money and Banking. A study of the monetary and banking system of the United States; bank credit, the banking system, Federal Reserve System, central bank policy, and relationship between bank credit, money and price levels. Prereq.: 273, 274. 4 Cr. F, W, S, SUM.

572. Social Control of Business. A course in the economic theory and practice of government regulation and control of business activity in the United States. Prereq.: 273, 274. 4 Cr. F.

573. Labor Economics. Labor as a factor of production; growth of collective bargaining and labor legislation, with their attendant effects upon society. Prereq.: 273, 274. 4 Cr. W.

574. International Economics. International economic relationships; commercial and financial policies; tariffs, exchange controls, international monetary standards, and international settlements. Prereq.: 273, 274. 4 Cr. W ALT.

575. National Income and Employment. Study of flow of expenditures and income and their impact upon national income and price levels, with appropriate consideration of possible stabilization controls. Prereq.: 273, 274. 4 Cr. F, W, S, SUM.

576. Price and Distribution Theory. Nature and scope of economic processes in free enterprise system; determination of prices, output and factor services in different market structures. Prereq.: 273, 274. 4 Cr. F, S.

578. History or Economic Thought. Development of economic thought and analysis from Adam Smith to present. Prereq.: 273, 274. 4 Cr. F, S.

579. Manpower Policy and Analysis. An examination of the factors which influence the quantity and quality of labor and of the economic aspects of government policy toward labor as an individual entity. Prereq.: 273, 274. 4 Cr. W ALT.

580. Seminar in Area Economic Studies. (Topical.) An examination of the economy and the current economic problems of selected regions, areas, or countries of the world. Prereq.: departmental approval. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

581. Seminar:_____. Selected topics in economic theory. Prereq.: departmental approval. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

583. Contemporary Economic Problems. (Topical.) Consideration and possible solutions of problems arising from growth and development of modern institutions under the free enterprise system. Prereq.: departmental approval. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

587. Economic Growth and Stability. Behavior of the aggregate output and income over time. Models of long-run growth and short-run cycles are utilized to examine policies and programs to maintain economic stability. Prereq.: 475-575 or 470-570. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Readings in Economics. (Topical.) Guided study of individual investigation of special economic problems and/or theoretical topics. Credits and meetings by arrangement. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

602. Readings in Economic Education. (Topical.) Guided study of individual investigation of the literature in the field and/or its applications. Credits and meetings by arrangement. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

610. Economic Education. Examination of economic concepts found in the public school curricula, the economic theories necessary to understand these concepts, and development of models for examination of public policy issues. 4 Cr. DEMAND.

630. Seminar:_____. Research and seminar presentation on selected economic topics. Prereq.: consent of department. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

631. Seminar in Economic Education. Research and seminar presentation of topics in economic education. Prereq.: consent of department. May be repeated. 3 Cr. DEMAND.

645. Economic Problems of Underdeveloped Countries. A study of the social and economic development, and of the leading issues in economic growth theory. Selected cases of underdeveloped countries will be examined in detail. 4 Cr. DEMAND.

659. Economic Analysis. The equivalent of Economics I and II. The economic process, national income analysis, money and the banking system, theory of income distribution, pricing systems, resource allocation. Primarily for M.B.A. students. 4 Cr. F, DEMAND.

677. Business Economics. Economic analysis as an aid in business management and control. 4 Cr. DEMAND.

679. Comparative Economics. An analysis of the functioning of different economic systems. Comparison of the principles of operation using theoretical systems as a framework for comparison of the social and economic objectives. 4 Cr. DEMAND.

EDUCATIONAL ADMINISTRATION AND LEADERSHIP (EDAD)

B118 EDUCATION BUILDING/255-2160

Director: James W. Anderson

Graduate Faculty: J. Anderson, Farrah, Holden, Holmgren, Renz

The following programs have been approved by the Minnesota State Department of Education for meeting the professional preparation requirements for licensure for the administrative positions where licensure is required by the state.

All candidates for licensure in Minnesota shall have completed three years of successful teaching experience on a license valid for the position in which the experience was obtained. For elementary principals, the experience must be at the elementary level. For secondary principals, the experience must be at the secondary level.

MASTER OF SCIENCE PROGRAMS IN EDUCATIONAL ADMINISTRATION

Programs:

Elementary School Administration
Secondary School Administration
Community Education Administration
School Business Administration

Departmental Requirements.

Assessment of Field Knowledge (Self Evaluation of Competencies). The student must fulfill all requirements for the Master of Science degree program in school administration as determined through the departmental assessment procedures.

Elementary and Secondary School Administration. The applicant for the Master's degree must complete a minimum of 50 quarter credits.

- I. Common Core Experiences: 24-27 Cr.
 - Legal Aspects of Education
 - History and Philosophy of Education
 - Interpersonal and Group Relations
 - Curriculum: K-12
 - Research and Evaluation
 - Administrative Practicum Experience: required of all candidates
- II. Role Specialization Areas: 15-18 Cr.
 - Elementary Education-Required areas:
 - Supervision
 - Administration of the Elementary School
 - Secondary Education-Required areas:
 - Supervision
 - Administration of the Secondary School
 - Education electives:
 - Approval of adviser required.
- III. Related Fields: 9-12 Cr.
 - The candidate will select a minimum of 9 credits from related fields with the approval of the adviser.

The Master's degree candidate will be expected to complete at least two starred papers in educational administration which will: (1) define a problem area; (2) locate and identify material relevant to the problem; (3) interpret and evaluate the material; and (4) report the findings in a logical and intelligible form. Obtain a copy of *A Manual for the Preparation of Field Studies, Theses, Creative Works and Starred Paper(s)* from the Graduate Office.

Community Education Administration. The program will be designed within the following framework, taking into account the educational background and experience of each student.

Plan B Only, 48 Cr.

- I. Community Organization and Development: 12 Cr.
 - A. Sociology
 - SOC 542 Social Movements, 3 Cr.
 - SOC 556 Complex Organizations, 4 Cr.
 - SOC 576 American Social Institutions, 4 Cr.
 - SOC 501 (370) Urban Sociology, 4 Cr.
 - SOC 501 (379) Research Methods, 4 Cr.

- B. Political Science
 - POL 501 (380) Public Administration, 4 Cr.
- C. Psychology: Emphasis on the role of facilitation; the small group process; the action group; the role of the catalyst.
 - PSY 574 Interpersonal Dynamics, 3 Cr.
 - PSY 666 Small Group Counseling Process, 3 Cr.
 - PSY 680 Organizational Psychology, 3 Cr.
- D. Speech Communication
 - SPC 530 Modern Theories of Communication, 4 Cr.
 - SPC 535 Theories of Small Group Process, 4 Cr.
 - SPC 540 Advanced Public Speaking, 4 Cr.
- II. Community Service Workshops and Seminars: 3-6 Cr. Specially developed workshops and seminars to meet needs in community education will be offered periodically. Prospective topics include adult education, continuing education, community relations, leisure time and recreation activities, programming community activities, and relationships with social, health, and welfare agencies.
- III. Community Education Leadership Role Experiences: 24 Cr.
 - ED 654 Improvement of Secondary School Instruction, 3 Cr.
 - EDAD 604 School Finance, 3 Cr.
 - EDAD 608 Public Relations, 3 Cr.
 - EDAD 613 Practicum in Curriculum Development, 3 Cr.
 - EDAD 617 Foundations of Community Education, 3 Cr.
 - EDAD 618 Administration of Community Education, 3 Cr.
 - EDAD 650 School Law, 3 Cr.
 - EDAD 674 Educational Administration: Overview, 3 Cr.
 - HURL 596, 597 Human Relations, Max. 3 Cr.
- IV. Experiential Field Areas: Practicum: 6-9 Cr.
 - EDAD 607 Practicum in Community Education, 3-9 Cr.

(Selected experiences in community agencies and public schools.)

School Business Management: Plan B Only, 48 Cr.

- I. Educational Administration, 22-25 Cr.
 - A. Required:
 - *EDAD 602 School Business Management I, 3 Cr.
 - *EDAD 603 School Business Management II, 3 Cr.
 - EDAD 604 School Finance, 3 Cr.
 - *EDAD 606 Practicum in School Administration, 3 Cr.
 - EDAD 640 School Plant Planning and Management, 3 Cr.
 - EDAD 650 School Law, 3 Cr.
 - EDAD 674 Educational Administration Overview, 3 Cr.
 - BEOA 513 Office Management, 4 Cr.
 - B. Electives:
 - EDAD 601 Foundations of Educational Administration, 3 Cr.
 - EDAD 608 Public Relations for School Administrators, 3 Cr.
 - EDAD 617 Foundations of Community Education, 3 Cr.
 - EDAD 677 Personnel Administration in Education, 3 Cr.
 - EDAD 697 Current Problems and Issues in School Administration, 3 Cr.
- II. Business-Related Courses, 14-18 Cr.
 - A. Required: 6 Cr.
 - ACCT 596 Fund Accounting, 4 Cr.
 - ACCT 680 Special Research, 2 Cr.
 - B. Electives:
 - ECON 560 Public Finance, 4 Cr.
 - ECON 561 Public Economics: State and Local, 4 Cr.
 - MGMF 560 Problems in Personnel Administration, 4 Cr.
 - MGMF 561 Collective Bargaining, 4 Cr.
 - MGMF 564 Purchasing and Materials Management, 4 Cr.
 - MGMF 567 Organization Theory, 4 Cr.
 - MGMF 576 Property and Liability Insurance, 4 Cr.
 - MGMF 577 Public Administration: Strategy and Organization, 4 Cr.
 - SOC 540 Public Opinion and Propaganda, 4 Cr.
 - SOC 576 American Social Institutions, 4 Cr.

*Upon presentation of appropriate experience, substitutions may be approved for these requirements.

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III. Research: Min., 7 Cr.

A. Required:

ED 615 Introduction to Research, 3 Cr.

Two starred papers.

B. Elect from the following:

QMIS 501 (351) Introduction to Management Information Systems, 4 Cr.

ED 614 Interpretation of Research, 3 Cr.

PSY 678 Introduction to Graduate Statistics, 3 Cr.

IV. Educational Philosophy, History, and Curriculum: Min., 6 Cr.

ED 606 Problems in American Education, 3 Cr.

ED 610 The School and the Social Order, 3 Cr.

ED 611 History of American Education, 3 Cr.

ED 612 Philosophy of Education, 3 Cr.

ED 646 Elementary School Curriculum, 3 Cr.

or

ED 647 Secondary School Curriculum, 3 Cr.

SPECIALIST DEGREE AND SIXTH YEAR PROGRAM—EDUCATIONAL ADMINISTRATION

Programs:

Elementary School Administration

Secondary School Administration

General School Administration (Superintendency)

Departmental Requirements.

The candidate must have completed a minimum of three years teaching experience to qualify for licensure.

Applicants for admission to the Specialist degree program and the Sixth Year program must have completed a master's degree or the equivalent with a major in educational administration. For admission to the Specialist degree a grade point average of 3.20 is required over the master's degree program. Admission to the Sixth Year program is contingent upon achieving a 3.00 grade point average in the master's degree.

In the case where the applicant is not interested in pursuing the Specialist degree or cannot qualify for the Specialist degree program but must meet licensure requirements of the State Department of Education, the applicant may pursue the Sixth Year program in Educational Administration.

The student must fulfill all requirements for the Specialist degree or the Sixth Year program in School Administration as determined through the program planning process and field knowledge assessment. Each program will consist of a minimum of 50 quarter hours. It is expected that most programs will exceed the minimum requirements.

The student must give evidence of writing ability (i.e., research papers, education reports pertaining to any phase of educational administration).

A final program must be submitted for approval upon the completion of no less than one-third of the required work and not more than one-half of the work completed towards the Specialist degree or the Sixth Year Program.

Program planning and content in the role specialization area will be based in part on a pretest of the candidate's knowledge of the field of educational administration.

Competency Self-Evaluation and Follow-up Conference:

Each candidate will evaluate her/his own level of knowledge and skill in the various competency areas. The instrument administered will contain the competencies designated and to be learned in the role specialization areas. The instrument is structured on a scaled basis for each item. Upon the completion of the self-evaluation the candidate will submit the completed instrument to the chairperson of the department for analysis. After analysis a conference will be arranged with the candidate for a discussion of the self-evaluation. This will constitute an initial pre-program evaluation of the candidate's level of knowledge and skill in the competency role specialization areas. *It may lead to the addition of courses and/or other activities designed to raise the level of the knowledge and skill of the candidate in the role specialization areas.*

Final written comprehensive examinations are required for all candidates in the Sixth Year program. They may be required of Specialist degree candidates at the adviser's request.

The Individualized Program in School Administration.

The applicant for the Specialist degree or the Sixth Year program must complete a minimum of 50 quarter hours beyond a master's degree in school administration. It is expected that most programs will exceed the minimum requirements.

The following program is required:

Completion of the common core experiences required in the Master of Science program.

All candidates for the Sixth Year or Specialist degree are required to complete six credits of practicum (minimum of 200 clock hours).

Completion of an acceptable field study for Specialist degree students.

Sixth Year program candidates are not required to complete a field study, but will be expected to complete additional course work.

Completion of the approved program of study.

I. Research: 12 Cr.

Required:

EDAD 612 Administrative Field Study Design and Analysis, 3 Cr.

EDAD 641 Surveys and Field Studies, 9 Cr.

The Specialist degree candidate will be expected to do a field study in educational administration which will: (1) define a problem area; (2) locate and identify material relevant to the problem; (3) interpret and evaluate the material; and (4) report the findings in a logical and intelligible form.

The field study must be initiated before the candidate has completed no more than one-third of the program.

EDAD 612, Administrative Field Study Design and Analysis is required as a prerequisite to the initiation of the field study.

The candidate shall submit the plans for the field study for action by a committee appointed by the Graduate School composed of the field study adviser, one additional member from the major department, and a third representative from a related department.

To be completed if not included on the M.S. program:

Interpretation of Research (also required of Sixth Year program candidates) OR

Introduction to Research AND

Introduction to Graduate Statistics

II. Role Specialization Block: 21 Cr.

With the approval of the adviser, the student will select a minimum of the program content from the areas of administration, supervision, and curriculum and instruction. Eighteen credits must be in educational administration.

III. Special Study Area: 9 Cr.

With the approval of the adviser, the student will select a minimum of 9 credits from the areas of: psychology, special education, information media and/or human relations.

IV. Related Fields: 8 Cr.

The candidate will select a minimum of 8 credits from areas related to the field of professional education with the approval of the adviser.

SPECIALIST DEGREE—Special Education Administration

This program is described under the Special Education department.

COURSES FOR GRADUATE STUDENTS ONLY

601. Foundations of Educational Administration. Emphasis on human behavior in its relationship to the theory and practice of administrative behavior. Content would be models as drawn from the related discipline fields. 3 Cr. DEMAND.

602. School Business Management I. Organization and work of the school business office; budgeting; accounting, reporting, and auditing; insurance; central office records; legal services. 3 Cr. DEMAND.

603. School Business Management II. Supply and equipment administration; plant maintenance and operation; food services; pupil transportation; support personnel administration; health and safety program for school facilities. Prereq.: 602. 3 Cr. DEMAND.

604. School Finance. Problems of school finance; local, state and federal sources of school income; and the relationship of school finance to the effectiveness of the instructional program. 3 Cr. DEMAND.

606. Practicum in School Administration. (6 Cr. required) Administrative experience in cooperation with selected school administrators. Prereq.: two years teaching experience. 3-9 Cr. (Application must be made at least one quarter in advance.) F, S.

607. Practicum in Community Education. Practical experiences in cooperation with selected community agencies. Emphasis on interrelatedness and implementation of community education concepts and strategies. Prereq.: 617, 618. 3-9 Cr. DEMAND.

608. Public Relations for School Administrators. Techniques; communication structures in the community; working with special interest groups, press, radio, and television; preparing news releases; school publications. 3 Cr. DEMAND.

609. Middle School/Junior High School Administration. Problems peculiar to the administration and operation of a junior/middle school operation. 3 Cr. DEMAND.

610. Simulated Experiences in Educational Administration. Actual supervisory and administrative problem situations are dealt with through student participation in representations of the real problems. 3 Cr. DEMAND.

611. Seminar: School Law. Provisions of current educational statutes as enacted in the most recent

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sessions of Congress and the Minnesota Legislature, and the implications of the new and proposed Federal and State statutes for school administrators. 2 Cr. DEMAND.

612. Administrative Field Study Design and Analysis. Emphasis: types of field studies; topic selection; problem clarification; design and format; selection of statistical instruments; and computer data analysis. Prereq.: to 641. 3 Cr. DEMAND.

617. Foundations of Community Education. Theory, philosophy, concepts, programs, and evaluation of community education; interrelationships with social service agencies and educational institutions. 3 Cr. DEMAND.

618. Administration of the Community School. Emphasis: conceptual, human and technical skills; budgeting; statutes; roles and role relationships; coordination with community agencies and resources. 3 Cr. DEMAND.

640. School Plant Planning and Management. Plant planning and financing, bond elections, operation and maintenance of school buildings. 3 Cr. DEMAND.

641. Surveys and Field Studies. (For the Specialist degree only.) The theory, techniques, procedures, and results of school surveys and field studies. Written field study report required. Prereq.: 612. Arranged. Registration required in the next quarter after completing 612. 9 Cr. F, W, S, SUM.

649. Elementary School Administration. Staff responsibilities; inter-staff relationships; elementary school program; pupil accounting; school facilities. Prereq.: one year teaching experience. 3 Cr. DEMAND.

650. School Law. Statutes and judicial decisions affecting public education. Legal authority, powers, and liabilities of school personnel with respect to school finance, curriculum, property, contracts, pensions, tenure, etc. 3 Cr. DEMAND.

674. Educational Administration: Overview. School administration in the U.S.; role of federal government in education, state departments of education, school districts, school boards, and superintendents. 3 Cr. DEMAND.

676. Secondary School Principalship. For students preparing for administration of secondary schools. Principles and practices in organization and administration of secondary schools. 3 Cr. DEMAND.

677. Personnel Administration in Education. Theories and principles; personnel policies and procedures; selection, appointment, and orientation; salary policies, evaluation, and professional welfare. 3 Cr. DEMAND.

696. Elementary School Supervision. Organization, purposes, and procedures; study of teaching-learning situations, principal's function in diagnosis and improvement of instruction. Prereq.: one year teaching experience. 3 Cr. DEMAND.

697. Current Problems and Issues in School Administration. Content: a different administrative problem or issue each time offered. Students may register three times, each time for a different topic. 2 Cr. Max. of 6 Cr. DEMAND.

698. Seminar in School Administration (Topical). Problems in organization and administration of schools. Areas of study determined by needs. Open only to experienced teachers and administrators. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

EDUCATIONAL CHANGE

A130 EDUCATION BUILDING/255-3124

Director: Douglas Risberg

The Center for Educational Change exists to promote interdisciplinary activities and programs and to serve as a "home" for developing programs of an interdisciplinary or experimental nature within the College of Education. At present the programs located in the center are Early Childhood and Family Studies, Equity in Education, Human Relations, and Multicultural Education.

For information on graduate offerings, see Early Childhood and Family Studies, and Human Relations.

ELEMENTARY EDUCATION PROGRAM

Programs are described under teacher development.

ENGLISH (ENGL)

108 RIVERVIEW BUILDING/255-3061

Chairperson: James Gottshall

Graduate Faculty: Abartis, J. B. Anderson, Bovee, Coard, Dillman, A. E. Falk, Gottshall, Keith, Lawson, Leja, Lundquist, Meissner, Melton (Director, Graduate Study in English), Otto, Parham, Summers, R. Thompson, Tosh, E. VanPelt

MASTER OF ARTS

The M.A. degree in English is the standard degree for those planning a program leading to the Ph.D. degree, for junior college teaching, and for general cultural enrichment.

For unconditional admittance to the M.A. degree, the applicant must have completed at the undergraduate level not less than 36 quarter hours of credit in English, exclusive of general education courses, and must meet the admission standards as required by the Graduate Studies Office.

Before the degree is granted, the student must demonstrate competency in a foreign language acceptable to the English Department. This requirement may be met by successful completion of an examination, by a successful completion of a graduate reading course in a foreign language, or by the completion of 24 quarter credits of work in a foreign language. Successful completion of two courses in linguistics at graduate or undergraduate level may also be accepted as fulfilling this requirement.

A minimum of 15 credits must be earned in English courses limited to graduate students.

Plan A only, 48 Cr.

- I. Credits in English: Min., 38 Cr.

- A. Prescribed:

- ENGL 616 Literary Research (or equivalent course), 4 Cr.

- ENGL 699 Master's Thesis, 6 Cr.

- or

- ENGL 698 Creative Work, 6 Cr.

- B. Electives: a min. of 28 Cr. must be elected in ENGL.

- II. Cognate courses: a max. of 10 Cr. may be earned in approved cognate courses.

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at the undergraduate level a minimum of 36 quarter credits in English exclusive of general education courses and must meet the admission standards as required by the Graduate Studies Office.

A minimum of 15 credits must be earned in English courses limited to graduate students.

Plan A, 46 Cr.; Plan B, 49 Cr.

- I. Research: Plan A, 10 Cr.; Plan B, 4 Cr.

- ENGL 616 Literary Research, 4 Cr. (or equivalent course)

- ENGL 699 Master's Thesis, 6 Cr. (Plan A only)

- or

- ENGL 698 Creative Work, 6 Cr. (Plan A only)

- II. Major: Min., Plan A, 20 Cr.; Plan B, 24 Cr.

- Credits to be selected with major adviser.

- III. Professional Education: Min., Plan A or B, 9 Cr.

- IV. Electives: Plan A, 7 Cr.; Plan B, 12 Cr.

- Credits to be selected with the major adviser from related fields, General Studies Core, Introduction to Graduate Statistics, Interpretation of Research, or additional courses in the major.

- V. Prior to graduation, students in Plan B must pass a comprehensive examination given by the English Department.

Plan C, 54 Cr.

- I. Research: Min., 3 Cr.

- ENGL 616 Literary Research, 4 Cr. (or equivalent course)

- II. Major: 24 Cr.

- Selected course work in English to total 24 credits, and not to include more than one course by independent study.

- III. Educational Foundations: 6 Cr.

- Students will select from the list developed by the College of Education.

- IV. Educational Applications and Implementations: 15 Cr.

- Selected work, with the English adviser's approval, from methods workshops, practicums, internships, school curriculum development, special projects related to the teaching assignment, and from ENGL 652, 653, 654, and other major courses and courses in related fields, as offered and as appropriate to the student's situation.

- V. General Electives: Min., 6 Cr.

- Selected work from the major or related fields, with the approval of the English adviser.

- VI. Candidates are required to complete successfully a final examination, oral or written, covering the materials included in a professional folio to be developed as sanctioned by the adviser. The examination will be conducted by two members of the English Department and one member from outside the department.

COURSE DESCRIPTIONS

521. Literary Theory and Criticism. The concepts which apply to such problems as the writer's creative process, the various purposes of literary art, form, and technique, and the responses that literature elicits. 3 Cr. F, S, SUM.

525. Rhetoric of Writing. Rhetorical analysis of written language for students of composition and literature covering differences between speech and writing, the modes of written discourse, stylistics and the history of written composition. 4 Cr. DEMAND.

531. Teaching Spoken English as a Second Language. Theory and applications in teaching (standard) spoken English to speakers of other languages or dialects. Prereq.: 232. 4 Cr. DEMAND.

532. Teaching Written English as a Second Language. An investigation of form, structure, and method of written American English for teachers of English as a second language. Prereq.: 232. 4 Cr. DEMAND.

533. Computers and Language. Introduction to computer applications in language data analysis and processing, presenting the fundamentals of SNOBOL. Prereq.: 232 or MATH 169 or consent of instructor. 4 Cr. ALT.

534. English Grammars. The application of modern linguistics to the description of English grammar, including an introduction to the theories and methods of structural and generative-transformational grammars. 4 Cr. DEMAND.

535. History of the English Language. The development of English sounds, grammatical structures, and vocabulary from Old English to Modern English; the reading and analysis of selected texts. Prereq.: 232. 3 Cr. S.

536. American English. Contemporary spoken American English social and regional dialects and their relationship to the written language. 4 Cr. DEMAND.

537. Advanced Practices in Creative Writing. Study and practice in writing of poetry, plays, and fiction of publishable quality at the advanced undergraduate and graduate level. Prereq.: 332, 333 or 334, or permission of the instructor. 4 Cr. S, W.

539. Topics in Linguistics. One or more topics of current importance in linguistics. 4 Cr. DEMAND.

541. Milton. The minor poetry, *Comus*, *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, and *Areopagitica*. 4 Cr. S.

545. The Nineteenth-Century English Novel. Austen, Scott, Mary Shelley, Dickens, Thackeray, Meredith, Butler, Eliot, Hardy, and others. 4 Cr. ALT.

546. The American Novel. The development of the American novel. 4 Cr. ALT.

547. Seminar in Literary Themes. Selected recurrent themes in literature, such as science fiction, the gothic, minority literature, death and dying. Variable content. May be repeated. 4 Cr. DEMAND.

548. Seminar in Literary Forms. The forms of literature, such as types of satire, comedy, fantasy. Variable content. May be repeated. 4 Cr. DEMAND.

550. Science Fiction. A study of science fiction as a literary genre: its history, development, relationship to other genres, criticism, concepts, and types. Emphasis on twentieth-century science fiction. 4 Cr. DEMAND.

551. Women in Literature. Images of women and their life experiences as revealed in literature. Emphasis on portrayals by women writers of conflicts between role definition by society and women's struggle for self-realization. 4 Cr. ALT.

553. Literature of Dying and Death. Literary treatments of the problems faced by the dying person and his/her associates. Biographies, poetry, and fiction which provide insight into the nature and meaning of death. 4 Cr. DEMAND.

567. Recent Best Sellers. Reading and discussion of various types of contemporary books that are worthwhile and interesting. Variable content. 4 Cr. May be repeated to a max. of 9 Cr. DEMAND.

569. Literature and American Minorities. A study of the contributions of American minorities: Black Americans, American Indians, Asian Americans, and Mexican Americans to American Literature through themes, content, and forms. Content and focus to vary. 4 Cr. F.

585. The Eighteenth-Century English Novel. Defoe, Richardson, Fielding, Smollett, Sterne, and related authors. 4 Cr. DEMAND.

590. European Writers of the Twentieth Century. 4 Cr. DEMAND.

591. Drama I. World drama: its origins to early English Renaissance. 4 Cr. F.

592. Drama II. World drama: from English Renaissance to early twentieth century. 4 Cr. W.

593. Drama III. World drama: twentieth century. 4 Cr. S.

594. American Writers of the Twentieth Century. 4 Cr. DEMAND.

597. British Writers of the Twentieth Century. 4 Cr. DEMAND

COURSES FOR GRADUATE STUDENTS ONLY

616. Literary Research. Bibliography, methods, and tools in the art of literary research. 4 Cr. F.

622. History of Literary Theory and Criticism. Major texts from ancient times to the present. Designed to provide the student with a background of critical history. 4 Cr. DEMAND.

637. Old English. The language and literature of the Anglo-Saxon period. 4 Cr. DEMAND.

- 643. Shakespeare Studies.** The text and sources; theories; and history of representative comedies, tragedies, and histories. 4 Cr. DEMAND.
- 652. Language Arts Problems.** The latest trends in language arts teaching and course organization; application to specific problems of class members, with emphasis on individual research. Prereq.: 452 or equivalent. 4 Cr. DEMAND.
- 653. Seminar in Literature for Adolescents.** An analysis of one or more approaches to the study of literature in the secondary school and of reading materials appropriate to these approaches. 4 Cr. DEMAND.
- 654. Teaching Composition in the Secondary School.** Study of current theory and practice in composition teaching in the junior and senior high schools. Development of practical programs to fit teaching needs of individual students. 4 Cr. DEMAND.
- 656. The Teaching of College English.** The planning and preparation of materials for college teaching. Involves observation in the college classroom together with student teaching. Research project on the teaching of college English required. 3 Cr. DEMAND.
- 657. Internship in the Teaching of College English (Literature).** Individual instruction in the theory and techniques of effective college classroom teaching of literature, and practical experience in solving the problems of actual classroom instruction under the direct supervision of an experienced teacher. Research project on the teaching of college English required. Admission by consent of the chairperson. 2 Cr. DEMAND.
- 663. Seminar in Early American Literature.** 4 Cr. DEMAND.
- 664. Seminar in the American Literature of the Early Nineteenth Century.** 4 Cr. DEMAND.
- 665. Seminar in the American Literature of the Later Nineteenth Century.** 4 Cr. DEMAND.
- 666. Seminar in American Literature of the Twentieth Century through World War II.** 4 Cr. DEMAND.
- 667. Seminar in American Literature of the Twentieth Century since World War II.** A study of significant American authors from World War II to the present with a selection from such writers as Bellow, Baldwin, Lowell, Styron, and Roethke. 4 Cr. DEMAND.
- 670. The Study of Middle English Literature.** Selected aspects of English literature from the twelfth to the sixteenth centuries. 4 Cr. DEMAND.
- 671. Renaissance Drama.** Representative Tudor and Jacobean dramatists: Kyd, Marlowe, Dekker, Jonson, Webster, Heywood, and related authors. 4 Cr. DEMAND.
- 675. English Writers of the Seventeenth Century.** The writings, background, and criticism of one or more of the principal writers of the seventeenth century, such as Bacon, Bunyan, Burton, Donne, Herbert, Jonson, Dryden, and Milton. 4 Cr. DEMAND.
- 679. Seminar in Restoration Literature.** Selected Restoration authors, writings, and movements from 1660 to 1710. 4 Cr. DEMAND.
- 684. English Writers of the Eighteenth Century.** The writings, background, and criticism of one or more of the principal writers of the eighteenth century. 4 Cr. DEMAND.
- 687. Seminar in Nineteenth-Century British Literature.** A selected aspect of nineteenth century British literature. The content will vary. 4 Cr. DEMAND.
- 688. Seminar in World Literature.** Selected readings from the works of one or more major world figures. 4 Cr. DEMAND.
- 689. Seminar in Twentieth-Century British Literature.** Selected aspects of twentieth century British literature. The content will vary. 4 Cr. DEMAND.
- 696. Literary Heritage.** Masterpieces from different cultural origins and different ages. A graduate general education course not open to English majors. 3 Cr. DEMAND.
- 697. Contemporary Thought in Literature.** A study of the philosophical and cultural content of selected contemporary writings. 4 Cr. DEMAND.
- 698. Creative Work.** 4-6 Cr. F, W, S, SUM.
- 699. Master's Thesis.** 4-6 Cr. F, W, S, SUM.

FOREIGN LANGUAGES AND LITERATURE

228 BROWN HALL/255-4142

Chairperson: James O'Neill

Graduate Faculty: Langen, Retiz

COURSE DESCRIPTIONS

French 511. Advanced Studies in French Literature. Seminar for intensive study of a particular movement, author, or work as announced in advance. To be taught in French. Prereq.: 9 credits of literature or consent of instructor. 1-4 Cr. May be repeated to max. of 12 Cr. DEMAND.

German 511. Advanced Studies in German Literature. Seminar for intensive study of a particular movement, author, or work as announced in advance. To be taught in German. Prereq.: 9 credits of literature or consent of instructor. 1-4 Cr. May be repeated to max. of 12 Cr. DEMAND.

French 514. Advanced Studies in French Literature in Translation. Seminar for intensive study of a particular movement, author, or work as announced in advance. Prereq.: 9 credits of literature or consent of instructor. 1-4 Cr. May be repeated to max. of 12 Cr. DEMAND.

French 560. Study Abroad. Prereq.: FREN 311, 312, and approval of program director. 3-6 Cr. DEMAND.

German 560. Study Abroad. Prereq.: GERM 311-313, and approval of program director. 3-6 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

French 601. French for Graduate Students.

Intensive reading and translation of a variety of texts designed solely to impart a basic reading knowledge of a foreign language. At the end of one quarter, the student is given the respective reading examination. Successfully passing this examination fulfills the graduate school requirement of a reading knowledge of a foreign language. No prereq. Offered according to need. The courses cannot be used to reduce credit requirements for a graduate degree. 3 Cr. DEMAND.

3 Cr. DEMAND.

French 654. Advanced Methodology in the Teaching of French.

Russian 654. Advanced Methodology in the Teaching of Russian.

A seminar dealing with problems of teaching foreign languages at the secondary level and with an examination of recent trends in methodology. Discussion of the course content in English and in the foreign languages. Offered according to need. 1-4 Cr. DEMAND.

GEOGRAPHY (GEOG)

314 STEWART HALL/255-3160

Chairperson: Henry Coppock

Graduate Faculty: Coppock, Richason, Tideman, Wixon

MASTER OF SCIENCE

An applicant for this degree must have completed at least an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in geography in order to choose it as a major at the graduate level. In some cases, the applicants may be required to complete additional undergraduate work even though they may have completed a minor or major. Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.; Plan C, 54 Cr.

I. Research: Min., Plan A, 9-15 Cr.; Plan B or C, 3 Cr.

ED 614 Interpretation of Research, 3 Cr. (Plan C only)
or

ED 615 Introduction to Research, 3 Cr.

GEOG 699 Master's Thesis, 6-9 Cr. (Plan A only)

II. Major: Min., Plan A, 18 Cr.; Plan B or C, 24 Cr.

Advanced study in subject matter, methods, materials, and curriculum.

III. Professional Education: Min., Plans A or B, 9 Cr.

Credits to be chosen with the approval of the professional education adviser.

IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.; Plan C, 6 Cr.

V. Educational Foundations: Min., 6 Cr. (Plan C only)

Students will select from a list developed by the College of Education and approved by the Graduate Council.

VI. Educational Applications and Implementations: Min., 15 Cr. (Plan C only)

Workshops, practicums, internships, school curriculum development, special projects related to the teaching assignment. (Approval of major adviser.)

COURSE DESCRIPTIONS

505. Cartography. Map making and construction; work with map making tools. Topical. 4 Cr. F, W, S, SUM.

506. Intermediate Cartography. Application of basic cartographic skills to advanced map design and construction. Topical. Prereq.: 405-505 or consent of instructor. 4 Cr. W, SUM.



507. Advanced Cartography. Advanced map construction. Application of complex cartographic techniques to map making. Emphasis placed upon cartographic representation of statistical data. Topical. Prereq.: 405-505 or consent of instructor. 4 Cr. S, SUM.

508. Remote Sensing: Application and Interpretation. The study of the characteristics and qualities of nonconventional remote sensing imagery as it applies to the inventory and assessment of various environmental phenomena. Topical. Prereq.: 350 or approval of instructor. 4 Cr. S.

554. Regional Planning. Examination of the attitudes, physical basis, and solutions to regional problems that are beyond being simply "rural" or "urban" in nature. Topical. Prereq.: consent of instructor. 4 Cr. S.

555. Urban Site Development. Emphasis on the art of planning the arrangement of buildings and other structures on the land so as to be in harmony with each other and the environment. 4 Cr. S.

556. Foundations of Planning. A professional level course to provide an understanding of the authority for state and local planning. Topical. Prereq.: consent of instructor. 4 Cr. S.

557. Historic Preservation Planning. A systematic view of historic preservation planning in the United States. Attention is given to district and neighborhood preservation, as well as historic sites and buildings. Topical. 4 Cr. S, SUM.

559. Outdoor Recreation Land Use. Case studies and field investigations of outdoor recreation land use and related activities. Topical. Prereq.: 279 or consent of instructor. 4 Cr. F, S.

572. Geomorphology. The configuration of the earth's surface and physical processes which have brought the surface to its present condition. Topical. 4 Cr. S, SUM.

574. Meteorology. Atmospheric phenomena; familiarity with sensing and recording instruments; the analysis of weather maps and weather forecasting. Topical. 4 Cr. F.

575. Climatology and the World's Climates. Inspection and analysis of climatological data with respect to climatic types and their corresponding climatic controls. Emphasis is given to spatial distribution. Topical. 4 Cr. W.

580. Agricultural Geography. World areal differences in crop, livestock, and technological patterns. Special emphasis on farming in the United States. Topical. 4 Cr. F.

586. Political Geography. Geographical strengths and weaknesses of the Great Powers which influence changes in the world today. Topical. 4 Cr. W.

590. Urban Geography. The development of spatial patterns and relationships within and among urban centers and non-urban areas. Topical. 4 Cr. S.

592. Water Resources. Development and management of water resources: problems of supply, distribution, quality, pollution, floods and variability; case-studies in selected regions, brief background in hydrological processes. Topical. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

601. Research in Geography. A seminar or conference course for students wishing to investigate some phase of this subject. Credits and meetings by arrangement. 1-4 Cr. F.

602. Readings in Geography. A seminar or conference course for students wishing to investigate the geography of a particular region of the world. Credits and meetings by arrangements. 1-4 Cr. W.

630. Seminar: _____. Research and seminar presentation on a selected geographic topic. Regional or topical. Prereq.: consent of instructor. Variable credit. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

644. Internship: Practical Geography. Requires consent of the department and is limited to graduate students only. 1-8 Cr. DEMAND.

650. Land Use Analysis: Examination of the Nature, Use, and Conservation of the Land. Stress is placed on land use planning techniques. Permission of instructor. Topical. 4 Cr. DEMAND.

654. Urban, Regional and Resource Planning. Urban and regional planning field; concepts, philosophies and theories of planning; review of case-studies selected to illustrate different frameworks of urban, regional and resource planning. Topical. 4 Cr. DEMAND.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

HEALTH, PHYSICAL EDUCATION AND RECREATION (HPER)

227 HALENBECK HALL/255-2155

Chairperson: Ray Collins

Graduate Faculty: Bleick, Buckley, Collins, Hortis, Kasper, Kelly, Morohoshi, Osendorf, Serdula, Troyer, Waxlax, Whitlock

MASTER OF SCIENCE—Health and Physical Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution, and must have completed an undergraduate minor or equivalent of at least 36 quarter hours of credit in health or physical education. In some cases, the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

An applicant may select either the health education track or the physical education track. A minimum of 24 credits must be taken from courses within the selected track areas. Some courses in related fields will also be accepted with the consent of the adviser.

Under Plan B, candidates are required to write a starred paper in conjunction with a graduate health education or physical education course of their own choosing. The paper shall be a detailed study and shall follow the style manual available through the Graduate Studies Office. Further, in addition to the Final Written Comprehensive Examination, the candidate will be required to take a final oral examination on this project.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

This program is designed for both full-time and part-time students. Full-time students must expect to complete part of their course load in evening classes.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 3 Cr.

Prescribed:

HLTH or PE 601 Research Methods in Health and Physical Education, 3 Cr.

HLTH or PE 699 Master's Thesis, 6-9 Cr. (Plan A only).

- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Selected course work in health and physical education. Consent of adviser.

- III. Professional Education: Min., Plans A or B, 9 Cr.

Consent of secondary education adviser.

- IV. General Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

Prescribed: PSY 678 Introduction to Graduate Statistics, 3 Cr. Electives from related fields, General Studies Core or courses in the major. Consent of adviser.

Students who wish to qualify for licensure as a supervisor, consultant, director, or coordinator of school health programs under Minnesota EDU 325 will have to meet the following minimum requirements:

A major in health education at the Master's degree level. A minimum of 15 quarter hours of graduate credit in administration and supervision from the following courses or comparable approved courses in administration and supervision:

- HLTH 625 Supervision of School Health Programs, 3 Cr.
- EDAD 601 Research and Theory in School Administration, 3 Cr.
- EDAD 674 Educational Administration, 3 Cr.
- EDAD 677 Personnel Administration, 3 Cr.
- EDAD 696 Elementary School Supervision, 3 Cr.

A minimum of 6 quarter hours of graduate credit from the following courses:

- HLTH 515 Health Education Curriculum Development, 4 Cr.
- HLTH 598 Elementary School Health Program, 3 Cr.
- HLTH 639 Practicum, 3 Cr.

The candidate must have the required teacher's license for health education and three years of successful professional experience in that discipline.

PHYSICAL EDUCATION COURSE DESCRIPTIONS

508. Principles and Philosophy of Physical Education and Athletics. Biological, sociological, and psychological interpretations of physical education. Philosophical concepts from ancient Roman and Greek cultures to the present. 3 Cr. SUM.

511. Organization and Development of Physical Education in the Elementary School. Principles, problems, and procedures. Open to 4-year elementary graduates. 3 Cr. F, W, SUM.

512. History of Physical Education and Athletics. Role of physical education in the life of primitive and ancient societies to the present. Impact of program in foreign countries on the program of this country. 3 Cr. F, SUM.

515. Organization and Administration of Intramural Sports. Methods and materials of intramural sports program in public schools. Content of program. Methods of organizing competition, regulations governing play, outcomes, and awards. 3 Cr. S, SUM.

535. Theory of Dance. History, theory, and philosophy underlying dance from primitive times to the present. Prereq.: permission of instructor. 3 Cr. DEMAND.

550. Secondary Curriculum and Administration of Physical Education. Organization and administration of secondary programs in physical education. 4 Cr. F, S, SUM.

551. Adapted Physical Education. Common disabling conditions of the exceptional child and the organization and administration of the physical education program in order to meet their needs. Prereq.: 348. 3 Cr. DEMAND.

556. The Administration of Interscholastic Athletics. History and objectives of high school athletics; local organization, state and national control over high school athletics; safety and sanitation in athletics. 3 Cr. DEMAND.

PHYSICAL EDUCATION COURSES FOR GRADUATE STUDENTS ONLY

601. Research Methods in Health and Physical Education. Selection of research topics, searching literature, test construction, descriptive methods, laboratory research, application of statistical procedures, formal writing, experimental design. 3 Cr. SUM.

607. Principles of Movement. Scientific principles that form the basis for developing a complete concept and understanding of human movement. 3 Cr. DEMAND.

609. Sport and Society. The inter-relationship of sports and athletics with other aspects of culture. Emphasis on the twentieth century. Prereq.: 412-512 or consent of instructor. 3 Cr. DEMAND.

610. Comparative Physical Education. Physical education in other parts of the world with emphasis on methods of instruction, objectives and types of activities. Selected countries will be studied in depth. 3 Cr. DEMAND.

613. Supervision of Instruction in Health and Physical Education. Planning; teacher qualification, conducting conferences with health and physical education teachers. 3 Cr. DEMAND.

620. Seminar in Physiology of Exercise. A discussion and evaluation of current research and conditioning trends in exercise physiology. Prereq.: 349 or 449. 3 Cr. SUM.

621. Laboratory Techniques in Exercise Physiology. The study of advanced exercise physiology laboratory techniques for students who plan to continue studies in the exercise physiology area. Prereq.: 449 or 620, Cardiopulmonary resuscitation certification. 4 Cr. DEMAND.

622. Exercise and Fitness Prescription. Application of the information obtained in Laboratory Techniques (PE 621). Students will learn how to prescribe programs that will promote "wellness" and lead to healthier lifestyles. Prereq.: 449 and/or 620 and 621. 3 Cr. DEMAND.

631. Seminar in Physical Education. Problems of teachers engaged in teaching or supervising physical education in the public schools. 3 Cr. DEMAND.

633. Readings and Research in Physical Education. 1-4 Cr. DEMAND.

70 / Health, Physical Education and Recreation (HPER)

652. Test and Measurements in Physical Education. Critical study of tests and measurements available in physical education; methods of constructing and evaluating new tests and measurements. 3 Cr. SUM.

654. Advanced Theory of Competitive Athletics. Practical problems associated with coaching and training a competitive athlete through high school and college years. No one sport will be stressed. 3 Cr. SUM.

660. Administration of Physical Education. Facilities, equipment, space, time, costs, etc. involved in promotion of a physical education program. 3 Cr. DEMAND.

661. Planning Physical Education Facilities. Principles, terminology, and standards for planning construction, use, and maintenance of facilities. 3 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

HEALTH COURSE DESCRIPTIONS

505. Mood Modifying Substances in Contemporary Society. A study of mood modifiers including alcohol and nicotine. Suggested educational strategies K-12. Complies with requirements of MSA 126.05. Prereq.: 90 Cr. of prior coursework. 3 Cr. F, W, S, SUM.

515. Health Education Curriculum Development. Organization and development of a school health education curriculum and consideration of courses of study, K-12; legal basis; distinction between curriculum and course of study. Prereq.: 210, 215, 301, 315, 481, or consent of instructor. 4 Cr. F, W, SUM.

581. Human Sexuality. Body growth and development, reproduction, and heredity. Role of the home, church, school and community in family life education, dating and courtship, marriage and family living. 4 Cr. F, W, SUM.

582. Environmental Health. Effects of environmental factors, processes, and activities on man's health, comfort, welfare, and survival. Prereq.: 125 or 215 or consent of instructor. 4 Cr. S.

598. Elementary School Health Program. Concepts of health, disease, safety, family life, nutrition and consumer information for the elementary school. 3 Cr. DEMAND.

HEALTH COURSES FOR GRADUATE STUDENTS ONLY

601. Research Methods in Health and Physical Education. Selection of research topics, methods, laboratory research, application of statistical procedures, formal writing, experimental design. 3 Cr. SUM.

620. Seminar in Physiology of Exercise. A discussion and evaluation of current research and conditioning trends in exercise physiology. Prereq.: PE 349 or 449. 3 Cr. SUM.

621. Laboratory Techniques in Exercise Physiology. The study of advanced exercise physiology laboratory techniques for students who plan to continue studies in the exercise physiology area. Prereq.: 449 or 620, Cardiopulmonary resuscitation certification. 4 Cr. DEMAND.

622. Exercise and Fitness Prescription. Application of the information obtained in Laboratory Techniques (HE 621). Students will learn how to prescribe programs that will promote "wellness" and lead to healthier lifestyles. Prereq.: 449 and/or 620, and 621. 3 Cr. DEMAND.

625. Supervision of the School Health Program. History, legal requirements, budget, scheduling, coordination, public relations, and philosophy as each of these relates to the school health program. 3 Cr. DEMAND.

630. Seminar in School Health Education. Lectures, readings, research and discussion on selected topics. 1-4 Cr. May be repeated with different topics to max. of 9 Cr. DEMAND.

632. Survey of Recent Research in the Field of Health. Readings and discussion of recent studies and authentic reports in various areas of health interest. 3 Cr. DEMAND.

637. Practicum I. Supervised-campus setting peculiar to the student's needs. Prereq.: consent of instructor. 1 Cr. DEMAND.

638. Practicum II. Supervised experience in an off-campus setting peculiar to the student's needs. Prereq.: consent of instructor. 1 Cr. DEMAND.

639. Practicum III. Supervised experience in an off-campus setting peculiar to the student's needs. Prereq.: consent of instructor. 3 Cr. DEMAND.

644. Orthopedics, Therapeutics, and Correctives. An overview of the field of rehabilitation of physical disabilities. Orthopedic screening procedures as an integral part of the school health program. 3 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

RECREATION COURSE DESCRIPTIONS

540. Camping Administration. Organization and administration of camps; program planning; selection and training of staff; camp site selection and development; health and safety. 3 Cr. DEMAND.

541. Outdoor Education. Development in outdoor education; instructional principles of outing activities and outdoor education program materials and methods. 3 Cr. DEMAND.

HISTORY (HIST)

B LAWRENCE HALL/255-3165

Chairperson: David Overy

Graduate Faculty: Gambill, Gower, R. Lewis, Massmann, Nayenga, Overy, D. Peterson, Pluth, Samarrai, Vaughter

Department policy statements on evaluation procedures, starred papers, and reading lists are available in the history office. Each student's progress is to be evaluated after the completion of 12 graduate credits. Students are to contact their adviser in the first enrollment period following completion of 12 graduate credits. Students are encouraged to obtain pertinent material no later than the first quarter of enrollment.

MASTER OF ARTS

An applicant for admission to this program must have earned a minimum of 24 credits in history beyond general education requirements and the undergraduate honor point ratio should be 2.8 or above. Others may be admitted conditionally. In some cases, the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

Reading knowledge of a foreign language is not required but it may be needed. Many graduate schools offering doctorate programs in history prefer applicants who have completed a master's with a thesis.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A: Min., 45 Cr.

- I. Courses in History: 36-39 Cr.

- A. Prescribed:

HIST 699 Master's Thesis, 9 Cr.

*HIST 578 Historical Criticism and Writing, 3 Cr.

*HIST 572, 573, European, and/or American Historiography, 3-6 Cr.

- B. Electives: 19-24 Cr. in History.

- II. Cognate Courses: 6-9 Cr. in courses approved by adviser.

A student completing the Plan A program will be required to pass a final oral examination based on the thesis submitted to the Final Evaluation Committee.

Plan B: Min., 48 Cr.

- I. Courses in History: 30-36 Cr.

- A. Prescribed:

*HIST 578 Historical Criticism and Writing, 3 Cr.

*HIST 572, 573, European, and/or American Historiography, 3-6 Cr.

Three starred papers written in conjunction with approved courses.

- B. Electives: 22-30 Cr. in History.

- II. Cognate Courses: 12-18 Cr. in courses approved by adviser.

A student completing the Plan B program will be required to pass a final oral examination based on the starred papers submitted to the Final Evaluation Committee.

At the option of the department, candidates may also be required to complete a final written examination.

*These courses may be waived if the student has fulfilled these requirements as part of an undergraduate program.

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in history in order to select it as a graduate major. In some cases, the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

A minimum of 15 credits must be earned in the major in which enrollment is limited to graduate students.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.

HIST 578 Historical Criticism and Writing, 3 Cr.

HIST 699 Master's Thesis, 6-9 Cr. (Plan A only)

- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Credits to be selected with major adviser.

72 / History (HIST)

III. Professional Education: Min., Plan A or B, 9 Cr.

Credits to be selected with approval of the professional education adviser.

IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

A student completing Plan A will be required to pass a final oral examination based on the thesis submitted to the Final Evaluation Committee.

A student completing Plan B will be required to take a written comprehensive examination as a final evaluation. It is strongly advised that students take a historiography course or courses (History 572, 573) appropriate to their area(s) of concentration.

COURSE DESCRIPTIONS

533. Imperial Russia, 1725-1917. A survey of politics, diplomacy, society, economics, and culture in Russia from Peter the Great to the Revolution. 4 Cr. W.

534. Soviet Russia, 1917 to the Present. A historical survey of politics, society, economics, and culture in the Soviet Union. 4 Cr. S.

545. United States Military History. Military problems and accomplishments from 1775 to the present. 4 Cr. DEMAND.

548. U.S. Social and Intellectual to 1865. Puritanism, revivalism, early American political thought, economic values, agrarianism, reform movements, literary traditions, individualism, are among topics discussed. 4 Cr. DEMAND.

549. U.S. Social and Intellectual Since 1865. "Rugged individualism," pragmatism, reform movements, evolution, racism, liberalism, conservatism, radicalism, are among the topics discussed. 4 Cr. DEMAND.

555. U.S. Foreign Relations, 1775-1898. American foreign policy; neutral rights; Monroe Doctrine; influence of sectionalism on foreign relations; Civil War and its effects; overseas expansion. 4 Cr. DEMAND.

556. U.S. Foreign Relations Since 1898. The U.S. as a world power; diplomatic policies in two world wars and their aftermath. 4 Cr. DEMAND.

558. The American West. Topical and chronological consideration of western land policy, territorial government; Indian policy, economic development. 4 Cr. DEMAND.

563. U.S.-Latin American Relations. General trends with emphasis on specific relations with selected Latin American countries or regions. 4 Cr. DEMAND.

572. European Historiography Since 1750. Readings in and interpretations of important European historians. 3 Cr. DEMAND.

573. American Historiography. Readings and discussion of historians and historical interpretation from Colonial America to the present. 3 Cr. DEMAND.

578. Historical Criticism and Writing. Problems in and methods of historical accuracy and consistency; references, chronology, availability of knowledge, historical "myths," and preparation of research papers and thesis. 3 Cr. DEMAND.

580. Seminar in American History. Intensive reading and research in one area or topic of U.S. or Latin American history. Limited to senior or graduate students. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

583. Seminar in European History. Bibliographical study, research, and discussion of a selected topic in European history. Limited to senior or graduate students. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

586. Seminar in Africa, Asia, or Middle East. Reading and research on a selected topic. (Africa, Asia, or Middle East.) Limited to senior or graduate students. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

635. Readings in European History. Guided study through individual investigation of special periods and topics. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

640. Colonial America. Extensive study of themes in development of English colonies from Jamestown to U.S. Independence, e.g., the development of colonial society, culture, economics, politics, ideas, American Revolution. 3 Cr. DEMAND.

641. U.S. 1783-1848. Extensive study of topics such as Constitutional Convention, Federalists, Jeffersonians, Jacksonians, War of 1812, Manifest Destiny, and reform movements. 3 Cr. DEMAND.

642. U.S. 1848-1877. Extensive study of topics such as slavery, the Civil War, and Reconstruction. 3 Cr. DEMAND.

643. U.S. 1877-1920. Extensive study of such themes as agrarian protest, industrialization, growth of urban society, progressivism, and international involvement. 3 Cr. DEMAND.

644. U.S. 1920-1970s. Extensive study of the Jazz Age, the New Deal, World War II, and post-war U.S. 3 Cr. DEMAND.

651. Readings in American History. Guided study of American history through individual investigation of special periods and topics. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

662. Seminar in Ancient or Medieval History. Bibliographical study, intensive reading, discussion, research in selected areas or topics of European history to 1450. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

664. Seminar: European History. Bibliographical study, reading in documents and secondary works, analysis and discussion, research in selected topics or areas. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

681. Seminar in American History. Intensive reading and research in one area or topic of U.S. or Latin American history. 3 Cr. May be repeated with different topic to max. of 9 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S.



HUMAN RELATIONS (HURL)

B130 EDUCATION BUILDING/255-3251

Coordinator: Julie Andrzejewski

Graduate Faculty: Andrzejewski, Downes, Hellwig, Prochnow, Purdom, Risberg

The human relations program provides training in self-awareness and skills essential for living and teaching in a pluralistic society. Courses are available for those planning to enter education and public service positions in government, health care, business, and industry. These courses are designed to enable participants to enhance their effectiveness in analyzing how power, resources, cultural standards, and institutional practices and procedures are used to perpetuate the oppression of various groups in society, and how people may be effective in creating social and institutional change. Other objectives include (1) an understanding of the contributions and life styles of the various racial, cultural, and economic groups in society; (2) recognizing and dealing with dehumanizing biases, discrimination, and prejudices; (3) creating learning environments which contribute to the self-esteem of all persons and to positive interpersonal relations; (4) respecting human diversity and personal rights.

COURSE DESCRIPTIONS

550. Nonverbal Communication and Education. The role of nonverbal communication in human interaction. Includes analysis of environmental factors, physical appearance, body language, touching behavior and paralanguage. 3 Cr. DEMAND.

593. Values and Teaching. A course in which the value clarification theory of Rath, Harmon and Simon will be the major focus. Theory, research and teaching strategies will be presented. 3 Cr. DEMAND.

596. Human Relations and the Teacher Part I. Part I of program to meet teacher licensure rule 3.041. The focus is upon parts bb, cc and dd of the state requirement. Coreq.: 597. 3 Cr. F, W, S.

597. Human Relations and the Teacher Part II. Part II of the program to meet teacher licensure rule 3.041. The focus will be upon part aa of the state requirement. Coreq.: 596. 3 Cr. F, W, S.

598. Application of Theory for Developing Moral Reasoning. Various theories on moral development will provide the basis for integrating moral education into school curriculum. The course will focus upon understanding Kohlberg's structural-developmental theory and developing the skills for utilizing the theory. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

608. Children's/Students' Rights. An analysis of problems related to the oppression of young people/students. 4 Cr. DEMAND.

629. Introduction to the Human Relations Profession. An overview of the background and professional application of human relations. 2 Cr. F.

680. Internship in Human Relations. Supervised experiences with selected agency school, organization, etc., that has a primary goal to facilitate the improvement of human relationships between individuals and groups. 9 Cr. DEMAND.

681. A Seminar in Practical Approaches for Providing Human Relations Instruction. This seminar will focus upon various techniques for facilitating human relations education. It will be subdivided into two main components: (1) facilitating group leadership, techniques in intergroup, interracial and non-sexist communications; and (2) instructional techniques in the study of human relations issues. 4 Cr. W.

682. Application of Theory and Methods in Human Relations. The seminar will examine human relations methodology including an analysis of various teaching theories, teaching strategies, materials and evaluation instruments. Emphasis will be upon developing skills in human relations program facilitation. 4 Cr. F.

INDUSTRIAL EDUCATION (IND)

205 HEADLEY HALL/255-2128

Chairperson: William Lacroix

Graduate Faculty: Bergstrom, Bjorklund, P. J. Carter, Kemp, Lacroix, Lease, Nestel, Schwaller

MASTER OF SCIENCE

An applicant for admission to the Master of Science degree in Industrial Education must meet the following requirements:

1. A baccalaureate degree from an accredited college or university.
2. A Minnesota Vocational Teacher License in Industrial Education or have completed an undergraduate industrial teacher education program from an accredited teacher preparation institution.
3. An acceptable score on the Graduate Record Examination and/or acceptable undergraduate scholarship.

In some cases, it may be necessary for the applicant to complete some prerequisite undergraduate work even though the student may have an undergraduate major or minor.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
ED 615 Introduction to Research, 3 Cr.
IND 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Credits to be selected with major adviser.
- III. Professional Education: Min., Plans A and B, 9 Cr.
Credits to be selected with approval of the professional education adviser.
- IV. Electives: Min., Plan A, 3-9 Cr.; Plan B, 9-12 Cr.

COURSE DESCRIPTIONS

515. Vocational Guidance. Acquisition, development, and the dissemination of occupational and guidance information. 3 Cr. S, SUM ALT.

517. Organization and Administration of Industrial Education. Organization and administration of secondary, post-secondary, adult, and special needs classes. 3 Cr. W ALT, SUM ALT.

518. Conference Leading. Techniques and practices employed in leading and participating in conferences. 3 Cr. W ALT, SUM ALT.

524. Photo Offset Lithography. Advanced techniques in photo offset lithography, including line and

continuous tone copy preparation, line and halftone photography, stripping and flat making, plate-making, and press operation. (3 lab. hours per week by arrangement required.) Prereq.: 225. 3 Cr. S ALT, SUM ALT.

525. Color Separation. Introduction to color separation procedures. Basic color theory, direct and indirect color separation, continuous tone intermediates, filtering, masking, screening, and color proofing. (3 lab. hours per week by arrangement required.) Prereq.: 424-524. 3 Cr. S ALT, SUM ALT.

531. Evaluation in Industrial Subjects. Processes of evaluation and problems of measuring achievement in industrial-technical areas. Selection, development and validation of evaluative instruments and techniques. 3 Cr. S ALT, SUM ALT.

551. Selection and Organization of Subject Matter. Planning and organizing instruction for industrial education programs. Preparation of curriculum guides, courses of study, and instructional materials. 3 Cr. S ALT, SUM ALT.

552. Laboratory Planning and Safety. Theory and practice in planning industrial education laboratories; selection and arrangement of equipment; safety factors involved. 2 Cr. F, SUM ALT.

553. Individualized Instruction. Utilizing individualized instruction for designing new courses or converting existing ones to an individualized learning approach. Emphasis will be placed upon techniques and the use of media. 3 Cr. F, SUM ALT.

598. Internship. Offered only to students who hold internship with industrial organizations for which advanced approval has been given by the department. 1-8 Cr. May be repeated; however, a max. of 8 Cr. will count toward a graduate degree. F, W, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY

601. Technology and the Individual. Effects of invention and technological development on society with implication for general education. Not open to industrial education majors. 3 Cr. F, S, SUM.

604. Current Issues of Industry. Current industrial issues, events, advancements and their effects on industrial education. Not open to students taking or who have taken 601. 3 Cr. W ALT, SUM ALT.

615. Seminar: _____. Seminar presentation on a selected industrial education topic. Permission of department required. 1-4 Cr. May be repeated to max. of 9 Cr. W ALT, SUM ALT.

632. Technical Problems (Graphic Communications). Technical study for specialists in graphic communications. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. W ALT, SUM ALT.

640. Technical Problems (Manufacture). Technical study for specialists in the manufacturing industries. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. F ALT, SUM ALT.

663. Technical Problems (Synthetics). Technical study for specialists in the area of synthetics. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. S ALT, SUM ALT.

665. Technical Problems (Construction). Technical study for specialists in the construction industries. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. S ALT, SUM ALT.

668. Current Literature and Research. Analysis of literature of the industrial field, with special attention to individual readings and reports, implications of such literature for current problems in industrial education. 4 Cr. S ALT, SUM ALT.

673. Leaders and Movements in Industrial Education. Contributors to development of industrial education with special attention to economic, social and philosophical factors motivating this development. 4 Cr. F ALT, SUM ALT.

683. Technical Problems (Energy and Power). Technical study for specialists in the energy and power field. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. W ALT, SUM ALT.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

INTERDISCIPLINARY STUDIES

205 STEWART HALL/255-2248

Chairperson: Harold Lieberman

Graduate Faculty: Downes, Haniff, Hellwig, J. Kelley, Lieberman, Morgan, Redd, Shenk, E. Simpson

The Department of Interdisciplinary Studies has general responsibility for the administration of Social Science and Social Studies programs and for the following broad inter-disciplinary programs: American Studies, East Asian Studies, Gerontology, Latin American Studies, and Local and Urban Affairs. In addition, each of the latter programs has a director and a program advisory committee.

For information on graduate offerings, see American Studies, Social Science, and Social Studies.

LIBRARY AND AUDIOVISUAL EDUCATION (IM)

114 CENTENNIAL HALL/255-2022

Director: John Berling

Graduate Faculty: Berling, Fields, Hill, May, J. Nelson, Rydberg, C. Savage, Schulzeteberg, Smelser

With the current emphasis on all media formats the Center for Library and Audiovisual Education has developed Master of Science and Specialist degree programs in information media to support persons in media (library and audiovisual formats) for all levels of responsibility. Encompassed in the information media major at the graduate level and minor at the undergraduate level are concepts dealing with print and non-print materials. Majors in this area are expected to attain competency in the theory and practice of selection, evaluation, acquisition, processing, organization, and supervision of information materials through a prescribed core of coursework. Prereq. courses are IM 603 or 468 and 275, or acceptable equivalent. It is recommended that IM 606 be taken within the first 15 credits of the Master's degree program; and IM 608, Research Methods, or its equivalent must be taken within the first 15 credits of the Master's degree program in information media.

SPECIALIST DEGREE—Information Media

The Specialist degree program is available to: (1) those who have completed a master's degree with a major in some area of media (library or audiovisual education), (2) those who have completed a minimum of 45 graduate credits in some area of media but who have not completed a master's degree yet are eligible for entrance into a master's degree program under present entrance requirements or (3) those who have a master's degree in another area. Each student's program will be designed to meet the individual's interests and needs.

The specific goals of the Specialist degree program are to develop competencies necessary for media supervisor licensure; to develop a background and depth in one or more areas in addition to a more general background which a master's degree may offer; to prepare a student for administrative positions in public, academic or school district media programs; to help students meet requirements for advancements in position or salary schedules which may require an advanced degree and to offer an opportunity for in-depth study of a problem through the field study.

With the exception of those students who have completed a master's degree in information media at St. Cloud State University, all students will be required to take the Graduate Record Examination. A minimum grade point average on all graduate work is 3.0. References also are required.

Specialist Degree Program: Min., 45 Cr.

- I. Major: Min., 33 Cr. (The student must have a minimum of 60 graduate credits of media.)
 - IM 683 Seminar in Information Media, 2 Cr.
 - IM 684 Field Study, 3-9 Cr.
 - Credits selected with the consent of the adviser.
- II. Electives: Min., 12 Cr. Selected with the consent of the adviser.

MASTER OF SCIENCE—Information Media

Programs are available for students who hold a baccalaureate degree. Encompassed in the information media major are concepts dealing with the print and non-print materials. Majors in this area are expected to attain competency in the theory and practice of selection, evaluation, acquisition, preparation, organization, and supervision of information materials; through a prescribed core of coursework.

Candidates are required to successfully complete a comprehensive final examination, written and oral, based on the major material covered in their individual programs.

Program One (Plan B only) Min., 51 Cr.

Program One is open to holders of baccalaureate degrees with interests in special or public libraries and media centers where licensure is not required.

- I. Research: Min., 3 Cr.
 - IM 608 Research Methods
- II. Major: Min., 36 Cr.
 - Recommended core to include IM 575, 576, 577, 578, 603, 606 (or equivalent), 644, and 682 plus other credits to be selected with an adviser.
- III. Electives: Min., 12 Cr.
 - Credits to be selected from related fields, general study courses, Introduction to Graduate Statistics, Interpretation of Research, or the major.

Program Two (Plan B only) Min., 51 Cr.

Program Two is open to holders of baccalaureate degrees who have current teaching licenses or who wish to obtain school library/media license endorsement and/or a master's degree in Information Media.

- I. Research: Min., 3 Cr.
IM 608 Research Methods
- II. Major: Min., 30 Cr.
Recommended core to include IM 512, 571, 575, 576, 577, 578, 603 (or equivalent), 606, 639, 644, 682 plus other credits to be selected with an adviser.
- III. Professional Education: Min., 9 Cr.
Prereq.: undergraduate or graduate curriculum course on level for which student has teacher licensure in addition to the required 9 credits. Recommended courses to include PSY 663, ED 646, or ED 647 plus other credits to be selected with an adviser.
- IV. Electives: Min., 9 Cr.
Credits to be selected with adviser from related fields, general studies courses, Introduction to Graduate Statistics, Interpretation of Research or courses in the major.

Program Three (Plan B only) Min., 51 Cr.

Program Three is open to holders of baccalaureate degrees with interests in training and development of organizational media operations in the business, industrial, governmental, and health fields.

- I. Research: Min., 3 Cr.
IM 608 Research Methods, 3 Cr.
- II. Major: Min., 30 Cr.
Recommended core to include IM 512, 571, 577, 583, 658, 683 (6 credits) plus other credits to be selected with an adviser.
- III. Electives: Min., 18 Cr.
Prereq.: MBA 285 and 320. Recommended electives include PSY 663, 678, 681, MGMT 361 (501) plus other credits to be selected with adviser. Other electives may include BEOA 506, MKGB 524, 529, MGMT 571, HURL 682, PSY 574, 575, 582, 668, SPC 520, and EDAD 617.

STUDENTS SEEKING LICENSE ENDORSEMENT

Students with baccalaureate degrees who have teacher licensure or are eligible for teacher licensure may apply for admission to pursue license endorsement as school librarians, audiovisual directors, or media generalists. Students with teacher licensure and a master's degree may apply for admission to pursue license endorsement as media supervisors. Minnesota licensure endorsements require the following experience in addition to the course requirements:

- | | |
|----------------------|--|
| Audiovisual Director | —two years |
| Media Generalist | —two years |
| Media Supervisor | —three years in the area of media while holding licensure valid for the position in which the media experience was obtained. |

The Media Generalist Licensure Program requires a minimum of 36 credits. Prereq. include courses in curriculum and an introduction to information media. Recommended courses to include IM 512, 571, 575, 576, 577, 578, 606, 639, 644, PSY 663, and ED 646 or 647.

The Media Supervisor Licensure Program requires a minimum of 18 credits beyond the master's degree and the media generalist level. Recommended courses include IM 606, 651, EDAD 674, and PSY 663, however, the program will be individually tailored when necessary.

Applicants planning to work toward any license endorsement should meet with a graduate adviser in the Center for Library and Audiovisual Education to plan the sequence of courses required. Additional information may be obtained from the Director of the Center for Library and Audiovisual Education, St. Cloud State University.

COURSE DESCRIPTIONS

512. Television in Media. The operation and use of television in the instructional program. Lab. 3 Cr. F, SUM.

531. Introductory Workshop to Online Literature Searching. Techniques of user-computer interaction for retrieval of bibliographic information using the Bibliographic Retrieval Services databanks. Offered one quarter per year. Fees assessed per database(s) searched. 2 Cr. DEMAND.

571. Preparation of Media. Designing, producing, and utilizing projected and nonprojected materials for instructional use. Lab. 3 Cr. W, SUM.

573. Photography in Media. Basic photographic processes in media, including still photography, darkroom processes, and the operation of equipment. Lab. 3 Cr. F, SUM.

575. Administration of Media. Basic theory and techniques of administering media programs and service. It is recommended that this course be taken during the latter part of the I.M. core. Prereq.: 275 and 468 or 603. 3 Cr. S, SUM.

576. Selection and Evaluation of Media. The selection of media materials, including theory, principles, techniques, and basic tools. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. F, SUM.

577. Reference and Bibliography in Media. Reference and bibliographic works, including theory, practice, tools and bibliographies. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. W, SUM.

578. Technical Processes in Media. The basic processes for acquiring, cataloging, classifying, and organizing materials. Lab. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. S, SUM.

582. Audio Systems. Lecture and demonstration of the theory and application of sound reproduction techniques to support system planning, component selection, system expansion, and component purchasing for monophonic and polyphonic systems. Lab. 3 Cr. W.

583. Color Slide Presentations. Visual literacy approach to preparing color slides, and slide/tape presentations for information display, documentation, and instruction. Presentation design, selection of materials and format, and equipment utilization are included. Laboratory processing of photographic materials is not included. 3 Cr. F.

COURSES FOR GRADUATE STUDENTS ONLY

603. Introduction of Media. A beginning course in the nature of media in libraries and audiovisual service, the organization and use of materials of all formats and equipment; the opportunities in the field. Lab. 4 Cr. F, W, SUM.

604. Information Media in Society. The role of media, personnel, and organization in society; a study of materials of library and audiovisual service. (A general course for graduate students; not open to information media majors.) 3 Cr. S, SUM ALT.

606. Organization and Supervision of Media. An introductory survey of the various facets of organization and supervision of media resources in library and audiovisual services. 3 Cr. F, S, SUM.

608. Research Methods in Media. Methods of evaluating research procedures and interpreting findings. Defining and limiting a problem, gathering, documenting, organizing, and presenting findings. 3 Cr. F, W, SUM.

615. Preparation of Media II. Planning and preparing materials for instructional use; graphics, lettering, and overhead transparencies. Lab. Prereq.: 471-571 and 473-573 or permission of instructor. 3 Cr. F ALT.

616. Television in Media II. Preparation and production of audio and video-tapes including lighting, staging, writing, and visuals. Lab. Prereq.: 512 or permission of instructor. 3 Cr. W, SUM ALT.

617. Instructional Slide Production in Information Media. Production of instructional slides and slide sequences. Selection, organization, and supervision of slide production personnel, facilities, and materials. Lab. Prereq.: 471-571, 473-573. 3 Cr. S.

618. Motion Picture in Media I. Principles of designing and using motion picture films, the documentary, theoretical, education, experimental and industrial films in education. Lab. 3 Cr. S ALT.

619. Motion Picture in Media II. Planning and producing instructional films, including 8 mm, 16 mm formats, script writing, equipment operation, lighting and selection of suitable messages for this medium. Lab. Prereq.: 618 or permission of instructor. 3 Cr. F ALT.

631. Selection and Evaluation of Media II. Theory, principles, and techniques of evaluating and selecting materials and equipment used for formats of media. Prereq.: 476-576. 3 Cr. F ALT.

636. Reference and Bibliography in Media II. Theory of patron information needs, study of specialized bibliographic and reference media materials in subject areas. Prereq.: 477-577. 3 Cr. S, SUM ALT.

638. Technical Processes in Information Media II. Continuation of the study of information media materials organization with emphasis on the use of Library of Congress classification schedules and subject headings, administrative considerations in larger operations, and computer-stored bibliographic data. Lab. Prereq.: 478-578. 3 Cr. W ALT.

639. Reading, Listening and Viewing Guidance. Materials of varying formats (book and non-book) used by children and youth in the learning process, with an emphasis on application. Prereq.: 603. 3 Cr. S, SUM.

644. Information Storage and Retrieval. Principles of information storage and retrieval with emphasis on needs of the media center. Analysis of processing systems, manual punch-card and computer application. Lab. 3 Cr. S, SUM.

647. Programmed Instruction. The psychological background of instructional programs; the selection, utilization, and evaluation of existing programs; and individual experience in planning and producing programs. Lab. 3 Cr. S ALT.

651. Administration of Media II. Application of the principles of administrative patterns, personnel management, public relations, budgeting and facilities to a media program. Prereq.: 475-575 or permission of instructor. 3 Cr. W.

658. Systems Design and Evaluation of Media. Principles in systematic design of instruction; using and evaluating media systems; practice in designing and using media models in relation to specific needs. Lab. 3 Cr. F, SUM.

660. History of Media. A chronology of events and circumstances in the development of libraries and other information media. 3 Cr. W.

662. Recent Trends in Media. Consideration of the latest trends and thinking in the various areas of media handling and use. 3 Cr. S ALT, SUM ALT.

680. Internship in Media. Intern experiences relating to media in all its practical facets. Lab. 2-12 Cr. F, W, S, SUM.

681. Readings in Media. Selected readings of literature of the field and related areas. 3 Cr. F, W, S, SUM.

682. Research in Media. Current experiments in media and closely related fields. 2-12 Cr. F, W, S, SUM.

683. Seminar in Media. Conferences, reports, readings, discussions, problems, and research in a special facet of media. 1-4 Cr. May be repeated to max. of 9 Cr. F, W, S, SUM.

684. Field Study in Media. (For Specialist degree only.) Research problem(s) developed by the student with permission of the adviser and the department chairperson. 3-9 Cr. F, W, S, SUM.

MANAGEMENT AND FINANCE (MGMF)

104 BUSINESS BUILDING/255-3225

Chairperson: Darrell F. Wentworth

Graduate Faculty: Burnes, Christiansen, Farrell, Skalbeck, Tallent, Vora, Wentworth

Also see M.B.A. requirements, page 32.

COURSE DESCRIPTIONS

560. Problems in Personnel Administration. Analysis of selected personnel problems: wage and salary surveys and administration; job evaluation, merit rating; profit sharing; and incentives; selected issues and problems of manpower utilization. 4 Cr. F.

561. Collective Bargaining. Analysis of bargaining processes; legislative and administrative requirements applicable to unions, managements and employees; development and evaluation of collective bargaining agreements. 4 Cr. W.

563. Production and Inventory Control. Management control practices including production planning relative to engineering; production control including routing, scheduling and dispatching; manpower requirements; the interaction of decision-making processes. 4 Cr. F.

564. Purchasing and Materials Management. Principles, procedures, and methods for providing materials and services within the broad concept of complete management of the flows of materials. 4 Cr. W, S.

565. Motion and Time Study. Techniques of methods design and analysis (process charts, operations analysis, and micromotion and memomotion studies); work measurement (stop watch time study, predetermined time study methods); work sampling. 4 Cr. W, S.

566. Compensation Theory and Practice. An analysis of compensation theories and practices; their effect on employee motivation, productivity, and morale. Both monetary and non-monetary compensation systems are examined. 4 Cr. S.

567. Organization Theory. Analysis of relationships fostered by the industrialized productive setting leading to an integration of individual, group, and organization conclusions and data. (Cannot be used as an MBA Phase II elective.) 4 Cr. F, W, S, SUM.

571. Corporate Financial Policies. Examination and analysis of financial concepts relative to: corporate financial decision making; adjustments to changing conditions; market structure and corporate capital instruments; capital market movements and financial decisions. 4 Cr. F.

572. Financial Institutions. Examination and analysis of various financial institutions and their role in the field of finance: commercial banks; savings and investment institutions; personal finance companies; investment intermediaries. 4 Cr. W.

574. Security Analysis. Classification and analysis of securities, markets, industries; investment policies; management of portfolios of institutional investors. 4 Cr. S.

575. Life and Health Insurance. Examination and analysis of: individual life and health contracts; group life; pension plans; estate planning; annuities and equity funding. 4 Cr. F.

576. Property and Liability Insurance. Examination and analysis of: insurable property and liability risk; contract analysis; insurance law; rates and reserves; types of property and liability insurees; optimum insurance programs. 4 Cr. S.

577. Strategy and Organization of Public Administration. This course treats problems in bureaucratic organizations which arise from the political system and a non-profit orientation. The focus of the course is on strategy formulation and decision-making in the non-business sector. 4 Cr. DEMAND.

578. Advanced Real Estate. Various ownership aspects of real estate and occupancy with emphasis on: deeds, contract for purchase; trust (intestate and testate); succession laws; taxation; homestead and special problems. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar. Selected topics related to (1) management; (2) finance; or (3) insurance and real estate. 4 Cr. DEMAND.

665. Readings in Management. Special readings in the subject area. 4 Cr. DEMAND.

672. Readings in Finance. Special readings in the subject area. 4 Cr. DEMAND.

675. Readings in Insurance and Real Estate. Special readings in the subject area. 4 Cr. DEMAND.

MARKETING AND GENERAL BUSINESS (MKGB)

304 BUSINESS BUILDING/255-2057

Chairperson: William Rodgers

Graduate Faculty: Benson, Buchanan, Calhoun, Hanafy, J. Johnson, Rodgers, Schneider, Schofield

Also see M.B.A. requirements, page 32.

COURSE DESCRIPTIONS

520. Retailing Management. Organization for retailing and functional activities involved; problems of inventory methods, credit and collections, personnel, location, layout, receiving, and delivery. 4 Cr. F.

523. Advertising Management. Analysis of advertising policies and practices in campaign planning, media selection, client-agency relationships, research and testing. Consent of department chairperson. 4 Cr. F, S.

524. Sales Management. Managerial aspects of sales promotion, problems involved in investigations of markets, planning sales effort, management of sales personnel, and control of sales operations. Consent of department chairperson. 4 Cr. W.

525. Marketing Research. Research process as an aid to decision-making in marketing management; research methodology, presentation of marketing research results, evaluation of the effectiveness of marketing research. 4 Cr. F, S, SUM.

526. Marketing Systems. An introduction to the system concept in the analysis of marketing activities; system theory and its application to marketing with emphasis on the explanation of varying approaches to marketing systems, such as ecological, institutional, and social physics; development of marketing systems. 4 Cr. W.

527. International Marketing. Stresses the importance of international marketing to the American economy and analyzes the United States international marketing with emphasis on the problems and practices of managing international marketing activities; analysis of characteristics, structure, and competitive factors of international markets. 4 Cr. F, S.

531. Transportation Management. A survey course dealing with the role of transportation in the marketing system; economic characteristics of the transport modes; theory of rates and rate structure; regulation; and national transportation policy. Prereq.: 320. 4 Cr. S ALT.

532. Marketing Channels. An examination of alternative marketing channels connecting producer and consumer. The characteristics of different marketing institutions are examined and recent trends in channels and institutions are considered. Prereq.: 320. 4 Cr. W.

533. Marketing Logistics. Provides an overview of physical distribution management and marketing channel management; covers channel selection and maintenance, transportation, storage, order processing and location decision-making. Prereq.: 320. 4 Cr. F.

534. Social Marketing. The course deals with marketing decisions and strategies in relation to contemporary social changes in the society. The course entails dimensions of social changes, ecological and environmental changes, social values and ethics, shortages of energies, role of women in society, food marketing and health questions, and social and ethical responsibilities. 4 Cr. W ALT.

535. Marketing for Non-Profit Organizations. Application of marketing philosophy, concepts and techniques to non-business organizations related to the public. The course contains the analysis of non-business organizations in respect to market structure and market behavior. Marketing strategies and planning for health care, public sector, political ideas and persons, religious institutions, education and service marketing. 4 Cr. F ALT.

537. Business Law. Real and personal property, trusts, mortgages, bankruptcy, wills and estates, and secured transactions. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar—Marketing. Selected topics related to marketing theory and practice. Consent of instructor required. 4 Cr. DEMAND.

626. Readings in Marketing. Special readings in the subject area. Consent of department chairperson. 1-4 Cr. DEMAND.

633. Business Case Analysis. Independent research culminating in written and/or oral presentation. 1-4 Cr. DEMAND.

MASS COMMUNICATIONS (COMM)

135 STEWART HALL/255-3293

Chairperson: R. John DeSanto

Graduate Faculty: DeSanto, Habte

COURSE DESCRIPTIONS

541. Magazine Article Writing. Varied special types of writing for magazines, newspapers, journals, company publications, other printed media. Market study: adapting style, content to specific publications. 3 Cr. S.

545. Advanced Photojournalism. Lecture, lab. in photojournalism; emphasis on the printed media. Theory, practical applications; idea development through finished production. Prereq.: 346 or consent of instructor. 3 Cr. W.

550. Advanced Editing and Makeup. Current trends in format, makeup and typography of newspapers, magazines and brochures; editing and makeup of special sections; attention to solutions of problems by outstanding publications. Prereq.: 350. 4 Cr. S.

560. Mass Communications Law. Freedom of the press with emphasis on the First Amendment rights of the printed and broadcast media; libel, censorship and government regulations; major theories of the press. 4 Cr. W, S.

580. Advising School Publications. Role of the faculty adviser; trends, philosophies, problems; theoretical and practical considerations; content of journalism-mass communications curriculum. 4 Cr. F.

581. Teaching Mass Communications. Theories, methods, materials and curriculum developments for teaching mass communications in the secondary schools. 3 Cr. S.

587. Public Relations. Interpreting the school, business firms, other organizations to their various publics; responsibilities, services to the community; an over-all internal and external public relations program. 4 Cr. F, W.

MATHEMATICS (MATH) AND COMPUTER SCIENCE (CSCI)

168 MATHEMATICS AND SCIENCE CENTER/255-3001

Chairperson: Howard Bird

Graduate Faculty: Bahauddin, Bird, Brink, K. Carlson, Carr, Dull, R. Earles, Ernst, Grover, J. Johnson, R. Johnson, Lahren, Leitch, Leung, Miller, Van Akin

MASTER OF ARTS—Mathematics

The applicant for admittance to the M.A. program must have a bachelor's degree from an accredited college or university, with a major in mathematics and an overall grade point average of at least 2.8 with an average of 3.0 in the major. Students may be admitted provisionally. Final decision on admission will be made by the mathematics graduate faculty after consideration of entrance examination scores, undergraduate record, and letters of recommendation. A minimum of 15 credits must be earned in the major in which enrollment is limited to graduate students.

Plan A, 45 Cr.; Plan B, 48 Cr.

I. Credits in Mathematics:

Plan A. A minimum of 36 quarter hours including a thesis must be earned in mathematics. Two graduate-only year-long sequence courses in mathematics must be included in the 36-hour requirement. Plan B. A minimum of 39 quarter hours must be earned in mathematics. Two graduate-only year-long sequence courses in mathematics must be included in the 39-hour requirement.

II. Cognate Areas:

A maximum of 9 quarter hours may be taken in a related area acceptable to the student's adviser.

82 / Mathematics (MATH) and Computer Science (CSCI)

A final written examination must be successfully completed by all Plan B candidates. In addition, an oral exam may be required at the option of the mathematics graduate faculty. Both a final written and a final oral examination must be successfully completed by all Plan A candidates. The oral examination will include a defense of thesis.

MASTER OF SCIENCE—Mathematics

An applicant for the M.S. degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in mathematics. In some cases, the applicant may be required to complete additional undergraduate work.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

MASTER OF SCIENCE: Mathematics—Junior High School Program

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
ED 615 Introduction to Research, 3 Cr.
MATH 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Select course work in the mathematics major. The program is planned by the student and the mathematics adviser. Credits may be earned in mathematics, mathematics education, and computer science. The number of credits in each area to be determined by the needs of the student.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Credits to be selected with approval of the professional education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9-12 Cr.

MASTER OF SCIENCE: Mathematics—Senior High School Program

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
ED 615 Introduction to Research, 3 Cr.
MATH 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Prescribed: Two 2-quarter mathematics sequences at the 600 level. Select course work in the mathematics major. A maximum of 3 credits selected from the mathematics education courses and a maximum of 6 credits from computer science.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Credits to be selected with approval of the professional education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

MATHEMATICS COURSE DESCRIPTIONS

515. Number Theory. Prime and composite integers. Diophantine analysis, number congruences, quadratic residues. Prereq.: 254. 3 Cr. W, SUM ALT.

525. Contemporary Geometry. Vectors and transformations on the Euclidean plane, and their application to problem solving. Prereq.: high school geometry and 254. 3 Cr. S.

526. Advanced Geometry. Projective geometry from both a synthetic and an analytic point of view. Primitive forms, projectivities, and conics. Prereq.: 424 or 525. 3 Cr. W.

530. Design and Analysis of Experiments. Analysis of variance, complete random design, randomized complete block design, nested design, Latin squares, other experimental designs. Prereq.: 329 or 437. 3 Cr. W.

531. Regression Analysis. Linear and multiple regression, model building with selection procedures, nonlinear estimation, analysis of covariance. Prereq.: 437 or 530. 3 Cr. S.

532. Nonparametric Statistics and Sample Survey. Sign test, rank sum tests, Mann-Whitney test, contingency tables, sampling, stratified sampling, other survey designs. Prereq.: 329 or 437. 3 Cr. DEMAND.

536. Complex Variables. The complex field, the theory of analytic functions, power series, fundamental theorem of algebra. Prereq.: 354 or consent of instructor. 3 Cr. S, SUM ALT.

537. Probability and Statistics I. Axiomatic development of probability, continuous and discrete sample spaces, random variables, probability density functions, Bayes' Theorem. Prereq.: 243, 254. 3 Cr. F, SUM ALT.

538. Probability and Statistics II. Distributions of functions of random variables, multidimensional random variables, t and f distributions, moment generating functions. Prereq.: 244, 537. 3 Cr. W.

- 539. Probability and Statistics III.** Point estimation and sufficient statistics, maximum likelihood estimation of parameters, statistical hypotheses, statistical tests. Prereq.: 538. 3 Cr. S.
- 540. History of Mathematics.** Historical survey of the development of mathematics. Prereq.: 241. 3 Cr. S, SUM ALT.
- 545. Introduction to Real Analysis I.** Functions, complete ordered fields, sequences and series of real numbers. No calculus skills are required. Prereq.: 354. 3 Cr. F ALT.
- 546. Introduction to Real Analysis II.** Limits, metric spaces, continuous functions, connectedness, completeness, compactness, uniform continuity. Prereq.: 545. 3 Cr. W ALT.
- 547. Introduction to Real Analysis III.** Riemann integral, derivatives, theorems of calculus, sequences and series of functions. Lebesgue integral. Prereq.: 546. 3 Cr. S ALT.
- 552. Topics in Mathematics for Secondary School Teachers.** Number systems, sets, deduction, algebras, geometries, functions, probability, computers. The changing mathematics curriculum. 4 Cr. DEMAND.
- 553. Mathematics for Special Education.** Materials and activities employed in teaching mathematics to children in special education. Emphasis on stages of development. Prereq.: 250. 3 Cr. DEMAND.
- 555. Foundations of Mathematics.** Operations on sets, relations, and functions, cardinal number, ordinal arithmetic, the axiom of choice, axiomatic theories. 3 Cr. SUM ALT.
- 557. Linear Algebra.** Vector spaces, Euclidean n -space, linear transformations, matrices. Prereq.: 242, 356. 3 Cr. F, W, SUM ALT.
- 559. Recent Trends in Elementary School Mathematics.** Modern approach to teaching arithmetic, teaching aids and devices, experimental work, recent research. 4 Cr. DEMAND.
- 560. Topology.** Metric spaces, topological spaces, separation axioms, connectedness, compactness. Prereq.: 356. 3 Cr. W ALT, SUM ALT.
- 570. Numerical Analysis.** Difference tables and application, interpolation, numerical integration and differentiation, error analysis, numerical solution of equations. Prereq.: 243, 271. 3 Cr. W.

MATHEMATICS COURSES FOR GRADUATE STUDENTS ONLY

- 610. Recent Trends in Junior High School Mathematics.** Selected topics in junior high school mathematics: materials, approaches, diagnosis and remediation, research, and experimental programs. 3 Cr. SUM.
- 611. Teaching Mathematics in the Secondary School.** Survey of mathematics curricular development, objectives and content of proposals for change in the mathematics curriculum, learning theory, issues and trends. 3 Cr. F ALT, SUM ALT.
- 616. Teaching Geometry in the Secondary School.** Historical development, current issues and trends, curricular reform movements, experimental programs, research findings. 3 Cr. W ALT, SUM ALT.
- 619. Teaching Algebra in the Secondary School.** Topics related to the teaching of algebra and related areas. Historical aspects, methodology, curricular developments; evaluation and research findings in algebra. 3 Cr. S ALT, SUM ALT.
- 624. Modern Geometry I.** An overview of Euclidean and non-Euclidean geometries, and the fundamentals of synthetic projective geometry. Prereq.: one course in college level geometry. 3 Cr. F ALT, SUM ALT.
- 625. Modern Geometry II.** Oriented toward transformational geometry. Topics for study include: Klein's Erlanger program and an analytic model of the real projective plane. Prereq.: 624 and a background in vector spaces, matrices. 3 Cr. W ALT, SUM ALT.
- 636. Complex Analysis I.** The complex field, topology of the complex plane, analytic functions. 3 Cr. SUM ALT.
- 637. Complex Analysis II.** Complex integration theory. Prereq.: 636. 3 Cr. SUM ALT.
- 638. Complex Analysis III.** Complex series expansions, conformal mappings, Dirichlet's problem. Prereq.: 637. 3 Cr. DEMAND.
- 643. Calculus for Secondary Teachers.** Review of calculus involving limits, integration, differentiation of elementary functions. Cannot be used in the M.A. program or part of the 24 quarter hours of mathematics in the M.S. program. 4 Cr. DEMAND.
- 645. Real Analysis I.** The real number system. Lebesgue measure and integration. 3 Cr. DEMAND.
- 646. Real Analysis II.** Differentiation, abstract spaces. Prereq.: 645. 3 Cr. DEMAND.
- 647. Real Analysis III.** Generalized measure and integration. Prereq.: 646. 3 Cr. DEMAND.
- 656. Modern Algebraic Theory I.** Group theory, rings and ideals, polynomials. Prereq.: 356. 3 Cr. F ALT, SUM ALT.
- 657. Modern Algebraic Theory II.** Fields, field extensions, Galois theory. Prereq.: 656. 3 Cr. W ALT, SUM ALT.
- 658. Modern Algebraic Theory III.** Selected topics from the theory of modules or homological algebra. Prereq.: 657. 3 Cr. DEMAND.

660. Topology I. Topological spaces, product spaces, net and filters, compactness. Prereq.: 356. 3 Cr. SUM ALT.

661. Topology II. Connectedness, separation axioms, metric spaces, completeness, comparison of topologies, function spaces. Prereq.: 660. 3 Cr. SUM ALT.

662. Topology III. Topics from uniform spaces, topological groups and algebras, algebraic topology. Prereq.: 661. 3 Cr. DEMAND.

671. Computer Programming. Concepts of programming Fortran. Writing a program to solve an approved problem in the major field. Lab. Prereq.: approval of instructor and students' major adviser. 3 Cr. SUM ALT.

680. Graduate Seminar. Reading, research and discussion of selected topics. Prereq.: consent of instructor. 1-3 Cr. DEMAND.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

COMPUTER SCIENCE COURSE DESCRIPTIONS

565. Discrete Computational Structures. Basic forms and operations, binary trees, formal and natural languages, Boolean algebras. Prereq.: 301, MATH 254. 3 Cr. F ALT, SUM.

577. Computers in Society and the Classroom. Historical development of computing, use of BASIC language in timesharing, instructional timesharing in the school. Prereq.: consent of instructor. 3 Cr. DEMAND.

578. Artificial Intelligence and Heuristic Programming. Heuristic versus deterministic methods, game playing programs, theorem proving programs, decision-making programs. Prereq.: consent of instructor. 3 Cr. DEMAND.

MUSIC (MUSM, MUSP, MUSE)

238 PERFORMING ARTS CENTER/255-3223

Chairperson: Kenton Frohrip

Graduate Faculty: Barrett, Echols, Ernest, Flom, Frohrip, Fuller, Gyllstrom, J. Johnson, Layne, Schrader, Walton, Wilhite

St. Cloud State University is accredited by the National Association of Schools of Music.

MASTER OF SCIENCE—Music Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution, must have completed at least an undergraduate minor in music, and must meet the admission requirements of the Office of Graduate Studies. When an applicant holds a minor in music, undergraduate course work will be required to bring the student to a major program level. Acceptance into a graduate program is determined by musical knowledge, experience and performance.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.

MUSE 670 Introduction to Research in Music Education (or equivalent), 3 Cr.

MUSM 699 Master's Thesis, 6-9 Cr. (Plan A only)

or

MUSM 698 Creative Work, 6-9 Cr. (Plan A only)

3 Cr. electives in research optional (Plan B only)

- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Prescribed:

MUSM 604 Analytical Techniques, 4 Cr.

Applied Music (consent of adviser), 4 Cr.

MUSP 611, 613, 615, 617, 626, 638, 648 (private lessons) or

MUSP 580 (secondary instrument) or

MUSP 570, 656, 667 (performing and conducting), max., 2 Cr. each.

MUSE 603 Curriculum Development, 4 Cr.

MUSM 682 Music Literature I, 4 Cr.

Electives: Min., Plan A, 2 Cr.; Plan B, 12 Cr.

- III. Professional Education: Min., 9 Cr.

Credits to be selected with approval of the professional education adviser.

- IV. Electives: Min., Plan A, 3-9 Cr.; Plan B, 9 Cr.

MUSIC MUSICIANSHIP (MUSM) COURSE DESCRIPTIONS

- 502. Composition I.** The utilization of harmonic and contrapuntal techniques in developing original composition in various forms. Prereq.: MUSM 205. 2 Cr. W.
- 503. Composition II.** A continuation of MUSM 502. Prereq.: MUSM 502. 2 Cr. S.
- 504. Electronic Music.** Music of electronic composers and their techniques including practical experience in the application of basic techniques. 2 Cr. S.
- 505. Electronic Music Composition.** The study of techniques and procedures utilized in electronic music composition. 2 Cr. S.
- 506. Acoustics of Music.** Nature of sound and its application in music; characteristics of sound waves; vibratory sources of music sounds; physical basis of harmony and scales. Prereq.: MUSM 205. 2 Cr. DEMAND.
- 520. Contemporary Music.** Trends in European and American music from about 1910 to the present day. Particular emphasis placed on music since 1920. Prereq.: MUSM 222 and 223. 2 Cr. S ALT.
- 522. Choral Literature.** A survey of choral forms, style and literature, both sacred and secular, from the Renaissance to the present. Includes criteria for selection of choral music and methods of choral analysis. Prereq.: MUSM 222 and 223 or permission of instructor. 2 Cr. S ALT.
- 525. Piano Literature.** A historical and stylistic presentation of piano literature suitable for the concert hall, from the Baroque to the present. 3 Cr. W.
- 526. Music of the Baroque and Classical Periods.** A comprehensive study of the history and literature of the 18th century. 4 Cr. DEMAND.
- 528. Music of the Romantic Period.** The history and literature of the 19th century. 4 Cr. DEMAND.
- 530. Piano Pedagogy, Elementary Level.** Basic problems and techniques in teaching piano to the beginner. Survey of materials and procedures. 2 Cr. F.
- 531. Piano Pedagogy, Intermediate Level.** Basic problems and techniques in teaching piano to the intermediate student. Survey of materials and procedures. 2 Cr. W.
- 532. Piano Pedagogy, Advanced Level.** Basic problems and techniques in teaching piano to the advanced student. Survey of materials and procedures. 2 Cr. S.
- 542. Voice Pedagogy.** Basic problems and techniques in the teaching of voice and chorus. Survey of procedures and materials. 2 Cr. W.
- 546. Double-Reed Construction.** The construction of reeds for oboe, bassoon, and English horn, with attention to varying shapes and facings. Intonation problems, tone procurement and adjustment of reeds to fit the individual and instrument. 4 Cr. DEMAND.
- 585. The Singing Voice: Technique and Development Workshop.** A study of the singing voice: the anatomy and function of the voice with emphasis on basic development both breathing and tone, and a study of vocal problems and their correction. For choir directors, voice teachers, advanced students, and individuals interested in vocal development. 2 Cr. SUM.
- 587. Bassoon Pedagogy Workshop.** Examination of pedagogical and reed adjustment principles and materials for the bassoon. Establishment of selection criteria for instruments and accessories. Designed for upper level instrumental music majors and teachers of instrumental music in schools or private studios. 2 Cr. W.
- 589. Music Education in Minnesota Workshop.** Participation in clinic and workshop sessions at the Minnesota Music Educators Association Mid-Winter Clinic. 1 Cr. W.

MUSM COURSES FOR GRADUATE STUDENTS ONLY

- 601. Functional Harmony.** Organization of harmonic structure; geared to needs of music education in elementary and secondary schools. 3 Cr. DEMAND.
- 602. Canon and Fugue.** Contrapuntal practices employed in the canon and fugue with primary attention to the works of Bach. 2 Cr. DEMAND.
- 604. Analytical Techniques.** Harmonic, melodic, and structural analysis of music in various periods with emphasis on those aspects specifically needed by students. 4 Cr. S.
- 606. Choral Arranging.** Principles and devices in choral arranging for choruses of all types and degrees of development. 4 Cr. DEMAND.
- 620. Music in Western Civilization.** Primarily for students who want a general studies elective in music. Examination of music masterpieces, continuation and elaboration of MUSM 120. Not open to students with majors or minors in music. 3 Cr. DEMAND.
- 630. Psychology of Music.** Function of the musical mind; factors in the development of musical skills and maturity. 3 Cr. DEMAND.
- 631. Aesthetics.** An analysis of aesthetic theories from Pythagoreanism to twentieth century theories as applied in music. 3 Cr. DEMAND.
- 640. Band Rehearsal Techniques.** Practice in aural discrimination of performance errors and application of corrective procedures. Special emphasis given to intonation, balance, blend, quality, interpretation, and ensemble. 2 Cr. DEMAND.

646. Stringed Instrument Pedagogy. Special projects; special techniques of bowing, position work, and artistic skills; survey of solo materials. 2 Cr. DEMAND.

647. Brass Pedagogy. Basic pedagogical problems and techniques of each brass instrument. Methods and materials for teaching brass instruments. 2 Cr. DEMAND.

648. Woodwind Pedagogy. Basic pedagogical problems and techniques of each woodwind instrument. Methods and materials for teaching woodwinds. 2 Cr. DEMAND.

681. Music History Symposium. Music history structured to meet the needs and interests of the class. 3 Cr. DEMAND.

682. Music Literature. Major works of composers ranging from Bach to Schoenberg, with special emphasis given to aesthetics and evaluation. 4 Cr. S.

698. Creative Work. 6-9 Cr. F, W, S, SUM.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

MUSIC PERFORMANCE (MUSP) COURSE DESCRIPTIONS

PRIVATE LESSONS AT GRADUATE LEVEL ARE 1 HOUR.

565. Keyboard Accompanying. To provide the pianist with an insight into the art of accompaniment through discussion and actual performance of representative works. Prereq.: permission of instructor. 1 Cr. S.

570. Conducting. Analysis, rehearsal, and performance of a major composition with the band, choir, or orchestra. Prereq.: consent of instructor. 1 Cr. May be repeated to max. of 2 Cr. F, W, S.

573. Score Preparation. Score preparation for secondary music education performance. 3 Cr. DEMAND.

580. Private Lessons: Secondary Instrument (please specify). Prereq.: consent of instructor. 1 Cr. May be repeated to max. of 4 Cr. F, W, S.

MUSP COURSES FOR GRADUATE STUDENTS ONLY

611. Private Lessons: Piano. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

613. Private Lessons: Organ. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

615. Private Lessons: Voice. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

617. Private Lessons: Percussion Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

626. Private Lessons: String Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

638. Private Lessons: Brass Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

648. Private Lessons: Woodwind Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated to max. of 9 Cr. F, W, S.

656. Chamber Music Performance. Study and performance of chamber music. Prereq.: consent of adviser. 1 Cr. May be repeated to max. of 2 Cr. F, W, S.

667. Major Performing Organization. Participation in an assigned sectional rehearsal of the band, choir, or orchestra. Prereq.: consent of instructor. 1 Cr. May be repeated to max. of 2 Cr. F, W, S.

MUSIC EDUCATION (MUSE) COURSE DESCRIPTIONS

603. Curriculum Development. A philosophical and historical study of the problems of music curricula development with emphasis on current practices. 4 Cr. F.

653. Vocal Music Education Resources. Recent materials for use in the total music program. Prereq.: approval of department. 3 Cr. DEMAND.

662. Teaching and Administration of Music in Junior and Senior High Schools. Place of music in education for adolescents; materials and activities. Prereq.: MUSE 311, 332. 3 Cr. DEMAND.

664. Instrumental Administration. Administrative principles applied to school bands, with special emphasis on organization, promotion, and public relations. 2 Cr. DEMAND.

665. Elementary Vocal Music Administration. Advanced work in music administration; co-teaching; conferences; workshops; resource units; developmental music programs; professional relations. 3 Cr. DEMAND.

670. Introduction to Research in Music Education. Materials, techniques, and procedures for research in music education. 3 Cr. W.

671. Music for the Classroom Teacher. Advanced methods in teaching music in the first six grades. Not open to students with music major. Prereq.: MUSE 211, 221. 4 Cr. DEMAND.

672. Music for the Exceptional Child. Methods and materials to be utilized in a music program designed for the exceptional child. 3 Cr. DEMAND.

680. Music Education Seminar. Research and discussion of latest developments. Individual problems analyzed and discussed. 2 Cr. DEMAND.

PHILOSOPHY (PHIL)

123 BROWN HALL/255-2234

Chairperson: George Yoos

Graduate Faculty: M. Anderson, Boyer, Corliss, A. Phillips, J. Phillips, White, Yoos

The Department of Philosophy has three main functions: (1) to provide all students with an introduction to the ideas, problems, and methods of philosophers; (2) to give courses serving the particular needs of students who are majoring or minoring in other fields; (3) to offer major and minor programs for those with special interests in one or more areas of philosophy, such as philosophy of science, social philosophy, ethics, philosophy of religion, and logic.

COURSE DESCRIPTIONS

510-529. Special Studies. Seminar for intensive study of a particular philosopher (as announced in the class schedule), or of the philosophical problems in a special discipline, such as history or biology or behavioral sciences. 2-4 Cr. DEMAND.

531. Philosophy of Art. A general introduction of philosophical questions relating to the fine arts. 4 Cr. W ALT.

532. Film Aesthetics. An introduction to motion pictures as an art form and a critical examination of various theories of film. Special attention to: Russian Theories of montage, the Auteur theory, and the realist thesis. 4 Cr. S.

533. Philosophy of History. An examination of the main problems and concepts of the philosophy of history; the nature of historical explanation, historicism, objectivity, and meaning in history. 4 Cr. W ALT.

542. History of American Philosophical Thought. Tracing of the course of development of American Philosophy from its beginnings: puritanism, transcendentalism, idealism, pragmatism, realism, and contemporary analysis. 4 Cr. W ALT.

PHYSICS (PHYS)

324 MATHEMATICS AND SCIENCE CENTER/255-2011

Chairperson: Bruce Ellis

Graduate Faculty: Eckroth, Ellis, Garrity, Lesikar, McWilliams, W. Pou, Trummel, Youngner

MASTER OF SCIENCE—Physical Science

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed an undergraduate major in either physics, chemistry or earth science with some work in the other fields and in mathematics. In some cases the applicant may be required to complete additional undergraduate work even though a major may have been completed in one of the three fields.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 3 Cr.; Plan B, 9 Cr.
ED 615 Introduction to Research, 3 Cr. (or approved alternate)
PHYS 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Selected course work in chemistry, physics or earth science.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Approval of the secondary education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

COURSE DESCRIPTIONS

520. Seminar. Lectures, readings, discussions on selected topics. 1-4 Cr. F, W, S, SUM.

530. Advanced Physics Laboratory. Advanced experiments relating to topics studied in senior college physics courses. Prereq.: 328, 333. 3 Cr. F, W, S.

537. Intermediate Electricity. Electric field and potential, dielectric theory and electric displacement, Poisson's and Laplace's equations. Prereq.: 236, MATH 243. 4 Cr. W.

538. Theoretical Physics—Electricity and Magnetism. Magnetic fields and potentials, materials, time dependence, Maxwell's equations, electromagnetic waves, transmission lines. Prereq.: 537. 4 Cr. DEMAND.

540. Biophysics—Instrumentation and Material Properties. Mechanical electrical and optical properties of biological material. Prereq.: 213, CHEM 211, 212; concurrent enrollment in BIOL 303. 3 Cr. ALT.

541. Biophysics—Neurophysics and Bioelectricity. Electroneurophysiology, signal analysis, sensory and motor transduction. Prereq.: 213, CHEM 211, 212; concurrent enrollment in BIOL 303. 3 Cr. ALT.

546. Methods of Theoretical Physics. Lagrangian and Hamiltonian mechanics, tensor, and vector calculus methods applied to classical mechanics and electrodynamics. Prereq.: 236, MATH 334. 4 Cr. DEMAND.

556. Methods for Teaching Science. Modern approaches to teaching science in junior or senior high school. Lab. 2 Cr. W.

559. Methods and Materials for Teaching Physics. Modern approaches to teaching of high school physics in classroom and laboratory, including materials of Physical Science Study Committee. Lab. 2 Cr. W.

COURSES FOR GRADUATE STUDENTS ONLY

618. Atomic Physics for Science Teachers. Bohr theory, atomic spectra, deBroglie waves. Cannot be taken for credit if credit has been received in PHYS 328. Prereq.: one year college physics and integral calculus. 4 Cr. W, SUM.

619. Nuclear Physics for Science Teachers. Radioactivity, the nucleus, nuclear reactions, cosmic rays. Cannot be taken for credit if credit has been received in PHYS 329. Prereq.: 328 or 618. 4 Cr. S, SUM.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

POLITICAL SCIENCE (POL)

315 BROWN HALL/255-2162

Chairperson: Evan Jones

Graduate Faculty: R. Becker, Frank, E. Jones, Kairouz, Kilkelly, Merrick, O. Schmidt, Williamson

Students interested in the area of Political Science must refer to the requirements of Social Science.

COURSE DESCRIPTIONS

511. The Presidency. White House Staff, relations with the heads of departments, legislative leadership, defense responsibilities, foreign relations, party activities. Prereq.: 211. 4 Cr. DEMAND.

512. Legislative Process. Problems faced by democratic legislatures such as the influence of committees, political party influence, pressure groups. Prereq.: 211. 4 Cr. DEMAND.

513. Judicial Process. An examination of the structure, process and personnel of American courts with particular emphasis on the role of the United States Supreme Court in the American political system. Prereq.: 211. 4 Cr. F, S.

529. Seminar: _____. Discussion, readings, and research under faculty guidance and supervision. Specific topic selected each time offered. Prereq.: permission of instructor. 4 Cr. May be repeated to max. of 9 Cr. F, S.

551. International Law. Survey of development and contemporary application of rules and principles of international law: maritime laws, ocean resources, space, and peaceful settlement of disputes between states. Prereq.: 251. 4 Cr. DEMAND.

552. United Nations and Regional Organization. Organization, authority, achievements and problems of the United Nations and of its auxiliary components. Prereq.: 251. 4 Cr. DEMAND.

563. American Political Thought. Study of the philosophy and theories which underlie the American system of democratic government and which have contributed to the formation of this system of government. Prereq.: 211. 4 Cr. W.

565. Modern Ideologies. A study of the ideologies of Facism, Communism, and ideas which have contributed to democratic thought. 4 Cr. S.

571. Political Parties and Elections. The structure and activities of American political parties and their impact on individual and group political behavior. Prereq.: 211. 4 Cr. DEMAND.

581. Administering Public Policy. Studies of initiation, content, administration, and impact of selected contemporary domestic government policies: transportation, consumerism, environment, poverty. Prereq.: 211. 4 Cr. DEMAND.

583. Managing Local Governments. Practical problems of local administration including grant applications, personnel, budgeting, public works, and local renewal. Prereq.: 282 or 313 or consent of instructor. 4 Cr. DEMAND.

585. Administrative Law. Legal problems arising out of use of administrative agencies; administrative procedure; judicial relief against administrative action. Prereq.: 211. 4 Cr. W.

591. Constitutional Law. A study of Supreme Court decisions which interpret the federal system; powers of the legislative, executive, and judicial branches; the commerce clause; federal taxation powers. Prereq.: 211. 4 Cr. F. DEMAND.

592. The Courts and Civil Rights. Supreme Court decisions concerning discrimination, speech, religion, search and seizure, counsel and other individual rights. Prereq.: 211. 4 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

619. American Government Seminar: _____. Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: consent of instructor. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

639. Comparative Government Seminar: _____. Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: consent of instructor. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

659. International Relations and Organization Seminar: _____. Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: consent of instructor. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

PSYCHOLOGY (PSY)

A216 EDUCATION BUILDING/255-4157

Chairperson: Terrance Peterson

Coordinator - Counselor Education: John Mason

Graduate Faculty: D. Anderson, C. Boltuck, Bryan, Craik, Dwyer, Hemmer, Jazwinski, Knutson, A. Krueger, Kukuk, Lamwers, Lesar, Mason, Murphy, Nunes, Perkins, T. Peterson, Petrangelo, Prochnow, Redding, Rosenthal, Wollin

MASTER OF SCIENCE—Counseling

The program in counseling is designed to permit the student to select from among three emphases: Community, Rehabilitation, and Secondary School Counseling. For a description of the programs see Summary of Graduate Programs.

PROGRAM INQUIRIES

For program information, write John E. Mason, Ph.D., Coordinator, Counselor Education Programs, A-253 EB, St. Cloud State University, St. Cloud, MN 56301. (612-255-3131)

APPLICATION DEADLINES

Completed applications for admission to graduate studies, including the receipt of all letters of recommendation, and steps 1 through 3 leading to the interview process, listed under "Procedures for Admission to Graduate Programs in Counseling" must be completed prior to:

April 25, 1980—for summer term entry 1980

May 4, 1980—for summer term entry, if space is available, and for fall term entry 1980

July 6, 1980—for fall term entry, if space is available after the previous interview processes

April 24, 1981—for summer term entry 1981

May 1, 1981—for summer term entry, if space is available, and for fall term 1981

NOTE:

1. Entry to the program is limited to summer and fall quarters only.
2. It is the sole responsibility of the applicant to insure that all materials, including all letters of recommendation required by the Graduate Studies Office are received on time. Notification of missing data will not be sent. Many applicants are not admitted due to the failure of one or more of the applicants' recommenders to return a letter of recommendation.
3. The applicants must be admitted to graduate studies prior to the completion of nine (9) St. Cloud State University graduate credits. Any credits taken beyond these nine credits, before admission to graduate studies, will not be counted toward a counseling degree. Transfer credits from other institutions are not affected by this regulation.



PROCEDURE FOR ADMISSION TO GRADUATE PROGRAMS IN COUNSELING

To be considered the applicant must complete the admission procedures as outlined under Admission to Graduate Study.

In addition, the student must complete the following requirements: (Contact the counselor education secretary for procedure.)

1. Provide evidence of undergraduate scholarship. A minimum 2.75 grade point average over the last two years of undergraduate education or 480 on the verbal section or 1000 overall on the Graduate Record Examination. Applicants who do not meet the standard admission requirements may be permitted to demonstrate their scholarship and qualify for acceptance by completing a limited program of graduate course work backed by evidence of successful experience in a human service field. Further information pertaining to this alternative may be obtained from the Graduate Dean.
2. Complete a preliminary writing skills examination.
3. Complete a personal data form.
4. Successfully complete a personal interview with representatives of the profession, advanced students in the program and the counseling faculty. Careful attention will be given to previous work experience, academic background, scholarship, emotional maturity, interpersonal skills and commitment to the counseling profession. Admission is competitive and selection is based on an evaluation of all factors.
Interviews are given on or about April 25, 1980, May 9, 1980, and July 11, 1980. For the specific dates, and an appointment, contact the counselor education secretary. If attendance at an interview is totally impractical, the program coordinator may designate an *alternate method*.
5. If admitted, each student must send, within 15 days, one black and white passport type photograph to the coordinator of counselor education for identification purposes.

OTHER PROGRAM REQUIREMENTS AND INFORMATION

Required Orientation Program

All new students (both part-time and full-time) *must attend* the Fall orientation meeting at 5:00 p.m., Friday, October 3, 1980. (See the counselor education secretary for details.)

Part-Time Students

Following admission to graduate studies, all part-time students must complete a minimum of 12 graduate quarter hours per year of course work, approved by their adviser, in order to be admitted to or maintain candidacy in the counseling program.

Students must arrange the pre-practicum core courses early in their program of studies and complete a counseling practicum before the completion of 24 St. Cloud State University graduate credits.

It is department policy to assist part-time students to complete a counseling program while continuing concurrent employment.

Financial Aid

Limited aid may be available through the department in the form of graduate assistantships or federal rehabilitation traineeships. Graduate assistantships require full-time student status and include some work responsibilities for a stipend. Federal rehabilitation traineeships provide both tuition and a stipend. Although these awards do not require work responsibilities, they do demand full-time study and subsequent commitment to employment in the rehabilitation field.

Advisement

Each new student will be assigned an adviser, within one week after the interview process. The student should make contact with her/his assigned adviser as soon as possible to plan a program of study. Not all advisers are immediately available for conferences, particularly if the student is admitted during the summer session. In these cases, any counselor education adviser will be happy to assist you.

Double Major

A student may wish to complete a double major to facilitate greater employability. The second major must be completed with a minimum of 15 new credits which are not used or required on his/her first major or program.

The Pre-Practicum Core Courses

All counseling emphases include a common core of course work prerequisite to the supervised counseling practicum experience. All students must complete the following courses before the completion of 24 St. Cloud State quarter hours:

- PSY 651 Counseling Theories, 3 Cr.
- PSY 665 Appraisal Techniques, 3 Cr.
- PSY 667 Career Development, 3 Cr.
- PSY 668 Counseling Procedures, 3 Cr.

A minimum grade of B is required in each of the above.

Supervised Counseling Practicum

This experience directly follows the pre-practicum core courses and will provide for the application of theories and techniques to counseling experience. Each student must apply in writing to the coordinator of counseling programs for placement in a counseling practicum a minimum of 60 days in advance of general registration. Late applicants might not be admitted. This may result in delayed internship and graduation.

Candidacy

Admission to graduate studies does not constitute candidacy for a counseling degree. Rather, a student who has been admitted to graduate study is advanced to degree candidacy upon the recommendation of the Counselor Education committee. Advancement to degree candidacy requires that the candidate must have completed between 12 and 24 quarter hours of graduate study at St. Cloud State University with a minimum grade point average of 3.0; have submitted to the coordinator of counseling programs a current transcript and three (3) completed, typed program forms signed by the student and the adviser; have clearly demonstrated the aptitude and ability to pursue graduate work, exhibited a commitment to counseling as a profession; and demonstrated potential for a successful career in the field of study selected. Admission to degree candidacy is not an automatic process, but rather the advancement to candidacy is approved by the committee only after careful evaluation of all pertinent factors.

Supervised Counseling Internship

This experience follows the counseling practicum and will provide clinical agency experience from one of a variety of agency settings. The candidate must apply in writing to the internship coordinator by completing an internship placement request form before:

- March 30—for fall placement
- Sept. 15—for winter placement
- Feb. 15—for summer placement

(See the Counselor Education secretary for details)

Final Comprehensive Evaluation

To be eligible for evaluation, the candidate must complete the procedures outlined earlier in this bulletin under Graduate Study—Final Evaluation Procedures during the final quarter of study. Deadlines for quarterly completions are November 7, 1980, February 6, 1981, May 8, 1981, and July 10, 1981. Each candidate must contact the Counselor Education secretary for details.

COMMUNITY COUNSELING

This program may not be completed in less than 6 quarters. In addition, the number of credits outlined below represents minimum requirements. The Counselor Education committee may require additional quarter hours to overcome deficits.

Plan A, 67 Cr.; Plan B, 70 Cr.

I. Research: Min., Plan A, 9 Cr.; Plan B, 12 Cr.

Plan A: Prescribed

PSY 678 Introduction to Graduate Statistics, 3 Cr.

PSY 699 Master's Thesis, 6-9 Cr.

Plan B: Prescribed

PSY 677 Seminar in Counseling, 3 Cr.

PSY 678 Introduction to Graduate Statistics, 3 Cr.

PSY 679 Research Planning, 3 Cr.

PSY 689 Research Reporting, 3 Cr.

II. Major: Min., Plan A or B, 42 Cr.

A. Prescribed Pre-Practicum Core: Min., 12 Cr.

PSY 651 Counseling Theories, 3 Cr.

PSY 665 Appraisal Techniques, 3 Cr.

PSY 667 Career Development, 3 Cr.

PSY 668 Counseling Procedures, 3 Cr.

B. Prescribed Community Counseling Emphasis: Min., 18 Cr.

PSY 530 Seminar: Community Counseling, 3 Cr.

PSY 666 Small Group Counseling Process, 3 Cr.

PSY 669 Supervised Counseling Practicum, 6 Cr.

(Select two of the following four), 6 Cr.

PSY 569 Individual Appraisal, 3 Cr.

PSY 571 Mental Hygiene, 3 Cr.

PSY 575 Abnormal Psychology, 3 Cr.

PSY 585 Theory of Personality, 3 Cr.

C. Prescribed Internship: Min., 12 Cr.

PSY 696 Supervised Internship in Counseling, 12 Cr.

III. Electives: Min., Plan A or B, 16 Cr.

The student must select electives, with consent of adviser, on the basis of his/her specific area of professional planning in community counseling.

Students with full time experience in a community counseling setting may substitute some courses with consent of adviser. Adviser's consent will be given only for those courses in which the experienced student demonstrates the competencies encompassed in the courses for which substitution is requested.

REHABILITATION COUNSELING

This program may not be completed in less than 6 quarters. In addition, the number of credits outlined below represents minimum requirements. The Counselor Education committee may require additional quarter hours to overcome deficits.

Plan A, 67 Cr.; Plan B, 70 Cr.

I. Research: Min., Plan A, 9 Cr.; Plan B, 12 Cr.

Plan A: Prescribed

PSY 678 Introduction to Graduate Statistics, 3 Cr.

PSY 699 Master's Thesis, 6-9 Cr.

Plan B: Prescribed

PSY 677 Seminar in Counseling, 3 Cr.

PSY 678 Introduction to Graduate Statistics, 3 Cr.

PSY 679 Research Planning, 3 Cr.

PSY 689 Research Reporting, 3 Cr.

II. Major: Min., Plan A or B, 48 Cr.

A. Prescribed Pre-Practicum Core: Min., 12 Cr.

PSY 651 Counseling Theories, 3 Cr.

PSY 665 Appraisal Techniques, 3 Cr.

PSY 667 Career Development, 3 Cr.

PSY 668 Counseling Procedures, 3 Cr.

B. Prescribed Rehabilitation Counseling Emphasis: Min., 24 Cr.

PSY 650 Introduction to Rehabilitation, 3 Cr.

- PSY 652 Seminar: Medical Factors in Rehabilitation, 4 Cr.
- PSY 653 Psychological and Sociological Aspects of Disability, 2 Cr.
- PSY 655 Seminar: Rehabilitation Planning and Management, 3 Cr.
- PSY 655 Seminar: Vocational Placement Techniques, 3 Cr.
- PSY 666 Small Group Counseling Process, 3 Cr.
- PSY 669 Supervised Counseling Practicum, 6 Cr.

C. Prescribed Internship: Min., 12 Cr.

- PSY 696 Supervised Internship in Counseling, 12 Cr.

III. Electives: Min., 10 Cr.

The student must select electives, with consent of adviser, on the basis of his/her specific area of professional planning in rehabilitation counseling.

Students with full-time experience in vocational rehabilitation settings may substitute some courses with consent of adviser. Adviser's consent will be given only for those courses in which the experienced student demonstrates the competencies encompassed in the courses for which substitution is requested.

SECONDARY SCHOOL COUNSELING

To enroll in the secondary school counseling program, a student must hold or be eligible for a teacher's license.

For secondary school counseling licensure in Minnesota, the following are required:

1. Endorsement from the counselor preparing institution.
2. Minnesota teaching license.
3. One year of successful teaching experience.
4. One year of work experience outside of teaching.

This program may not be completed in less than 5 quarters. In addition, the number of credits outlined below represents minimum requirements. The Counselor Education committee may require additional quarter hours to overcome deficits. The following program meets the requirements of the Minnesota State Department of Education for licensure as a secondary school counselor:

Plan A, 57 Cr.; Plan B, 60 Cr.

I. Research: Min., Plan A, 9 Cr.; Plan B, 12 Cr.

Plan A: Prescribed

- PSY 678 Introduction to Graduate Statistics, 3 Cr.
- PSY 699 Master's Thesis, 6-9 Cr.

Plan B: Prescribed

- PSY 677 Seminar in Counseling, 3 Cr.
- PSY 678 Introduction to Graduate Statistics, 3 Cr.
- PSY 679 Seminar: Research Planning, 3 Cr.
- PSY 689 Seminar: Research Reporting, 3 Cr.

II. Major: Min., Plan A or B, 39 Cr.

A. Prescribed Pre-Practicum Core: Min., 12 Cr.

- PSY 651 Counseling Theories, 3 Cr.
- PSY 665 Appraisal Techniques, 3 Cr.
- PSY 667 Career Development, 3 Cr.
- PSY 668 Counseling Procedures, 3 Cr.

B. Prescribed Secondary School Counseling Emphasis: Min., 21 Cr.

- PSY 564 Guidance Principles, 3 Cr.
- PSY 566 Guidance for the Handicapped, 3 Cr.
- PSY 666 Small Group Counseling Process, 3 Cr.
- PSY 669 Supervised Counseling Practicum, 6 Cr.
- PSY 670 Developmental Psychology, 3 Cr.

(Select one of the following two), 3 Cr.

- PSY 571 Mental Hygiene, 3 Cr.
- PSY 585 Theory of Personality, 3 Cr.

C. Prescribed Internship: Min., 6 Cr.

- PSY 696 Supervised Internship in Counseling, 6 Cr.

III. Electives: Min., Plan A or B, 9 Cr.

The student must select electives, with consent of adviser, on the basis of his/her specific area of professional planning in secondary school counseling.

Students with full time experience in a school counseling setting may substitute some courses with consent of adviser. Adviser's consent will be given only for those courses in which the experienced student demonstrates the competencies encompassed in the courses for which substitution is requested.

For Licensure Only

Individuals already possessing a master's degree may earn institutional endorsement for licensure by meeting all admission and other requirements met by degree students. Courses required for licensure endorsement include the following:

- PSY 564 Guidance Principles, 3 Cr.
 - PSY 566 Guidance for the Handicapped, 3 Cr.
 - PSY 651 Counseling Theories, 3 Cr.
 - PSY 665 Appraisal Techniques, 3 Cr.
 - PSY 666 Small Group Counseling Process, 3 Cr.
 - PSY 667 Career Development, 3 Cr.
 - PSY 668 Counseling Procedures, 3 Cr.
 - PSY 669 Supervised Counseling Practicum, 6 Cr.
 - PSY 670 Developmental Psychology, 3 Cr.
 - PSY 677 Seminar in Counseling, 3 Cr.
 - PSY 678 Statistics, 3 Cr.
 - PSY 696 Supervised Internship in Counseling, 6 Cr.
(Select one of the following two)
 - PSY 571 Mental Hygiene, 3 Cr.
 - PSY 585 Theory, 3 Cr.
- Total Credits Required: 45 Cr.

These requirements must be met for endorsement even though they go beyond the minimum required by the state. Some equivalent courses from a previous master's degree may be considered for substitution, but students must earn a minimum of 24 graduate credits in the St. Cloud State Counselor Education program.

COURSE DESCRIPTIONS

530. Seminar: _____. Selected topic in special areas in psychology. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

545. Play in Childhood. A study of the natural spontaneous play of the child and the changes in play forms over time. The relationship of play and playfulness to personality development. An overview of play interpretations from the classical through contemporary theories. Review of investigations, studies, and literature; and development of observation procedures. Prereq.: a course in human growth and development or consent of instructor. 3 Cr. DEMAND.

547. Psychodynamics of the Family. Focuses on the psychological interrelationships between and among members of a union as they face developmental stages of life. Selected theories of personality and counseling will be studied in relation to the problems and issues in families. 3 Cr. SUM, DEMAND.

564. Guidance Principles. Philosophy of guidance, individual appraisal, counseling services, informational services, placement organization, group guidance activities, staff service and contributions, and program organization and administration. 3 Cr. W.

566. Guidance for the Handicapped. Special problems. Counseling with children and parents. Psychological, aptitude, achievement tests. 3 Cr. W, S, SUM.

569. Individual Appraisal. Methods of individual appraisal; psychological measurement of individuals; instruments used to appraise intellectual efficiency, aptitude and achievement, sensory capacities and efficiency, sensory-motor coordination, group status, personal history; synthesizing data and report writing. Prereq.: 463 or 665. 3 Cr. F, SUM.

570. Positive Behavioral Discipline. Use of the principles of behavior analysis in facilitating student academic and social performance in the classroom. 3 Cr. SUM.

571. Mental Hygiene. Characteristics of wholesome personality, methods and aims of mental hygiene; personal development and techniques of effective adjustments. Prereq.: 262. 3 Cr. DEMAND.

572. Psychology of Exceptional Children. Clinical observation of children who have special problems of growth and development, physical and mental handicaps; mentally gifted; behavior disorders. 3 Cr. F, S, SUM.

573. Psychology of Mental Retardation. Etiology, characteristic, classification, diagnosis, assessment. Social control. Role of family, school, community agencies. 3 Cr. F, W, S, SUM.

574. Interpersonal Dynamics. Survey of research, experimentation, and theory of relationships between the individual and the group; inter-personal communication, influence, group structure and function, leader-member relations. 3 Cr. F, SUM.

575. Abnormal Psychology. Study of functional and organic deviations in order to understand normal behavior of the human personality with greater clarity and precision. 3 Cr. DEMAND.

576. Introduction to Clinical Psychology. Overview of the clinical approach to assessment of individuals and techniques for behavioral change as used in clinical, educational, and industrial settings. Prereq.: 475-575. 3 Cr. DEMAND.

- 577. Research on Psychology of Women.** In-depth study of selected topics in current psychological research dealing with women and women's issues. 3 Cr. DEMAND.
- 582. Motivation.** Theory and research in animal and human motivation; physiological, social, and personal aspects of motivation; basic, deficit, derived, growth motivation. 3 Cr. DEMAND.
- 583. History and Schools.** Systems, experiments, personalities in the development of modern psychology; comparative study and analysis of systems; contribution of outstanding persons. 3 Cr. DEMAND.
- 585. Theory of Personality.** Basic theoretical concepts, factors of vital relationships within the individual personality, interpersonal relationships, individual and field frames of reference as they relate to mental health. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

- 621. Psychology in Human Affairs.** Examination of the broad principles of psychology and their impact on human affairs; nature of man, mind and body, basis of knowledge, basis for conduct; relation between psychological thinking and other modes of inquiry. Not open to students majoring in counseling or psychology. 3 Cr. DEMAND.
- 648. Career Development for Women's Lifespan.** Study of career development for women as life long process. Examination of past influences, present theories and future trends based on research. Remediation techniques and methods, assertive planning will be emphasized. Coreq.: 649. 3 Cr. SUM, DEMAND.
- 649. Affirmative Counseling of Women.** Examines trends and new approaches for affirmative counseling practices for women's lifespan based on research findings and the current scene. Coreq.: 648. 3 Cr. SUM, DEMAND.
- 650. Introduction to Rehabilitation.** Orientation to the rehabilitation process including a survey of the history, principles, philosophy and legal aspects of rehabilitation and related fields. 3 Cr. F.
- 651. Counseling Theories.** Consideration of selected theories of counseling with consideration given to application in various counseling settings. 3 Cr. F, SUM.
- 652. Medical Factors in Rehabilitation Counseling.** The etiology, prognosis methods of treatment, effects of disabling conditions and implications for the counselor. 1-4 Cr. May be repeated to max. of 9 Cr. S.
- 653. Psychological and Sociological Aspects of Disability.** The emotional and psycho-social factors associated with various disabilities. 2 Cr. May be repeated to max. of 4 Cr. W.
- 655. Seminar in Rehabilitation Counseling:** _____. Special topics in the field. 1-3 Cr. May be repeated to max. of 9 Cr. W, S.
- 663. Applied Theories of Learning.** Principles of psychology of learning and experimental findings; application to problems encountered in teaching and learning; examination of theories of learning. 3 Cr. F, W, S, SUM.
- 664. Learning Theories.** Advanced course in theories of learning with emphasis on models, systems, research findings and current issues. Prereq: 350 or 678 and graduate status in psychology or permission of the department chairperson. 3 Cr. DEMAND.
- 665. Appraisal Techniques.** Analysis of appraisal techniques used in counseling. Information, sources, assembly, and use in the counseling process. 3 Cr. F, SUM.
- 666. Small Group Counseling Process.** Didactic instruction in small group process and practice in such process. Lecture and laboratory. 3 Cr. W, S.
- 667. Career Development.** Consideration of some of the more outstanding theories, materials, procedures and problems pertinent to the counselor's work in the area of career development and decision making. 3 Cr. F, SUM.
- 668. Counseling Procedures.** Techniques, procedures, and practices employed in counseling: including practice in counseling. 3 Cr. F, SUM.
- 669. Supervised Counseling Practicum.** Advanced application of theory and techniques to counseling. Prereq.: 651, 665, 667 and 668. 3-6 Cr. May be repeated to max. of 9 Cr. F, W, S.
- 670. Developmental Psychology.** Advanced course in human growth and development, emphasis on trends, problems, theoretical considerations, and contemporary research. 3 Cr. S.
- 671. Introduction to Marriage and Family Counseling.** An introduction to this emerging field and profession. It will introduce the student to some of the basic approaches and issues involved in the field. Prereq.: 651, 668. 3 Cr. W.
- 672. Family Counseling; Theory and Techniques.** The course is for students who are interested in marriage and family counseling. The course will help these students gain an understanding of counseling theory and technique as applied to the field of marriage and family counseling. Prereq.: 671. 3 Cr. S.
- 677. Seminar in Counseling.** Careful consideration of problems, issues, and research in professional counseling. 3 Cr. DEMAND.
- 678. Introduction to Graduate Statistics.** A review and extension of correlation and regression analysis; introduction of probability and sampling theory; estimating population parameters; testing hypothesis. Prereq.: 350 or 463. Familiarity with descriptive statistics assumed. 3 Cr. F, W, S, SUM.

679. Seminar: Research Planning. Consideration of research design and tools. Development of project outline within the interest area of each student and presentation for critical review to members of the seminar. 3 Cr. DEMAND.

680. Organizational Psychology. Psychology of individual and group behavior in the organizational complex; contemporary research and implications for administration and management; motivation, influence, communication, group processes, leadership, supervision. 3 Cr. DEMAND.

681. Inferential Statistics I. Set mathematics, probability theory and statistical inference, linear correlation and regression, and the design and analysis of single factor experiments. Prereq.: 351 or 678 or permission of the chairperson. 4 Cr. DEMAND.

682. Inferential Statistics II. Experimental blocking and covariance, multiple correlation and regression, curvilinear correlation and regression, and the design and analysis of multivariate experiments. Prereq.: 681. 4 Cr. DEMAND.

686. Binet. Measurement of intelligence by means of the Stanford revision of the Binet-Simon technique; demonstrations, lectures, practice in administration of tests; observation of individual instructor. Permission of department required. 3 hours lab. 3 Cr. DEMAND.

687. Wechsler. Measurement of intelligence by means of the Wechsler scales with primary emphasis of the Wechsler Intelligence Scale for children—revised. Emphasis is placed on interpreting the results and building intellectual skills. Permission of department required. 8 hours lab. 3 Cr. SUM.

689. Seminar: Research Reporting. Reporting of research planned in 679 and subsequently implemented. Preparation of reports in accordance with APA publication standards and presentation to seminar. Prereq.: 679. 3 Cr. DEMAND.

696. Supervised Internship in Counseling. Supervised agency clinical experience. Prereq.: 669. 1-16 Cr. F, W.

698. Practice in Small Group Process. Supervised practicum in conducting small group counseling sessions. Prereq.: 666. 3 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

QUANTITATIVE METHODS AND INFORMATION SYSTEMS (QMIS)

210 BUSINESS BUILDING/255-2174

Chairperson: Ming-te Lu

Graduate Faculty: Heath, D. Krueger, M. Lu, Song

Also see M.B.A. requirements, page 33.

COURSE DESCRIPTIONS

540. Business Statistics III. Review of statistical inference, analysis of variance with two or more variables of classification, multiple regression and correlation, analysis of covariance and non-parametric methods. 4 Cr. W.

545. Advanced Programming Project. Planning, coding, testing and documenting computer programs for selected business applications using a business-oriented program language. Prereq.: 251. 4 Cr. S.

550. Administration and Control of Management Information Systems. Organizational structure of a management information system; information systems management; personnel selection, training, motivation and evaluation; acquisition, analysis, administration and control of hardware and software; managerial control of MIS; computer's impact on administration and control of MIS. Prereq.: 351. 4 Cr. S.

551. Computer Simulation for Business. Rationale for computer simulation, techniques for random number generation, generation of stochastic variates for simulation, simulation of inventory systems, simulation of queuing systems, simulation of large-scale systems, simulation languages and the verification of simulation results. 4 Cr. W.

552. Advanced Topics in Management Information Systems. Recent developments in concepts, theory, practices in the analysis and design of management information systems. Prereq.: 351. 4 Cr. W.

553. Data Base Management System. Corporate data bases, data basics, flexibility and independence, schemas and subschemas, data definition language, data manipulation language, data dictionaries, security and privacy, data base administration. Prereq.: 251, 351. 4 Cr. W.

554. Business Decision Theory. Principles used in decision-making, the assumptions behind utility and application of utility, decision-making under uncertainty, Bayes strategies and their applications in business. 4 Cr. S.

555. Business Research. Fundamentals of research methodology, including planning, organizing, and executing a research project; sampling techniques; basic concepts and techniques in the design of experiments; interpretation of data; art and strategy of presenting findings. Prereq.: 540. 4 Cr. S.

556. Linear Programming. Formulation of linear programming problems, simplex methods, dual simplex, post-optimality analysis and parametric linear programming. Introduction to integer linear programming, cutting plane algorithm, branch and bound algorithms and their applications. 4 Cr. S.



SECONDARY EDUCATION PROGRAM

Programs described under Teacher Development.

SOCIAL SCIENCE PROGRAM (SSCI)

Chairperson: Harold Lieberman

Also see the Interdisciplinary Studies Department.

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in one of the following: social studies, economics, political science, or sociology. In some cases, the applicant may be required to complete additional undergraduate course work even though a major or minor may have been completed in one of these fields. The student may elect to concentrate in economics, political science, or sociology, with some course work in the other fields, or may elect to emphasize the social sciences more equally.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-12 Cr.; Plan B, 3 Cr.
ED 615 Introduction to Research, 3 Cr.
SSCI 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Advanced study in subject matter, methods, materials and curriculum.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Approval of the professional education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

COURSE DESCRIPTIONS

560. Social Science Seminar. Analysis of issues or problems of an interdisciplinary social science nature. A specific topic will be selected each time the course is offered. 1-4 Cr. May be repeated to max. of 9 Cr. F, W, S.

570. Area Studies Seminar. Analysis of contemporary social, political, and economic conditions of an area. A specific country or region will be selected each time the course is offered. 1-4 Cr. May be repeated to max. of 9 Cr. F, W, S.

576. Black and American: Contemporary Afro-American Thought. An exploration of contemporary Afro-American responses to their condition in American society utilizing concepts and materials from the social sciences. 4 Cr. W ALT.

COURSES FOR GRADUATE STUDENTS ONLY

630. Problems in the Social Sciences. An examination of the methods used and the problems faced in the various social science disciplines. Not open to students with a major or minor in social science. 3 Cr. SUM.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

SOCIAL STUDIES (SST)

Also see the Interdisciplinary Studies Department.

COURSE DESCRIPTION

640. Recent Trends in Teaching Social Studies in Secondary School (Topical). The secondary school social studies program viewed in light of new methods, curriculum trends, materials, and philosophies. 3 Cr. May be repeated with different topic to max. of 9 Cr. SUM.

SOCIOLOGY (SOC)/ANTHROPOLOGY (ANTH) AND SOCIAL WORK (SW)

334 STEWART HALL/255-2294

Chairperson: Claude Del Zoppo

Graduate Faculty: Baer, Brennan, Deininger, Del Zoppo, Goodrich, Harper, Lavenda, Sherohman

COURSE DESCRIPTIONS

540. Public Opinion and Propaganda. Nature, function, formation, and measurement of public opinion; attempts to influence public opinion; propaganda. Prereq.: SOC 260. 4 Cr. S.

542. Social Movements. Analysis of social movements; origin in discontent; role of ideas, personal relationships, organizational factors in their development. Some contemporary and social movements. Prereq.: SOC 260. 4 Cr. W.

545. Political Sociology. An analysis of structural and ideological factors influencing the development and legitimation of political institutions and the sociological conditions influencing the political processes. 4 Cr. S.

547. World Population Problems. World population trends and pressures; their causes and consequences; war, international relations; standards of living; technological change; and cultural contrasts. Prereq.: SOC 260. 4 Cr. DEMAND.

562. Seminar. Discussion, readings, evaluation of sociological theory, social issues, or contemporary events. A specific topic selected each time offered. Prereq.: SOC 260. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

563. Seminar Discussion and Readings in Advanced Anthropology. A specific topic selected each time offered. Prereq.: ANTH 250 or permission of department chairperson. 4 Cr. May be repeated to max. of 9 Cr. W, S.

565. Social Psychology. Influence of human relations and culture upon development of personality. Culture approaches to the development of attitudes, prejudices, roles, and groups. Prereq.: SOC 260. 4 Cr. F, W, S, SUM.

567. Principles of Cultural Anthropology. Concepts and theories of anthropology. Analysis of tribal and peasant cultures; comparison with more complex societies. 4 Cr. DEMAND.

570. Minority Group Cultures and Contributions. Minority-group cultures and contributions and the position of minority groups in American society. Different minority groups will be focused upon in the course. 4 Cr. S.

573. Issues and Practice in Social Welfare. Background of the modern social work movement and development in its underlying theory. Prereq.: SOC 260 and SW 211. 3 Cr. DEMAND.

580. Sociology of Conflict. The significance of conflict in social processes. Survey of classical and contemporary theories of conflict, with application in contemporary society. Prereq.: SOC 260. 4 Cr. DEMAND.

585. Contemporary Sociological Theory. Systematic organization of concepts and principles for the explanation of social phenomena and as a guide to contemporary sociological research. Prereq.: SOC 260. 4 Cr. F, W, S, SUM.

590. Field Methods in Anthropology. Anthropological field methods in one of the major subdisciplines of anthropology, archaeology, ethnography, or linguistics. Consent of instructor. 1-8 Cr. SUM.

SPECIAL EDUCATION (SPED)

A212 EDUCATION BUILDING/255-2041

Chairperson: Stanley Knox

Graduate Faculty: Ayers, Bigler, Gadberry, R. Johnson, Knox, J. Lewis, Lovelace, F. Reese, S. Reese, Scribner, Wellik

MASTER OF SCIENCE—Special Education

The Department of Special Education offers three separate programs which lead to a Master of Science degree. The three programs are Plan A, B, and C. In all three plans the student may obtain an emphasis in educable mentally retarded, trainable mentally retarded or learning disabilities. A course in introduction to exceptional children is required for admission to this program.

A master's thesis is required in the Plan A program and a final oral examination over the thesis is part of the requirement. Students pursuing the Plan A option must have a minimum of 12 quarter hours in research and 15 GRADUATE ONLY credits in their major field of concentration. A minimum of 45 graduate hours is required in the Plan A program.

Plan B is designed for those students who wish to complete a master's program in special education by writing three starred papers. The starred papers must be approved by the student's adviser. A final oral examination with three members of the graduate faculty is required. A written comprehensive examination is also required. Students pursuing a master's degree under Plan B must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration. Minimum number of hours under Plan B is 48 graduate hours.

The Plan C Master of Science program in special education is designed for the professional practitioners whose primary goal is to improve his/her qualifications and performance as a classroom teacher within the structure of a master's degree program. Minimum number of graduate hours under Plan C is 54 hours. Fifteen hours of extension or workshop credits may be part of the Plan C program. Proposal for contents of the professional portfolio will be submitted in SPED 601. Students under the Plan C program must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Candidates for Plan C are required to successfully complete a final oral examination covering the materials developed for inclusion in the professional portfolio. The committee will be composed of two members from the department and one member from outside the department selected by the graduate dean. Plan C candidates are also required to successfully complete a final written examination covering content area of the major program (II) and education applications and implementation (V).

Contents of Professional Portfolio

- A. Papers written in courses which are part of the student's graduate program. APA style is required.
- B. Curriculum programs written to be implemented in student's professional setting.
- C. Media projects (aids in teaching)
 1. filmstrips
 2. slide/sound presentations
 3. video tape
 4. films
 5. series of overhead transparencies
- D. Individual Education Programs (IEP)
- E. Records, logs, lesson plans, and assessment of internships or practicums.

Plan A, 45 Cr.; Plan B (Starred Papers), 48 Cr.; Plan C (Professional Portfolio), 54 Cr.

- I. Research: Min., Plan A, 12-15 Cr.; Plan B, 6 Cr.; Plan C, 3 Cr.
 - SPED 602 Research in Special Education, 3 Cr.
 - SPED 699 Master's Thesis, 6-9 Cr. (Plan A only)
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.

100 / Special Education (SPED)

- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.; Plan C, 24 Cr.
 - SPED 601 Current Trends in Special Education, 3 Cr.
 - SPED 603 Problems in Special Education, 3 Cr.
 - SPED 690-694 Topical Seminars, 6 Cr.
- III. Professional Education: 6 Cr.
 - Courses from education and psychology selected with adviser.
- IV. Electives: Min., Plan A, 3-12 Cr.; Plan B, 12 Cr.; Plan C, 6 Cr.
- V. Educational Applications and Implementation: Min., Plan C only, 15 Cr.

SPECIALIST DEGREE—Special Education Administration

This program is designed to prepare individuals for leadership positions in special education, particularly as administrators of special education programs in the public schools. Satisfactory completion of the program results in a recommendation for licensure as a supervisor of special education in Minnesota.

The applicant for the Specialist degree in this program must complete an approved program which consists of a minimum of 45 quarter hours of graduate credit including a field study of nine credits.

The Approved Program must be developed at the time of admission. This plan is developed jointly with the student and the adviser and will be based on the licensure requirements, the background of the student, and the role the candidate expects to assume.

This program must be completed within five years of the date of the first course which applies to this program. There is no residency requirement, but a minimum of 30 credits in the program must be taken at St. Cloud State University.

Transcripts showing credits earned from other institutions approved to grant advanced degrees in special education or educational administration will be evaluated at the time of admission to the program and those courses which are acceptable will be included on the program plan. Any courses proposed for transfer after the program has been approved must have prior approval of the adviser and the School of Graduate Studies through the petition process.

Candidates who expect to be recommended for licensure as a supervisor of special education in Minnesota must have full licensure in a program area of special education and have a minimum of three years of experience in that area.

Requirements for admission to the program:

1. Completion of a master's degree program in special education.
2. A grade point average of 3.20 on credits earned for the master's degree.
3. Licensure in any program area of special education (including school psychology or school social work).
4. Graduate courses in research, graduate statistics, and current trends in special education.
5. Completion of the Graduate Record Examination (GRE), Aptitude Test.

The Approved Program consists of the following:

- I. Administration, Curriculum, and Instruction: Min., 18 Cr.
 - Prescribed:
 - EDAD 604 School Finance, 3 Cr.
 - EDAD 650 School Law, 3 Cr.
 - Electives: Min., 12 Cr.
 - Selected from areas of administration, supervision, curriculum and individualized study (consent of adviser).
- II. Foundation, Psychology, Special Education: 9-15 Cr.
 - Course work selected from areas of educational foundations, psychology, and special education including SPED 610, 613, and 654. Students are expected to develop competence in two fields of special education in addition to the area emphasized in the Master's degree program. Areas available are: educable mentally retarded, trainable mentally retarded, learning disabled, orthopedically handicapped, gifted, and behavior problems.
- III. Related Fields: Min., 9 Cr.
 - Selected from areas outside of the field of educational administration (consent of adviser).
- IV. Thesis or Field Study: 9 Cr.
 - SPED 698 Field Study, 9 Cr.
 - or
 - SPED 699 Thesis, 9 Cr.

COURSE DESCRIPTIONS

504. Cultural Diversity and Education. Problems of cognitive, linguistic, social, and emotional development. Pre-school, elementary and secondary school programs. Role of supportive agencies. 3 Cr. F, S, SUM.

- 505. Behavior Problems in the School.** Introduction to the assessment and management of behavior problems in the classroom. Prereq.: 401. 3 Cr. F, W, S, SUM.
- 506. Orthopedic Handicaps in the School.** Characteristics, etiology, treatment, and prognosis of the various types of orthopedic handicaps. Role of the auxiliary services and other professions. 2 Cr. F, W, S.
- 507. Education of Children with Learning Disabilities.** Introduction to learning disabilities. Survey of approaches to instruction. Laws and regulations governing disability programs. 3 Cr. DEMAND.
- 508. Developmental Screening and Assessment of Young Children.** To familiarize participants with the philosophy, procedures and methodologies used to conduct developmental screening. Prereq.: permission of instructor. 3 Cr. DEMAND.
- 520. Education of the Severely and Profoundly Retarded.** Evaluation and planning for the severely and profoundly retarded in public school programs, institutions, and community based residential facilities. Analysis of materials and methods. Prereq.: 401. 3 Cr. SUM.
- 521. Education of Moderately Mentally Retarded Children.** Evaluation and planning for the moderately mentally retarded. Analysis of materials and methods. Observation and participation. Prereq.: 420-520. 3 Cr. SUM.
- 522. Education of the Gifted.** Identification, characteristics, instructional programs and educational problems. 3 Cr. S, SUM.
- 523. Methods and Materials in Special Education I.** Selection of children and organization of school programs for mentally retarded and orthopedically handicapped. Curriculum adjustment, teaching methodologies. Prereq.: 401. 3 Cr. DEMAND.
- 524. Methods and Materials in Special Education II.** Analysis of curricular materials for mentally retarded and orthopedically handicapped. Observation and participation. Prereq.: 423-523. 3 Cr. DEMAND.
- 525. Special Learning Disabilities I.** Techniques of identification and evaluation of children with learning difficulties associated with language, emotional, and perceptual problems. Prereq.: 401. 3 Cr. W, SUM.
- 526. Special Learning Disabilities II.** Instructional methodology and treatment for children with learning disabilities. Prereq.: 425-525. 3 Cr. S, SUM.
- 527. Teaching Basic Skills to Handicapped Learners.** Principles of teaching basic skills and their application to the development of skills in handicapped learners diagnostic procedures. Prereq.: 401 and background in developmental reading and developmental mathematics. 3 Cr. F, W, S, SUM.
- 528. Learning Problems in the Classroom I.** Characteristics and needs of special education students in the regular classroom. Survey of special programs. 3 Cr. DEMAND.
- 529. Learning Problems in the Classroom II.** Curricular adaptations and instructional methods for working with handicapped students in the regular classroom. Survey of materials. Prereq.: 528. 3 Cr. DEMAND.
- 530. Learning Problems in the Classroom III.** Planning and implementation of individual instructional programs designed to meet specific needs of students with learning problems. Prereq.: 529. 3 Cr. DEMAND.
- 531. Career and Vocational Planning for the Special Needs Student.** Initiation and maintenance of vocational education programs for the special needs student. Educational models, job analysis, employer-school relations, laws and regulation. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

- 601. Current Trends in Special Education.** Current trends including methods and materials, assessment procedures, and innovations in service systems. An introductory course for graduate students. 3 Cr. W, S, SUM.
- 602. Research in Special Education.** Techniques and interpretations of research in special education. Problem definition, research design, reporting results. 3 Cr. F, W, SUM.
- 603. Problems in Special Education.** Seminar in problems and issues relating to programming for exceptional children in the schools. Content determined according to background and interests of the students. Prereq.: 601. 3 Cr. F, S, SUM.
- 604. Recent Research in Mental Retardation.** Trends, implications for planning educational programs for the mentally retarded, emphasis on studies in psychology and education. Prereq.: PSY 473-573. 3 Cr. DEMAND.
- 605. Behavioral Analysis for Handicapped Children.** Analysis of symptom development and educational problems in handicapped children according to the principles of learning. 3 Cr. F, S, SUM.
- 610. Supervision of Special Education.** Methods, staff development, curriculum development, administrative relationship. 3 Cr. W, SUM.
- 611. Curriculum for Special Education.** Problems and changing concepts in planning for handicapped children. Innovative curricular approaches. Prereq.: 424-524 or 426-526. 3 Cr. W, SUM.
- 612. Psycholinguistics.** Introduction to psycholinguistics. Symbolic processes involved in communication. Interpretation of data. 3 Cr. F, W, S, SUM.

613. Administration of Special Education. Role of special education administration in school management system. Planning, programming, and evaluating service delivery systems. Local, state and federal resources. Prereq.: 610. 3 Cr. S, SUM.

620. Teaming, Community Resources, and Service Delivery Systems. Introduction to principles of group process, team staffing, and cooperative program planning and service delivery. Teaming of parents, educational staff, and related services to handicapped. Lab. arranged hours required. 3 Cr. DEMAND.

650. Practicum in Moderately, Severely, and Profoundly Handicapped. Supervised practicum in teaching moderately, severely, and profoundly handicapped children. Prereq.: 520 and 521, permission of department. 3-8 Cr. F, W, S, SUM.

651. Practicum in Special Education. Supervised experiences in a special education program, vocational program or college programs. Prereq.: permission of department. 3-8 Cr. F, W, S, SUM.

652. Practicum in Special Learning Disabilities. Supervised practicum in teaching children with learning disabilities taken concurrently with 525 and 526. Prereq.: permission of department. 3-6 Cr. May be repeated to max. of 6 Cr. W, S, SUM.

654. Practicum in Special Education Administration. Supervised experience in the schools with directors of special education. Prereq.: 613, or concurrent registration, permission of department. 3 Cr. F, W, S.

698. Field Study. 9 Cr. F, W, S, SUM.

699. Thesis. 6-9 Cr. F, W, S, SUM.



SPEECH COMMUNICATION (SPC)

209 PERFORMING ARTS CENTER/255-2216

Chairperson: Arthur Grachek

Graduate Faculty: Arnett, Grachek, Kendall, Sikkink, Stocker, Vick, Vicker, Vora

COURSE DESCRIPTIONS

515. Rhetorical Criticism. Concepts, terminology, methods and literature of rhetorical criticism. Prereq.: 220 or consent of instructor. 4 Cr. F.

520. Theories of Persuasion. Study of the elements of persuasion, including psychological and sociological theories, communication concepts and models, and analysis of communication situations and systems. Speaking and criticism. 4 Cr. S.

521. American Public Address. Major speakers in American history studied from a rhetorical perspective. Prereq.: 415. 4 Cr. DEMAND.

526. Communication in Intimate Relationships. Study of communication patterns between persons involved in an affectionate relationship. Experiential exercises and selected readings. Prereq.: 226 or consent of instructor. 4 Cr. DEMAND.

530. Modern Theories of Communication. Introduction to theories of human communication including theories of the neurophysiological, perceptual and semantic foundations of communication and theories and models of human interaction. 4 Cr. W.

531. Contemporary Approaches to Oral Interpretation. Selected advanced topics in oral interpretation theory and practice. Performance, analysis and discussion of 1) selected literary genres, 2) selected performance styles, or 3) performance criticism. Specific topics will be announced each time. Prereq.: 331. 4 Cr. May be repeated to a max. of 9 Cr. DEMAND.

535. Theories of Small Group Process. Introduction to theories of small group processes, particularly as they relate to communication within and between small groups. 4 Cr. DEMAND.

540. Advanced Public Speaking. Exploration in depth of speech principles through speech making and selected readings. 4 Cr. DEMAND.

552. Teaching of Speech Communication. Materials and methods for curricular and co-curricular teaching of speech communication in secondary schools. Must precede student teaching. Prereq.: 15 Cr in SPC. 4 Cr. F.

580. Seminar in Speech Communication. Discussions and readings in advanced speech topics. A specific topic will be listed each time offered. Prereq.: senior/graduate standing or permission of instructor. 4 Cr. May be repeated to max. of 8 Cr. DEMAND.

SPEECH SCIENCE, PATHOLOGY, AND AUDIOLOGY (SSPA)

A216 EDUCATION BUILDING/255-2092

Chairperson: Martin Kammermeier

Graduate Faculty: Davenport, Jacobson, Kammermeier, Powers

MASTER OF SCIENCE

Admission to the graduate program in speech science, pathology and audiology requires completion of an undergraduate major in speech pathology or audiology with at least a 3.0 (B) average. When a student has a bachelor's degree in an area other than speech pathology or audiology, he may be admitted to the program on condition that he complete 24 quarter hours of undergraduate work in speech pathology and audiology. Requirements for admission related to academic standing are the same as those established by the graduate school.

Students pursuing a master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr. ; Plan B, 48 Cr.

I. Research

Prescribed:

Plan A: 9-15 Cr.

SSPA 620 Research in SSPA, 3 Cr.

SSPA 699 Master's Thesis, 3-9 Cr.

PSY 678 Introduction to Statistics, 3 Cr.

Plan B: Min., 6 Cr.

SSPA 620 Research in SSPA, 3 Cr.

PSY 678 Introduction to Statistics, 3 Cr.

II. Major: Min., 24 Cr.

Prescribed:

A. SSPA 520 Experimental Phonetics, 3 Cr.

SSPA 560 Language Development, 3 Cr.

SSPA 636 Diagnosis in Speech and Hearing, 3 Cr.

SSPA 642 Advanced Audiology, 3 Cr.

SSPA 651 Practicum, 6 Cr.

B. PSY 663 Applied Theories of Learning, 3 Cr.

Elective: Min., 3 Cr.

III. Elective Courses

Plan A, 6-12 Cr.

Plan B, Min., 18 Cr.

The Fifth Year Program

I. Prescribed courses: (same as M. S. degree).

II. Elective courses: These courses are to be elected in conference with the major adviser. Students are reminded that they must have a minimum of 15 credits in courses which are open only to graduate students. Courses from the 300, 400, 500, and 600 level will be acceptable. 18 Cr.

III. Practicum: SSPA 651, 6 Cr.

COURSE DESCRIPTIONS

520. Experimental Phonetics. Relationship between the acoustic features of speech sounds and perceptions of speech. 3 Cr. F.

545. Clinical Management of the Aurally Handicapped Child, 0-21. Language growth in hearing-impaired children: family and community as potential contributors to language for the hearing-impaired, and systems approach to the educational management of the hearing-impaired. 3 Cr. S.

555. Behavioral Management of Speech and Language Problems. Behavior modification applied to clinical and research problems in speech pathology and audiology. 3 Cr. S.

559. Introduction to Language. A survey of theories and methods of investigation of the various disciplines concerned with the study of language. 3 Cr. F.

560. Language Development. Speech and language acquisition in normal children. 3 Cr. W.

561. Language Appraisal and Intervention. Etiology, theory and supporting research, and approaches to treatment of delayed speech and language. 3 Cr. S.

568. Introduction to Children's Language. Language development from birth through adolescence emphasizing content and process. Recognition of language differences and deficits and suggestions for teaching language skills to pre-school and elementary children. 3 Cr. F.

COURSES FOR GRADUATE STUDENTS ONLY

620. Research in Speech Pathology and Audiology. Evaluation of methods and results of original research; experimental design; statistical procedures. 3 Cr. F.

634. Cleft Palate. The communication problems of the individual with a cleft palate: embryology, etiology, anatomy, physiology of clefts, surgical, prosthodontic, orthodontic, speech therapy and audiological interventions. 3 Cr. S.

635. Aphasia. Speech and language problems related to stroke and other forms of brain trauma. Comparison of current tests for aphasia and approaches to therapy for the aphasic patient. 3 Cr. F.

636. Diagnosis in Speech and Hearing. Evaluation and use of diagnostic tools. Includes participation in diagnostic evaluations and preparation of clinical reports. 3 Cr. F.

637. Dysarthria. Speech problems related to deficiencies of the central nervous system. Etiology in different age groups. Effects on articulation, phonation, respiration, resonance, and prosody. Approaches to speech therapy. 3 Cr. W.

642. Advanced Audiology. Above-threshold audiometric testing. Objective audiometry. Aid fitting. Auditory training. 3 Cr. W.

651. Graduate Practicum in Speech and Hearing. Application of theory and research to clinical problems. 1-3 Cr. F, W, S.

660. Seminar: Language Disorders of Children. An in-depth study of specialized topics germane to the assessment and remediation of language problems in children. Prereq.: 459-559, 460-560, 461-561 or equivalent. 3 Cr. W.

670. Seminar: Voice. Critical evaluation of clinical and research data supporting current practices in treatment of voice disorders. 3 Cr. F.

671. Seminar: Articulation. Critical evaluation of clinical and research data supporting practices in treatment of articulation disorders. 3 Cr. S.

676. Seminar: Stuttering. Nature, etiology and treatment of stuttering with emphasis on published research. 3 Cr. W.

699. Master's Thesis. 3-9 Cr. F, W, S.

TEACHER DEVELOPMENT

A132 EDUCATION BUILDING/255-3007

Chairperson: Kenneth W. Kelsey

Coordinator of Elementary Education Program: Russell Schmidt

Coordinator of Secondary Education Program: Eugene Bjorklund

Coordinator of Student Teaching Program: Floyd Perry

Graduate Faculty: F. Anderson, Bavery, Bjorklund, Char, Grunerud, Hagen, P. Johnson, Kelsey, V. Mork, G. Mortrude, L. Mortrude, Park, Perry, Purdom, Putbrese, Rouch, R. Schmidt, Sprinthal

The Teacher Development department is a newly formed unit which has combined the former Elementary Education (ELED), Secondary Education (SEED), and Student Teaching (EDT) departments. The changes have no effect on graduate program requirements. Courses which formerly had ED, ELED, SEED, and EDT prefixes will all have ED prefixes and new numbers after September 1, 1980. Former prefixes and numbers are indicated in parentheses in the course descriptions.

Elementary Education Program

B125 EDUCATION BUILDING/255-2198

MASTER OF SCIENCE-Elementary Education

In order to gain admission to the graduate program with elementary education as the major, a student must have a bachelor's degree with a major in elementary education from an accredited institution. Two years of teaching experience at the elementary school level is regarded as desirable background for admission to this program. Prospective candidates must meet all of the standard entrance requirements for graduate studies at this University.

Before a student is admitted to the Master of Science program he/she must satisfactorily complete ED 620, Seminar: Introduction to Graduate Studies in Elementary Education. ED 620 must be taken during the first or second quarter of graduate study.

Following completion of ED 620 and admission to the M.S. program, each student files a planned program of studies. The program, planned with and approved by the adviser, must include a minimum of 15 graduate only (600 level) credits in the major field of concentration and must have a minimum of 24 credits remaining to be completed. A maximum of 9 credits taken before admission to graduate study may be included in the planned program.

Plan A, 45 Cr.; Plan B, 48 Cr.; Plan C, 54 Cr.

- I. Research: Min., Plan A, 15 Cr.; Plan B, 6 Cr.; Plan C, 3 Cr.

Prescribed:

ED 699 Master's Thesis, 9 Cr. (Plan A only)

PSY 678 Introduction to Graduate Statistics, 3 Cr. (Plans A and B only)

ED 615 Introduction to Research, 3 Cr. (Required in Plan A)

Additional credits are to be selected from the following:

ED 614 Interpretation of Research, 3 Cr.

ED 653 Current Instructional Research, 3 Cr.

ED 673 Reading: Investigation of Research and Interpretation of Design, 3 Cr.

- II. Major: Min., Plan A, 18 Cr.; Plan B, 27 Cr.;

Plan C, 24 Cr.

Prescribed:

ED 620 Seminar: Introduction to Graduate Studies in Elementary Education, 3 Cr.

ED 623 Elementary Education: Contemporary and Future, 3 Cr. (Plan C only)

ED 646 Elementary School Curriculum, 3 Cr.

Other courses in the major: elect a minimum of 12 Cr. for Plan A, 21 Cr. for Plan B, and 15 Cr. for Plan C. (Consent of adviser.)

- III. Professional Education: Min., Plans A and B, 9 Cr.; Plan C, 6 Cr.

Select 9 credits from two of the following areas for Plans A and B.

Select 6 credits from the following areas for Plan C.

A. Philosophical and Historical Foundations

B. Social Foundations

C. Psychological Foundations

D. Administration and Supervision

- IV. Electives: Min., Plan A, 3 Cr.; Plans B and C, 6 Cr.

(Consent of adviser.)

- V. Educational Applications and Implementation: Min., 15 Cr. Plan C only.

(Consent of adviser.)

MASTER OF SCIENCE-Reading Consultant

A graduate student who wishes to become licensed as a reading coordinator, consultant, or supervisor must have completed a master's degree and three years of successful teaching experience, including one year as a reading teacher.

Two options are provided in the Master of Science-Reading Consultant degree program. By following Track I the graduate student will be eligible for LD licensure. Track II provides for more flexibility in the student's program.

Three starred papers or a thesis will be written during the Master's degree program. Courses in which starred papers will be written must be determined and marked with an asterisk when the graduate student's program is approved. An oral comprehensive examination will be given during the last quarter of the student's work.

Both Plan A (thesis) and Plan B (three starred papers) are available to students who enroll in this program. A total of 48 credits is required on both Plan A and Plan B.

Students pursuing a master's degree must earn a minimum of 15 graduate only (600 level) credits in their major field of concentration.



An applicant for admission to this program must have met the following requirements:

1. The student must hold or be eligible for a Minnesota Elementary or Secondary School Teacher's License (Certificate).
2. The student must have taken a course in developmental reading at the elementary school level (ED 371, 372, or equivalent).
3. The student must have taken a course in children's or adolescent literature (ENGL 353, ED 340, or equivalent).
4. In following Track I, the student must have training in the teaching of mathematics (ED 445 or equivalent), and SPED 401.

Program completion requires attendance during both the summer quarter and the evening program of the regular academic year.

Plan A or B, 48 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 6 Cr.

Prescribed:

- ED 615 Introduction to Research, 3 Cr. (Plan B only)
- PSY 678 Introduction to Graduate Statistics, 3 Cr.
- ED 699 Master's Thesis, 6 Cr. (Plan A only)

- II. Major: Min., Plan A, 21 Cr.; Plan B, 24 Cr.

Prescribed:

- ED 571 Reading: Analysis and Correction of Disabilities in the Classroom, 3 Cr.
- ED 572 Reading in the Secondary School: Developmental Programs, 3 Cr.
- SPED 525 Special Learning Disabilities I, 3 Cr. (Track I only)
- SPED 601 Current Trends in Special Education, 3 Cr. (Track II only)
- ED 671 Reading: Clinical Diagnosis of Disabilities, 3 Cr.
- ED 672 Reading: Clinical Remediation of Disabilities, 3 Cr.
- ED 673 Reading: Investigation of Research and Interpretation of Design, 3 Cr. (Plan B only)

- ED 674 Reading: Administration and Supervision, 3 Cr.
- PSY 569 Individual Appraisal, 3 Cr.

or

- PSY 686 Binet, 3 Cr.

or

- PSY 687 Wechsler, 3 Cr.

III. Professional Education: Min., 18 Cr. A student must choose either Track I or Track II.

Track I

- SPED 504 Cultural Diversity and Education, 3 Cr.
- SPED 505 Behavior Problems in the School, 3 Cr.
- SPED 526 Special Learning Disabilities II, 3 Cr. (Prereq.: SPED 525)
- SPED 652 Practicum in Special Learning Disabilities, 3 Cr.
- *SPED 612 Psycholinguistics, 3 Cr.
- *PSY 670 Developmental Psychology, 3 Cr.

or

- *PSY 572 Psychology of Exceptional Children, 3 Cr.

Track II

- ED 642 Elementary School Language Arts, 3 Cr. or alternative with consent of adviser.
- Electives: 15 Cr., consent of adviser.
- (a) maximum of 4 credits independent study.
 - (b) minimum of 11 credits in 600 level courses.

*These courses should be taken prior to registration for ED 671 or any of the practicums.

Regulations for Students Who Seek Licensure as an Elementary or Secondary Reading Teacher

To be recommended for an Elementary or Secondary Reading License the student must: (a) hold or be eligible for a Minnesota State Teaching License (Certificate); (b) have successfully completed two years of teaching experience; (c) complete one course in each of the following areas which may be a part of or beyond the bachelor's degree requirements (teachers holding secondary school licensure only are not eligible to pursue licensure as an elementary reading teacher):

Remedial Reading License

- ED 371 or 372 Reading I: Basic Skills or Reading II: Basic Skills Practicum
- ED 471-571 Reading: Analysis and Correction of Disabilities in the Classroom
- ED 472-572 Reading in the Secondary School: Developmental Programs (Secondary only)
- ED 671 Reading: Clinical Diagnosis of Disabilities
- ED 672 Reading: Clinical Remediation of Disabilities
- PSY 469-569 Individual Appraisal
- or
- PSY 686 Binet
- or
- PSY 687 Wechsler

Developmental Reading License (Secondary only)

- ED 371 or 372 Reading I: Basic Skills or Reading II: Basic Skills Practicum
- ED 471-571 Reading: Analysis and Correction of Disabilities in the Classroom
- ED 472-572 Reading in the Secondary School: Developmental Programs
- ENGL 353 Literature for Adolescents

Secondary Education Program

A281 EDUCATION BUILDING/255-3285

MASTER OF SCIENCE — Curriculum and Instruction

Track I: Junior High School Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution. Candidates must meet all the standard entrance requirements for graduate studies at this University, have an entrance conference with a junior high graduate adviser and complete a departmental writing exercise before filing a program of studies; the adviser may recommend a qualifying examination of prerequisite course work depending on the background of the applicant.

Education 614, Interpretation of Research, or Education 615, Introduction to Research, must be taken within the first 15 credits of graduate study.

Plan A, 48 Cr.; Plan B, 51 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 3 Cr.

Prescribed:

- ED 614 Interpretation of Research, 3 Cr.

or

- ED 615 Introduction to Research, 3 Cr.
- ED 699 Master's Thesis, 6-9 Cr. (Plan A only)

108 / Teacher Development (ED)

II. Major: Min., Plan A, 30 Cr.; Plan B, 36 Cr.

Prescribed:

ED 624 Junior High School Theories and Practices, 3 Cr.

ED 625 Junior High School Seminar, 3 Cr.

Junior High School teaching and learning area, 9 Cr.

Subject matter concentration in junior high school teaching fields:

Plan A, 15-18 Cr.;

Plan B, 21 Cr. Two academic fields are recommended.

III. General Studies: Min., Plan A, 9 Cr.; Plan B, 12 Cr.

Prescribed:

PSY 678 Introduction to Graduate Statistics, 3 Cr. (Plan B only).

PSY 670 Developmental Psychology (or equivalent course), 3 Cr.

Additional credits to be selected from the General Studies Core, see page 26.

Track II: Senior High School Education

An applicant for this degree must hold or be eligible for full Minnesota teacher licensure. Candidates must meet all the standard entrance requirements for graduate studies at this University and have an entrance conference with the educational adviser. An applicant must complete a departmental writing exercise before filing a program of studies. An adviser will be assigned by the Department of Teacher Development. Advisers may recommend a qualifying examination or prerequisite course work depending on the background of the applicant. Candidates may select either Plan A or Plan B.

A minimum of 24 credits must be earned in the major in 600 level courses. Education 614, Interpretation of Research, or Education 615, Introduction to Research, must be taken within the first 15 credits of graduate study.

Plan A, 48 Cr.; Plan B, 51 Cr.

I. Research: Min., Plan A, 9 Cr.; Plan B, 6 Cr.

Prescribed:

ED 614 Interpretation of Research, 3 Cr.

or

ED 615 Introduction to Research, 3 Cr.

PSY 678 Introduction to Graduate Statistics, 3 Cr. (Plan B only)

ED 699 Master's Thesis, 6-9 Cr. (Plan A only)

II. Major: Min., Plan A, 33 Cr.; Plan B, 36 Cr.

Prescribed:

A. ED 605 The Adolescent and the School, 3 Cr.

ED 631 Senior High School Theories and Practices, 3 Cr.

ED 632 Senior High School Seminar, 3 Cr.

B. Senior High School Teaching and Learning Area, 9-15 Cr. In collaboration with their adviser, candidates shall select course work from education, psychology, or subject matter disciplines that is applicable to teaching and learning in the senior high school.

C. Subject matter concentration in senior high school teaching will be limited to one teaching field, 15-18 credit hours. These courses will be selected with permission of the adviser. Approved teaching fields include: art education, biological sciences, business education, English, health education, industrial education, language arts, mathematics, music, physical sciences, physical education, social studies.

III. General Electives: 6-9 Cr.

Students will select courses to complement their professional needs and interests with the following exception: students selecting broad field language arts or social studies concentrations will utilize these credits to take additional course work in the disciplines included in their subject matter concentration.

MASTER OF SCIENCE—Secondary School Teaching Fields

In all secondary school majors except those where a different amount of undergraduate preparation is prescribed in the departmental description, a graduate student must have completed at least an undergraduate minor in a subject area in order to be eligible to choose it as a major at the graduate level. In some cases, it will be necessary for the applicant to complete some prerequisite undergraduate work even though an undergraduate major or minor may be in the student's proposed graduate major.

The professional education component requires students to select at least one course in each of the theoretical areas of foundations, curriculum, and instruction. Ordinarily the courses recommended in foundations are: ED 604, ED 605, ED 606, ED 607, ED 609, ED 610, ED 612; in

Curriculum, ED 647, ED 648, and ED 649; in Instruction, ED 624, ED 628, ED 631, ED 654, and ED 655. Consult with the coordinator of secondary education for advice and approval.

Programs in secondary school teaching fields are listed under the departmental majors. For details of program requirements, refer to department course listings. Programs are available in art, biology, business education, English, geography, health and physical education, history, industrial education, mathematics, music, physical science (listed under chemistry or physics), social science.

EDUCATION COURSES (ED)

The Teacher Development department is a newly formed unit which has combined the former Elementary Education (ELED), Secondary Education (SEED), and Student Teaching (EDT) departments. The changes in prefixes (to ED) and some course numbers and titles reflect the new departmental organization and numbering system. Course content and program requirements have not been changed. The following numbering system describes the grouping of courses:

—02 to —39	<i>Foundations of Education</i> —Includes introductory experiences in professional education and study of: appropriate aspects of those behavioral sciences which support the educational process; needs of students; roles of professional educators; and roles of the schools.
—40 to —59	<i>Curriculum and Instruction</i> —Development of scope and sequence of learning activities including process and procedures of teaching.
—60 to —69	<i>Teaching</i> —Supervised practica in field settings.
—70 to —89	<i>Reading</i> —Materials and methods of reading instruction.
—01 and	
—90 to —94	<i>Selected Topics</i> —New course development.
—95 to —95	<i>Workshops</i> —Selected topics.
—96 to —98	<i>Open</i> —Permanent workshops or department development.
—99 to —99	Independent study or thesis.

The course prefixes and numbers listed below will be effective September 1, 1980. Former prefixes and numbers are indicated in parentheses.

COURSE DESCRIPTIONS

539. (ED 539) Education of the Emerging Adolescent. This course will focus on the needs, the nature and the characteristics of the transescent learner. Emphasis will be on the organizational and instructional procedures of the school necessary to accommodate the needs and characteristics of students in the middle grades (ages 10-14). 3 Cr. DEMAND.

550. (ED 575) Nonverbal Communication and Education. The role of nonverbal communication in human interaction. Includes analysis of environmental factors, physical appearance, body language, touching behavior, and paralanguage. 3 Cr. DEMAND.

551. (ED 582) School Discipline. Exploring behavior in the classroom environment. Helping teachers to develop school environments which promote effective functioning. 3 Cr. DEMAND.

552. (ED 538) Education of the Gifted and Talented Workshop. Definition of giftedness, identification of the gifted, characteristics of the gifted, development and organization of the curriculum for high potential students. 3 Cr. DEMAND.

553. (ED 570) The Adult Education Act in Perspective. Examination of the Adult Education Act of 1965; analysis of the adult basic education state plan; introduction to the adult basic and general educational development discipline; the needs, clientele, professionals; the community and adult education; research, trends, projections; implications for adult teachers. 3 Cr. F, W, S, SUM.

554. (ED 571) Identifying the Undereducated Adult. An overview of learning for adults; special emphasis given to the adult learner in basic education; learning patterns of ABE-GED students, their characteristics as identified; the physical, psychological, and social factors which influence their learning and motivation. 3 Cr. F, W, S, SUM.

556. (ED 572) Formats in ABE-GED Learning. Instructional approaches and methodologies for teaching basic academic and life skills to adult learners; includes content areas, program planning, instructional materials, diagnosis and placement, evaluation procedures. 3 Cr. DEMAND.

571. (ELED 521) Reading: Analysis and Correction of Disabilities in the Classroom. Causes of reading difficulties, procedures to diagnose and correct them. Prereq.: a course in developmental reading. 3 Cr. F, S.

572. (ED 517) Reading in the Secondary School: Developmental Programs. Nature of high school reading program, development of reading techniques and skills, development of vocabulary, and reading ability in content fields. 3 Cr. F, W.

573. (ED 535) Reading and Children's Literature: Current Issues. Examine children's books in terms of the development of cognitive and affective dimensions in reading comprehension. Relates the literature program in the curriculum to the aims of reading instruction, particularly in collaterally strengthening functional and recreational reading habits, not an alternative to IM 481 or 639. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. (ED 601) Selected Topics in Education: _____. Course designed for intensive study of a special topic in education. Topic will be announced in the class schedule. 1-4 Cr. May be repeated to max. of 9 Cr. DEMAND.

602. (ED 602) Evaluation of the School Program. Historical and recent developments in evaluation of school programs. Research studies of significant approaches to school evaluation and related problems and issues. 3 Cr. W ALT, SUM.

604. (ED 604) Organizational Development and the Teacher. Introductory guide to planned actions for facilitating human responsiveness and adaptability in school organizations. 3 Cr. W.

605. (SEED 629) The Adolescent and the School. Importance of the school cultural milieu on the development of the students. Emphasis on role of school personnel in developing, implementing constructive learning environments. 3 Cr. W, SUM.

606. (ED 659) Problems in American Education. Issues arising in our American educational situation; organizing principle of education in a democracy; the school and the state; education and social reconstruction; public schools and religious education; academic freedom; teaching controversial issues. 3 Cr. F, SUM.

607. (SEED 649) The Student, The Teacher, and The Law. Statutes and legal decisions affecting teachers and students in the public schools of the United States. Licensure, contracts, tenure, teacher authority and liability with respect to students, curriculum, school property, and other related topics will be studied. 3 Cr. F, S, SUM.

608. (ELED 664) Children's/Students' Rights. An analysis of problems related to the oppression of young people/students. 4 Cr. DEMAND.

609. (ED 609) Comparative Education. Foundations, practices, and problems of European, Asiatic, and American school systems. 3 Cr. W ALT, SUM.

610. (ED 628) The School and the Social Order. Importance of education in the social structure, effects of a culture on education, the interrelationships of education and the economic, social and political systems; comparative education. 3 Cr. W, SUM.

611. (ED 630) History of American Education. The development of education in the United States from the Colonial period to the present. 3 Cr. F.

612. (ED 616) Philosophy of Education. Historical aspects of education theory; beliefs, arguments, and assumptions underlying current educational thought and practice. Prereq.: one year of teaching experience. 3 Cr. DEMAND.

614. (ED 614) Interpretation of Research. Documentation and bibliography; kinds of research and research methods; use and interpretation of basic statistical tools and procedures. 3 Cr. F, W, S, SUM.

615. (ED 615) Introduction to Research. Evaluating research procedures and interpreting findings. Defining and delimiting a problem, efficient gatherings and proper documentations of data, organization and presentation of findings in acceptable form. 3 Cr. F, W, S, SUM.

620. (ELED 601) Seminar: Introduction to Graduate Studies in Elementary Education. A student/staff seminar designed to orient the student to the graduate program in elementary education. 3 Cr. F, S, SUM.

622. (ELED 648) Seminar in Elementary Education. 1-4 Cr. W ALT, SUM.

623. (ELED 655) Elementary Education: Contemporary and Future. Problems, conditions, and issues relating to elementary education. Analysis and study of organization, instructional practices, curriculum, and materials. 3 Cr. S ALT, SUM.

624. (SEED 635) Junior High School Theories and Practices. Introduction to the field of junior high school education, including a survey of its functions, philosophy and development; study of the current theories and practices in the education of early adolescents. 3 Cr. F, SUM.

625. (SEED 665) Junior High School Seminar. Problems and issues related to teaching and learning in the modern junior high school; areas of emphasis determined by the needs and interests of the members of the seminar. Prereq.: ED 624. 3 Cr. S, SUM.

626. (SEED 626) Philosophy and Organization of the Middle School. Specific information and skills relative to the development of a philosophy and a rationale for a middle school. Emphasis on the relationship among the middle school student, the middle school teacher and the philosophy, organization and program of the middle school. 3 Cr. SUM, DEMAND.

628. (SEED 607) Modern Trends in Secondary Education. Various kinds of new educational materials, programs and equipment; speakers, visitations, and observation. 3 Cr. S, SUM.

631. (SEED 636) Senior High School Theories and Practices. Historical overview of the field of senior high school education, including a survey of functions, philosophy, and development; study of current theories and practices in secondary education. 3 Cr. F, SUM.

632. (SEED 666) Senior High School Seminar. Problems and issues related to effective teaching and learning in the modern senior high school; areas of emphasis determined by needs and interests of the members of the seminar. Prereq.: ED 631. 3 Cr. S, SUM.

641. (ELED 652) Elementary School Science. Activities and procedures for improving instruction in

science. Analysis and evaluation of literature, research findings, and curriculum materials in the science curriculum. 3 Cr. W ALT, SUM.

642. (ELED 651) Elementary School Language Arts. Activities and procedures for improving instruction in the language arts. Analysis and evaluation of literature, research findings, and curriculum materials in the language arts. 3 Cr. S ALT, SUM.

643. (ELED 653) Elementary School Social Studies. Activities and procedures for improving instruction in the social studies. Analysis and evaluation of literature, research findings, and curriculum materials in the social studies curriculum. 3 Cr. S ALT, SUM.

644. (ELED 654) Elementary School Mathematics. Activities and procedures for improving instruction in mathematics. Analysis and evaluation of literature, research findings, and curriculum materials in the mathematics curriculum. 3 Cr. F ALT, SUM.

646. (ELED 660) Elementary School Curriculum. Historical development; current issues and trends; sociological and psychological foundations; organization; programs and procedures of curriculum improvement. 3 Cr. W, SUM.

647. (SEED 661) Secondary School Curriculum. Historical development; current issues and trends; sociological and psychological foundations, theories of secondary school education; organization; programs and procedures of curriculum improvement stressing role of teacher. 3 Cr. W, SUM.

648. (ED 603) Curriculum Construction. The basic study of alternative techniques and approaches to curriculum construction and implementation at all instructional levels. 3 Cr. F ALT, SUM.

649. (ED 613) Practicum in Curriculum Construction and Development. Actual work with a school system to (1) survey the needs of the community, (2) study the present curriculum in the school, and (3) suggest changes. 3 Cr. S, SUM, F ALT.

650. (ED 648) Materials and Instructional Strategies in Law Related Education. Integration of law and legal concepts in elementary and secondary school curricula. Primary emphasis on rationale, materials of instruction, and teaching strategies as well as substantive education in law. 3 Cr. DEMAND.

651. (ELED 662) Kindergarten Education. Activities and procedures for teaching and the use of materials in kindergarten programs. 3 Cr. S ALT.

652. (ELED 645) Learning Centers in the Elementary Classroom. Learning centers, design and management. Explores the learning environment, requires building five learning centers, and designing a management system for their use. 3 Cr. DEMAND.

653. (ED 605) Current Instructional Research. A review and appraisal of research study findings in all instructional areas. Educational implications of the research. 3 Cr. DEMAND.

654. (SEED 675) Improvement of Secondary School Instruction. Learning principles at adolescent level, curriculum, planning for classroom instruction, managing a classroom, conducting individual and group work, using instructional materials, study and work habits. 3 Cr. W, SUM.

655. (SEED 676) Teaching Strategies for Practitioners. Study and development of materials and teaching techniques in meeting the needs of classroom teachers at the post-baccalaureate level. 3 Cr. DEMAND.

656. (ED 678) Supervision of Student Teachers. Student teaching in professional curriculum; procedures for guiding students in planning, teaching, and evaluating learning activities. Prereq.: two years successful teaching experience. (Enrollment restricted to present and past cooperating teachers and those in a position to supervise student teachers.) 3 Cr. F, W, S.

671. (ELED 623) Reading: Clinical Diagnosis of Disabilities. Clinical experience in administration and interpretation of techniques in diagnosing reading disabilities. Prereq.: ED 471-571 and departmental approval. 3 Cr. SUM.

672. (ELED 625) Reading: Clinical Remediation of Disabilities. Clinical experience in correction of reading disabilities. Prereq.: ED 671 and departmental approval. 3 Cr. SUM.

673. (ELED 658) Reading: Investigation of Research and Interpretation of Design. A study of research methods and current research regarding the reading process and reading related areas. 3 Cr. SUM.

674. (ED 619) Reading: Administration and Supervision. Implementation and improvement of reading programs from pre-reading through corrective procedures in high school. 3 Cr. SUM.

675. (ED 635) Reading: Research in Children's Literature. Survey of research in children's literature for students working on starred papers or theses only. Consent of instructor. 3 Cr. DEMAND.

699. (ED 699) Master's Thesis. 6-9 Cr. F, W, S, SUM.

TECHNOLOGY (TECH) AND INDUSTRIAL ENGINEERING

106 HEADLEY HALL/255-2107

Chairperson: Robert Ryan



COURSE DESCRIPTIONS

571. Consumer Electronics. A study of the circuits and systems employed in popular home entertainment devices such as radio, T.V., and hi-fi. Emphasis will be placed on the set-up, maintenance and troubleshooting of these devices. 4 Cr. DEMAND.

572. Advanced Semiconductor Devices and Applications. In-depth study of digital and linear integrated circuits, compound semiconductors, photo-diodes, LED's, semiconductor laser, liquid crystal, and other state of the art topics. 4 Cr. DEMAND.

THEATRE (TH)

210 PERFORMING ARTS CENTER/255-3229

Chairperson: Ronald G. Perrier

Graduate Faculty: Baschky, Cermele, Perrier

The Department of Theatre does not offer a graduate degree, but the courses listed below are available for graduate credit as supplements to other degree programs or for students with a special interest in theatre but who are not pursuing a degree.

COURSE DESCRIPTIONS

542. Theory and Practice of Stage Lighting. Basic requirements of lighting for the stage. Lab. 4 Cr. F.

544. Internship in Theatre. In-residence training with a cooperating professional theatre. Permission of department required. 4-16 Cr. F, W, S.

546. Advanced Theatre Practicum. Lab. course for advanced theatre majors allowing implementation of creative problems in acting, directing, design and other theatre areas. Prereq.: permission of staff. 1 Cr. F, W, S.

547. Scenic Design II. Continuation of Scenic Design I. Lab. Prereq.: 346. 4 Cr. DEMAND.

548. Acting II. Analyzing and creating a stage character. Prereq.: 253. 4 Cr. W.

549. Directing II. Advanced directing techniques. Prereq.: 349. 4 Cr. W.

558. Acting III. Concentration on period styles. 4 Cr. S.

559. Directing III. Continuation of Directing II. 4 Cr. S.

560. Theatre Promotion and Business Management. Principles and methods of management in educational, community and professional theatres. Emphasis on promotion, ticket office procedure and theatre administration. 4 Cr. DEMAND.

581. Theatre History I. A chronological survey of the various arts and crafts of the theatre from the earliest origins to the mid-nineteenth century. 4 Cr. W.

582. Theatre History II. A chronological survey of the various arts and crafts of the theatre from the mid-nineteenth century to the present day. Prereq.: 581. 4 Cr. S.

591. Drama I. World drama; its origins to early English Renaissance. 4 Cr. F.

592. Drama II. World drama; from English Renaissance to early twentieth century. Prereq.: 591. 4 Cr. W.

593. Drama III. World drama; twentieth century. Prereq.: 591. 4 Cr. S.

596. Summer Theatre. Theatre production for advanced students. Experience in acting, directing, costuming, construction, promotion, lighting and other disciplines during the summer season. Registration by application only. 1-8 Cr. SUM.

ADMINISTRATION AND FACULTY



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Wayne Little, Associate Dean, College of Business
Vernon Ludeman, Associate Dean, School of Graduate Studies; Director, Summer School
Terrence MacTaggart, Associate Dean, Continuing Studies
James Marmas, Dean, College of Business
Terrance Montgomery, Assistant to the President; Vice President, University Relations
William Radovich, Vice President for Administrative Affairs
David Sprague, Vice President for Student Life and Development

GRADUATE FACULTY*
Abartis, Caesarea E. (1977)

Assistant Professor of English
A.B. 1967, Duquesne University; M.A.
1969, Ph.D. 1977, Southern Illinois
University

Aiken, Joseph G. (1969)

Associate Professor of Art
B.A. 1963, M.F.A. 1968, University of
Washington

Alhelm, Frank A. (1966)

Professor of Art
B.A. 1949, M.A. 1963, University of Northern
Iowa; Ed.D. 1973, University of New
Mexico

Anderson, Derwyn L. (1968)

Associate Professor of Psychology
B.A. 1965, North Park College; M.A. 1967,
Ph.D. 1968, University of North Dakota

Anderson, Florence M. (1969)

Associate Professor; Teacher Development
B.S. 1956, St. Cloud State University; M.A.
1965, Ed.D. 1975, University of Minnesota

Anderson, Garry G. (1971)

Professor of Earth Sciences; Chairperson
B.A. 1962, University of Northern Iowa; M.A.T.
1967, M.A. 1969, Ph.D. 1971, Indiana
University

Anderson, James B. (1966)

Associate Professor of English; Director,
Religious Studies
B.A. 1958, M.A. 1961, Southern Illinois
University; Ph.D. 1977, University of Iowa

Anderson, James W. (1966)

Professor; Educational Administration and
Leadership; Director
B.S. 1953, St. Cloud State University; M.A.
1955, Specialist in School Administration
1963, Ph.D. 1967, University of Minnesota

Anderson, Myron G. (1965)

Professor of Philosophy
B.A. 1951, M.A. 1954, University of
Minnesota; Ph.D. 1959, Brown University

Andrzejewski, Julie R. (1971)

Assistant Professor; Educational Change;
Coordinator, Human Relations
B.A. 1969, M.A. 1971, University of
Washington; Ed.D. 1978, University of
Northern Colorado

Arndts, Russell T. (1959-1963, 1968)

Professor of Chemistry
B.S. 1957, Bemidji State University; M.S.
1960, North Dakota State University; Ph.D.
1969, Louisiana State University

Arnett, Ronald C. (1977)

Assistant Professor of Speech Communication
B.S. 1974, Manchester College; M.A. 1975,
Ph.D. 1978, Ohio University

Ayers, Floyd W. (1969)

Professor of Special Education
B.A. 1955, Cornell University; M.A. 1956,
Syracuse University; Ph.D. 1968,
University of Minnesota

Baer, Roger K. (1972)

Associate Professor of Sociology,
Anthropology and Social Work
B.S. 1951, American University; M.A. 1956,
Catholic University; Ph.D. 1970, University
of Chicago

Bahauddin, Mohammed (1970)

Professor of Mathematics and Computer
Science
B.S. 1953, Osmania University (India);
M.S. 1957, Karachi University (Pakistan);
M.S. 1965, University of Minnesota; Ph.D.
1969, New Mexico State University

Barker, S. Hugh (1946)

Professor of Biological Sciences
B.Ed. 1938, Wisconsin State University
—Whitewater; Ph.M. 1940, Ph.D. 1942,
University of Wisconsin

Barrett, Roger L. (1949)

Professor of Music
B.M.E. 1948, M.M. 1949, Drake University;
Ph.D. 1961, University of Iowa

Baschky, Richard (1958-1960, 1969)

Assistant Professor of Theatre
B.A. 1954, San Diego State University; M.F.A.
1958, State University of Iowa

Bavery, Edgar A. (1968)

Professor; Teacher Development
B.S. 1953, M.S. 1954, Western Illinois State
University; Ed.D. 1968, University of
Northern Colorado

Becker, Robert W. (1963)

Associate Professor of Political Science;
Special Assistant to the President
B.A. 1959, Hamline University; M.A. 1963,
Michigan State University; J.D. 1975,
William Mitchell College of Law

Benson, Robert G. (1958)

Professor of Marketing and General
Business
B.S. 1951, M.A. 1956, St. Cloud State
University; Ph.D. 1966, University of Iowa

*All fulltime and/or tenured faculty and
administrative personnel, including those on
temporary leaves of absence or sabbatical
leaves, as of Fall 1979.

-
- Bergstrom, Phillip G.** (1969)
Professor of Industrial Education
B.A. 1960, M.A. 1963, Central Washington State College; Ed.D. 1969, Washington State University
- Berling, John G.** (1968-1969, 1975)
Associate Professor; Dean, Learning Resources; Director, Library and Audiovisual Education
B.S. 1957, St. Cloud State University; M.S. 1967, Wayne State University; Ph.D. 1975, University of Nebraska
- Bigler, Joan K.** (1978)
Assistant Professor of Special Education
B.S. 1963, M.A. 1967, University of Minnesota; Ph.D. 1979, University of Illinois
- Bird, Howard A.** (1966)
Professor of Mathematics and Computer Science; Chairperson
B.S. 1959, Minot State College; M.S. 1965, University of North Dakota; Ph.D. 1974, Kansas State University
- Bjorklun, Eugene C.** (1967)
Professor; Teacher Development; Coordinator, Secondary Education
B.S. 1956, M.A. 1963, Ed.D. 1967, University of Nebraska
- Bjorklund, Lorimer R.** (1969)
Assistant Professor of Industrial Education
B.A. 1959, University of Northern Iowa; M.S. 1967, Mankato State University; Ph.D. 1979, The Ohio State University
- Bleick, Frances A.** (1958)
Professor of Health, Physical Education and Recreation
B.S. 1945, University of Nebraska; M.A. 1948, New York University; D.P.E. 1959, Indiana University
- Boltuck, Charles J.** (1966)
Professor of Psychology
B.A. 1947, Sir George Williams University; Ph.D. 1955, Indiana University
- Bovee, John R.** (1966)
Professor of English
B.S. 1954, M.S. 1961, Bemidji State University; Ph.D. 1968, Washington State University
- Boyer, David L.** (1976)
Assistant Professor of Philosophy
B.A. 1968, Yale University; M.A. 1970, Pacific Lutheran University; Ph.D. 1976, Boston University
- Brennan, Nancy J.** (1978)
Assistant Professor of Sociology, Anthropology and Social Work
B.A. 1965, M.S.W. 1967, Ph.D. 1976, University of Minnesota
- Brink, Allen L.** (1959)
Professor of Mathematics and Computer Science
B.A. 1952, Concordia College; M.Ed. 1956, University of North Dakota; M.S. 1959, University of Illinois; Ed.D. 1969, University of Northern Colorado
- Brown, David R.** (1965)
Professor of Art
B.A. 1957, M.F.A. 1959, Indiana University
- Bruton, Charles W.** (1957)
Professor of Biological Sciences
B.S. 1950, M.S. 1952, Oklahoma State University; Ph.D. 1969, University of North Dakota
- Bryan, Anne J.** (1978)
Assistant Professor of Psychology
B.A. 1973, Oklahoma City University; M.A. 1975, Ph.D. 1978, West Virginia University
- Buchanan, Mark A.** (1978)
Assistant Professor of Marketing and General Business
B.A. 1975, College of St. Thomas; J.D. 1978, University of Nebraska
- Buckley, Chester W.** (1966)
Professor of Health, Physical Education and Recreation
B.S. 1953, South Dakota State University; M.S. 1956, University of Northern Colorado; D.P.E. 1968, Springfield College
- Burnes, Bruce B.** (1967)
Professor of Management and Finance
B.B.A. 1950, M.B.A. 1953, Ph.D. 1972, University of Minnesota
- Calhoun, Robert J.** (1970)
Associate Professor of Marketing and General Business
B.A. 1967, St. Cloud State University; J.D. 1970, University of Minnesota
- Carlson, Kent F.** (1962-1964, 1967)
Professor of Mathematics and Computer Science
B.S. 1960, University of North Dakota; M.A. 1962, Washington State University; Ph.D. 1967, Montana State University
- Carlson, Ronald** (1973)
Professor of Accounting
B.S. 1964, Augustana College; M.B.A. 1966, Ph.D. 1973, University of Wisconsin
- Carpenter, John H.** (1968)
Professor of Chemistry; Chairperson
B.A. 1951, Macalester College; M.S. 1953, Ph.D. 1955, Purdue University
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- Carr, Ralph W.** (1977)
Assistant Professor of Mathematics and
Computer Science
B.A. 1968, Carleton College; Ph.D. 1977,
University of Wisconsin
- Carter, P. John** (1970)
Associate Professor of Industrial Education
B.S. 1958, Winona State University; M.A.
1965, Western Michigan University; Ed.D.
1970, University of Northern Colorado
- Cermele, D. J.** (1968)
Professor of Theatre
B.A. 1957, Antioch College; M.F.A. 1959,
Boston University; Ph.D. 1977, University
of Minnesota
- Char, Lynette Y.** (1970)
Professor; Teacher Development
B.Ed. 1954, M.Ed. 1960, University of
Hawaii; Ph.D. 1968, University of
Minnesota
- Chester, Barbara** (1978)
Assistant Professor of Criminal Justice
B.A. 1971, State University of New
York—Stony Brook; Ph.D. 1976,
University of Minnesota
- Christiansen, Rolf O.** (1978)
Associate Professor of Management and
Finance
B.S. 1957, Tri-State College; M.B.A. 1969,
University of Delaware; Ph.D. 1976,
University of Georgia
- Clapp, Thomas W.** (1967)
Associate Professor of Biological Sciences
B.S. 1962, Murray State University; M.S.
1964, North Dakota State University;
Ph.D. 1968, Texas A&M University
- Coard, Robert L.** (1960)
Professor of English
B.A. 1943, Quincy College; M.A. 1946, Ph.D.
1952, University of Illinois
- Coen, Rena N.** (1969)
Professor of Art
B.A. 1946, Barnard College; M.A. 1948, Yale
University; Ph.D. 1969, University of
Minnesota
- Collins, D. Ray** (1979)
Associate Professor of Health, Physical
Education and Recreation; Chairperson
B.S. 1965, Tusculum College; M.S. 1967,
University of Tennessee; Ed.D. 1972,
Louisiana State University
- Coppock, Henry A.** (1972)
Associate Professor of Geography;
Chairperson
B.S. 1964, St. Cloud State University; M.A.
1966, Ph.D. 1970, Michigan State
University
- Corliss, Richard L.** (1966)
Professor of Philosophy
B.A. 1954, Taylor University; B.D. 1957,
Northern Baptist Seminary; M.A. 1959,
Ph.D. 1968, University of Illinois
- Coulter, John C.** (1967)
Professor of Biological Sciences
B.S. 1951, St. Cloud State University; M.A.
1960, Ph.D. 1965, University of
Minnesota
- Craik, Mary B.** (1968)
Professor of Psychology
B.A. 1960, M.E. 1963, University of
Texas—El Paso; Ph.D. 1968, University
of Iowa
- Cronn, John C.** (1976)
Assistant Professor of Biological Sciences
B.S. 1963, Iowa State University of Science
and Technology; M.S. 1972, Ph.D. 1974,
University of Nebraska
- Davenport, Richard W.** (1977)
Assistant Professor of Speech Science,
Pathology and Audiology
B.A. 1967, Kearney State College; M.S.
1969, Colorado State University; Ph.D.
1977, Iowa State University
- Deininger, Marian M.** (1968)
Professor of Sociology, Anthropology and
Social Work
B.A. 1949, M.A. 1952, Ph.D. 1958,
University of Minnesota
- DeZoppo, Claude F.** (1957)
Professor of Sociology, Anthropology and
Social Work; Chairperson
B.S. 1954, M.S. 1954, St. Cloud State
University; Ph.D. 1969, University of Iowa
- Dendinger, Richard D.** (1965)
Professor of Chemistry
B.S. 1958, Minot State College; M.S. 1966,
North Dakota State University; Ph.D.
1974, South Dakota State University
- DeSanto, R. John** (1972)
Professor of Mass Communications;
Chairperson
B.S. 1957, M.A. 1959, University of
Minnesota—Duluth; Ed.D. 1971,
University of Northern Colorado
- Dillman, Richard H.** (1978)
Assistant Professor of English
B.A. 1965, University of Connecticut; M.A.
1972, Southern Connecticut State
College; Ph.D. 1978, University of
Oregon
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- Downes, Alan J.** (1969)
Professor of Interdisciplinary Studies
B.A. 1953, M.A. 1955, Florida State University; Ph.D. 1961, University of Washington
- Dull, Allyn N.** (1956)
Professor of Mathematics and Computer Science
B.S. 1949, St. Cloud State University; M.Ed. 1953, Ed.D. 1969, University of South Dakota
- Dwyer, Mary A.** (1974)
Professor of Psychology
B.S. 1942, Trenton State College; M.Ed. 1958, Rutgers University; Ed.D. 1972, Teachers College, Columbia University
- Earles, Robert W.** (1969)
Professor of Mathematics and Computer Science; Director, Honors Program
B.S. 1960, M.S. 1963, Illinois State University; M.S. 1968, Rutgers University; Ed.D. 1969, University of Northern Colorado
- Echols, Charles L.** (1972)
Associate Professor of Music
B.M. 1959, B.A. 1959, Belhaven College; M.M. 1961, University of Texas; D.M.A. 1969, University of Southern California
- Eckroth, Charles A.** (1969)
Professor of Physics and Astronomy
B.A. 1956, St. John's University; Ph.D. 1966, Iowa State University
- Ellingson, William J.** (1963)
Professor of Art
B.F.A. 1960, Minneapolis School of Art; M.F.A. 1963, State University of Iowa
- Ellis, Bruce W.** (1964)
Professor of Physics and Astronomy; Chairperson
B.A. 1961, Jamestown College; M.S. 1962, University of North Dakota; Ph.D. 1973, University of Minnesota
- Erickson, John M.** (1960)
Professor of Chemistry
B.S. 1940, University of Wisconsin; M.S. 1953, South Dakota State University; Ph.D. 1956, Iowa State University
- Ernest, David J.** (1963)
Professor of Music
B.M. 1951, Chicago Musical College; M.S. 1955, University of Illinois; Sorbonne, 1958-1969, University of Paris; Ed.D. 1961, University of Colorado
- Ernst, Charles I.** (1962-1966, 1968)
Professor of Mathematics and Computer Science
B.S. 1956, St. Cloud State University; M.A. 1962, University of South Dakota; Ph.D. 1968, Ohio State University
- Evanoff, Douglas D.** (1978)
Assistant Professor of Economics
B.A. 1973, Western Kentucky University; M.A. 1974, Louisiana State University; Ph.D. 1979, Southern Illinois University
- Ezell, Wayland L.** (1970)
Professor of Biological Sciences; Chairperson
B.A. 1959, M.A. 1963, University of the Pacific; Ph.D. 1970, Oregon State University
- Falk, Armand E.** (1968)
Professor of English
B.A. 1955, Concordia College; B.S. 1960, University of Minnesota; M.A. 1965, University of Montana; Ph.D. 1968, Michigan State University
- Farrah, George A.** (1968)
Professor; Educational Administration and Leadership
B.S. 1949, M.Ed. 1949, Ed.D. 1962, Wayne State University
- Farrell, Crumpton** (1978)
Assistant Professor of Management and Finance
B.S. 1944, United States Naval Academy; B.S.E.E. 1948, Massachusetts Institute of Technology; M.A. 1968, M.B.A. 1970, Ph.D. 1975, University of Pennsylvania
- Fields, Dennis C.** (1971)
Professor; Learning Resources and Library and Audiovisual Education
B.S. 1964, M.S.T. 1967, Wisconsin State University—Stevens Point; Ed.D. 1971, East Texas State University
- Flom, James R.** (1965)
Professor of Music
B.S. 1954, M.A. 1958, Ph.D. 1969, University of Minnesota
- Frank, Stephen I.** (1978)
Assistant Professor of Political Science
B.S.E. 1967, M.A. 1969, Central Michigan University; Ph.D. 1977, Washington State University
- Frohrip, Kenton R.** (1965)
Professor of Music; Chairperson
B.S. 1960, M.Ed. 1961, South Dakota State University; Ph.D. 1972, University of Minnesota

- Frost, C. Robert** (1972)
Director, International Programs
B.A. 1959, Ph.D. 1966, University of Denver
- Gadberry, Eva M.** (1975)
Assistant Professor of Special Education
B.S. 1968, M.S. 1971, Ph.D. 1977,
University of Wisconsin
- Gambill, Edward L.** (1966)
Professor of History
B.A. 1958, St. Olaf College; M.S. 1960,
University of Wisconsin; Ph.D. 1969,
State University of Iowa
- Garrity, Michael K.** (1967)
Professor of Physics and Astronomy
B.S. 1964, St. John's University; M.S. 1965,
Ph.D. 1968, Arizona State University
- Gerber, Quentin N.** (1965)
Associate Professor of Accounting
B.S. 1957, Northern State College; M.S.
1960, University of North Dakota; Ph.D.
1976, University of Minnesota
- Gleisner, Richard F.** (1968)
Associate Professor of Economics
B.A. 1964, St. Mary's College; M.A. 1968,
Ph.D. 1973 Georgetown University
- Goodrich, Herbert** (1964)
Professor of Sociology, Anthropology and
Social Work
B.S. 1948, City University of New York; M.A.
1950, Pennsylvania State University;
Ph.D. 1964, University of Illinois
- Gottshall, James K.** (1972)
Professor of English; Chairperson
A.B. 1948, Oberlin College; M.A. 1949,
University of Pennsylvania; Ph.D. 1958,
University of Cincinnati
- Gower, Calvin W.** (1957)
Professor of History; Director, Central
Minnesota Historical Center
B.A. 1949, Western State College; M.A.
1950, University of South Dakota; Ph.D.
1959, University of Kansas
- Grachek, Arthur F.** (1962)
Professor of Speech Communication;
Chairperson
B.S. 1962, M.S. 1964, St. Cloud State
University; Ph.D. 1974, Wayne State
University
- Grewe, Alfred H.** (1965)
Professor of Biological Sciences
B.A. 1950, St. Cloud State University; M.A.
1954, University of Minnesota; Ph.D.
1966, University of South Dakota
- Grover, Larry L.** (1976)
Assistant Professor of Mathematics and
Computer Science
B.S.E.E. 1963, M.S.E.E. 1969, Michigan
Technological University; Ph.D. 1976,
Michigan State University
- Grunerud, James A.** (1959)
Professor; Teacher Development
B.S.Ed. 1949, B.A. 1950, University of
Saskatchewan; M.A. 1954, University of
Minnesota; Ph.D. 1959, University of
California—Berkeley
- Gundersen, Ralph W.** (1964)
Professor of Biological Sciences
B.S. 1959, Hamline University; M.S. 1962,
Ph.D. 1967, University of Minnesota
- Gutteter, Lee J.** (1967)
Professor of Art
B.S. 1958, M.S. 1967, University of
Wisconsin—Milwaukee; Ed.D. 1972,
Indiana University
- Gyllstrom, Mabeth** (1968)
Professor of Music
A.B. 1958, Augsburg College; M. Mus. 1960,
Northwestern University; A.Mus.D. 1967,
University of Michigan
- Habte, Amde M.** (1977)
Assistant Professor of Mass
Communications
B.A. 1959, University College of Addis
Ababa; M.A. 1962, University of
California at Los Angeles; Ph.D. 1976,
University of Minnesota
- Hagen, Owen A.** (1959-1961, 1964)
Professor; Teacher Development
B.S. 1957, Moorhead State University; M.S.
1961, St. Cloud State University; Ed.D.
1966, Columbia University
- Halberg, Laurie L.** (1963)
Professor of Art
B.S. 1957, University of Wisconsin; M.F.A.
1965, State University of Iowa
- Hanafy, Abdalla A.** (1968)
Professor of Marketing and General
Business
B. Com. 1952, Ein Sham University, Cairo;
M.S. 1967, Ph.D. 1970, University of
Illinois
- Haniff, Ghulam Mohammed** (1965)
Professor of Interdisciplinary Studies
B.A. 1957, M.A. 1960, University of
Minnesota; Ph.D. 1975, Case Western
Reserve University

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- Harper, Jessie G.** (1963)
Associate Professor of Sociology,
Anthropology and Social Work; Assistant
Vice President for Academic Affairs
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University; Ph.D. 1976, University of
Nebraska
- Heath, Richard D.** (1973)
Associate Professor of Quantitative Methods
and Information Systems
B.A. 1960, M.S. 1967, Ph.D. 1973,
University of Minnesota
- Hellwig, David J.** (1966)
Professor of Interdisciplinary Studies
B.A. 1959, University of New Mexico; M.S.
1961, University of Wisconsin; Ph.D.
1973, Syracuse University
- Hemmer, Joan D.** (1976)
Assistant Professor of Psychology
B.A. 1954, University of Minnesota; M.A.
1967, Ph.D. 1972, University of Colorado
- Hendricks, Robert H.** (1979)
Assistant Professor; Director, Center for
Economic Education
B.S. 1956, University of Montana; M.S.T.
1971, Ph.D. 1976, University of Missouri
- Hill, Fred E.** (1977)
Assistant Professor; Learning Resources
and Library and Audiovisual Education
B.S. 1973, M.Ed. 1974, Utah State
University; Ed.D. 1977, Indiana University
- HLuch, Keven A.** (1979)
Assistant Professor of Art
B.S. 1973, M.F.A. 1978, Kent State
University
- Holden, Donald M.** (1975)
Professor; Educational Administration and
Leadership
B.S. 1948, Bemidji State University; M.A.
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- Holmgren, Marvin E.** (1949)
Professor; Educational Administration and
Leadership
B.S. 1940, St. Cloud State University; M.A.
1946, Ph.D. 1949, University of
Minnesota
- Hopkins, Harold H.** (1957)
Professor of Biological Sciences
B.A. 1940, M.S. 1941, Fort Hays Kansas
State College; Ph.D. 1950, University of
Nebraska
- Hopwood, Alfred** (1962)
Professor of Biological Sciences
B.S. 1956, Ph.D. 1967, Colorado State
University
- Hortli, Theophanis C.** (1975)
Assistant Professor of Health, Physical
Education and Recreation
B.A. 1960, Macalester College; M.P.H. 1971,
Ph.D. 1978, University of Minnesota
- Jacobson, Joan** (1962)
Professor of Speech Science, Pathology and
Audiology
B.A. 1944, Morningside College; M.A. 1948,
Ph.D. 1958, Syracuse University
- James, Richard E.** (1966)
Associate Professor of Chemistry
B.S. 1957, Mayville State Teachers College;
M.A. 1966, University of Northern Iowa;
M.S. 1974, Ph.D. 1975, Kansas State
University
- Jazwinski, Christine H.** (1978)
Assistant Professor of Psychology
M.S. 1973, Warsaw University; Ph.D.
1977, Purdue University
- Johnson, Douglas H.** (1969-1970, 1971)
Director, Campus Laboratory School
B.S. 1962, M.S. 1968, St. Cloud State
University; Ed.D. 1974, Western Michigan
University
- Johnson, James C.** (1976)
Associate Professor of Marketing and
General Business
B.S.B.A. 1966, M.A. 1967, University of
Arizona; Ph.D. 1970, University of
Minnesota
- Johnson, James R.** (1965)
Professor of Music
B.A. 1953, St. Olaf College; M.M.Ed. 1958,
University of Montana; Ed.D. 1969,
University of Illinois
- Johnson, James W.** (1967)
Professor of Mathematics and Computer
Science
B.S. 1963, St. Cloud State University; M.A.
1967, Louisiana State University; Ph.D.
1973, University of Northern Colorado
- Johnson, Peter J.** (1968)
Professor; Teacher Development
B.S. 1949, St. John's University; M.Ed.
1964, Ed.D. 1971, University of North
Dakota
- Johnson, Richard A.** (1976)
Associate Professor of Special Education
B.S. 1958, Moorhead State University; M.A.
1965, Ed.D. 1971, University of
Minnesota
- Johnson, Robert W.** (1974)
Associate Professor of Mathematics and
Computer Science
A.B. 1962, Columbia College; M.S. 1965,
Ph.D. 1969, City University of New York
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Johnson, Vincent A. (1967)
Professor of Biological Sciences
B.S. 1952, M.S. 1955, Ph.D. 1964,
University of Nebraska

Jones, Evan M. (1968)
Associate Professor of Political Science;
Chairperson
B.A. 1960, Hamline University; M.A. 1969,
University of North Dakota; Ph.D. 1976,
University of Nebraska

Jones, Jack R. (1955)
Professor; Director, Professional Field
Experiences
B.A. 1951, Tulane University; M.Ed. 1955,
Wichita State University; Ed.D. 1964,
University of Kansas

Kairouz, Akl A. (1969)
Associate Professor of Political Science
B.A. 1960, Oriental College; M.A. 1966,
Brigham Young University; Ph.D. 1968,
University of Utah

Kammermeier, Martin A. (1962-1965, 1968)
Professor of Speech Science, Pathology and
Audiology; Chairperson
B.S. 1958, M.S. 1963, St. Cloud State
University; Ph.D. 1969, University of
Minnesota

Kasper, John D. (1949)
Professor of Health, Physical Education and
Recreation
B.S. 1947, M.S. 1949, University of
Wisconsin; P.E.D. 1957, Indiana
University

Keith, Philip M. (1977)
Associate Professor of English
A.B. 1964, Amherst College; M.A. 1968,
Bryn Mawr College; Ph.D. 1971,
University of Pennsylvania

Kelley, James (1972)
Professor of Interdisciplinary Studies;
Director, Local and Urban Affairs
B.S. 1964, Oregon State University; M.A.
1966, Ph.D. 1970, University of Denver

Kelly, John M. (1969)
Professor of Health, Physical Education and
Recreation
B.S. 1957, Slippery Rock State College;
M.S. 1959, University of Oregon; D.P.E.
1969, Springfield College

Kelsey, Kenneth W. (1970)
Professor; Teacher Development;
Chairperson
B.S. 1962, Mankato State University; M.A.
1966, Ph.D. 1974, University of
Minnesota

Kemp, William H. (1967)
Professor of Industrial Education
B.S. 1954, St. Cloud State University; M.A.
1958, University of Minnesota; Ed.D.
1966, University of Northern Colorado

Kendall, Robert D. (1971)
Associate Professor of Speech
Communication
B.A. 1954, University of Denver; M.Div.
1957, Drew University; M.A. 1968, Ph.D.
1973, University of Minnesota

Kennedy, Keith A. (1964)
Professor of Chemistry
A.B. 1961, M.A. 1964, University of Northern
Colorado; Ph.D. 1974, University of Iowa

Kilkelly, John C. (1966-1968, 1969)
Assistant Professor of Political Science
B.A. 1961, St. Cloud State University; M.S.S.
1962, D.A. 1979, University of Mississippi

Knox, Stanley C. (1962)
Professor of Special Education; Chairperson
B.A. 1952, M.S. 1960, Ph.D. 1966,
University of Minnesota

Knutson, Jack M. (1971)
Professor of Psychology
B.A. 1954, Harvard University; Ph.D. 1967,
Stanford University

Knutson, Keith M. (1966-1967, 1970)
Professor of Biological Sciences
B.S. 1965, M.A. 1967, St. Cloud State
University; Ph.D. 1970, North Dakota
State University

Korte, Gerald J. (1961)
Professor of Art
B.S. 1952, M.S. 1955, St. Cloud State
University; Ed.D. 1969, University of
Kansas

Kramer, David C. (1971)
Professor of Biological Sciences
B.S. 1965, Indiana University; M.S. 1968,
Ed.D. 1971, Ball State University

Krueger, Albert H. (1956)
Professor of Psychology
B.S. 1942, University of Wisconsin; M.Ed.
1951, Marquette University; Ph.D. 1956,
University of Wisconsin

Krueger, David D. (1969)
Associate Professor of Quantitative Methods
and Information Systems
B.S. 1965, Wisconsin State University; M.S.
1967, Ph.D. 1969, Kansas State
University

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- Kukuk, William D.** (1968)
Associate Professor of Psychology
B.S. 1958, Carroll College; M.A. 1960,
Michigan State University; Ph.D. 1967,
Brigham Young University
- Lacroix, William J.** (1966-1969, 1971)
Professor of Industrial Education;
Chairperson
B.S. 1963, M.S. 1967, St. Cloud State
University; Ph.D. 1971, Iowa State
University
- Lahren, David R.** (1966)
Professor of Mathematics and Computer
Science
B.A. 1958, Concordia College; B.D. 1963,
Luther Seminary; M.S. 1966, North
Dakota State University; D.A. 1971,
University of Northern Colorado
- Lamwers, Linda L.** (1976)
Assistant Professor of Psychology
B.A. 1971, Douglass College; M.S. 1973,
Ph.D. 1976, Rutgers University
- Lane, James A.** (1977)
Assistant Professor of Business Education
and Office Administration
B.G.E. 1965, University of Nebraska; M.A.T.
1972, Ed.D., 1977, Oklahoma State
University
- Lange, Mark D.** (1979)
Assistant Professor of Economics
B.S. 1972, M.S. 1973, Indiana State
University; Ph.D. 1979, Iowa State
University
- Langen, William G.** (1969)
Associate Professor of Foreign Languages
and Literature
B.A. 1965, Ph.D. 1976, University of Arizona
- Lavenda, Robert H.** (1979)
Assistant Professor of Sociology,
Anthropology and Social Work
A.B. 1971, Dartmouth College; M.A. 1974,
Ph.D. 1977, Indiana University
- Lawson, Jonathan N.** (1970)
Professor of English; Associate Dean,
College of Liberal Arts and Sciences
B.F.A. 1964, M.A. 1966, Ph.D. 1970, Texas
Christian University
- Layne, Richard D.** (1972)
Professor of Music
B.S. 1961, Utah State University; M.M. 1964,
University of Redlands; Ph.D. 1974,
University of Southern California
- Leitch, Vernon D.** (1965)
Professor of Mathematics and Computer
Science
B.A. 1959, Moorhead State University; M.A.
1963, Bowling Green State University;
Ed.D. 1972, University of Northern
Colorado
- Leja, Alfred E.** (1968)
Professor of English
M.A. 1951, Columbia University; Ph.D.
1962, University of Texas
- Lesar, David J.** (1967)
Professor of Psychology
B.S. 1960, M.S. 1962, St. Cloud State
University; Ed.D. 1967, Indiana University
- Lesikar, Arnold V.** (1966)
Professor of Physics and Astronomy
B.A. 1958, Rice University; Ph.D. 1965,
California Institute of Technology
- Leung, Leo K.** (1968)
Associate Professor of Mathematics and
Computer Science
M.S. 1965, University of Illinois; D.A.
1977, Idaho State University
- Lewis, James F.** (1969)
Professor of Special Education
B.S. 1964, M.Ed. 1967, Ed.D. 1969,
University of Nebraska
- Lewis, Richard D.** (1976)
Assistant Professor of History
B.A. 1959, M.A. 1961, University of Kansas;
Ph.D. 1971, University of
California—Berkeley
- Lewis, Standley E.** (1968)
Professor of Biological Sciences
B.A. 1962, M.S. 1964, University of
Nebraska—Omaha; Ph.D. 1968,
Washington State University
- Lieberman, Harold** (1956)
Professor of Interdisciplinary Studies;
Chairperson
B.A. 1947, University of Toledo; M.A. 1949,
University of Chicago; D.S.S. 1957,
Syracuse University
- Lindstrom, Lester E.** (1967)
Professor of Biological Sciences
B.S. 1950, M.A. 1958, South Dakota State
University; Ph.D. 1967, Kansas State
University
- Lofgreen, Harold A.** (1972)
Professor of Economics; Chairperson
B.A. 1965, Simpson College; M.A. 1967,
Ph.D. 1972, University of Iowa
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- Lovelace, William E.** (1963)
Professor of Special Education
B.S. 1950, Northwestern University; M.Ed.
1955, University of Colorado; M.A. 1961,
University of South Dakota; Ed.D. 1971,
University of North Dakota
- Lu, Debra** (1973)
Associate Professor of Accounting
B.S. 1963, Cheng Kung University; M.S.
1967, Ph.D. 1973, University of
Minnesota
- Lu, Ming-te** (1970)
Professor of Quantitative Methods and
Information Systems; Chairperson
B.S. 1960, Cheng Kung University; M.S.
1967, Ph.D. 1971, University of
Minnesota
- Luksetich, William A.** (1972)
Associate Professor of Economics
B.S. 1962, M.A. 1970, DePaul University;
Ph.D. 1973, Northern Illinois University
- Lundquist, James C.** (1967)
Professor of English
B.A. 1964, Westminster College; Ph.D.
1967, University of Florida
- Madsen, Russell D.** (1960)
Professor of Business Education and Office
Administration
B.S. 1950, M.A. 1958, Ph.D. 1969,
University of Minnesota
- Magnus, Douglas L.** (1965)
Associate Professor of Chemistry;
Chairperson, Science Education
Committee
B.S. 1962, M.S. 1967, St. Cloud State
University; Ed.D. 1973, University of
North Dakota
- Mason, John E.** (1971-1972, 1973)
Associate Professor of Psychology;
Coordinator, Counselor Education
B.S. 1967, M.A. 1968, Eastern Michigan
University; Ph.D. 1971, Kent State
University
- Massmann, John C.** (1963)
Professor of History
B.A. 1954, St. John's University; M.A. 1959,
Ph.D. 1966, University of Minnesota
- Matthias, Howard E.** (1969)
Professor; Director, Driver Education and
Safety
B.S. 1951, University of Wisconsin—River
Falls; M.S. 1956, University of Wisconsin;
Ph.D. 1971, Michigan State University
- Mattick, Pamela S.** (1976)
Associate Professor; Educational Change
B.S. 1966, Iowa State University; M.A. 1967,
Ph.D. 1970, University of Minnesota
- May, James D.** (1979)
Assistant Professor; Learning Resources
and Library and Audiovisual Education
B.S. 1970, Bowling Green State University;
M.E. 1971, University of Toledo; M.L.S.
1979, Ph.D. 1979, Indiana University
- Mayala, Jacob A.** (1978)
Assistant Professor; Educational Change;
Coordinator, Early Childhood and Family
Studies
B.A. 1961, Augsburg College; M.A.T. 1972,
Oakland University; Ph.D. 1978,
University of Illinois
- McCue, John F.** (1967)
Professor of Biological Sciences
B.S. 1960, St. John's University; M.A. 1962,
Ph.D. 1964, University of Notre Dame
- McMullen, James C.** (1969)
Associate Professor of Chemistry
B.S. 1965, University of
Wisconsin—Superior; Ph.D. 1969,
University of South Dakota
- McWilliams, Alexander S.** (1962)
Professor of Physics and Astronomy
B.A. 1956, M.S. 1957, University of
Connecticut; Ph.D. 1962, Ohio State
University
- Meissner, William J.** (1972)
Assistant Professor of English
B.S. 1970, University of Wisconsin; M.F.A.
1972, University of Massachusetts
- Melton, John L.** (1968)
Professor of English
B.A. 1948, M.A. 1949, University of Utah;
Ph.D. 1955, Johns Hopkins University
- Merrick, Janna C.** (1977)
Assistant Professor of Political Science
B.A. 1970, University of Puget Sound; M.A.
1972, Ph.D. 1977, University of
Washington
- Miller, Donald P.** (1966)
Professor of Mathematics and Computer
Science
B.S. 1958, Valley City State College; M.A.
1962, University of Northern Iowa; Ph.D.
1976, Florida State University
- Mills, Anita** (1977)
Assistant Professor of Art
B.F.A. 1974, Texas Technical University;
M.F.A. 1977, University of Texas
- Morgan, William T.** (1978)
Assistant Professor of Interdisciplinary
Studies
B.A. 1955, Macalester College; M.A. 1962,
Ph.D. 1972, University of Minnesota
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B.S. 1964, Moorhead State University; M.S.
1966, Ph.D. 1969, Purdue University
- Mork, Vernon N.** (1958)
Professor; Teacher Development
B.S. 1938, M.A. 1948, University of
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Education and Recreation; Coordinator,
Recreation
B.A. 1969, International Christian University;
M.R.Ed. 1971, Brigham Young University;
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- Mortrude, Gordon E.** (1960-1964, 1965)
Professor; Teacher Development
B.S. 1957, Moorhead State University; M.S.
1959, St. Cloud State University; Ed.D.
1969, University of North Dakota
- Mortrude, Lowell A.** (1961-1962, 1963)
Professor; Teacher Development
B.A. 1953, B.S. 1957, St. Cloud State
University; M.Ed. 1960, Ed.D. 1969,
University of North Dakota
- Murphy, Robert J.** (1969)
Professor of Psychology; Director, Research
and Evaluation
B.S. 1964, Fordham University; Ph.D. 1970,
University of Tennessee
- Nappi, Andrew** (1967)
Professor; Director, Research, Development
and Community Service
B.S. 1962, M.S. 1964, Central Connecticut
State College; M.A. 1967, Purdue
University; Ph.D. 1971, Ohio University
- Nayenga, Peter F.** (1978)
Assistant Professor of History
B.A. 1968, University of East Africa; M.A.
1969, Ph.D. 1976, University of Michigan
- Nelson, Charles L.** (1975)
Assistant Professor of Earth Sciences
B.A. 1968, Gustavus Adolphus College; M.S.
1973, Ph.D. 1974, University of Chicago
- Nelson, J. Michael** (1972)
Associate Professor; Learning Resources
and Library and Audiovisual Education
B.S. 1963, M.S. 1966, Ed.D. 1972, East
Texas State University
- Nestel, Gerald E.** (1969)
Associate Professor of Industrial Education
B.S. 1962, University of Wisconsin—Stout;
M.S. 1963, Southern Illinois University;
Ed.D. 1970, University of Arkansas
- Nickles, William C.** (1966)
Professor of Chemistry
B.Ch.E. 1954, University of Minnesota; M.S.
1962, University of Wisconsin; Ph.D.
1966, North Dakota State University
- Nunes, Dennis L.** (1975)
Assistant Professor of Psychology
B.A. 1968, Linfield College; M.R.E. 1970,
North American Baptist Seminary; Ph.D.
1976, Utah State University
- Olson, Harry** (1958)
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B.B.A. 1945, B.S. 1947, M.A. 1957, Ph.D.
1967, University of Minnesota
- Osendorf, Frank P.** (1967)
Professor of Health, Physical Education and
Recreation
B.S. 1963, M.S. 1966, St. Cloud State
University; H.S.D. 1973, Indiana
University
- Otto, Don, H.** (1969)
Professor of English
B.A. 1948, Quincy College; M.A. 1949,
Drake University; Ph.D. 1969, University
of Southern California
- Overy, David H.** (1970)
Professor of History; Chairperson
A.B. 1955, Knox College; M.S. 1960, Ph.D.
1967, University of Wisconsin
- Parham, Sidney F.** (1979)
Assistant Professor of English
B.A. 1966, Washington-Lee University; M.A.
1969, University of Virginia; Ph.D. 1975,
Tufts University
- Park, Thomas C.** (1965)
Professor; Teacher Development
B.A. 1958, M.A. 1959, Ed.D. 1961,
University of Florida
- Peck, John H.** (1968)
Associate Professor of Biological Sciences
B.A. 1964, Clark University; Ph.D. 1968,
University of California—Berkeley
- Perkins, Eugene R.** (1958)
Professor of Psychology
B.S. 1947, St. Cloud State University; M.A.
1952, University of Minnesota; Ed.D.
1967, University of Northern Colorado
- Perrier, Ronald G.** (1975)
Associate Professor of Theatre; Chairperson
B.S. 1962, University of Wisconsin—River
Falls; M.A. 1968, Ph.D. 1972, University
of Minnesota

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- Perry, Floyd P.** (1953)
Professor; Teacher Development;
Coordinator, Student Teaching
B.S. 1945, Eastern Oregon State College;
M.S. 1950, Central Washington State
College; Ed.D. 1952, University of
Northern Colorado
- Peterson, Dale W.** (1966)
Associate Professor of History; Director,
Latin American Studies
B.A. 1953, Macalester College; M.A. 1961,
Ph.D. 1969, University of Minnesota
- Peterson, Donald G.** (1965)
Professor of Biological Sciences
B.S. 1946, M.A. 1949, Ph.D. 1968,
University of Minnesota
- Peterson, Terrance L.** (1976)
Associate Professor of Psychology;
Chairperson
B.S. 1965, University of Wisconsin—Eau
Claire; M.S. 1968, Ph.D. 1970, University
of Wisconsin
- Petrangelo, George J.** (1976)
Assistant Professor of Psychology
B.S. 1969, University of Wisconsin—River
Falls; M.S. 1973, M.S. 1974, University of
Wisconsin—Stout; Ed.D. 1976, University
of Northern Colorado
- Phillips, Alan M.** (1966)
Professor Philosophy
A.B. 1956, Knox College; M.A. 1961, Ph.D.
1969, Michigan State University
- Phillips, John N.** (1962)
Professor of Philosophy; Director,
Environmental Studies
B.S. 1946, Northwestern University; M.A.
1949, University of Southern California;
Ph.D. 1955, University of North Carolina
- Pluth, Edward J.** (1966)
Associate Professor of History; Director,
Minority Studies
B.S. 1959, M.S. 1963, St. Cloud State
University; Ph.D. 1970, Ball State
University
- Pou, Carol R.** (1969)
Associate Professor of Biological Sciences
B.A. 1964, Viterbo College; M.S. 1966,
Ph.D. 1969, The Catholic University of
America
- Pou, Wendell M.** (1966)
Associate Professor of Physics and
Astronomy
B.S. 1959, Millsaps College; M.S. 1962,
Ph.D. 1969, Vanderbilt University
- Powers, Gerald L.** (1974)
Professor of Speech Science, Pathology and
Audiology
B.S. 1963, St. Cloud State University; M.A.
1969, Ph.D. 1971, University of
Minnesota
- Prochnow, Robert** (1972)
Professor of Psychology
B.A. 1960, North Central College; M.A.
1967, University of Wisconsin; Ph.D.
1972, University of Texas
- Prout, Robert S.** (1972)
Professor; Director, Center for Studies in
Criminal Justice
B.A. 1969, Muskingum College; LL.B. 1967,
LaSalle Extension University; M.Ed.
1970, Ohio University; Ph.D. 1972, Ohio
State University
- Purdom, Boyd A.** (1968)
Professor; Teacher Development
B.A. 1959, M.A. 1961, University of
Kentucky; Ed.D. 1968, George Peabody
College for Teachers
- Putbrese, Larry M.** (1978)
Assistant Professor; Teacher Development
B.A. 1959, Buena Vista College; M.A. 1963,
Northeast Missouri State College; Ed.D.
1971, University of South Dakota
- Redd, Kathleen M.** (1974)
Associate Professor of Interdisciplinary
Studies
A.B. 1966, M.A. 1970, Ph.D. 1974,
University of Alabama
- Redding, Arthur J.** (1968)
Professor of Psychology
B.S. 1959, Mankato State University; M.A.
1962, University of Northern Colorado;
Ed.D. 1968, University of North Dakota
- Reese, Frederick D.** (1976)
Associate Professor of Special Education
B.A. 1953, Ohio Wesleyan University; B.S.
1957, M.A. 1960, Ph.D. 1966, Ohio State
University
- Reese, Sandra C.** (1976)
Associate Professor of Special Education
B.A. 1964, Ohio Wesleyan University; M.A.
1965, Ph.D. 1967, Ohio State University
- Reha, Rose K.** (1968)
Professor of Business Education and Office
Administration
B.S. 1965, Indiana State University; M.A.
1967, Ph.D. 1971, University of
Minnesota
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- Rehwaldt, Charles A.** (1965)
Professor of Biological Sciences
B.A. 1951, B.S. 1956, Mankato State University; M.S. 1953, University of Minnesota; Ph.D. 1965, State University of New York
- Renz, Leland S.** (1977)
Associate Professor; Educational Administration and Leadership
B.S. 1952, M.A. 1963, Ed.D. 1970, University of Minnesota
- Retiz, Leonard** (1977)
Assistant Professor of Foreign Languages
B.A. 1961, M.A. 1969, Ph.D. 1970, University of Texas
- Richason, Benjamin F.** (1978)
Assistant Professor of Geography
B.S. 1970, Carroll College; M.A.T. 1972, Oregon College of Education; Ph.D. 1978, Michigan State University
- Risberg, Douglas F.** (1972)
Professor; Director, Center for Educational Change
B.S. 1960, Illinois State University; M.A. 1964, Northern Illinois University; Ph.D. 1972, University of Wisconsin
- Rodgers, William C.** (1979)
Associate Professor of Marketing and General Business; Chairperson
B.A. 1964, St. Ambrose College; M.B.A. 1966, San Jose City College; Ph.D. 1977, University of Iowa
- Rosenthal, Eugene** (1972)
Associate Professor of Psychology
B.A. 1976, University of Michigan; Ph.D. 1973, University of Minnesota
- Roser, Sherman R.** (1979)
Assistant Professor of Accounting
B.A. 1961, Ursinus College; M.B.A. 1973, Old Dominion University
- Rouch, Roger L.** (1967)
Professor; Teacher Development
B.S. 1957, Indiana Central College; M.S. 1961, Butler University; Ed.D. 1967, Ball State University
- Roy, James P.** (1964)
Professor of Art; Chairperson
B.A. 1952, Concordia College; M.A. 1957, University of Iowa; Ed.D. 1961, Pennsylvania State University
- Ryan, Robert D.** (1962)
Professor of Technology; Chairperson
B.A. 1955, Wayne State University; M.A. 1957, Ed.D. 1964, University of Northern Colorado
- Rydborg, David G.** (1966)
Professor; Learning Resources and Library and Audiovisual Education
B.S. 1963, M.S. 1965, St. Cloud State University; M.A. 1971, University of Minnesota; Ed.D. 1974, University of Arizona
- Samarrai, Alauddin I.** (1968)
Professor of History
B.A. 1956, M.S. 1959, Ph.D. 1966, University of Wisconsin
- Savage, Carl C.** (1968)
Professor; Learning Resources and Library and Audiovisual Education
B.A. 1957, Belmont College; M.R.E. 1959, Ed.D. 1966, New Orleans Baptist Seminary
- Schmidt, Orville H.** (1967)
Professor of Political Science
B.A. 1956, University of Minnesota; M.A. 1962, George Washington University; Ph.D. 1967, University of West Virginia
- Schmidt, Russell H.** (1969)
Professor; Teacher Development; Coordinator, Elementary Education
B.S. 1955, Winona State University; M.S.E.E. 1965, University of Minnesota; Ed.D. 1968, University of Florida
- Schneider, Kenneth C.** (1974)
Associate Professor of Marketing and General Business
B.A. 1970, M.S. 1972, Ph.D. 1975, University of Minnesota
- Schofield, R. Scott** (1977)
Assistant Professor of Marketing and General Business
B.A. 1970, University of Minnesota—Duluth; J.D. 1976, M.B.A. 1978, University of Minnesota
- Schrader, Shirley L.** (1967)
Professor of Music
B.A. 1952, B.Mus. 1952, University of Northern Colorado; M.A. 1956, University of Denver; Ph.D. 1968, University of Michigan
- Schreiber, Francis B.** (1979)
Assistant Professor of Criminal Justice
B.A. 1971, Hope College; M.A. 1974, Ph.D. 1977, University of Colorado
- Schulzetenberge, Anthony C.** (1965)
Professor; Learning Resources and Library and Audiovisual Education
B.A. 1951, St. John's University; M.S. 1963, St. Cloud State University; M.A. 1969, University of Minnesota; Ed.D. 1970, University of North Dakota
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- Schwaller, Anthony E.** (1978)
Assistant Professor of Industrial Education
B.S. 1967, M.S. 1968, University of Wisconsin—Stout; Ph.D. 1976, Indiana State University
- Schweiger, Bradley J.** (1976)
Professor of Accounting
B.A. 1957, Mankato State University; M.B.A. 1960, D.B.A. 1970, Indiana University
- Scribner, Richard S.** (1974)
Assistant Professor of Special Education
B.S. 1958, Mississippi Southern College; M.S. 1966, Ph.D. 1973, University of Southern Mississippi
- Serdula, George** (1957)
Professor of Health, Physical Education and Recreation; Coordinator, Health Education
B.A. 1942, Muskingum College; M.A. 1949, Ohio State University; H.S.D. 1957, Indiana University
- Shenk, Dena** (1979)
Assistant Professor of Interdisciplinary Studies
B.A. 1973, State University of New York at Stony Brook; M.A. 1976, University of Massachusetts
- Sherohman, James L.** (1978)
Assistant Professor of Sociology, Anthropology and Social Work
B.A. 1968, University of Minnesota; M.A. 1971, Ph.D. 1977, Southern Illinois University
- Shurr, George W.** (1967)
Associate Professor of Earth Sciences
B.A. 1965, University of South Dakota; M.S. 1967, Northwestern University; Ph.D. 1975, University of Montana
- Sikkink, Donald E.** (1963)
Professor of Speech Communication; Assistant Director, International Studies
B.A. 1949, M.A. 1951, Ph.D. 1954, University of Minnesota
- Simpson, Eleanor E.** (1969)
Associate Professor of Interdisciplinary Studies; Director, American Studies
B.A. 1960, Park College; M.A. 1964, San Francisco State University; Ph.D. 1974, University of Minnesota
- Skalbeck, Bruce A.** (1968-1971, 1977)
Associate Professor of Management and Finance
B.A. 1965, Mankato State University; M.B.A. 1967, University of Denver; Ph.D. 1975, University of Northern Colorado
- Smelser, Lawrence B.** (1969)
Professor; Learning Resources and Library and Audiovisual Education
B.S. 1955, Southwest Missouri State University; M.A. 1962, Washington University; Ed.D. 1969, University of Oklahoma
- Song, Jae H.** (1978)
Assistant Professor of Quantitative Methods and Information Systems
B.S. 1964, Seoul National University; M.S. 1970, London University; M.B.A. 1974, Ph.D. 1978, University of Minnesota
- Sorensen, David T.** (1964)
Professor of Chemistry
B.S. 1949, M.S. 1950, North Dakota State University; Ph.D. 1958, University of Kansas
- Soroka, Leonard G.** (1975-1976, 1977)
Assistant Professor of Earth Sciences
B.S. 1971, Temple University; M.Ed. 1972, West Chester State College; D.Ed. 1977, Pennsylvania State University
- Sprinthall, Lois T.** (1975)
Associate Professor; Teacher Development
B.A. 1961, University of Iowa; M.A. 1973, University of Minnesota; Ed.D. 1974, University of Northern Colorado
- Stinson, L. Marilyn** (1975)
Associate Professor of Business Education and Office Administration; Chairperson
B.A. 1963, California State University—Sacramento; M.A. 1966, Ph.D. 1975, University of North Dakota
- Stocker, Glenn M.** (1978)
Associate Professor of Speech Communication
B.S. 1963, Winona State University; M.A. 1967, University of North Dakota; Ph.D. 1975, Wayne State University
- Summers, Marcia A.** (1969)
Professor of English; Director, Women's Studies
B.A. 1961, Geneva College; M.A. 1962, Ph.D. 1969, University of Illinois
- Sundby, Lawrence C.** (1967-1971, 1975)
Professor of Accounting; Chairperson
B.A. 1963, M.B.A. 1967, St. Cloud State University; Ph.D. 1975, University of Nebraska
- Tallent, Dwaine R.** (1979)
Associate Professor of Management and Finance
B.A. 1957, College of Emporia; M.S. 1964, Kansas State University; Ph.D. 1970, University of Nebraska
-

Terrill, Richard J. (1976)

Assistant Professor of Criminal Justice
B.A. 1969, Wayne State University; M.A.
1971, Ph.D. 1976, Michigan State
University

Thompson, Ruth F. (1963)

Associate Professor of English
B.S. 1948, Mankato State University; M.S.
1964, St. Cloud State University; Ph.D.
1977, University of Minnesota

Tideman, Philip L. (1957-1966, 1970)

Professor of Geography
B.A. 1949, University of Minnesota; B.S.
1951, St. Cloud State University; M.A.
1953, Ph.D. 1967, University of Nebraska

Torrence, Judith L. (1976)

Associate Professor of Biological Sciences;
Coordinator, Medical Technology
B.S. 1964, University of Wisconsin; Ph.D.
1971, University of Minnesota

Tosh, L. Wayne (1969)

Professor of English
B.A. 1955, M.A. 1957, Ph.D. 1962,
University of Texas

Troyer, Beverly J. (1967)

Professor of Health, Physical Education and
Recreation
B.S. 1961, M.A. 1964, Ph.D. 1971,
University of Minnesota

Trummel, Donald R. (1960-1967, 1969)

Professor of Physics and Astronomy
B.S. 1955, M.S. 1956, Western Illinois
University; Ph.D. 1974, Southern Illinois
University

Van Akin, Everett F. (1968)

Professor of Mathematics and Computer
Science
B.A. 1955, M.A. 1959, State University of
New York; Ph.D. 1972, University of
Minnesota

Van Pelt, Elizabeth S. (1963)

Professor of English
B.A. 1943, M.A. 1952, Ph.D. 1962,
University of Illinois

Vaughter, Paul H. (1962)

Associate Professor of History
B.A. 1959, M.A. 1960, University of Tulsa;
Ph.D. 1970, University of Kentucky

Vick, Charles F. (1971)

Professor of Speech Communication
B.A. 1963, Ph.D. 1967, University of Denver

Vicker, Lauren A. (1978)

Assistant Professor of Speech
Communication
B.A. 1973, Pennsylvania State University;
M.S. 1976, Ph.D. 1978, University of
Pittsburgh

Vora, Erika (1978)

Assistant Professor of Speech
Communication
M.A. 1972, M.S. 1973, University of
Bridgeport; Ph.D. 1978, State
University of New York—Buffalo

Vora, Jay A. (1978)

Associate Professor of Management and
Finance
M.E. 1965, City College of New York;
M.S. 1961, Ph.D. 1969, Rensselaer
Polytechnic Institute

Wallin, Lee D. (1967)

Professor of Art
B.F.A. 1965, Kansas City Art Institute;
M.F.A. 1967, University of Cincinnati

Walton, Brian L. (1978)

Associate Professor of Music
B.Mus. 1963, Oberlin College; M.Mus. 1965,
University of Illinois; A.M.D. 1975,
University of Cincinnati

Watkins, Ivan W. (1963)

Professor of Earth Sciences
B.S. 1955, M.S. 1957, University of Kansas;
Ph.D. 1958, Texas A & M University

Waxlax, Robert G. (1970)

Professor of Health, Physical Education and
Recreation
B.S. 1958, St. Cloud State University; M.S.
1960, Central Missouri State College;
Ph.D. 1972, University of Minnesota

Weiskopf, Edward A. (1979)

Associate Professor of Chemistry
B.A. 1959, Albion College; Ph.D. 1963, Iowa
State University

Wellik, Jerry J. (1972-1973, 1974)

Assistant Professor of Special Education
B.S. 1967, University of Iowa; M.S. 1972, St.
Cloud State University; Ph.D. 1979,
University of North Dakota

Wentworth, Darrell F. (1969)

Professor of Management and Finance;
Chairperson
B.S. 1950, University of Nebraska; M.S.
1964, University of Wyoming; Ph.D.
1971, University of Nebraska

White, James E. (1964)

Professor of Philosophy
A.B. 1961, Dartmouth College; M.A. 1963,
Ph.D. 1968, University of Colorado

White, Michael D. (1978)

Assistant Professor of Economics
B.A. 1972, Ph.D. 1978, Texas Tech
University

Whitlock, Delores C. (1969)

Professor of Health, Physical Education and Recreation

B.S. 1954, Mankato State University; M.S.

1957, State University of Iowa; Ed.D.

1969, University of New Mexico

Wilhite, Carmen I. (1974)

Associate Professor of Music

B.M. 1965, M.Mus. 1968, Eastman School of

Music; D.M.A. 1977, North Texas State

University

Williams, Steven F. (1974)

Associate Professor of Biological Sciences

B.S. 1966, University of Washington; M.A.

1974, University of California—Los

Angeles; Ph.D. 1974, Oregon State

University

Williamson, Homer E. (1973)

Professor of Political Science; Coordinator,
Public Administration

B.A. 1962, Carleton College; M.A. 1963,

Northwestern University; Ph.D. 1971,

University of Minnesota

Wixon, Lewis G. (1966)

Assistant Professor of Geography

B.A. 1963, University of Michigan; M.S.

1969, Ph.D. 1978, Indiana State

University

Wollin, Dorothy D. (1973)

Assistant Professor of Psychology

B.A. 1968, University of Louisville; M.A.

1971, Ph.D. 1976, State University of

New York

Yoos, George E. (1962)

Professor of Philosophy; Chairperson

B.A. 1948, M.A. 1950, Ph.D. 1971,

University of Missouri

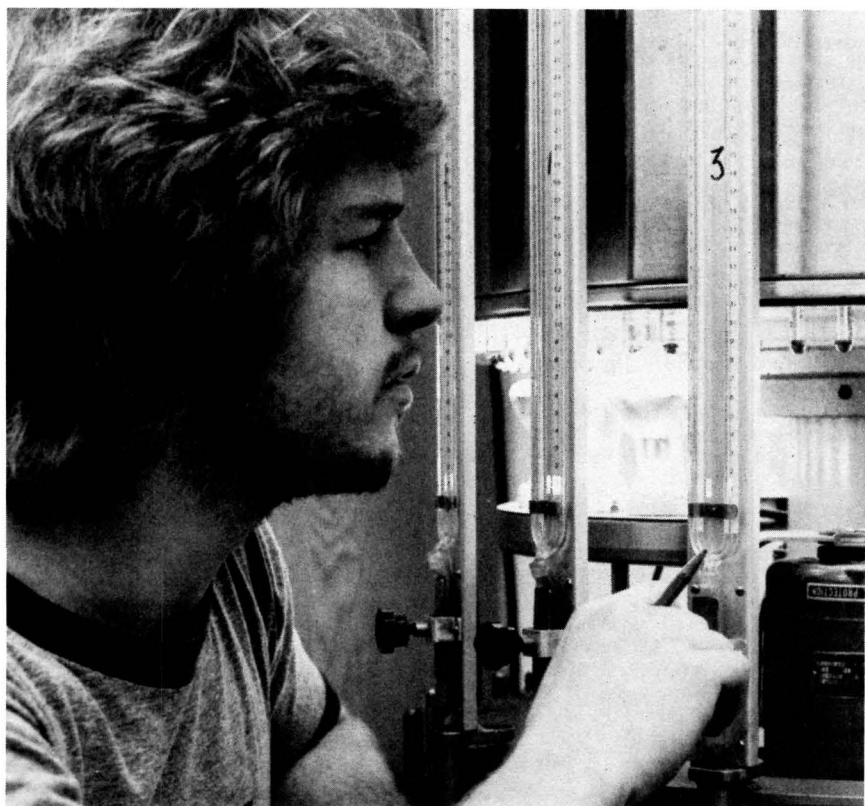
Youngner, Philip G. (1949)

Professor of Physics and Astronomy

B.S. 1944, St. Cloud State University; M.S.

1947, Ph.D. 1958, University of

Wisconsin



ADMINISTRATIVE APPOINTMENTS TO THE GRADUATE FACULTY

Ames, Kenneth A. (1974)

Professor; Dean, College of Education
B.S. 1953, University of Wisconsin—River
Falls; M.A. 1961, University of Minnesota;
Ed.D. 1965, University of Wyoming

Bates, William B. (1972)

Associate Professor; Counseling Services
B.S. 1963, College of Steubenville; M.Ed.
1964, University of Virginia; Ph.D. 1974,
Kent State University

Bayne, Robert D. (1971)

Associate Professor; Counseling Services
B.S. 1963, M.A. 1967, Eastern Michigan
University; Ph.D. 1971, Kent State
University

Bunch, William F. (1977)

Dean, College of Fine Arts
B.A. 1958, M.A. 1961, Ph.D. 1969,
University of Iowa

Gillett, Lowell R. (1963)

Professor; Dean, School of Graduate
Studies
B.A. 1947, Gustavus Adolphus College; M.A.
1954, University of Minnesota; Ed.D.
1965, University of North Dakota

Graham, Charles J. (1971)

Professor; President
A.B. 1950, M.A. 1951, Ph.D. 1955,
University of Illinois

Johnson, David C. (1976)

Professor; Vice President for Academic
Affairs
B.A. 1954, Gustavus Adolphus College; M.A.
1956, Ph.D. 1959, University of Iowa

Johnson, Louise H. (1963)

Professor; Dean, College of Liberal Arts and
Sciences
B.A. 1949, Augsburg College; M.A. 1963,
University of Illinois; M.A. 1961, Ed.D.
1971, University of Northern Colorado

Lawson, Jonathan N. (1970)

Associate Professor of English; Associate
Dean, College of Liberal Arts and
Sciences
B.F.A. 1964, M.A. 1966, Ph.D. 1970, Texas
Christian University

Lease, Alfred A. (1959)

Professor; Dean, College of Industry
B.S. 1950, M.S. 1958, St. Cloud State
University; Ph.D. 1964, University of
Minnesota



Little, Wayne G. (1969)

Professor; Associate Dean, College of
Business
B.A. 1954, Hamline University; B.S. 1956,
M.A. 1961, Ph.D. 1971, University of
Minnesota

Ludeman, Vernon L. (1969)

Professor; Associate Dean of Graduate
Studies; Director of Summer Session
B.S. 1950, Mankato State University; M.A.
1958, Ed.D. 1964, University of Northern
Colorado

MacTaggart, Terrence J. (1979)

Associate Dean, Continuing Studies
B.A. 1967, Canisius College; M.S. 1970,
Ph.D. 1976, St. Louis University

Marmas, James G. (1962)

Professor; Dean, College of Business
B.S. 1951, St. Cloud State University; M.A.
1956, University of Minnesota; Ed.D.
1961, Stanford University

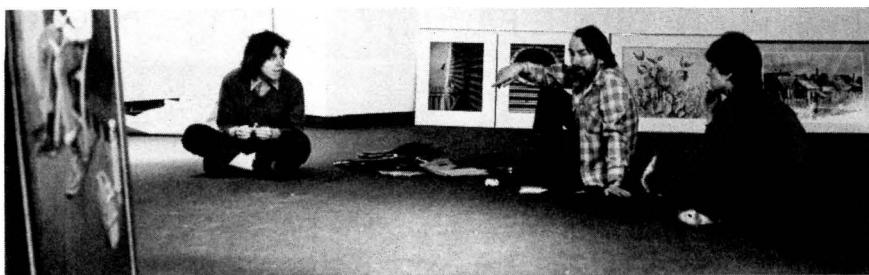
Rowland, H. Ray (1959)

Professor; Director, Information Services
B.J. 1950, University of Missouri; M.S. 1959,
Southern Illinois University; Ph.D. 1969,
Michigan State University

Sprague, David S. (1969)

Professor; Vice President for Student Life
and Development
B.S. 1960, Dakota State College; M.Ed.
1963, South Dakota State University;
Ed.D. 1969, University of South Dakota

UNIVERSITY SERVICES



ACADEMIC AFFAIRS

Center for Economic Education

The Center provides an inter-school program that has a general objective the improvement of undergraduate and graduate economic education programs at the elementary, secondary and college levels of instruction. The Center initiates research projects, participates in the planning of new academic programs and provides resource assistance to elementary and secondary schools in Central Minnesota. This office conducts special adult education courses and offers symposiums and in-service workshops in economic education for teachers and curriculum supervisors. The Center emphasizes the development and distribution of economics curricular materials for classroom use and provides assistance to outside professional groups and institutions concerned with economic education.

In cooperation with the Department of Economics and Interdisciplinary Studies, the Center offers a Master of Science degree in Social Science (Economic Education). This office conducts National Science Foundation, U.S. Office of Education and private foundation supported curriculum and research programs in economic education. The Center administers the National Depository of Children's Stories in Economics.

Common Market

St. Cloud State University is a participating member of the Minnesota State University Common Market plan which permits a student who has spent one year in residence at St. Cloud to spend up to three quarters at any of the other Minnesota state universities. The University also arranges internships for students through the Common Market program. Interested students should contact the Academic Affairs Office.

Extension and Continuing Education

Extension classes held in off-campus centers and continuing education classes held on the campus for the community are a part of the educational services to people in the St. Cloud State University service area. Regular courses and specially designed workshops, on both undergraduate and graduate levels, are offered to meet the needs of various community groups, including those in education, industry, business, and the general community. This is an all-college program under the coordination of the Academic Affairs Office.

Academic Computer Services

The primary academic requirements are served by a 1004 terminal to Mankato's UNIVAC 1106. The Academic Computer Service Center is located in the basement of Brown Hall.

LEARNING RESOURCES SERVICES

Centennial Hall, the Learning Resources Center for St. Cloud State University, serves all disciplines of the University. It is located as a focal point in the approximate geographic center of the campus.

The Learning Resources Center includes all print and non-print materials (an attendant hardware) for the academic community. This collection includes approximately one and one-half million items. Seating in the reading areas and study carrels accommodates two thousand. It contains 495,000 cataloged books, 112,000 paper copies of federal documents, 620,000 units of microform (including total Educational Resources Information Center ERIC1), 83,000 microbook units, 48,000 maps,

22,000 audio items (records and tapes), realia, slide sets, transparency sets, video tapes and approximately 2,000 magazines and newspapers. In addition to the resources in this collection, St. Cloud State University has access to the MINITEX network systems of Minnesota which provides access to all major collections in Minnesota as well as those in North Dakota, South Dakota, and Wisconsin.

CONTINUING STUDIES

The Center for Continuing Studies at St. Cloud State University has as its main purpose the development of educational programs and services for non-traditional students. As related to the broad goals and mission of the University, the Center provides leadership in meeting educational needs that relate to: mid-career changes; the worthy use of increased leisure hours; the need to find work in a changing job market; re-certification or re-training needs; and the exploration of new interests. In attempting to meet these needs the staff of the Center is responsible for the development, coordination and implementation of the following programs: community education and extension, external studies, evening programming, radio and television as alternative delivery systems, educational conferences and non-credit offerings.

The major functions of the Center for Continuing Studies are to:

1. provide leadership and coordinate programs of continuing studies with other academic and administrative units.
2. cooperate with business, industry and other professions, groups and individuals in providing credit and non-credit courses.
3. provide leadership for the development and coordination of programs of study focusing upon the needs of non-traditional students.
4. develop and sponsor educational lectures and conferences.
5. coordinate the policy for non-credit programs.

ADMINISTRATIVE AFFAIRS

Auxiliary Services. This office assumes responsibility for the care, maintenance and operation of university-owned equipment and facilities. Also under the jurisdiction of Auxiliary Services are the custodial and maintenance operations, security, parking and the motor pool.

Administrative Computer Services. The Computer Center provides administrative services. A UNIVAC 1100/81 located at St. Cloud services the administrative data processing needs of the entire state university system.

Institutional Research. This office conducts studies to support administrative decisions, processes educational and governmental questionnaires, advises faculty in research activities and initiates research projects. The office also coordinates federal, state and private grants.

Printing Services. A central duplicating, xeroxing and printing facility for university-related materials is provided by this office.

UNIVERSITY RELATIONS

Alumni Affairs. The Alumni Office maintains a file of graduates and serves as the liaison between the alumnus and the University. It keeps the alumnus informed about the University and his/her classmates. It provides opportunities for alumni to keep in touch with their university acquaintances through activities on and off campus. It is the vehicle through which alumni may give gifts of cash or property to the University.

Career Planning and Placement. The function of this office is to assist the undergraduates in developing their career plans and relating these plans to the employment market. Once the degree has or is about to be obtained, the office assists both current graduates and alumni in their search for suitable positions. The primary services include the assembling of a set of placement credentials, distribution of job opportunity lists, forwarding of credentials to prospective employers, coordinating on-campus interviews, maintaining a career library, providing statistical information, and advising students regarding career opportunities and employment techniques.

High School and Community College Relations. St. Cloud State University is represented at University Day/Night programs and individual high school and community college visits by members of this office. It provides specific admission, financial aid, and program information to college-bound students and their high school counselors. Tours are provided for campus visitors.

Information Services. This office disseminates information of general interest about the University to various publics served by the institution. It provides the mass media with university news and photographs. It prepares and coordinates all official university publications. The office also assists outside groups in scheduling activities on the campus.

BUILDINGS AND GROUNDS

The date after each building indicates when the building was completed and occupied.

CLASSROOM BUILDINGS

Brown Hall (1959). Classrooms and faculty offices. Named for Joseph C. Brown, president, 1916-1927.

Business Building (1968). College of Business classrooms and offices, together with the Center for Economic Education and Office of Research, Development, and Community Service.

Eastman Hall (1929). Facilities for physical education and recreation, including a swimming pool and gymnasium. Named for Alvah Eastman, former member of the State University Board.

Education Building (1971). Facilities for secondary, elementary and special education together with psychology, speech pathology and audiology, guidance and counseling and student teaching are located in this building.

Gray Campus Laboratory School (1958, 1962). Elementary school for approximately 250 students. A 200-seat auditorium, children's library and closed circuit television. Named for Thomas J. Gray, president, 1881-1890.

Halenbeck Hall (1965). Health, physical education and recreation building with a main gymnasium seating 7,500, a swimming pool, diving pool and two small gyms. Named for Dr. Philip L. Halenbeck, a St. Cloud physician.

Headley Hall (1962). College of Industry building with shops, laboratories, classrooms and offices plus a lecture auditorium seating 150. Named for John W. Headley, president, 1947-1951.

Kiehle Visual Arts Center (1952, 1974). Former library, remodeled for use by the Art Department. Named for David L. Kiehle, president, 1875-1881.

Mathematics and Science Center (1973). This four-story structure includes, in addition to classrooms and laboratories, a planetarium, museum, greenhouse, observatory, aquarium, computer-calculator room and high energy linear accelerator for nuclear research. It is connected to Brown Hall by an enclosed elevated walkway.

Performing Arts Center (1968). Music, speech and theatre classrooms and offices, with a main theatre seating 485, a studio theatre/recital hall seating 300, rehearsal hall, private practice studios and television studio.

Riverview Building (1911). English Department classrooms and offices and foreign language laboratories.

Stewart Hall (1948, 1978). Classrooms, offices, bookstore and an auditorium seating 1,200. Named for Warren H. Stewart, State University Board member, 1938-1948.

SERVICE BUILDINGS

Administrative Services Building (1975). Offices for the president, administrative affairs, academic affairs, university relations and part of student life and development. Located at the west entrance to the campus.

Alumni House (1973). Former private residence, acquired by the University in 1973. The facilities are used to provide services for alumni and retired faculty.

Atwood Memorial Center (1966, 1972). Houses dining and recreation facilities and meeting rooms for students and faculty. Named for the Clarence L. Atwood family.

Carol Hall (1946). Originally a private home, then a women's residence hall, now an office building. Named for Carol Selke, wife of President George A. Selke.

Centennial Hall (1971). Houses the Learning Resources Center which includes all materials and services usually found in the library and audiovisual services; a remote access information system; classrooms and laboratories for the Center for Library and Audiovisual Education; and Computer Services. Ground was broken during the University's Centennial year, 1969.

Garvey Commons (1962, 1965). Two dining rooms with cafeteria service seating 500 at one time. Named for Beth Porter Garvey, first dean of women.

Lawrence Hall (1905). Faculty office building. Oldest structure on campus. Named for Isabel Lawrence, president, 1915-1916.

Maintenance Building (1964). Provides shops, warehouse and vehicle storage for the campus. Attached to the heating plant.

Whitney House (1956). Former residence now used for offices. A gift to the University from the heirs of A. G. Whitney.



RESIDENCE HALLS

Benton Hall (1967, 1968). Apartment-type residence for men and women. 285 beds. Named for Benton County.

Case Hall (1964). Men's residence hall with 190 beds. Named for Marie E. Case, former faculty member.

Hill Hall (1962). Women's residence hall with 150 beds. Named for Helen Hill, former faculty member.

Holes Hall (1965). First high-rise with nine stories, housing 399 men and women. Named for W. W. Holes, former member of the State University Board.

Mitchell Hall (1957, 1959). Women's residence hall with 418 beds. Named for W. B. Mitchell, former resident director.

Sherburne Hall (1969). Tallest building on campus, housing 504 men and women. Named for Sherburne County.

Shoemaker Hall (1915, 1960). Capacity for 505 students. Named for Waite A. Shoemaker, president, 1902-1916.

Stearns Hall (1966). Companion building to Holes Hall housing 399 men and women. Named for Stearns County.

OTHER PROPERTIES

Beaver Islands. A group of islands in the Mississippi River one-half mile south of the campus used for the study of plant and animal life. Named by Zebulon Pike, who explored the area in 1805.

George W. Friedrich Park. This 50-acre tract one mile east of campus contains granite quarry ponds and extensive pine plantings used for nature study and recreation. Named for George W. Friedrich, former faculty member.

Minnesota Highway Safety Center. Designed by the Minnesota Department of Highways, this facility is used to teach emergency driving techniques and for vehicle testing and research. It is located on a portion of 655 acres of unimproved state land placed in the custody of the University in 1970. The remainder of the property, adjoining Highway 10 east of the St. Cloud Reformatory, is used by the University for environmental studies.

Selke Field. Varsity athletic field containing a baseball diamond, cinder track and football field, enclosed by a granite wall. Named for George A. Selke, president, 1927-1943.

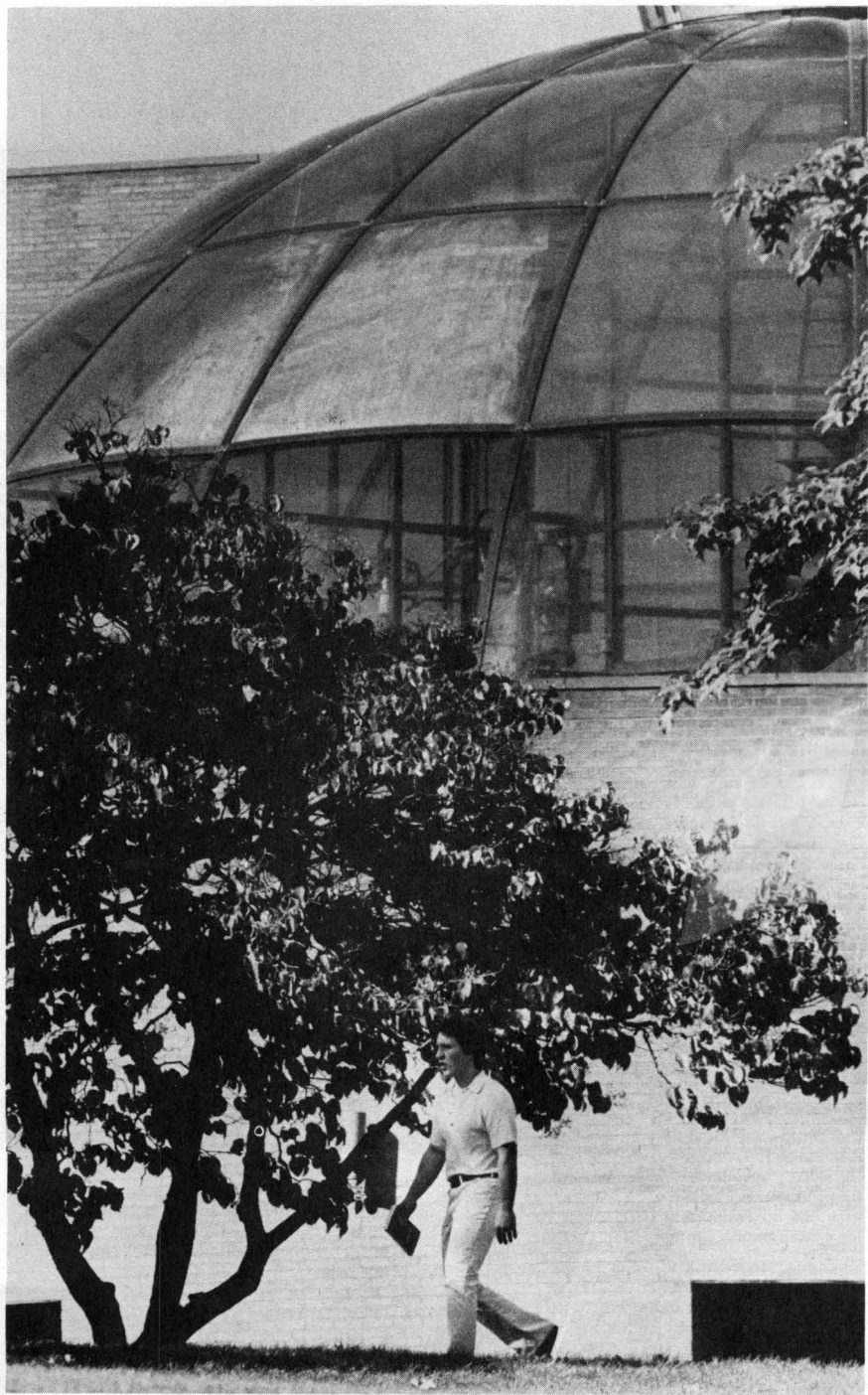
Talahi Woods. This upper river terrace area is being preserved as an oak savannah and is to be retained in its natural condition for biological study.



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