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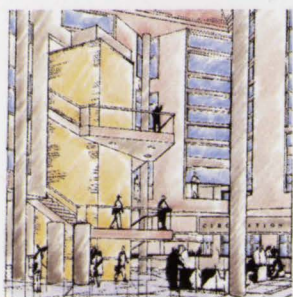
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The Graduate Programs

Specialist Degrees

Educational Administration and Leadership

Master of Arts Degree

Art
Biology: Cell, Molecular and Organismal Biology
Biology: Ecology and Natural Resources Biology
English
English: College Teaching
English: Rhetoric and Applied Writing
English: Teaching English as a Second Language
History
History: Public History
Special Studies

Master of Business Administration

Master of Music

Music: Conducting
Music: Music Education
Music: Piano Pedagogy

Master of Science Degrees

Accounting
Applied Economics
Applied Psychology: Behavior Analysis
Biology
Child and Family Studies: Early Childhood Special Education
Child and Family Studies: Early Education
Child and Family Studies: Family Studies
Communication Disorders
Community Counseling
Computer Science
Criminal Justice
Curriculum and Instruction
Educational Administration and Leadership
English
Environmental and Technological Studies
Exercise Science
Geography
Geography: Geographic Information Science
Geography: Tourism Planning and Development
Gerontology
History
Information Media: Educational Media
Information Media: Human Resources Development/Training
Information Media: Information Technologies
Mass Communications
Mathematics
Physical Education
Public and Nonprofit Institutions
Rehabilitation Counseling
School Counseling
Social Responsibility
Special Education
Sports Management
Special Studies

Sixth Year Certificate

Educational Administration and Leadership

Fifth Year Certificate for Teachers

Graduate Certificate Programs

Chemical Dependency
Geographic Information Science
Gerontology
Instructional Technology

Message from the Dean:

Welcome to St. Cloud State University. Whether you are a prospective student or a student who has already chosen to pursue graduate study at SCSU, I am sure you will find that the University lives up to its tradition of excellence and opportunity. Although preparing teachers was once its primary focus, the University has now five outstanding academic colleges: Business, Education, Fine Arts and Humanities, Science and Engineering, and Social Science. It has become a multi-focused comprehensive institution encompassing a wide range of undergraduate and graduate programs. The graduate bulletin provides information about and outlines its more than 40 graduate programs leading to Specialist, Master of Arts, Master of Business Administration, Master of Music, and Master of Science degrees. In addition, there are fifth- and sixth-year programs and several certificate programs.

The university has excellent facilities; however, we are most proud of our outstanding faculty. The faculty at St. Cloud State University pride themselves in their commitment to student learning. The University fosters an environment where learning takes precedence over all else. The student's academic program will provide a mix of research, theory, and application with a focus upon teaching and learning. The majority of our graduate programs are professionally oriented allowing the students to prepare themselves for career advancement or career change.

In this changing world with increasing demands for life-long learning and educational attainment, St. Cloud State University offers the opportunity for you to meet the challenges and reap the rewards associated with your participation in one of our excellent graduate programs. We in the Graduate School will attempt to assist you in any way we can in helping you achieve your educational goals. We will be happy to meet with you or direct you to faculty or staff who can assist you. We invite you to be a part of our tradition of excellence and opportunity.

*Dennis Nunes, Dean
School of Graduate Studies*

ST. CLOUD STATE
U N I V E R S I T Y
A tradition of excellence and opportunity

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Graduate Bulletin 1998-2000

Dennis Nunes
Dean, School of Graduate and Continuing Studies

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.

Location:

121 Administrative Services Building
720 Fourth Avenue South
St. Cloud, MN 56301-4498

Telephone: (320) 255-2113
TTY: 1-800-627-3529
Fax: (320) 654-5371
Admissions Information Number:
1-800-369-4260
E-mail: Grad@StCloudState.edu
Web site: www.StCloudState.edu

Office Hours:

Regular Academic Year
8 a.m. until 4:30 p.m.
After 4:30 p.m. - by appointment
Summer
7:30 a.m. until 4 p.m.

Information and Answering Service

Area Code 320
Atwood reception desk
7 a.m.-11 p.m.255-3822
Maintenance emergencies255-3166
Campus security HELP255-4357
Weekdays255-4357
Evenings, weekends/holidays255-4357

Emergency Information:

Fast-Call Emergency
On-campus dial9-911
Off-campus dial911
Ambulance251-8505
City Fire Department251-3473
Hospital251-2700
Police251-1200

University Telephone Numbers

University switchboard255-0121
Academic Affairs255-3143
Admissions255-2244
Atwood Memorial Center255-3822
Business Office255-0121
Career Services255-2151
Continuing Studies255-3081
Financial Aid255-2047
Graduate Studies255-2113
Learning Resources Technology and Services255-2084
Records and Registration255-2111
Residential Life255-2166

Notice

Although every effort is made to ensure this bulletin's correctness, regulations of the university and its program requirements change from time to time during the period any student is attending St. Cloud State University. Accordingly, if regulations or program requirements of the university in any way conflict with information contained in this bulletin, the current regulations and program requirements govern.

The university reserves the right to change any of its regulations or program requirements affecting operation of the university and its program requirements; such changes will become effective when required by applicable statutes, university regulations or program requirements.

Key to Symbols

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

Semester Offered

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

Abbreviations

Coreq.	Corequisite
Cr.	Credit
Gr.	Graduate
Lab.	Laboratory
Prereq.	Prerequisite
Undgr.	Undergraduate
ACCT	Accounting
AMST	American Studies
ANTH	Anthropology
APSY	Applied Psychology
ART	Art
ASTR	Astronomy
AVIT	Aviation
BCIS	Business Computer Information Systems
BIOL	Biological Sciences
CDIS	Communication Disorders
CFS	Child and Family Studies
CHEM	Chemistry
CJS	Criminal Justice
COMM	Mass Communications
CSCI	Computer Science
ECON	Economics
ED	Education
EDAD	Educational Administration
EE	Electrical Engineering
ENGL	English
ENGR	Engineering Science
ESCI	Earth Science
ETS	Environmental and Technological Studies
FIRE	Finance, Insurance and Real Estate
FORL	Foreign Languages and Literature
FREN	French
GEOG	Geography
GER	German
GERO	Gerontology
HIST	History
HLTH	Health
HURL	Human Relations
IM	Information Media
MATH	Mathematics

MCS	Microcomputer Science
MINS	Minority Studies
MBA	Master of Business Administration
MfgE	Manufacturing Engineering
MGMT	Management
MKTG	Marketing and Business Law
MUS	Music
MUSE	Music Education
MUSM	Music Musicianship
MUSP	Music Performance
PE	Physical Education
PHIL	Philosophy
PHYS	Physics
PNI	Public and Nonprofit Institution
POL	Political Science
PSY	Psychology
REC	Recreation
RUSS	Russian
SCI	Sciences
SOC	Sociology
SPAN	Spanish
SPC	Speech Communication
SPED	Special Education
SS	Sport Science
SSCI	Social Science
SST	Social Studies
STAT	Statistics
SW	Social Work
THFS	Theatre, Film Studies and Dance
TSE	Traffic Safety Education
WS	Women's Studies

The university calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, interruption of utility services, natural disasters, 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, extracurricular activities or other university programs or events will be completed or rescheduled. Refunds will be made to eligible students in accordance with Minnesota State Colleges and Universities board policy.



ACADEMIC CALENDAR

2000 Fall Semester

Monday, August 28	Faculty Workshop Day
Tuesday-Thursday, August 29-31	University Convocation
Wednesday, September 6	Classes begin
Friday, September 29	Deadline for graduation application
Friday, November 3	Deadline for submission of field study, thesis, creative work, starred paper or portfolio to have preliminary or final conference scheduled
Friday, November 10	Veterans Day observed—Classes in session, offices closed
Thursday-Friday, November 23-24	Thanksgiving Holiday
Saturday, December 16	Commencement
Friday-Thursday, December 15-21	Final examinations

2001 Spring Semester

Monday, January 15	Martin Luther King Day Holiday
Tuesday, January 16	Classes begin
Friday, February 16	Deadline for graduation application
Friday, February 16	Deadline for submission of field study, thesis, creative work, starred paper or portfolio to have preliminary or final conference scheduled
Monday, February 19	Presidents Day—Classes in session, offices closed
Monday-Friday, March 12-16	Spring break
Monday-Friday, May 7-11	Final examinations
Saturday, May 12	Commencement

2001 Summer Session

Monday, June 11	First summer session classes begin
Friday, June 15	First term deadline for graduation application
Friday, June 22	First term deadline for submission of field study, thesis, creative work, starred paper, or portfolio to have preliminary or final conference scheduled
Wednesday, July 4	No classes, non-duty day
Friday, July 13	First summer session classes end
Monday, July 16	Second summer session classes begin
Friday, July 20	Second term deadline for graduation application
Friday, July 27	Second term deadline for submission of field study, thesis, creative work, starred paper, or portfolio to have preliminary or final conference scheduled
Thursday, August 16	Second summer session classes end

2001 Fall Semester

Monday, August 27	Faculty Workshop Day
Tuesday-Thursday, August 28-30	University Convocation
Wednesday, September 5	Classes begin
Friday, September 28	Deadline for graduation application
Friday, October 5	Deadline for submission of field study, thesis, creative work, starred paper or portfolio to have preliminary or final conference scheduled
Monday, November 12	Veteran's Day observed—Classes in session, offices closed
Thursday-Friday, November 22-23	Thanksgiving Holiday
Saturday, December 15	Commencement
Friday-Thursday, December 14-20	Final examinations

2002 Spring Semester

Thursday-Friday, January 10-11	Faculty Workshop Days
Monday, January 14	Classes begin
Monday, January 21	Martin Luther King Day Holiday. No classes, offices closed
Friday, February 15	Deadline for graduation application
Monday, February 18	President's Day. Classes in session, offices closed
Friday, February 22	Deadline for submission of field study, thesis, creative work, starred paper or portfolio to have preliminary or final conference scheduled
Monday-Friday, March 11-15	Spring Break
Monday-Friday, May 6-10	Final examinations
Saturday, May 11	Commencement



General Information

The University

St. Cloud State University was established in 1869. It is a comprehensive university serving more than 14,000 students with more than 550 permanent faculty members, 60 percent of whom have the highest degree obtainable in their field. The international student body includes more than 450 students from 54 countries; the faculty includes members who originally were international students from such countries as China, Ethiopia, France, Germany, India, Japan, Korea, Uganda, etc. More than 400 students from St. Cloud go overseas each year to attend study centers or collaborative universities abroad. The University is located near two private colleges in the area - St. John's University and the College of St. Benedict.

The St. Cloud Area

The University is located 75 miles northwest of the large Minneapolis and St. Paul urban area, popularly called the "Twin Cities," where, in addition to an international airport, and the Mall of America, numerous cultural and educational opportunities are available. The population of the St. Cloud area is roughly 90,000, and the city lies along the scenic Mississippi River. Several parks are within walking distance, with a variety of outdoor recreational opportunities open to all in the community.

Located in south central Minnesota, St. Cloud has varying temperatures and climates. Many Minnesotans are outdoor-loving people; they are active in sports year-round, from swimming in the summer to cross-country skiing in the winter.

University Mission

St. Cloud State University is the largest of the Minnesota State Universities. It is committed to excellence in teaching and learning; to fostering scholarship, research, and artistic and creative endeavors; and to enhancing community service and collaborative working relationships. As a comprehensive university it serves primarily the citizens of Minnesota; it also functions as a regional university for the upper Midwest and attracts students from other states and nations. As an educational community of students, faculty and staff, St. Cloud State University provides a full range of undergraduate and selected graduate programs to prepare for living and working as responsible citizens. It supports intellectual and scholarly achievement, recognizes the diversity of scholarship of women and various cultural groups, instills a sensitivity to the values of a multicultural and ever changing world, and provides access to life-long learning experiences.

Graduate School Mission

The graduate studies programs at St. Cloud State University have the mission of providing high quality, accessible graduate degree programs

that are responsive to the need for professional development and educational enrichment. The offerings reflect a wide range of master's programs as well as a selected number of specialist and other post-master's programs that serve students and practitioners throughout the state and upper Midwest. The graduate programs should be integrated with the research and development functions of the university. The goals of graduate study at this university are:

- A. To increase the professional skills and academic competence of students who show promise of making important contributions to their profession.
- B. To prepare students for further graduate study.
- C. To meet the specialized needs of students whose educational or career goals can best be served by programs which provide advanced study in two or more related disciplines.
- D. To foster an attitude of intellectual inquiry and to develop research skills that may be applied in a professional context.

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 Committee to consider all policy matters affecting the programs of graduate study at St. Cloud State University. The Faculty Association Graduate Committee consists of members from the Colleges of Business, Education, Fine Arts and Humanities, Science and Engineering, and Social Sciences. The Faculty Association Graduate Committee has the responsibility to discuss and recommend policy changes within the broad context of graduate education.

Accreditation and Memberships

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 and the National Council for Accreditation of Teacher Education. The College of Business is accredited by the AACSB - The International Association for Management Education. The Art department is accredited by the National Association of Schools of Arts and Design. The Communication Disorders department is accredited by the American Speech-Language-Hearing Association. The Computer Science program is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board, Inc. The Mass Communications department is accredited by the Accrediting

Council of Education in Journalism and Mass Communications. The Music department is accredited by the National Association of Schools of Music. Counseling and Related Services is accredited by the International Association of Counseling Services, Inc. The Rehabilitation Counseling graduate program is accredited by the Council on Rehabilitation Education. The School Counseling graduate program in Applied Psychology is accredited by the National Council for Accreditation of Teacher Education (NCATE). The Special Education program is accredited by the Council for Exceptional Children.

Statement of Nondiscrimination

St. Cloud State University is committed to providing equal education and employment opportunities to all persons regardless of race, color, creed, sex, age, religion, marital status, national origin or status with regard to public assistance or physical disability or any other group or class against which discrimination is prohibited by State or Federal Law, including Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and Section 402 of the Vietnam Era Veterans Readjustment Assistance Act of 1974. Inquiries concerning the application of Affirmative Action, Equal Opportunity, Title IX and Section 504 of the Rehabilitation Act of 1973 at St. Cloud State University should be referred to the Affirmative Action Officer, (320) 654-5123.

Accommodation services offered to students under Section 504 of the Rehabilitation Act of 1973 or the American's with Disabilities Act of 1990 should be referred to the Student Life and Development Office at (320) 255-3111, and for faculty and staff to the Human Resources department at (320) 255-3076.

Summary of Graduate Programs

St. Cloud State University awards the following graduate degrees: Specialist, Master of Arts, Master of Business Administration, Master of Music, and the Master of Science degree. The sixth year program is available in Educational Administration and Leadership. The fifth year program also is offered. Graduate certificate programs are available in the following areas: Chemical Dependency, Geographic Information Science, Gerontology, and Instructional Technology.

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 Department of Educational Administration and Leadership, and the Department of Special Education. The Specialist degree program offered by the Department of Educational Administration and Leadership is designed for three distinct groups: the Elementary School Principal, the Secondary School Principal including the Junior High School Principal, and the Superintendent of Schools. The Specialist degree program offered by the Department of Special Education is designed for Special Education Administration.

For information regarding specific requirements for the Specialist degree, consult the programmatic section of this bulletin for the major of your interest.

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: Cell, Molecular and Organismal Biology, Biology: Ecology and Natural Resources Biology; English, English: College Teaching, English: Rhetoric and Applied Writing, English: Teaching English as a Second Language; History, and History: Public History. All Master of Arts programs require a thesis, creative work, starred paper(s), or final written comprehensive examination. Information concerning the program requirements for a particular major may be found with the course offerings for the department.

Master of Business Administration Degree (M.B.A.) program develops professional managers for public and private sectors. It stresses conceptual, analytical and behavioral skills relevant to organization and leadership, provides students the opportunity to develop specialized competencies reflecting individual aptitudes and interests, and explores the relationships between organizations and their environment. A concentration consistent with the student's particular interest is available in Accounting, Business Computers and Information Systems, Economics, Finance, International Business, Management, Marketing, Real Estate, and Insurance.

Master of Music Degree (M.M.) allows the student to pursue a degree in Music with an emphasis in Music Education, Piano Pedagogy, or Conducting. Specific program information for each of these emphases can be found under the Music listing in the main section of this bulletin.

Master of Science Degree (M.S.) is designed to provide preparation in a variety of professional fields. Included are programs in: Accounting, Applied Economics, Applied Psychology: Behavior Analysis, Biology, Child and Family Studies: Early Childhood Special Education, Child and Family Studies: Early Education, Child and Family Studies: Family Studies, Communication Disorders, Community Counseling, Computer Science, Criminal Justice, Curriculum and Instruction, Educational Administration and Leadership, English, Environmental and Technological Studies, Exercise Science, Geography, Geography: Geographic Information Science, Geography: Tourism Planning and Development, Gerontology, History, Information Media: Educational Media, Information Media: Human Resources Development/Training, Information Media: Information Technologies, Mass Communications, Mathematics, Physical Education, Rehabilitation Counseling, School Counseling, Social Responsibility, Special Education, Sports Management, and Special Studies.

Eligibility for programs in Teacher Education is limited to students whose undergraduate preparation qualifies them for teacher licensure.

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 be best served by carefully designed programs which provide advanced study in two or 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 multi-disciplinary 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 multi-disciplinary 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 is interviewed by a four-member committee chaired and appointed by the graduate dean. The committee reviews the program proposal and makes 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 Office of Graduate Studies.

The Sixth Year Certificate Program. A Sixth Year program in Educational Administration and Leadership is also available. For further information, refer to the Educational Administration and Leadership Department section of this bulletin.

The Fifth Year Certificate Program. The Fifth Year program 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 is planned to provide an integrated five-year program of preparation for teaching.

Graduate Certificate Programs are available in the following areas: Chemical Dependency, Geographic Information Science, Gerontology, and Instructional Technology.



Admission & Financial Information

Admission to Specialist and Master's Degree Programs

Admission to Specialist degree programs. To be considered for admission to a specialist degree, an applicant must have been granted a master's degree from an accredited college or university. Test scores on the Graduate Record Examination general 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. See the program description under the appropriate departmental listings for the specific requirements.

Students holding a Specialist or higher degree complete a minimum of 16 credits, including field study, for the Specialist equivalent.

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. Eligibility for graduate admission is based on the student having achieved a 2.75 grade point average over the last half of undergraduate education (4 full semesters or equivalent) and having achieved an acceptable score on the required entrance 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. This option is not available to candidates wishing to pursue the Master of Business Administration degree. 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 a non-accredited 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 are used as the basis for recommendation for admission. (Applicants who are admitted under these conditions will be re-evaluated upon completion of 8 graduate semester credits earned at St. Cloud State University.)

Admission to Double Major, Second Major, Major Equivalent

These terms are defined as follows:

Double Major: This term applies to the completion of two majors earned within one degree program.

Second Major: This term applies to students whose graduate degree was earned through St. Cloud State University and who subsequently elect to complete another major.

Major Equivalent: This term applies to students whose graduate degree was earned through another institution, but who elect to complete a second major through St. Cloud State University.

Students who wish to complete a major in a second field may do so by satisfying the following requirements:

1. The student must be fully accepted for graduate study by the department and the Graduate Studies Office.
2. The student must submit an approved program of study which meets all of the requirements of the degree program. Courses taken as a part of the first degree may be applied to these requirements. However, not less than 10 additional (new) credits must be earned at St. Cloud State University. The program must be completed with a satisfactory grade point average as defined in the graduate regulations.
3. The student must satisfactorily complete a final written/oral examination in the major field in which the double major, second major, or major equivalent is being pursued.
4. The student must satisfy all other requirements as specified at the time of acceptance into the program, or as described in the graduate regulations.

Admission Procedures for Specialist and Master's Degree Program

A student who wishes to pursue a program of graduate study at St. Cloud State University should contact the Office of Graduate Studies, 121 Administrative Services, St. Cloud State University, 720 South 4th Avenue, St. Cloud, MN 56301-4498, for application materials.

All application materials should be returned to the Office of Graduate Studies 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 (all materials are collected for the express purpose of St. Cloud State University—they are not transferable to the student or to another institution):

1. Completed "Application for Admission to Advanced Study" accompanied by a \$20 non-refundable matriculation fee made payable to St. Cloud State University.
2. Recommendations. Three blank recommendation forms will be provided with the application. It is the student's responsibility to distribute these forms to the people they wish to use as references. The recommendation forms should be returned to the Office of Graduate Studies. Graduate application materials will not be considered complete until all three references have been received.
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 are required to submit supplementary transcripts showing that the degree has been conferred. **Transcripts submitted personally by the student are not acceptable.** (Official transcripts, submitted from other institutions, are for use in the applicant's admission process and pursuit of the degree at St. Cloud State University. These transcripts, or copies of them, cannot be issued to the student or other institutions. Graduates of St. Cloud State University are not required to send transcripts of credit earned at this institution.) International students must provide an English translation of all educational transcripts.
4. Entrance test score. Students seeking the Specialist degree, Master of Arts degree, Master of Music degree, Master of

Science degree, or Sixth Year program are required to take and submit official scores for the Graduate Record Examination, General Test. Students seeking the Master of Business Administration degree and the Master of Science degree in Accounting must take the Graduate Management Admission Test. Exceptions to this policy are included in the section entitled "Admission Test Information."

5. Notarized resident-alien card. Any student that has changed immigration status from international to resident-alien must present their resident-alien card or a notarized copy of the card (front and back) to the Office of Graduate Studies.
6. In addition to all the steps listed above, international students must complete two additional procedures. All applicants whose language of origin is not English are required, as part of the admissions process, to present evidence of their level of English proficiency. For more information about this requirement see the section entitled "Admission Test Information."
7. All applicants who are not citizens of the United States or who do not have a resident-alien card (green card) must provide a completed Confidential Financial Information form and submit it to the Office of Graduate Studies along with documentation of finances to be eligible for an I-20 or other documentation needed to obtain a visa to attend St. Cloud State University.

When all these materials are complete, the Graduate Studies Office conducts the initial evaluation. Applicants who satisfy the requirements of the graduate school are 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 notifies the applicant of the action taken on the graduate application submitted for admission. When an applicant is accepted for graduate study, an adviser is assigned by the department. The adviser helps the student formulate a plan of study leading to the accomplishment of the student's objectives in pursuing graduate work.

Changing Graduate Program. Occasionally students will decide to change their degree program after being admitted to or starting a program. To do so, students must complete the admission requirements of the new program including a review and acceptance by that program's admission committee. To initiate a change in graduate program a student needs to complete the front page of the graduate application and provide a new statement of interest and objectives for the new program.

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

Admission to Sixth Year Certificate Program

The Sixth Year program is available only in Educational Administration and Leadership. To be eligible a student must have completed a Master's degree with a grade point average of 3.0.

Admission Procedures. The following materials will be needed to be considered for admission to the Sixth Year program:

1. Application for Graduate School with a \$20 non-refundable application fee.
2. Two copies of both the undergraduate and graduate transcripts sent directly from the granting institution to the Graduate Studies Office.
3. Scores on the Graduate Record Examination general test.
4. Three letters of recommendation.

Students holding a Specialist or higher degree complete a minimum of 16 credits.

Admission to the Fifth Year Certificate Program

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 30 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+) (2.75 for the Special Education major).

Admission Procedures. Students seeking admission to the Fifth Year program must complete the following:

1. The application form, accompanied by a \$20 non-refundable fee to the Graduate Studies Office.
2. Two official copies of the undergraduate transcript sent from the college or university where the work was completed.
3. Three letters of recommendation.

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 is 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, and if the student has earned a 2.00 grade point average over all undergraduate course work completed (2.75 for the Special Education major).

If the applicant holds a baccalaureate degree from a non-accredited 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 10 semester hours of creditable work at this university.

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

Admission to a Graduate Certificate Program

Graduate Certificate programs are available in Chemical Dependency, Geographic Information Science, Gerontology, and Instructional Technology.

Admission Procedures. Material required to complete the application process:

1. A completed application form for the particular certificate program in which you are interested.
2. A \$20 application fee. (The fee is waived if you have been admitted to a Master's degree program at St. Cloud State University. Should you subsequently begin a Master's program this fee will not be charged again.)
3. Official undergraduate and graduate transcript(s) showing completion of a baccalaureate degree and if appropriate, a graduate degree. **Transcripts submitted personally by the student are not acceptable.** (If you received your degree from St. Cloud State University, the Graduate Studies Office will obtain your transcript from our Office of Records. If already in a Master's program at St. Cloud State University, additional transcripts will not be needed.)

For the Geographic Information Sciences certificate, the Graduate Record Examination general test is required.

For the Certificate program in Chemical Dependency, a student needs to be formally admitted to a counseling program at St. Cloud State University.

For the Certificate program in Gerontology, a student needs to satisfy one of the following:

- Be admitted to or have completed a graduate degree program at St. Cloud State University.
- Have completed a graduate degree program at another institution. An official transcript showing completion of a graduate degree program will be required.
- Be currently enrolled in a graduate program at another institution. The student will need to provide documentation of admission status.

For the Certificate program in Geographic Information Sciences and Instructional Technology, a student needs to have completed a baccalaureate degree.

Once a student has received notification of admission to a certificate program from the Office of Graduate Studies, he/she should meet with the Certificate Coordinator to complete a certificate program form which lists the courses the student will need to take for certificate completion.

Certificate Coordinators

Please contact the following departments for information or an appointment with the Certificate Coordinator:

Chemical Dependency-Department of Applied Psychology
Geographic Information Sciences-Department of Geography
Gerontology-The Center for Community Studies
Instructional Technology-The Center for Information Media

Denial of Admission

This determination means that students are not admitted to degree programs and may not earn Master's degrees from St. Cloud State University even if they have successfully completed advanced courses.

Admission Test Information

All applicants for admission to a graduate degree program are required to take the appropriate admission examination.

The Graduate Management Admission Test (GMAT) is required for admission to the Master of Business Administration program and the Master of Science program in Accounting. The Graduate Management Admission Test is available on the computer. To make arrangements to take the test via a computer at one of the test sites, a student must call 1-800-462-8669 or a number from the Test Center List in the GMAT Information Bulletin.

The Graduate Record Examination (GRE) general test is required for all other Specialist, Master of Arts, Master of Music, Master of Science degree and Sixth Year programs. Acceptance of Graduate Record Examination scores more than five years old requires a review by the graduate dean and the department chairperson. Substitution of any graduate entrance examination for the Graduate Record Examination is subject to approval of the graduate dean. Substitutions may be given for applicants who hold an advanced degree from an accredited graduate institution or under other exceptional circumstances.

The Graduate Record Examination is available primarily on the computer. To make arrangements to take the test via a computer at one of the test sites, a student must call 1-800-GRE-CALL or a number from the Test Center List in the GRE Information and Registration Bulletin. For the paper-and-pencil examination, preregistration 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 at the following addresses.

GRE:

GRE-ETS
P.O. Box 6000
Princeton, NJ 08541-6000
Phone: 609-771-7670
Fax: 609-771-7906
E-Mail: gre-info@ets.org

GMAT:

GMAT
Educational Testing Service
P.O. Box 6103
Princeton, NJ 08541-6103
Phone: 609-771-7330
Fax: 609-883-4349
E-Mail: gmat@ets.org

TOEFL: International Students. All applicants whose language of origin is other than English must take the Test of English as a Foreign Language and request that the score be sent to the Graduate Studies Office. 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 550 on the TOEFL (paper-based) or 213 (computer-based) (80 on the Michigan Placement Test) is required for admission to a graduate degree program.

Course grades in English at other American universities or schools of intensive English do not constitute proof of English proficiency. Admission to the university does not preclude the university from requiring non-native speakers of English to do more course work in English as a second language.

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 international students in addition to the GRE or GMAT. When requesting information which pertains to the TOEFL, write directly to:

TOEFL Services

Educational Testing Service
P.O. Box 6151
Princeton, NJ USA 08541-6151
Phone: 609-771-7100
Fax: 1-609-771-7500
E-mail: toefl@ets.org

International 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 the section titled "Admission Policies and Regulations and Financial Information" of this bulletin. Post admissions process: All new students whose language of origin is not English are required to take an English placement test. The test results are available to their academic advisers so that the individual student's language ability can be considered when academic schedules are made out. If the test score is low, the student may be required to take a course in English as a second language or attend the tutorial center.

Graduate Tuition and Fees*

Tuition per credit for on-campus and off-campus courses:

Effective Fall 1998

	Tuition	Fees*	Total
Graduate- Resident	\$131.60	\$16.90	\$148.50
**Graduate			
-Non-resident	\$208.55	\$16.90	\$225.45
Off-campus	\$150.70	\$.33	\$151.03

Exceptions. Fees will not be charged for:

- Courses numbered 588, 595, or 695 (temporary workshops).

2. Permanent 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.

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

**Tuition and fees are subject to change by action of the Minnesota State Colleges and Universities Board.*

***Reciprocal agreements regarding in-state tuition have been reached with North Dakota, South Dakota and Wisconsin. Residents of those states are eligible to be charged in-state tuition fees at St. Cloud State University provided a reciprocity application is completed and that the application is approved by their home state. Reciprocity applications are available at the Office of Records and Registration and should be completed well in advance of registration.*

Non-Payment of Monies Due to 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.

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 \$12 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.

Academic Year. St. Cloud State University operates on the semester system. There is an intersession and two summer terms which offer a broad spectrum of the regular academic year courses. Credits earned during the summer term may be applied toward fulfillment of requirements of graduate programs in the same manner and are 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 Sessions, Office of Graduate Studies. Other schedules may be obtained by writing to the Office of Admissions.

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 semester a listing of on-campus evening courses is published.

Copies may be obtained by writing the Center for Continuing Studies, 230-255-3081 or e-mail: ccs@stcloudstate.edu.

Graduate Assistantships, Scholarships, and Employment

Graduate Assistantships. A number of graduate assistantships are available. Interested students should contact the chairperson of the major department where they wish to be hired. Application materials for assistantships are available in the Office of Graduate Studies, 121 Administrative Services. Graduate assistants pay in-state tuition and are eligible for tuition assistance equal to approximately one-half the tuition for graduate (500 and 600 level) credits, not to exceed tuition for six graduate credits per semester. Tuition assistance is not available during summer.

A student working a 20-hour-per-week assistantship must normally register for eight graduate credits each semester during the academic year (six graduate credits per summer). A student working a 10- or 15-hour-per-week assistantship must register for six graduate credits

each semester during the academic year.

Tuition assistance is calculated according to the following schedule:

Number of graduate credits taken per semester	Number of graduate credits for which tuition assistance is awarded
0 - 5	0
6 - 7	3
8 - 9	4
10-11	5
12 or more	6

Shirley Schrader Graduate Scholarship For Women. This scholarship is open to women age 30 or older who have been admitted into the graduate program. Applicants must demonstrate academic excellence, be enrolled in a minimum of 6 credits per semester and provide three letters of recommendation. The maximum award for the year is \$1,000 (including summer). Application forms are available in Graduate Studies, 121 Administrative Services Building. The deadline for applications is April 1.

Graduate Scholarships. Pending the award of monies from the bookstore fund, there are approximately fifteen \$500 scholarships available to fully admitted graduate students attending school full time. These scholarships are awarded on the basis of academic achievement, letters of recommendation, and entrance examination scores. No single factor is the determining one. They provide recognition and financial reward to some of St. Cloud State University's best graduate students. Application dates are announced in each spring semester and the awards usually are made in October. Forms for application are available from Graduate Studies, 121 Administrative Services Building. Scholarship funds may affect a student's need based aid eligibility.

Shelvie Christian Non-Traditional Student Endowed Scholarship. This scholarship is open to a non-traditional student 25 years of age or older. Applicants must be involved in St. Cloud State University student extracurricular activities. Full-time or part-time students may apply. The award for the year is \$300. Forms are available from and need to be returned to the Director of University Organizations, 117 Atwood Center. The deadline for applications is April 1.

Other Scholarships for Graduate Students. Approximately fifteen other scholarships can be obtained in a "Guide to Scholarships" from the Office of Scholarships and Financial Aid, 106 Administrative Services Building.

Financial Aid. To determine eligibility for financial aid, the student should contact the Office of Scholarships and Financial Aid. There are various forms of financial aid available to graduate students. These could include: Work Study, Work Study Funded Graduate Assistantship, Federal Perkins Loan, Federal Stafford Loan, Student Educational Loan Fund (SELF) Loan, or Federal Unsubsidized Stafford Loan. If a student has been awarded a graduate assistantship, the amount of financial aid awarded may be affected. Be sure to work with a staff member in the Office of Scholarships and Financial Aid to determine your eligibility.

Part-time Employment. There are many opportunities for students who desire part-time employment. A limited number of these are available on campus. Career Services, 101 Administrative Services Building, can assist a student seeking part-time employment.

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



Policies & Regulations

Policies and Regulations

Program Approval for the Degree Programs

Program approval is required for all Specialist and Master's degree candidates. Students are required to develop a program of studies which must be approved by the student's adviser and the graduate dean.

Program approval may take place at any time after the student has been admitted to a graduate program, but prior to the completion of 16 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 or the department office to determine if required.)
3. Maintain a 3.0 grade point average in the major field, the total program, and all graduate course work taken at this university.

The Graduate Studies Office reviews 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, one copy of the program should be returned to the Graduate Studies Office by the adviser.

The Dean of the School of Graduate Studies reviews the proposed program and gives final approval. In cases where changes are required, before final approval is given, the Dean consults with the adviser and the student. In planning their program, students must be aware of the following program options:

Program Options

Specialist

All Specialist degree programs require a field study. Specialist degree programs require a minimum of 30 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.

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 program is given final approval, the student receives notification that it meets the requirements for the Specialist degree.

Masters

Departments offering the Master's degree may provide one or more of three different options.

Plan A: Under Plan A, a thesis or creative work is required. Plan A requires a minimum of 30 credits including the credits earned for the

thesis or creative work. A preliminary and a final oral examination are required, and a final written comprehensive examination also may be required at the option of the department.

Plan B: Under Plan B, a minimum of 32 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 preliminary and 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 36 credits is required. Students under Plan C programs must complete a preliminary and a final oral examination focusing on a portfolio of projects and papers which are submitted in accordance with the requirements of the program, and a final written comprehensive examination may also be required at the option of the department. 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.

Program Approval for the Sixth Year Certificate

Program approval is required for all Sixth Year certificate candidates. Students are required to develop a program of studies which must be approved by the student's adviser and the graduate dean.

Program Approval for the Fifth Year Certificate for Teachers

Before completion of 11 semester 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. After the adviser has endorsed the copy, the student sends it to the Graduate Studies Office for processing and distribution. Copies are sent, respectively, to be placed in the applicant's file in the Graduate Studies Office, to the adviser, and 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 of the School of Graduate Studies via the petition process.

All transfer work used on a Fifth Year Program must be substantiated by two copies of official transcripts sent from the college or university where the work was taken.

Program Approval for Certificates

Once a student has been formally admitted to a certificate program, he/she should meet with the certificate coordinator to complete the certificate program form. This form must be signed by the student and the certificate coordinator before it is submitted to the Office of Graduate Studies.

Field Studies, Theses, Creative Works, Starred Papers, and Portfolios

Field Study or Thesis Preliminary 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, if the graduate grade point average is at least 3.0, and after the student's program of study has been approved

by the graduate dean, but at least one semester prior to the final oral examination. In consultation with the student's adviser, an outline of the proposed thesis or field study is prepared and four copies are submitted to the Graduate Studies Office two weeks prior to the time requested for the preliminary 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 graduate faculty member from a related field (approved by the graduate dean) comprise the faculty representation. These conferences are not scheduled 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 Field Study for the Specialist degree is carried out under the supervision of the committee appointed at the preliminary conference 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 comprises the membership of the student's final evaluation committee.

2. To register for a Master's Thesis or Field Study, the student is required to have an arranged course form signed by his/her adviser before attempting to register in the Office of Records and Registration, 117 Administrative Services Building. The credits for Thesis or Field Study may be spread over more than one registration period. If a student elects to do this, an arranged course form will be needed each semester they register for additional credits. These can be obtained through the Office of Records and Registration. Consult the department program requirements and course lists for the correct course number and credits.

3. The satisfactory completion of the research is reported as "S" (satisfactory). If all requirements for the research have not been met by the end of the semester in which it was registered, the work is reported as "in process." An "IP" grade will remain on a student's transcript for one year, and if not completed by the end of that time, will change to an "F" grade. 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 7-year time limit set for the completion of a Specialist degree.

4. Four copies of the Thesis or Field Study, each containing an abstract, must be filed with the Graduate Studies Office no later than seven 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, three copies are submitted to the Graduate Studies Office for binding no later than three weeks prior to the end of the semester (see academic calendar for deadline date). An additional Thesis or Field Study is required if the student wants a personal copy. The student is responsible for the binding fee for a minimum of three copies, four if they wish a personal copy bound. This fee will be paid through the Office of Graduate Studies at the time that the final copies are submitted. All copies are bound in black buckram covers, and the title is printed in gold lettering on the front cover and binding edge.

5. Two additional copies of the abstract of not more than 400 words are submitted to the Graduate Studies Office. The abstract will 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 format of St. Cloud State University which is illustrated in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)*.

6. 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 on the form and style used by St. Cloud State University.

7. 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, in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)*, and an approved style manual specified by the department. When a conflict exists in standards, format, or style, the manual published by the Graduate Studies Office takes precedence over any other manual approved for department use.

Creative Works - 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. Four copies of this evidence submitted by students from the departments of Art, English, and Music (creative projects, play-writing, performance or production, etc.) must be presented to Office of Graduate Studies in order to schedule a preliminary oral conference. The members of this committee will consist 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). Four copies of the Creative Work must be filed with the Graduate Studies Office no later than seven weeks before the completion of work for the appropriate degree. At this time a final oral examination will be scheduled.

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 must 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. These information and data are 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.

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.

Preliminary Conference. A preliminary conference may be scheduled at any time after the student has been fully accepted into a graduate program and after the student's program of study has been approved by the graduate dean, but at least one semester prior to the final oral examination. 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.

In consultation with the student's adviser, an outline of the proposed creative work will be prepared and four copies submitted to the Graduate Office two weeks prior to the time requested for the qualifying conference. The student should then request the Graduate Office to schedule a qualifying conference. The student's adviser, one other graduate faculty member from the major department, and one graduate faculty member from a related field (approved by the graduate dean) comprise the faculty representation on the committee. Qualifying conferences are not scheduled during final examination week.

The qualifying conference and the final oral examination cannot be held during the same semester.

Registration for Creative Work. To register for a Creative Work (698), the student is required to have an arranged course form signed by his/her adviser before attempting to register in the Office of Records and Registration, 117 Administrative Services Building. Creative work credits may be spread over more than one registration period. If a student elects to do this, an arranged course form will be needed each semester he/she registers for additional credits.

Starred Papers

Certain Plan B programs require that Starred Paper(s) be written. The Starred Paper(s) includes a research requirement less extensive in nature than a thesis. However, the research should be significantly greater in quality and quantity than the standard graduate term paper. Ordinarily, the thesis is oriented more toward original research, data gathering with statistical analysis, theory testing and theory building, whereas the Starred Paper is oriented more toward the usage of secondary research sources.

Preliminary Starred Paper Conference. Students pursuing a Plan B program which requires Starred Paper(s) must arrange for a Preliminary Starred Paper Conference. This conference may be scheduled at any time after the student has been fully accepted into a graduate program and after the student's program of study has been approved by the graduate dean, but at least one semester prior to the final oral examination. In consultation with the adviser, the student should prepare a preliminary outline of the proposed research paper(s), and should submit four copies to the Graduate Studies Office at least two weeks prior to the Preliminary Starred Paper Conference. At that time, the student should request the Graduate Studies Office to schedule the Preliminary Starred Paper Conference. The student's adviser, one other graduate faculty member from the major department, and one graduate faculty member from a related field are selected by the graduate dean and shall comprise the faculty representation. Preliminary Starred Paper Conferences are not scheduled during final examination week.

A preliminary starred paper conference cannot be held in the same semester as the final oral examination.

Plan C, Project/Portfolio

Plan C programs require that a significant professional project or a portfolio of projects be prepared in conjunction with approved graduate courses in the student's major area of concentration.

Preliminary Project/Portfolio Conference. A preliminary conference may be scheduled at any time after the student has been fully accepted into a graduate program and after the student's program of study has been approved by the graduate dean, but at least one semester prior to the final oral examination. In consultation with the adviser, the student should prepare a summary of the proposed project or portfolio of projects, and should submit four copies to the Graduate Studies Office at least two weeks prior to the date of the conference. At that time, the student should request to schedule the preliminary project/portfolio conference. The student's adviser, one other graduate faculty member from the major department, and one graduate faculty member from a related field selected by the graduate dean comprise the faculty representation. A preliminary project/portfolio conference is not scheduled during the final examination week. A preliminary conference cannot be held in the same semester as the final oral examination.

Final Evaluation Procedure

A candidate for the Specialist or Master's degree completes the final evaluation during the last semester of the graduate program. Students who have earned less than a 3.0 (B) average in the major, over their entire program, and in all graduate credits earned are not permitted to complete the final examination.

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

Plan A: A student selecting Plan A must complete a thesis or creative work and must complete a final oral examination. A final written examination also may 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.

Plan B: Plan B programs are of two types:

Programs which require starred paper(s). Students completing

starred paper(s) must complete a final oral examination. A final written examination also may 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 Paper(s). 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 also may be required at the option of the department. For further information, see the sections titled "Final Oral Examination and Final Written Comprehensive Examination" which follow.

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. A candidate who fails the final oral examination in the first attempt may, with the approval of the adviser, take the examination a second time, but the candidate may not retake the final oral examination during the same semester in which the exam was failed. A third chance to pass the examination is not permitted. The specific requirements vary according to the nature of the project submitted.

Theses and Field Studies. At least seven weeks prior to the close of the semester 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.

The Final Oral Examination is conducted by the final evaluation committee, consisting of three members. Membership consists of the same committee that served on the preliminary conference. A majority vote of the final evaluation committee is required to pass the Final Oral Examination.

A minimum of three weeks prior to graduation, the student must submit the final approved thesis or field study for approval of form and style. (See deadline on the academic calendar. Students who miss this deadline will not graduate at the end of the semester.)

Theses and Field Studies are 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 Paper(s). At least seven weeks prior to the close of the semester 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.

The Final Oral Examination is conducted by the final evaluation committee, consisting of three members. These three committee members are the same faculty representatives who served on the preliminary conference. A majority vote of the final evaluation committee is required to pass the Final Oral Examination.

A minimum of three weeks prior to graduation the student must submit the final approved starred paper for approval of form and style. (See deadline on the academic calendar. Students who miss this deadline will not graduate at the end of the semester.)

The Starred Paper(s) are 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 semester of the student's graduate program.

The final evaluation committee consists of three members who shall judge the artistic merits of the creative work. These three committee members are the same faculty representatives who served on the qualifying conference.

Four copies of the creative work must be submitted to the Graduate Studies Office at least seven weeks prior to the end of the semester. Final evaluation conferences are not scheduled during final examination week.

The members of the final evaluation committee must sign the approval page to indicate their acceptance of the creative work.

A minimum of three weeks prior to graduation the student must submit a copy of the final approved creative work for approval of form and style. (See deadline on academic calendar. Students who miss this deadline will not graduate at the end of the semester.)

If the student wishes a personal copy, an additional copy of the final creative work will need to be submitted. The creative work is approved, bound, and placed on file as described in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)*, available in the Graduate Studies Office.

Plan C, Project/Portfolio

At least seven weeks prior to the close of the semester in which graduation is anticipated, the student must request the Graduate Office to schedule the final oral examination. At this time the student must prepare a summary of the materials to be included in the project/portfolio. If the material is a single comprehensive project, the summary should be in the form of an abstract. If the material is a portfolio of smaller projects, the summary should be in the form of a brief synopsis of each of the projects. The portfolio must be submitted to the department office at least two weeks prior to the date set for the final oral examination.

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

Final Written Comprehensive Examination

Candidates for the Master's degree under Plan B in which a Starred Paper(s) is not completed 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 faculty 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 semester 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 consists 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 retake the examination during the same semester in which the exam was failed. A 3.0 (B) grade point average in the major, over the entire program, and in all graduate credits taken at St. Cloud State University is a prerequisite for taking the final comprehensive examination. A third chance to pass the examination is not permitted.

Academic Regulations

Graduate students are expected to become thoroughly familiar with the processes and regulations contained in this bulletin and are responsible for complying with its provisions.

Advisers. Students are assigned an initial adviser upon admission to a program. Students, however, sometimes change advisers after taking some courses and meeting faculty who share their interest. A change of adviser must be endorsed by the new adviser, the chair or graduate coordinator of the academic unit and the Dean of Graduate Studies. A Change of Adviser form is submitted to the Office of Graduate Studies for the change to be effective.

Non-degree students who are taking graduate courses will not be assigned an adviser. They may, however, ask a faculty member to serve as an adviser on an ad-hoc basis.

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

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

Course Load. Course load for graduate students is defined as follows: full-time—a minimum of eight credits per semester, 3/4 time to 1/2 time—a minimum of six credits per semester.

The maximum credit load (undergraduate, graduate and transfer credits combined) is sixteen credits per semester during the regular academic year and a maximum of nine credits for the summer.

Any exception must be approved by the student's adviser and the Dean of Graduate Studies. Any student exceeding the load limit without proper authorization shall lose the credits in excess of the authorized load.

Course Numbering System. Courses numbered from 500-699 may be used to satisfy the requirements of graduate degrees. Courses open only to graduate students are numbered 600-699. 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 5xx number. A student who has completed a course at the 400 level may not take that same course at the 500 level. Double-numbered courses require a clear differentiation between the undergraduate and graduate levels.

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.

Credit by Correspondence or Examination. Credits earned through correspondence or by examination are not accepted toward a graduate degree. St. Cloud State University does not provide an option whereby graduate credits can be earned by examination or correspondence.

Credit Earned Before Admission. Only 6 semester 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 semester of registration (whichever is greater) will be permitted to apply toward completion of a student's graduate program. In unusual circumstances, credit earned in excess of these figures may be considered for approval by the graduate dean by the petition procedure.

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.

Elimination from a Program. A student may be eliminated from a graduate program for cause based on the recommendation of the adviser/graduate committee and the department chairperson, and the decision of the graduate dean.

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 approved by the adviser to the graduate dean prior to registering for the course if the course has not been approved on the proposed program of study. An arranged/independent study course form approved by the instructor, the department chairperson, and the graduate dean is needed to register for the course. The student also 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 six 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.

Grading Appeals Policy

See the on-line *Student Handbook*.

Graduate Only Course Work. At least one-half the minimum requirements of curriculums leading to a Specialist, Master of Arts, Master of Business Administration, Master of Music, Master of Science degree and to a Sixth Year program must be met through courses, seminars, and other learning experiences offered only to graduate students.

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 three credits of Special Problems is permitted on a graduate degree program.

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 F (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), AU (audit), W (withdrawn), and IP (in progress).

The completion of Theses, Field Studies, some independent study projects, and certain special courses are not normally anticipated during the semester in which the credit is registered. Where the work is projected to extend over two or more semesters, the grade will be recorded as IP (in progress), until such time as the work is completed. If the IP grade is not removed before one year has elapsed the grade will change to an F if the student has graduated, changes plans and graduates with an IP still on their transcript, the IP will be changed to W (withdrawn).

When the student has completed all of the requirements for a Master's Thesis, Creative Work, or a Specialist degree Field Study, the adviser submits 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) is recorded. Such incompletes must be removed by the student within one semester, except that an incomplete given in spring semester must be removed by the end of the following fall semester. If it is not removed within the time limit, the I (incomplete) is changed to F.

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 semester in which it was registered, the research is reported as IP (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 seven-year time limitation set for a Specialist degree.

Residence Requirement. Candidates for the Master's degree, Specialist degree, or Sixth Year program must earn a minimum of 20 semester hours in on-campus classes (day and night combined). Graduate courses offered at resident centers established by the university are considered on-campus credit.

For the Fifth Year program, a minimum of 10 credits must be earned in residence at St. Cloud State University. 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.

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 F=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 Special Education Administration 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.

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 (2.75 for the Special Education major).

Courses in which a mark of D, F, or U 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.

Only courses taken at St. Cloud State University are used in computing the 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 degree, Specialist degree, or Sixth Year program, 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 eight additional semester hour credits to be earned in courses approved by the petition procedure. If, after the completion of these eight 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 degree, Specialist degree, or Sixth Year program.

Student Conduct. University regulations which express expectations of behavior and provide for the protection of the rights of individuals are published yearly on-line and in the *Student Handbook*. Students who violate university or system regulations shall, after due process, be subject to university sanctions. Contact the University Judicial Officer, Room 106 Atwood Center, if you need additional information or assistance with a complaint.

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 and the Sixth Year program must be completed within the seven-year period prior to the awarding of the degree. All credits used in completing the Fifth Year program must be earned within 10 years of the completion of the program.

Tours/Field Trips. No more than six credits earned through field trips may be counted toward completion of a degree or certificate. If field trips are registered as Independent Study 600, no more than three credits are applicable to a degree program.

Transfer Policy. A maximum of 10 semester 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 be:

- a. Residence credits earned at an institution approved to offer graduate degree programs in the major field where the credit was earned, at the time the credit was earned.
- b. Appropriate to the student's program.
- c. Approved by the adviser and the Graduate Studies Office.
- d. 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. (Official transcripts submitted from other institutions are for use in the applicant's admission process and pursuit of the degree at St. Cloud State University. These transcripts, or copies of them, cannot be issued to the student or other institutions.) The grade recorded for these credits must be B or above or an S or P in S/U or P/F grading systems. No transfer credit can be accepted that was earned more than seven years prior to completion of the degree.

For the Fifth Year program, a maximum of 10 semester credits of graduate and advanced undergraduate work earned after the awarding of a bachelor's degree may be accepted. A grade of "C" or better must have been achieved in the courses.

With the prior approval of the graduate adviser and the graduate dean, a maximum of 16 semester hours of appropriate graduate credit may be transferred from other universities of the Minnesota State Colleges and Universities and applied to a program at St. Cloud State University.

When transferring credit to a Specialist degree program, a minimum of 20 of the last 30 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 Studies Office before a student enrolls for that credit.

Validation of Courses. Graduate courses taken at St. Cloud State University more than seven years prior to the date of graduation must be validated if used in meeting degree requirements. Graduate courses more than seven years old taken at other universities may not be validated as explained in the section titled "Transfer Policy." A course in which a student received a grade of "C" or less cannot be validated for use on the student's graduate program, and a maximum of one-half of the total program credits may be validated.

Procedures for validating a course:

1. A petition requesting validation of specific courses is approved by the adviser and the graduate dean.
2. Once the petition has been approved, a validation form for each course is sent by the Office of Graduate Studies to the department chairperson of the department in which the course to be validated was taught.
3. It is the student's responsibility to contact the department to determine if they are willing to consider validating the course(s). If the department is willing, they will assign an instructor who will decide what must be done to validate the course.
4. Following contact with the instructor, the student completes the assigned work given by the validating instructor.
5. The student submits the assigned work to the instructor, and if it is determined to be satisfactory, the validation form will be completed by the instructor and returned to the Office of Graduate Studies.
6. In the Office of Graduate Studies, the instructor's recommendation for validation will be reviewed by the graduate dean. The student will be notified of the action taken by the graduate dean, and if the validation is approved, it will be entered on the student's program form.

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

Master of Arts/Music/Science

Plan A - 4 workshop credits

Plan B - 7 workshop credits

Plan C - 10 workshop credits

Specialist degree - 4 workshop credits

Sixth Year program - 7 workshop credits

Fifth Year program - 10 workshop credits

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



General Requirements

General Requirements

Registration

Registration procedures are established by the Office of Records and Registration and published with the semester 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.

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 six credits earned as a special student or the credits completed in the first semester of registration (whichever is greater) may be applied to a graduate degree program. Credit may be applicable to a degree program by meeting all requirements for admission to graduate study and submitting a petition to the Graduate Studies Office. A special student is admitted to classes only after degree students have been accommodated.

Only students who have completed a baccalaureate degree may register for graduate-numbered courses (500-600) as a special student. Special students are considered to be pursuing post-graduate study and are not classified as graduate students. However, all special students who register for graduate credit are subject to the academic regulations and policies contained in the Graduate Bulletin.

Registration by Undergraduate Students. Undergraduate students who are in their last semester and who have eight semester hours or less to complete for graduation from this university, may petition to enroll in graduate courses (500 level only) not to exceed the normal load. Courses open only to the graduate students are numbered 600-699. (Permission forms are available in the Graduate Studies Office). Approval of the permission form is based on the potential admissibility of the student to the graduate program. The maximum load permitted is eleven semester hours of undergraduate and graduate credit combined. **Graduate courses completed prior to receiving the undergraduate degree cannot be used toward the undergraduate degree.**

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 Education, students may request a hearing to challenge the content of education records to ensure 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 requesting 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 regarding 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, weight 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 Office of Records and Registration. 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.

Graduation or Completion

Application for Graduation or Completion. A candidate for the Specialist or Master's degree, should file an application for graduation accompanied by a \$15 non-refundable fee. This application is submitted to the Graduate Studies Office at the beginning of the semester 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 and in each semester's class schedule.

Students completing a Sixth Year or Fifth Year program file an application for completion accompanied by a \$15 non-refundable fee. This application for completion of the program is submitted to the Graduate Studies Office at the beginning of the semester in which the work is anticipated to be completed.

A candidate completing the course work for a graduate certificate program must file an application for completion with the Graduate Studies Office. Deadline dates are the same as those for application for graduation as listed in the academic calendar and in each semester's class schedule.

If a student does not complete all of the requirements for graduation in a given semester that student must re-apply for graduation at the beginning of the semester in which they anticipate completing the remaining requirements.

Specialist and Master's Degree. 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 accompanied by a \$15 non-

refundable fee must have been submitted at the beginning of the semester which the degree is to be granted.

- The student must have satisfactorily completed all courses required on the approved program. All changes must be substantiated by an approved petition.
- The student must have maintained a 3.0 (B) average in the major, in the total program, and in all graduate courses taken at St. Cloud State University.
- The student must have satisfactorily completed the required final examination(s), written, oral, or both.
- A student completing a Thesis, Field Study, Creative Work, or Starred Paper(s) must have submitted three approved copies to the Graduate Studies Office for binding, together with the required binding fee. Two additional abstracts must have been submitted by those completing a Thesis or Field Study.

Sixth Year Certificate 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 certificate completion.

- Application for completion accompanied by a \$15 non-refundable fee must have been submitted at the beginning of the semester in which the certificate is to be completed.
- The student must have satisfactorily completed all courses required on the approved program. All changes must be substantiated by an approved petition.
- The student must have maintained a 3.0 (B) average in the major, in the total program, and in all graduate courses taken at St. Cloud State University.

Fifth Year Certificate Summary of Requirements for

Completion. In order to complete the Fifth Year program, the candidate must have met the following requirements:

- The student must have earned a minimum of thirty semester hours of creditable work: in secondary school programs, ten of these credits must have been taken in courses open only to graduate students; in elementary school programs, ten of these credits must have been taken at the graduate level.
 - The student must have earned a minimum of twenty-one semester hours in the major and related areas.
 - The student must have earned a minimum of six semester hours in professional education.
 - The student must have taken ED 615, Introduction to Research, 3 Cr.
- At the beginning of the semester when the student plans completion of the required course work, an application for completion of the program, accompanied by a \$15 non-refundable fee, must be filed with the Graduate Studies Office.

Graduate Certificate Programs Summary of Requirements

for Completion. In order to have a certificate posted to the transcript, a student must have met the following requirements:

- Filed an application for completion in the Office of Graduate Studies.
- Maintained a 3.0 (B) grade point average over all the graduate courses completed at St. Cloud State University.

Conferring of Specialist and Master's Degrees

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

Diplomas for Specialist and Master's degree programs will be mailed by the Office of Records and Registration to the address on the application for graduation approximately eight weeks after the close of the semester. A transcript with the degree posted upon it should be available through the Office of Records and Registration approximately three weeks

after the end of the semester in which the student graduated.

At the request of the student, however, the Dean of Graduate Studies will send a letter verifying graduation to appropriate officials as soon as all requirements are met.

Completion of the Sixth Year Certificate Program. The satisfactory completion of an approved Sixth Year program is verified by an appropriate statement on the transcript.

Completion of the Fifth Year Certificate Program. The satisfactory completion of an approved Fifth Year program is verified by an appropriate statement on the transcript.

Completion of Graduate Certificate Program. The satisfactory completion of a certificate program is verified by an appropriate statement on the transcript.

Certificates for the Sixth Year program, Fifth Year program, and Graduate Certificate programs are mailed by the Office of Graduate Studies approximately three weeks after the close of the semester.



Services & Facilities

Services and Facilities

Administrative Computer Services

37B CENTENNIAL HALL/255-2065

The Computer Center, located in the lower level of Centennial Hall (Room 37B), serves as the administrative computing center for St. Cloud State University. This office provides information technology support to administrative departments and individuals in the areas of university information systems, use of microcomputers, information technology training, and telephone systems. The administrative computing environment uses current technology to enable administrative service departments to provide quality service to students, employees and external clients.

Alumni and Foundation

ALUMNI AND FOUNDATION CENTER/255-3177

The Alumni Association and the Foundation are located in the Alumni and Foundation Center. The mission of the St. Cloud State University Alumni Association is to build relationships with students, alumni and friends to advance St. Cloud State University's tradition of excellence and opportunity through communication, networking, cultivation and fundraising. This office maintains alumni records on all graduates of the University.

The Foundation is the fund raising arm of the university. Through private contributions, the Foundation is able to provide that "margin of excellence" for students and faculty through scholarship and faculty grant programs respectively. The Foundation is conducting the Campaign for a New Century, the university's \$20.6 million capital campaign. In addition, the annual giving program (including faculty/staff and parents funds) together with the planned giving office seek financial support for the university.

Atwood Memorial Center

INFORMATION/255-4636
PROGRAMMING/255-2205

Atwood Memorial Center provides facilities, services and programs to accommodate the university community in the development of individual and group resources.

Facilities include the ballroom, a large multi-purpose area suitable for concerts, banquets, and meetings; a theatre; a variety of conference rooms; bakery and delicatessen; food court; a number of unique dining settings; reading and gallery lounges; exhibit areas; convenience store; cultural center; and student organization offices.

Services of the student center include the University Conference & Information Center, University Programming Offices, University Organizations Office, Campus Card office, and a recreation center including bowling, billiards, table tennis, video and pinball. Other features include a banking service, credit union, automatic teller machines, professional hair styling, tanning salon, and a copy/typing service.

University sponsored programs are a result of the efforts of stu-

dents involved in the various program committees of the University Program Board, student organizations, and other special interest groups. These include concerts, lectures and discussions, films, exhibits, tournaments, dances, workshops, outings, performing arts, and special events.

Something for every interest is on the agenda during the course of the year. Also, offices of Greek organizations, Multicultural Student Services, Student Disability Services, Student Life and Development, GLBT Services, and Student Government are located in Atwood Memorial Center.

Buildings and Grounds Management

NORTH OFFICE CENTER/255-2266

Buildings and Grounds assumes responsibility for the care, maintenance and operation of university owned equipment and facilities. Also under the jurisdiction of Building and Grounds are the custodial and maintenance operations, and the motor pool.

Business Office

122 ADMINISTRATIVE SERVICES/202-6462

The Business Office is responsible for the billing and collection of student tuition and fees. The cashiers windows are open during the regular academic year from 8 a.m. to 2:30 p.m. and during the summer from 7:30 a.m. to 2 p.m.

Lindgren Child Care Center

SOUTH WING, 122 ENGINEERING AND COMPUTING CENTER/
255-3296

The Center

St. Cloud State University's Lindgren Child Care Center provides quality child care services to the children of St. Cloud State University students, staff and faculty. The primary purpose of the program is to provide a service to the student population. The goal is to provide quality child care in a warm, nurturing and safe environment as well as serve as a model of excellence for other child care facilities in the community. Demand for the center's limited space is high; be sure to plan accordingly.

The Program

The Lindgren Child Care Center provides model programming for the needs of full-day and part-time child care, which includes activities appropriate for individual and age group differences.

Infants (2-15 months). Children in the infant area follow individualized schedules which are planned cooperatively by the parents and lead teacher.

Toddlers (16-32 months). A structured day is planned indoors and outdoors which includes activities that foster the children's self-help skills, language development, social awareness and positive non-aggressive problem solving.

Preschoolers (33 months - five years). In this age-group activities of social, motor, language, cognitive and sensory experiences will be made available to the children daily.

For information or application, contact the Lindgren Child Care Center. (320-255-3296).

Career Services

101 ADMINISTRATIVE SERVICES/255-2151

The Career Services office provides quality services and career resources directed toward assisting students to manage their career exploration, direction, and networking and transition to the world of work. Students are invited to attend seminars on resume development, interviewing techniques, mock interviewing, and job search on the Internet as well as special employer panels and job fairs. Individuals are assisted in developing effective skills and techniques for use in their search for employment. Career specialists are available for individual appointments to assist students.

On-campus interviews are also available throughout the academic year. A list of employment interview opportunities is available in the office or on the Career Services Web site. Resource information about numerous employers is available in the career resource library.

All students beginning their job search should register with Career Services about nine months before graduation. Registered students will have the opportunity to be a part of the referral services whereby employers receive information regarding qualified students and alumni upon request of employer.

Career exploration, job opportunities, employer information, events schedule, on-campus interviewing, internship opportunities, and more is available on the Career Services web site at www.StCloudState.edu/~careersv.

Center for Continuing Studies

255-3081

The Center for Continuing Studies is responsible for the development, coordination and implementation of the following programs: Professional Education and Extension, Evening Programming, Educational Conferences, Non-Credit offerings and a B.E.S. degree program. The major functions of 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.

Center for Economic Education

373 STEWART HALL/255-2157

The Center for Economic Education has the general mission of improving 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 K-12 academic programs, and provides resource assistance to elementary and secondary schools in central Minnesota. This office offers symposiums and in-service workshops in economic education for teachers and curriculum supervisors as well as programs for the broader university community and for regional K-12 students. The center emphasizes the development and distribution of economic curricular materials for classroom use and provides assistance to outside professional groups and institutions concerned with economic education.

This office is an affiliate of the Minnesota Council on Economic Education and delivers the Economics America programs of the National Council on Economic Education.

Central Minnesota Historical Center

31 CENTENNIAL HALL/255-3254

The purpose of the center is to collect primary and secondary sources of history of central Minnesota in order to preserve these materials and to make them available for the use of students, scholars and interested citizens.

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.

John J. Weismann Counseling Center

118 STEWART HALL/255-3171

The John J. Weismann Counseling Center assists students in making personal, social, educational, and career adjustments through both group and individual counseling. This process is facilitated by the use of computer-assisted career and educational information, printed material and a network of resource persons. The center administers and interprets a wide range of standardized tests. These tests can help students in their educational and career development. In addition, the center provides technical support to institutional staffs and student organizations. This support encompasses a broad range of counseling-related activities, which seek to promote the overall development of the student. Staff training in residence halls and specialized services to non-traditional students are examples of this outreach orientation.

Health Services

FIRST FLOOR HILL HALL/255-3191

Health Services, an accredited medical clinic, is staffed by licensed medical doctors and nurse practitioners. The clinic provides on-campus medical care for currently enrolled students. Health Service hours are 8 a.m. to 6 p.m. Monday - Thursday and 8 a.m. to 4:30 p.m. on Fridays, when classes are in session. After-hour care and weekend care is available at community urgent care centers and the St. Cloud Hospital Emergency Trauma Unit.

The on-campus pharmacy, located in Health Services, provides prescription services and stocks many over-the-counter products. The pharmacy has established contracts with over 40 insurance carriers and is able to bill them directly for covered products. Pharmacy hours are 8:45 a.m. to 5:15 p.m. Monday - Thursday and 9 a.m. to 4:30 p.m. on Friday.

Health promotion and ADAPT (Alcohol/Drug Awareness and Prevention Team) provide health education and health counseling for individuals or groups of students. Specific issues addressed include stress, contraception, sexually transmitted infection prevention, alcohol/drug use and abuse, and nutrition.

Every student is encouraged by health services and the MnSCU Board to have health/medical insurance coverage. If not covered by an individual or parental policy, the student may purchase a health plan contracted by the Minnesota State Colleges and Universities System. Students may use the on-campus health service even if they do not have medical insurance; however, they are then individually responsible for any charges. Health Services has established contracts with Blue Cross & Blue Shield, Medica, Health Partners (Urgent Care only), GAMC, U Care of MN, Champus (Tri-West), MA, MN Care, and Student Insurance. Students with these insurance plans can have their charges billed directly.

According to Minnesota law, all new freshman and transfer students must show proof of immunity to measles, mumps, rubella, diphtheria and tetanus during their first semester at St. Cloud State University. Students who graduated from Minnesota High School after 1996 or were born **before** 1957 are exempt from this requirement.

Human Resources

204 ADMINISTRATIVE SERVICES/255-3203

The Human Resources office provides a wide range of personnel services for the approximately 1,300 faculty and staff. These services include the administration of various programs and benefits that are not limited to the following: employment, compensation, training, labor/employee relations, performance evaluations, conflict management, benefits, classifications, salary administration, workers' compensation, unemployment compensation, American Disabilities Act (ADA), Family Medical Leave Act (FMLA), Policies and Procedures, and an assortment of other programs.

Institutional Research and Planning

CENTER FOR CONTINUING STUDIES/ DIRECTOR 654-5317
SECRETARY 255-3143

The mission of the Office of Institutional Research and Planning is to collect, analyze, and transform data into information in support of institutional planning, policy formation and decision-making. Its operating policies ensure that data is collected and reported in an ethical and objective manner, sensitive and respectful of the interests and needs of institutional stakeholders. A principal objective of this office is to ensure that information is effectively communicated to facilitate decision-making and evaluate operating effectiveness.

Campus constituents are encouraged to visit the unit web site at <http://www.StCloudState.edu/~irp/>.

Learning Resources and Technology Services

CENTENNIAL HALL/255-2084

The mission of Learning Resources and Technology Services (LR&TS) is "Connecting You with Information and Technology." LR&TS has a variety of services including:

Library

The Library, or "Learning Resources Services" (LRS), located in Centennial Hall, serves all disciplines of the university. It is located as a focal point in the approximately geographic center of the campus. A new library facility is scheduled to open fall semester of 2000 to serve university students, faculty, and staff, as well as community members in Central Minnesota.

The LRS collection of more than 2.5 million items includes print and nonprint materials for the academic community, including more than

600,000 books, 226,000 paper copies of federal and state documents, and over 1.7 million units of microform—including ERIC documents. The collection also contains 1,300 periodical titles, 8,150 electronic periodical subscriptions, 62,000 maps, and 32,000 nonprint items (computer software, compact disks, video tapes, films, etc.). The Learning Resources' electronic catalog is available on the World Wide Web. Numerous CD-ROM indexes and online databases also are available.

Seating in the reading areas and study carrels accommodates 800. The NASA teacher resource room also is located in LRS. SCSU is a member of the MINITEX network system of Minnesota, which provides access to all major library collections of Minnesota as well as those in North Dakota and South Dakota.

InforMedia Services

InforMedia Services (IMS) makes available several unique technologies and resources for your information and communication needs. IMS has computer workstations and multimedia production facilities not available elsewhere on campus. Options beyond those available in the standard labs include: Zip drives, CD-ROM production, scanners for flat copy, 35mm slides and negatives, a variety of digital formats (*gif*, *tiff*, *jpg*, *eps*, *OCRText*, etc.), high-quality laser printing, color laser printing on both paper and transparency film, and monochrome transparency production. Assistance in developing multimedia materials is available for faculty, staff, and students. For more details, visit the IMS service desk in Centennial Hall or the web page (<http://lrs.StCloudState.edu/ims>).

Computing and Technology Services

Computing and Technology Services (CTS) supports the academic and administrative missions of SCSU by providing design, installation, training, operation, and maintenance services for a wide range of technologies. The following services are offered by CTS:

Computer Store

The Computer Store, operated by CTS, provides up-to-date hardware and software at discounted prices for students, faculty, and staff.

Computing User Services

Computing requirements are served by the use of four local minicomputers. These systems include Digital's VMS and Unix-based processors. More than 2100 workstations are connected to this computer network. Several Macintosh and Windows-based microcomputer labs are available throughout campus. Software includes several programming languages, word processors, databases, statistical analysis programs and other application packages.

The CTS staff provide consulting for students in computer-related courses, assistance for students and faculty requiring statistical programming, and support for faculty and students interested in development of computer applications to be used in courses. Computer accounts for students, faculty and staff are available upon request by completing an electronic application available in any of the open labs.

Electronic Classroom Support

CTS is responsible for the technologies supporting distance learning, 60 electronic classrooms, video teleconferencing, and all audio-visual systems on campus.

Help Desk

CTS maintains a technology HelpDesk to support SCSU computer users by telephone (255-2077), e-mail (helpdesk@StCloudState.edu), and in the HelpDesk office.

Network and Telecommunications Services

CTS installs and maintains the campus telecommunications infrastructure comprising more than one million feet of optical fiber and 6000 network connections.

ResNet

ResNet provides SCSU residents with unlimited and direct high-speed access to both on-campus networked computer resources and to the Internet. For the cost of whatever Ethernet hardware their systems require (less than \$50 for most users), residents may search SCSU's online library catalog, surf the World Wide Web, and access their SCSU e-mail accounts, all from the privacy of their own rooms. Students who don't own computers can access the same resources in the ResNet labs.

Student Computer Labs

CTS maintains 375 computers for student use in open computer labs located throughout campus. Computer labs located in the Engineering and Computing Center and in Centennial Hall are open every day except major holidays and provide an area for students to work on projects. Several other microcomputer labs, located within other departments and colleges, also are available for student use. For a more detailed description of services available and computer lab locations, pick up a copy of the latest Student Technology Handbook.

Minnesota Economic Development Center

328 Stewart Hall/255-4934

The Minnesota Economic Development Center provides technical assistance and program/policy analysis to economic development groups. The center is funded by a grant from the U.S. Economic Development Administration and matching funding from St. Cloud State University and College of Social Science.

Multicultural Student Services Administrative Offices

Multicultural Student Services

Dedicated to preparing students for leadership and academic excellence.
137 Atwood Center/255-3003

The Department of Multicultural Student Services provides for the particular needs of all minority students at St. Cloud State University. The office provides comprehensive services by giving academic assistance, encouraging personal development and offering multicultural programming.

Multicultural Academic Support Center

Academic services for students
B-121 Education Building/255-3976

The Multicultural Academic Support Center provides direct academic services to students. The center helps students build the skills needed to successfully complete college. Services available at the Center are tutoring for individuals and small groups; academic advising and counseling; assistance with class scheduling; listings of jobs, internships and scholarships; monitoring academic progress; a computer lab with IBM and Macintosh; and a quiet study area.

Athletes for Success in the Classroom

Academic support for student athletes
DR. RICHARD R. GREEN HOUSE
809 Fourth Avenue South/654-5392

The Athletes for Success in the Classroom program, working in partnership with the athletic department, provides academic support and a positive learning environment for student athletes at SCSU. Services provided by Athletes for Success in the Classroom include help with time management and study skills; tutoring, on-site and campus-wide; daily study table; academic counseling and advising; assistance with course scheduling; and monitoring of academic progress.

Multicultural Activities Center

Event and cultural program planning
A137 Atwood Memorial Center/255-3003

The Multicultural Activities Center, in conjunction with minority student organizations, plans a variety of social and co-curricular programs, such as Rec Nights, Hmong Night, the annual Martin Luther King, Jr. Birthday celebration, Black History Month, Chicana/o-Latina/o History Month activities and other multicultural programming with the specific interests of minority students in mind.

Printing Services

BASEMENT, BROWN HALL/255-2105

Printing Services serves as the central duplicating, photocopying and printing facility for the university.

Public Safety Department

525 FOURTH AVENUE SOUTH/255-3433

On duty 24-hours a day, the Public Safety Department is present as a support unit to the broader mission of the University. Its primary function is to constantly strive to provide the safest and most stable environment possible in which education may be pursued without the fear or presence of crime or violence. Public Safety enforces University conduct, supports personal and property safety through crime prevention (i.e., escort services, blue-light emergency phones), and security-awareness programs and coordinates these efforts with other University departments and local law enforcement and service organizations. The Public Safety Department handles the purchasing of parking permits and enforces parking regulations and related matters.

Records and Registration

118 ADMINISTRATIVE SERVICES/255-2111

This office is responsible for admission of undergraduate and special (non-degree) students, registration for courses, reporting grades at the end of each semester, undergraduate graduation evaluations, issuing of diplomas, teacher licensure and maintaining the permanent academic records. A copy of the academic record (transcript) may be obtained by writing the Office of Records and Registration. The complete name, social security number, last year of attendance and signature should be provided when requesting a transcript. There is a charge for each transcript.

Residential Life

CAROL HALL/255-2166

Living Accommodations

Graduate students may contact Residential Life, Carol Hall, St. Cloud State University, 720 South Fourth Avenue, St. Cloud, MN 56301-4498 to make application for on-campus housing. A contract and information regarding housing will be sent. Please complete and submit this material to Residential Life.

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

Residence Hall Facilities

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, 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.

Rates and Agreements

Room and board fees in residence halls range from \$1,094 - \$1,711 per semester for a double room depending on the meal plan selected. Charges for room and board are payable in advance by the semester. 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 semesters and during university holidays as listed in the *Graduate Bulletin* and *Undergraduate Bulletin*. A \$100 administrative fee will be forfeited unless the student notifies Residential Life 60 days before fall semester or 45 days before the beginning of spring semester of his/her intent to leave the campus. Room and board charges are subject to change by the action of the Minnesota State Colleges and Universities board. No discount is made for absences.

Social Science Research Institute

328 STEWART HALL/255-4934

The Social Science Research Institute provides assistance to faculty in applied research and funded research efforts. The institute serves as liaison with the Office of Sponsored Programs and maintains information regarding research opportunities in Minnesota and regionally.

Speech-Language and Hearing Center

EDUCATION BUILDING/255-2092

The Speech-Language and Hearing Clinic provides diagnosis and treatment for persons with communication disorders in the areas of articulation, voice, language, stuttering and hearing. All services, offered on an individual basis, are provided by practicum students under the direct supervision of certified faculty. Services are provided to SCSU students, faculty and staff and to area residents at a nominal fee.

Sports Facilities and Campus Recreation

HALENBECK HALL SOUTH/255-3325

The sport facilities and campus recreation office organizes and conducts a comprehensive program for all students. Programs include a wide variety of intramural events, special events, sport clubs, informal/open recreation, outdoor trips and clinics, leadership challenge course, and other recreational services. Four facilities house the program: Eastman Hall includes a swimming pool, two activity gyms, the Eastman Fitness Center, equipment checkout and saunas. Halenbeck Hall includes a complete natatorium with diving well, weight room, spectator gymnasium, activity balconies, locker rooms and saunas. Halenbeck Hall South includes a 200-meter, six-lane tartan track, six racquetball courts, recreation equipment check-out, exercise physiology complex, outings center, and multipurpose activity center with the capacity for six tennis courts, six volleyball courts or four basketball courts, wrestling room, equipment resource center, and the sport facility and campus recreation office.

The National Hockey Center has two Olympic-sized sheets of ice including a spectator rink and a practice rink. These facilities are available for student use by presentation of a current validated St. Cloud State University photo ID card.

St. Cloud State University will not assume liability for injuries or damage which may be sustained by an individual or her/his personal equipment while participating in any or all phases of the intramural program.

Student Disability Services

B-111 ATWOOD CENTER/255-4080

Student Disability Services provides academic support services to students with physical and learning disabilities. Services include: priority registration, interpreters, note taking, alternative testing and referral/assistance and advocacy.

Verification of a disability is required. Contact Maribeth Overland at 255-3117 or Student Disability Services at 255-4080 (TDD available).

Student Life and Development Office

106 ATWOOD CENTER/255-3111

A student's achievements at St. Cloud State University are measured by more than intellectual or academic growth. The student life component of one's experiences while at SCSU also result in personal growth such as in areas of leadership skills, interpersonal skills, personal fitness and nutrition, and work experience/performance skills.

The Student Life and Development office provides functional supervision of the following areas and programs: American Indian Center, Atwood Memorial Center, Campus Recreation, Counseling Center which includes the Academic Learning Center and Student Health Services, Lindgren Child Care Center, Multicultural Student Services, Residential Life, Student Disability Services, University Organizations, University Programming, Volunteer Link and the Women's Center. The Judicial Affairs office is also housed in our office. Staff are available to consult with students about their special problems and concerns, and to serve as liaisons with faculty, administrators, and other student life offices.

The SLD office also serves as the University information clearing house for all policy and administrative procedures that affect student life, is responsible for the Code of Conduct and coordinates the administration of College Level Examination Program (CLEP) and the Miller Analogy Test. The office also serves as the contact for student grievances and as a consultant to faculty and staff on student related problems and concerns.

Campus Card. A campus card office is located in Atwood Center next to the TCF Bank. (This replaces the Student Identification Card.) The first campus card is free for administrators, faculty, staff, and enrolled students.

Student Organizations Office Complex

ATWOOD CENTER

University Organizations. SCSU recognizes over 230 student clubs and organizations designed to help students develop organizational and leadership skills. Many clubs and organizations are related to academic majors and interests. University Organizations also provides a series of leadership seminars. Involvement in co-curricular activities can be monitored and recorded through an activities transcript.

Director: Rhoda Schrader, Atwood 117E

(320)255-3004

email: rschrader@StCloudState.edu

Multicultural Student Services. Provides academic assistance, specialized counseling, social and cultural programming, and supports the needs of the minority student population at St. Cloud State University. The office acts as a liaison and advocate for minority student interests both on and off campus.

University Program Board (UPB). Serves as the major student programming agency on campus. The staff works closely with this group to provide students with the best variety of extra-and co-curricular activities. The board has nine committees (concerts, speakers, performing arts, special events, Mississippi Music Fest, visual arts, literary arts, spotlight, and films) which students are invited to join. A brochure and

committee sign-ups are available in the office, 118 Atwood Memorial Center.

University Communications

207 ADMINISTRATIVE SERVICES/255-3151

This office is responsible for all university marketing, communications, public relations, photography and graphic design. The personnel assist all departments with their communications needs including words, pictures and strategy. Specifically, the department publishes the university house organ *U News*, the alumni publication *Outlook*, course bulletins, department brochures and numerous special design projects including posters, flyers, ads, and event invitations and programs. The staff develops radio commercials and buys media space/time. The communications staff works with the news media to identify newsworthy events and feature story ideas.

University Organizations

117E ATWOOD CENTER/255-3004

The Office of University Organizations oversees officially recognized student organizations, maintains a record of club membership, keeps a current file of contacts and advisers for all recognized clubs and organizations, generates information for inclusion in the Student Handbook and University Directory, provides resource materials and services, oversees Student Government, the Student Representative Assembly, Student Book Exchange and Greek governing boards, organizes leadership development for students and advisers and assists clubs and organizations in developing and promoting their programs and activities.

Special programs administered by the University Organizations Office include the Excellence in Leadership Program, SCSU Kick-off Program, MAINSTREET, SIDESTREET, Fireside Chats and a car pool matching service for commuting students.

The Co-curricular Transcript, a university-verified record of student involvement in co-curricular activities and community service, is created and maintained by this office.

Volunteer Link Program

Makes connections between community service agencies and students who wish to volunteer and participate in service learning opportunities in the local community. Special programs offered include Opportunities Fair, Day of Caring, and service trips. For more information, call 255-3117.

University Women's Center

COLBERT HOUSE NORTH/255-4958

The Women's Center opened in October 1989 to address safety issues and equal educational opportunities for women on campus. Services include information and referral on important community services and issues affecting women: advocacy and support to victims of sexual assault, discrimination and sexual harassment, and cutting-edge educational programs on issues impacting women's lives. In addition, the center houses a small, specialized resource library of books and other materials by and about women. The Women's Center has space for meetings, study, programs and discussions.

The Women's Center also administers special programs to empower women and address issues affecting the status of women at SCSU, including: 1) scholarships for non-traditional female students; 2) the Women's Cultural Diversity Planning Committee, a group of faculty, staff and students committed to dialogue and alliance building between white women and women of color; and 3) women's empowerment and assertiveness training.

Sexual Violence Prevention Program

Colbert House North/255-3995

The Women's Center is the designated unit to collect and analyze reports of campus-related sexual assault. In addition, the Women's Center operates the Sexual Violence Prevention Program, a comprehensive program that includes offering mandatory training for incoming students on the prevention of sexual assault, providing victim services, and monitoring policies and procedures related to campus sexual assault.

Write Place

118 Riverview/255-2031

The Write Place offers free, individualized help to undergraduate and graduate student writers - the kind of help that often cannot be found in classrooms, textbooks, or occasional conferences with teachers.

Writers at any stage in the writing process can work one-on-one with trained tutors during appointments. Tutors help students to identify writing strengths and potential problems, teach students strategies for revising and editing their writing, and provide information about writing conventions. Tutors also assist students in developing and organizing their ideas, in clarifying their communications, and in adapting their texts for specific readers and purposes.

Students working on assignments for classes (papers, research projects), on special projects (portfolios, senior or graduate theses), or on employment correspondence (resumes, application letters) are encouraged to bring in drafts in progress to appointments. For more information or an appointment, call (320)255-2031. For online information about writing, consult LEO, the Write Place's website: <http://leo.StCloudState.edu>.



Buildings & Properties

Building Key

The following abbreviations are used throughout the St. Cloud State University campus.

AS	Administrative Services Building
AFC	Alumni and Foundation Center
AMC	Atwood Memorial Center
AIC	American Indian Center
BTH	Benton Hall (women's and men's residence)
BKS	Bookstore - 2nd Avenue South and 8th Street
BH	Brown Hall (offices and classrooms)
BB	Business Building
CIS	Center for International Studies
CCS	Center for Continuing Studies
CRH	Carol Hall (administrative offices)
CSH	Case Hall (men's residence)
CH	Centennial Hall (learning resources and center for information media)
CN	Colbert House North
CS	Colbert House South
ECC	Engineering and Computing Center
EH	Eastman Hall
EB	Education Building
GC	Garvey Commons (food service)
HAH	Halenbeck Hall (health, physical education and sport science)
HAHS	Halenbeck Hall South (physical education)
HH	Headley Hall (environmental education and aviation)
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)
MB	Maintenance Building
MS	Mathematics and Science Center
MH	Mitchell Hall (women's residence)
NOC	North Office Center
NHC	National Hockey Center
PAC	Performing Arts Center (music, theatre and dance)
PS	Public Safety
R	Riverview Building (English)
RGH	Richard Green House
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 (offices and classrooms)
WH	Whitney House (department and faculty offices)

Service Buildings

Administrative Services Building (1975). Offices for the President, Administrative Affairs, Academic Affairs, and University Communications are housed in this building, located at the west entrance to the campus.

Alumni and Foundation Center (1973). Formerly a private residence acquired by the university in 1973, these facilities are used to provide services to alumni and as offices for Alumni and Foundation.

American Indian Center (1993). This facility, formerly a private residence, serves as the cultural and academic support center for Native American students and faculty.

Atwood Memorial Center (1966, 1972, and 1992). This building houses dining and recreation facilities and meeting rooms for students and faculty and was named for the Clarence L. Atwood family.

Carol Hall (1946). Originally a private home, then a women's residence hall, this building now contains the student housing office. It was named for Carol Selke, wife of President George A. Selke.

Centennial Hall (1971). The Learning Resources Center, which includes all materials and services usually found in the library and audiovisual services, is located in this building. It also contains a remote access information system, classrooms and laboratories for the Center for Information Media, and Administrative Computer Services. Ground was broken during the university's centennial year, 1969.

Center for Continuing Studies (1991). Originally a private home, now houses the Center for Continuing Studies office.

Center for International Studies (1992). Formerly a private residence, this facility works with recruiting students from 50 countries and offers programs for international study in six countries.

Colbert North (1986). This facility, formerly a private residence, houses the Women's Center. The center was named after the previous owner.

Colbert South (1986). A former residence now used for faculty offices for the Foreign Languages department. This building was named after the previous owner.

Garvey Commons (1962, 1965, 1987). This building consists of four dining rooms with cafeteria service seating 1300 at one time. It was named for Beth Porter Garvey, first Dean of Women.

Lawrence Hall (1905). This faculty office building is the oldest structure on campus: named for Isabel Lawrence, president, 1915-1916.

Maintenance Building I (1964). Attached to the heating plant and Maintenance Building II (1980), which contains the maintenance office. These buildings provide shops, warehouse and vehicle storage for the campus.

North Office Center (1995). This former private residence houses Buildings and Grounds Management offices and the Small Business Development Center.

Public Safety (1990). This facility, formerly a private residence, serves as the primary administrative office for University Public Safety.

Richard Green House (1994). This facility, formerly a private residence, houses the Minority Academic Support Center.

Whitney House (1956). A former residence now houses the College of Social Sciences and the Department of Psychology. This building was a gift to the university from the heirs of A.G. Whitney.

The date after each building indicates the year the building was completed or acquired.

Classroom Buildings

Brown Hall (1959). Classrooms and faculty offices. Named for Joseph C. Brown, president, 1916-1927.

Business Building (1968 and 1994). College of Business classrooms and offices, and the Center for Business Research.

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 applied psychology, communication disorders, guidance and counseling, and student teaching are located in this building.

Engineering and Computing Center (1958, 1962, and 1986). Classrooms, laboratories, and faculty offices for engineering program and facilities for academic computing, engineering, mathematics, and statistics.

Halenbeck Hall (1965 and 1980). Health, physical education and recreation building with a main gym seating 7,500, a swimming pool, diving pool, two small gyms, 200 meter track, racquetball courts, wrestling room, weight room and dance studio. Named for Dr. Philip L. Halenbeck, a St. Cloud physician.

Headly Hall (1962). College of Science and Engineering building with shops, laboratories, classrooms and offices plus a lecture auditorium seating 150. Named for John W. Headly, president, 1947-1951.

Kiehle Visual Arts Center (1952-1974). Art department studios and classrooms. Named for David L. Kiehle, president, 1875-1881.

Mathematics and Science Center (1973 and 1992). This four-story structure includes, in addition to classrooms and laboratories, a planetarium, museum, green house, observatory, aquarium, meteorology laboratory and high energy linear accelerator for nuclear research. It is connected to Brown Hall by a skyway.

Performing Arts Center (1968). Music and theatre classrooms and offices, with a main theatre seating 450, a studio theatre seating 100, recital hall seating 300, rehearsal hall, and private practice studios.

Riverview Building (1911). English department classrooms and offices and foreign language laboratories.

Stewart Hall and Ritsche Auditorium (1948, 1988-1990).

Classrooms, offices, student media, TV studio, radio station, and auditorium seating 1,000. Named for Warren H. Stewart, State University Board member, 1938-1948.

Residence Halls

Benton Hall (1967-1968). Apartment-type residence for 288 men and women. Named for Benton County.

Case Hall (1964). Residence hall for 190 men. Named for Marie E. Case, former faculty member.

Hill Hall (1962). Residence hall for 150 women and Health Services Facility. 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). Residence hall for 418 women. 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). Residence hall 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 adjacent to 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 the campus contains granite quarry ponds and extensive pine plantings used for nature study. 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 160 acres of state land placed in the custody of the university in 1970.

Sand Prairie Wildlife Management Area. Sixty acres adjoining Highway 10 east of Minnesota Correctional Facility, is managed by the Minnesota DNR in cooperation with the university.

Selke Field (1939, 1982). Varsity athletic field containing a softball diamond 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 the site of an active archeological dig of Early Native American Settlement.



All University Courses

Educational Tours

(Name of department or program) 510. Educational Tours.

Tours taken under supervision of the university. Exact nature of course is defined by the department or program involved, subject to approval of the administration. 1-6 credits.

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.

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). May be repeated to a max. of 6 credits. 1-3 credits.

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 approved by the adviser to the graduate dean prior to registering for the course if the course has not been approved on the proposed program of study. An arranged/independent study course form approved by the instructor, the department chairperson, and the graduate dean is needed to register for the course. The student also 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 six 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.

Independent Study

600. Special Problems. Independent Study for advanced students wishing to work out a special problem in the major area of concentration. 1 - 3 credits.

Workshops

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.

G.R. Herberger College of Business

124 BUSINESS BUILDING/255-3212

Dean: Ruth Meyer

Associate Dean: Michael Pesch

The College of Business is accredited by AACSB-The International Association for Management Education.

Objectives

Master of Business Administration (MBA)

The Master of Business Administration (MBA) degree program offered by the College of Business is designed to prepare the student for a professional career in business administration.

- A. A comprehension of business policy formulation and implementation.
- B. An awareness of the influences of political, social, legal and regulatory, environmental, and technological issues in business.
- 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.
- F. An awareness of ethical, global, and cultural issues.

For a program description of the MBA degree see Master of Business Administration in this bulletin.



College of Education

A110 EDUCATION BUILDING/255-3023

Dean: Joane W. McKay

Associate Dean: Kate M. Steffens

Mission and Goals

The College of Education mission statement and goals provide overall guidance for program development and improvement. The mission of the College is as follows:

The College of Education prepares transformative professional educators; educators who are prepared to facilitate the transformation of learners into life-long learners, critical and creative thinkers, and effective citizens in a democratic society.

The goals of the college are to:

1. Facilitate in each student the development of perspectives, attitudes, learning strategies, sense of self-worth and productive habits of mind essential to higher order thinking, critical thinking and creative problem solving.
2. Facilitate in each student acquisition of the values, dispositions, and abilities necessary for the lifelong assimilation, integration, transformation and application of knowledge to life's opportunities and challenges, and to evolution of our free democratic society.
3. Prepare students within their respective disciplines and majors to become transformative professionals, able to continually transform themselves through knowledge, and able to facilitate attainment of goals 1 and 2 above in other learners.

College of Education Conceptual Framework

The College of Education, with a rich heritage of educator preparation, is committed to the preparation of high quality teachers, administrators, education scholars, and other school, community and business sector professionals.

To ensure continual emphasis on quality, the College of Education has adopted a conceptual framework for the preparation of educators, and this framework, Educator as Transformative Professional, guides all educator preparation programs within the college. Students seeking professional careers in education will be prepared to become transformative professional educators and will become performance capable in their specific discipline and in a number of other outcome areas. These outcome areas relate to the roles transformative educators will be expected to play in a continually changing educational environment and include possessing capabilities in content transformation, inclusive education, humanistic education, cultural transmissions and transformation, research, problem solving/decision making, reflective practice, taking of multiple perspectives, facilitating growth in the learner's knowledge base, and collaboration with others.

As students are prepared to become transformative professional educators, they will participate in designing their learning opportunities, will take responsibility for their own learning, and will continually work with faculty and peers to assess their progress toward becoming transformative educators. Assessment of progress and student learning needs will take place throughout the student's program, and will consist of both traditional and non-traditional forms of assessment, with ongoing self-assessment as a cornerstone of the process.

The preparation of transformative professionals for education careers is supported by an array of college programs and services designed to meet the needs of a continually expanding range of interests and needs among members of the communities served by the College of Education. College programs and activities are broad in scope, are interdisciplinary, are open to change, and are supported by a comprehensive knowledge base and conceptual framework. The broadened character and mission of the College are reflected in its programs with emphases in a wide array of human resources development and academic areas as indicated in the graduate degree programs listed below.

Departments and Centers Offering Graduate Degree Programs

- ▲ Applied Psychology
 - Behavior Analysis, M.S.
 - Mental Health Counseling, M.S.
 - Rehabilitation Counseling, M.S.
 - School Counseling, M.S.
- ▲ Child and Family Studies
 - Child and Family Studies: Administration, M.S.
 - Child and Family Studies: Early Childhood Special Education, M.S.
 - Child and Family Studies: Early Education, M.S.
 - Child and Family Studies: Family Studies, M.S.
- ▲ Educational Administration and Leadership
 - Community Education, M.S.
 - Educational Administration, M.S., Specialist.
- ▲ Human Relations and Multicultural Education
 - Social Responsibility, M.S.
- ▲ Center for Information Media
 - Educational Media, M.S.
 - Human Resources Development/Training, M.S.
 - Information Technologies, M.S.
 - Instructional Technology Certificate
- ▲ Health, Physical Education, Recreation and Sport Science
 - Exercise Science, M.S.
 - Physical Education, M.S.
 - Sports Management, M.S.
- ▲ Special Education
 - Special Education, M.S.
 - Special Education Administration, Specialist
- ▲ Teacher Development
 - Curriculum and Instruction, M.S.



College of Fine Arts & Humanities

111 KIEHLE VISUAL ARTS CENTER/255-3093

Dean: Roland Specht

Associate Dean: Sharon Cogdill

Objectives

Graduate programs in the College of Fine Arts and Humanities serve various persons and needs: those preparing for professional careers in one of the arts; certified elementary, secondary, vocational or junior college teachers; graduate students preparing for a career in research and teaching on the university level; and college and university graduates who wish to continue their personal or professional development.

Departments Offering Graduate Degree Programs

- ▲ Art, M.A.
- ▲ Communication Disorders, M.S.
- ▲ English, M.A. and M.S.
 - College Teaching, M.A.
 - Rhetoric and Applied Writing, M.A.
 - Teaching English as a Second Language, M.A.
- ▲ Mass Communications, M.S.
- ▲ Music
 - Conducting, M.M.
 - Music Education, M.M.
 - Piano Pedagogy, M.M.

Departments Offering Supporting Graduate Courses

- ▲ Foreign Languages and Literature
- ▲ Philosophy
- ▲ Speech Communication
- ▲ Theatre, Film Studies and Dance



College of Science & Engineering

145 MATHEMATICS AND SCIENCE CENTER/255-2192

Fax: (320) 255-4262

E-mail: COSE@StCloudState.edu

Dean: A.I. Musah

Associate Dean: Dale A. Williams

Objectives

Through its 11 departments, the College of Science and Engineering provides education in a variety of professional skills at the graduate levels.

The College of Science and Engineering is committed to providing a stimulating, effective learning environment for all those students it serves, including general education, pre-professional students, and those enrolled in undergraduate and graduate programs. Programs within the College shall effectively prepare students for productive careers and for continued study at the graduate level. Departments will develop curricula which conform to or exceed accepted professional standards and obtain and maintain accreditation where available. Departments will emphasize the inter-relatedness of disciplines and seek to create within the student an appreciation of the global and diverse nature of contributions to science and engineering and an understanding of the unifying effect of the human intellect.

Departments will continue to improve the learning process through the use and assessment of a combination of formal and experiential modes of instruction, utilizing laboratory and field work, undergraduate and graduate research, and internships.

Students will be expected to achieve an appropriate level of technical expertise in their field of studies and also to understand and appreciate the underlying issues of their field and the impact these issues have on human endeavors.

Active collaborations with industry and other institutions of higher learning will be sought toward the end of expanding and enriching the learning opportunities for our students.

To help achieve the above goals, the College shall foster an environment which encourages and supports faculty initiatives in improving teaching effectiveness, scholarly achievement, research, professional study, and contributions to students and to the community.

Departments Offering Supporting Graduate Courses

- ▲ Chemistry
- ▲ Earth Sciences
- ▲ Electrical Engineering
- ▲ Manufacturing Engineering
- ▲ Microcomputer Studies
- ▲ Physics, Astronomy and Engineering Science
- ▲ Statistics

Departments Offering Graduate Degree Programs

- ▲ Biology, M.A./M.S.
 - Cell, Molecular and Organismal Biology, M.A.
 - Ecology and Natural Resources Biology, M.A.
 - Biology (Teaching), M.S.
- ▲ Computer Sciences, M.S.
- ▲ Environmental and Technological Studies, M.S.
- ▲ Mathematics, M.S.



College of Social Sciences

101 WHITNEY HOUSE/255-4790

Dean: Richard Lewis

Associate Dean: Carolyn Williams

Objectives

The graduate programs and courses in the College of Social Sciences are designed to meet the needs of both full-time and part-time students, providing the skills and knowledge needed for professional advancement, further graduate study, or for enrichment of understanding. The focus of the college's programs is applied knowledge, preparing graduates to address the needs of the state, the region, and the nation.

Special resources and opportunities available to students in the College include: a diverse range of internship and practicum experiences, opportunities to participate in on-going research, state-of-the-art computer assisted telephone interviewing (CATI) and geographic information systems facilities. The following facilities provide support for graduate study: The Central Minnesota Historical Center, Minnesota Economic Development Center, the Social Science Research Institute, the Social Sciences Micro-computer Laboratory, the Center for Economic Education, the Spatial Analysis Research Center, the Archaeology Laboratory, and the Archaeological Computing Laboratory.

Departments and Centers Offering Graduate Degree Programs

- ▲ Community Studies
 - Gerontology, M.S.
 - Gerontology Certificate
- ▲ Criminal Justice, M.S.
- ▲ Economics
 - Applied Economics, M.S.
- ▲ Economics and Political Science
 - Public and Non-Profit Institutions, M.S.
- ▲ Geography, M.S.
 - Geographic Information Science, M.S.
 - Tourism Planning and Development, M.S.
 - Geographic Information Science Certificate
- ▲ History, M.A., M.S.
 - Public History, M.A.

Departments, Centers and Programs Offering Supporting Graduate Courses

- ▲ Community Studies
 - American Studies, Local and Urban Affairs
- ▲ Minority Studies
- ▲ Psychology
- ▲ Sociology/Anthropology
- ▲ Women's Studies

Accounting (ACCT)

210 BUSINESS BUILDING/255-3038

Chairperson: Kate Mooney

Graduate Faculty: Busta, R. Carlson, Gaumnitz, S. Johnson, Lere, Mooney, Schwieger, Smith, Strong, Sundby, Wells

Master of Science – Accounting

Admission is unavailable because the program is suspended pending the outcome of new legislation.

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.
5. Evidence of microcomputer facility with an electronic spread sheet and a word processor.

Information about the GMAT can be obtained at the Graduate Studies Office and the dean's office, College of Business.

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 Graduate Studies Office.

Applicants who have successfully met admission requirements may enroll in the Master of Science degree in Accounting program as full-time 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, 33 Cr.

- I. General: 18 Cr.
MBA 670 Corporate Strategies, 3 Cr.
Courses selected by the student and adviser (at least 6 Cr. at 600 level), 15 Cr.
- II. Prescribed: 15 Cr.
ACCT 680 Professional Research, 3 Cr.
12 Cr. from the following courses:
ACCT 682 Advanced Managerial Accounting, 3 Cr.
ACCT 688 Advanced Accounting Information Systems, 3 Cr.
ACCT 692 Advanced Financial Accounting Seminar, 3 Cr.
ACCT 693 Advanced Tax Seminar, 3 Cr.
ACCT 694 Advanced Auditing Seminar, 3 Cr.
- III. 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:

For complete course descriptions, see the Undergraduate Bulletin.

- ACCT 291. Accounting I. 3 Cr. F, S, SUM.
ACCT 292. Accounting II. 3 Cr. F, S, SUM.
BCIS 240. Business Statistics I. 3 Cr. F, S, SUM.
BCIS 241. Business Statistics II. 3 Cr. F, S, SUM.

- BCIS 340. Management Information Systems. 3 Cr. F, S, SUM.
ECON 205. Principles of Macroeconomics. 3 Cr. F, S, SUM.
ECON 206. Principles of Microeconomics. 3 Cr. F, S, SUM.
MKTG 235. The Legal, Ethical, and Global Environment of Business. 3 Cr. F, S, SUM.
MKTG 320. Introduction to Marketing. 3 Cr. F, S, SUM.
MGMT 301. Introduction to Professional Management. 3 Cr. F, S, SUM.
MGMT 383. Operations Management. 3 Cr. F, S, SUM.
FIRE 371. Managerial Finance. 3 Cr. F, S, SUM.
ACCT 380. Accounting Information Systems I. 3 Cr. F, S, SUM.
ACCT 381. Intermediate Accounting I. 3 Cr. F, S.
ACCT 382. Intermediate Accounting II. 4 Cr. F, S.
ACCT 390. Managerial Accounting. 3 Cr. F, S, SUM.
ACCT 482. Business Taxation. 3 Cr. F, S.
ACCT 486. Financial Auditing. 3 Cr. F, S.
ACCT 488. Accounting Information Systems II. 3 Cr. F, S.

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

COURSE DESCRIPTIONS

581. Advanced Accounting. Accounting for business combinations, consolidated financial statements, and partnerships. Prereq.: "C" or better in 382. 3 Cr. S.

582. Business Taxation. Federal income taxation of business organizations including corporations and partnerships. Property transactions and other business topics. Prereq.: 292. 3 Cr. F, S.

583. Personal Taxation. Federal income taxation of individuals including gifts, estates, and trusts. Prereq.: 292. 3 Cr. F.

584. Not-For-Profit and International Accounting. Fund accounting as applied to governmental entities. Accounting theory and practice, taxation, and special reporting problems of several major industrialized countries. Prereq.: "C" or better in 382. 3 Cr. F.

586. Financial Auditing. Nature of the audit function, nature of audit evidence, audit standards and procedures, professional ethics, and audit reports. Prereq.: "C" or better in 382. 3 Cr. F, S.

587. Operational Auditing. Nature of internal and operational auditing, performance of an operational audit. Prereq.: MGMT 301, 383, FIRE 371, MKTG 320 or permission of instructor. 3 Cr. S.

588. Accounting Information System II. Accounting information and control systems that increase the operational efficiency and reliability of financial information. Prereq.: 380; BCIS 340. 3 Cr. F, S.

590. Current Topics in Cost/Managerial Accounting. Current trends and issues of managerial accounting; the design, development, and use of cost/managerial accounting systems on planning, performance evaluation, and control. Prereq.: 390. 3 Cr. S.

593. International Accounting. Accounting theory and practice, taxation, and special reporting problems of several major industrial countries. Multinational corporate accounting problems. 3 Cr. S.

598. Business Consulting. Teams of students work as consultants to area businesses and nonprofit organizations to diagnose and solve actual business problems. Written and oral report. Prereq.: 292, BCIS 240, 241, FIRE 371, MGMT 301, MKTG 320. Permission of department. 3 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

Note: Students registering in 600-level accounting classes must either be admitted to the M.S. in Accounting program or have permission of the department.

605. Business Seminar-Accounting. Selected topics related to accounting theory and practice. Consent of department chairperson. 3 Cr. DEMAND.

680. Professional Research. A research seminar for graduate students. 1-3 Cr. F

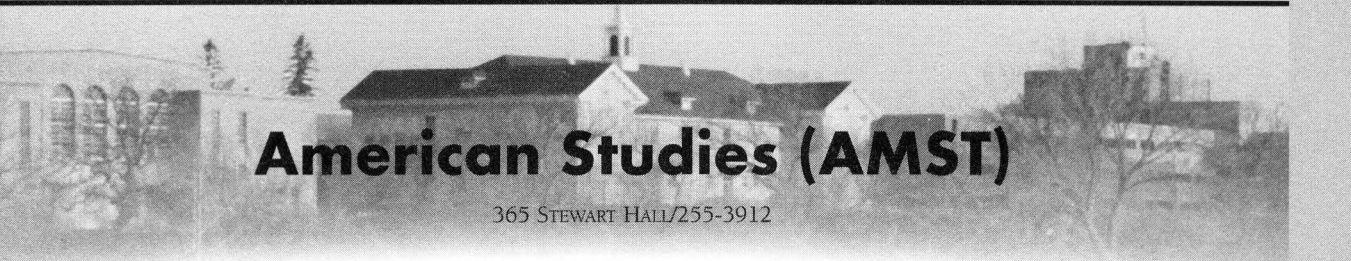
682. Advanced Managerial Accounting. Managerial accounting applications and cost accounting concepts with emphasis on achieving goals of the firm. 3 Cr. F

688. Advanced Accounting Information Systems. This course explores applications of advanced information technology to accounting information systems and controls, and introduces fundamentals of systems research methodology and advanced systems development environments. 3 Cr. S.

692. Advanced Financial Accounting Seminar. Advanced study of institutions which currently impact on the development of financial accounting and reporting standards. 3 Cr. F

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. 3 Cr. S.

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. 3 Cr. S.



American Studies (AMST)

365 STEWART HALL/255-3912

Director: William T. Morgan

Graduate Faculty: Mehrhoff, Mittlefehldt, Morgan, E. Simpson, L. Tripp

COURSE DESCRIPTIONS

550. Urban Heritage. Study of the built environment of selected American cities, including St. Cloud and St. Paul, from historical and aesthetic perspectives with special emphasis upon preservation. AMST 570 strongly recommended. 3 Cr. S.

570. American Architecture. Traces the development of American architecture from colonial times to the present by analyzing techniques, style, aesthetics, and relation of buildings to American culture. Required in the public history track. 3 Cr. F

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. 3 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

630. Topics in Social Responsibility. Selected topics and issues in the study and practice of social responsibility. Specific titles to be listed in class schedule. May be repeated under different topics to a max. of 6 credits. 1-3 Cr. DEMAND.

681. Social Responsibility: Historical and Cultural Foundations. Interdisciplinary exploration of the historical, philosophical, and cultural implications of the concept of social responsibility. Analysis of the implications social responsibility has in terms of race and gender; economics and labor; environmental issues; violence and peace; global perspectives. 3 Cr. F

699. Thesis. 1-6 Cr. DEMAND.

Applied Psychology (APSY)

A253 EDUCATION BUILDING/255-3131

Chairperson: Jana Preble

Coordinator-Behavior analysis: Gloria Gasparotto

Coordinator-Counseling psychology: David Lesar

Coordinator-Rehabilitation counseling: John Hotz

Coordinator-School counseling: Terry Peterson

Coordinator-Chemical Dependency Certificate Program:
Barbara Vesely

Graduate faculty: Daneshpour, Gasparotto, Hoover, Hotz, Jensen, Lesar, Marcattilio, Mason, McGrew, Merchant, Mills-Novoa, Murphy, Nunes, Peterson, Petrangelo, Preble, Renn, Rudrud, Schulze, Vesely

Master of Science – Applied Psychology: Behavior Analysis

This program is designed for those students who desire advanced academic and professional training in behavior analysis. Students may specialize by taking electives in areas such as: developmental disabilities, behavior therapy, organizational behavior management, chemical dependency, behavioral medicine, or the experimental analysis of behavior. Students are thus prepared for employment in a variety of agencies, private practice and consulting or doctoral training. This program is designed for both full- and part-time students, although most courses are offered only during the day. Also, all students must complete a 600 clock-hour internship.

For current information regarding the Minnesota Board of Psychology requirements for licensure as a psychological practitioner, contact the behavior analysis coordinator. Please see the department for the most up-to-date program requirements.

Program Inquiries

For program information, write Coordinator, Behavior Analysis Program, Department of Applied Psychology, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498. Telephone: (320) 255-3131.

Application Deadlines

Entry to this program is limited to fall semester. The decision dates regarding acceptance are April 1 and June 1. Applications should be submitted by one of these dates. Completed applications consist of the application form for admission to graduate studies, the application form for admission to the behavior analysis program, three completed recommendation forms, scores on the general aptitude area of the Graduate Record Examination (GRE), and official transcripts of all undergraduate and graduate work. It is recommended that applications for department graduate assistantships meet the April 1 deadline. In addition, all applicants for department assistantships are required to contact the Office of Scholarships and Financial Aid to apply for a federal work-study assistantship (contact the office for details and deadlines).

Specific program requirements and course sequences are provided in the *Graduate Student Handbook* which is available from the Applied Psychology Department.

Master of Science – Applied Psychology: Behavior Analysis

Plan A, 53 Cr.; Plan B, 50 Cr.

I. Research: Min., Plan A, 17 Cr., Plan B, 11 Cr.

APSY 535. Experimental Analysis of Behavior, 2 Cr.

APSY 641. Single Case Design, 3 Cr.

APSY 675. Research Methods, 3 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr.

APSY 699. Thesis (Plan A only), 6 Cr.

II. Major: Min., Plan A or B, 30 Cr.

APSY 619. Professional Orientation and Ethics in APSY, 3 Cr.

APSY 658. Multicultural Counseling, 3 Cr.

APSY 665. Measurement Techniques, 3 Cr.

APSY 684. Psychopharmacology, 3 Cr.

APSY 633. Behavior Therapy, 3 Cr.

APSY 634. Behavioral Assessment, 3 Cr.

PSY 640. Advanced Developmental Psychology, 3 Cr.

APSY 643. Social Bases of Behavior, 3 Cr.

APSY 659. Psychodiagnosis and Treatment Planning, 3 Cr.

APSY 663. Applied Theories of Learning, 3 Cr.

III. Internship: Min., 6 Cr.

APSY 697. Supervised Internship in Behavior Analysis, 6 Cr.

IV. Electives: Min., 3 Cr.

(Plan B only: electives are to be approved by adviser), 3 Cr.

Master of Science – Counseling Psychology

The program in counseling is designed to permit the student to select from among three emphases: community, rehabilitation, and school counseling. It also is possible to receive a certificate for chemical dependency counseling at the graduate level.

Program Requirements

For updated program information, write Coordinator, Counseling Psychology, Education Building A-253, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498. Telephone (320) 255-3131.

Application Deadlines

Completed applications for admission to graduate studies must be completed by:

April 1 for spring interview

June 15 for summer interview

(Summer interviews will be held only if there are program vacancies still available. Applicants are encouraged to complete materials for spring interviews.)

NOTE:

1. Full-time entry to the program is limited to the fall semester only.

2. It is the sole responsibility of the applicant to ensure that all materials, including all letters of recommendation required by the graduate studies office are received on time. Applicants with incomplete materials will not be interviewed or admitted to the program.

3. Students may complete six semester credits in the program prior to admission. Any credits taken beyond these six credits before admission to graduate studies will not be counted toward a counseling degree. Transfer credits from other institutions are not affected by this program.

Admission to Graduate Programs in Counseling Psychology

To be considered for admission, the applicant must complete the admission procedures as outlined under "Admission To Graduate Study." In addition, the student must complete the following department requirements: (Contact the applied psychology department secretary for procedure.)

1. Complete a personal data form obtained from the Department of Applied Psychology.
2. 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. For the specific interview dates and an appointment, contact the applied psychology department secretary. If attendance at an interview is totally impractical, the program coordinator may designate an alternate method.

Other Program Requirements

Part-time students

Following admission to graduate studies, all part-time students must complete a minimum of 12 graduate semester credits per year of course work, approved by their adviser, in order to maintain candidacy in the counseling program. Students must complete the prepracticum core courses early in the program of studies.

It is department policy to assist part-time students to complete a counseling program while continuing concurrent employment. Some daytime hours on campus are required for practicum and internship.

Required Orientation Program

All new students (both part-time and full-time) must attend the fall orientation meeting held in late September or early October. (See the Applied Psychology Department secretary for details.)

Financial Aid

Limited aid may be available through the department in the form of graduate assistantships.

Graduate assistantships require full-time student status and include some work responsibilities for a stipend and partial tuition waiver. An application must be submitted to the coordinator of the counseling psychology program. It is recommended that applicants for department graduate assistantships meet the April 1 deadline. In addition, all applicants for department assistantships are required to contact the Office of Financial Aid to apply for a federal work-study assistantship (contact that office for deadline.)

Advisement

Each new student will be assigned an adviser shortly after the interview process. The student should make contact with the 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 summer session. In these cases, any counseling psychology adviser can assist you.

Double Emphasis

A student may wish to complete a double emphasis to facilitate greater employability. The "second emphasis" must be completed with a minimum of 10 semester new credits which are not included in the first emphasis program.

The Pre-practicum Core Courses

All counseling emphases include a common core of course work prerequisite to the supervised counseling practicum experience.

APSY 619 Professional Orientation and Ethics in APSY, 3 Cr.

APSY 651 Counseling Theories, 3 Cr.

APSY 665 Measurement Techniques, 3 Cr.

APSY 667 Career Development, 3 Cr.

APSY 668 Counseling Procedures, 3 Cr.

Core courses which must be taken with practicum or prior to it are APSY 667, Career Development and APSY 658, Multicultural Counseling.

Supervised Counseling Practicum

This experience follows the pre-practicum core courses and provides for the application of theories and techniques to counseling experience. Each part-time student must apply in writing to the coordinator of counseling psychology for placement in a counseling practicum at least nine months before beginning the practicum. Late applications 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 counseling psychology faculty. Advancement to degree candidacy requires that the candidate must have:

- a. Completed between 12 and 24 semester credits of graduate study at St. Cloud State University with a minimum grade point average of 3.0;
- b. Submitted to the coordinator of counseling programs a current transcript and a completed form signed by the student and the adviser;
- c. Clearly demonstrated the aptitude and ability to pursue graduate work, exhibited a commitment to counseling as a profession; and
- d. 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 faculty only after careful evaluation of all pertinent factors.

Supervised Counseling Internship

This experience follows the counseling practicum and is a final capstone experience which will provide counseling experience in a work setting. Community, rehabilitation, and school counseling students must complete a 600-hour internship. The candidate must apply in writing to the internship coordinator by completing an internship placement request form before February 15 for all placements during the following academic year. This means a minimum of seven months before beginning internship. (See the Applied Psychology Department secretary for details.)

Final Comprehensive Evaluation (Plans A and B)

All students are required to complete a final written comprehensive examination.

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 semester of study.

Deadline for application to take the comprehensive examination for each semester is the second Friday of that semester (sign up with department secretary.) Examinations are given on the nearest Friday to midpoint of the semester. (The midpoint is indicated in the University Calendar as the date the second half of the semester begins.) Confirm examination date with department secretary.

The Curriculum

The following programs reflect the curriculum available at the time the bulletin was printed but does not necessarily represent the requirements at the time an applicant applies for a program. It should be noted that some additions, deletions, or changes may have been approved through the curriculum process after the printing of this bulletin, and it is the responsibility of the applicants to check on changes which might affect their program.

Counseling Psychology: Community Counseling

The purpose of this program is to educate individuals to work in a human service agency as a mental health counselor and/or consultant.

As courses currently are scheduled, this program may be completed in five semesters of full-time study by starting classes during fall semester.

Course work includes both day and evening classes. The number of credits outlined below represents minimum requirements. The counseling psychology faculty may require additional credits to overcome individual deficits. For current information regarding the Minnesota Board of Psychology requirements for licensure as a psychological practitioner, contact the counseling program coordinator.

Plan A 52 Cr., Plan B 52 Cr.

I. Research: Min., Plan A, 12 Cr., Plan B, 6 Cr.

Plan A Prescribed:

- APSY 675. Research Methods in APSY, 3 Cr.
- APSY 678. Introduction to Graduate Statistics, 3 Cr.
- APSY 699. Thesis, 6 Cr.

Plan B Prescribed:

- APSY 678. Introduction to Graduate Statistics, 3 Cr.
- APSY 675. Research Methods in APSY, 3 Cr.

II. Major: Min., Plan A or B, 40 Cr.

- APSY 619. Professional Orientation and Ethics, 3 Cr.
- APSY 651. Counseling Theories, 3 Cr.
- APSY 658. Multicultural Counseling, 3 Cr.
- APSY 665. Measurement Techniques, 3 Cr.
- APSY 666. Group Process and Dynamics, 3 Cr.
- APSY 667. Career Development, 3 Cr.
- APSY 668. Counseling Procedures, 3 Cr.
- APSY 669. Counseling Practicum, 4 Cr.
- APSY 671. Couples and Family Counseling, 3 Cr.
- APSY 696. Supervised Internship, Min. 6 Cr. (600 Hrs.)
- APSY 698. Practice in Small Group Process, 3 Cr.
- PSY 640. Advanced Developmental Psychology, 3 Cr.
- OR
- CFS 621. Advanced Development of Young Children, 3 Cr.
- OR
- APSY 530. Seminar: Individual and Family Development, 3 Cr.

III. Electives Min., Plan A, 0 Cr.; Plan B, 6 Cr.

(Electives must be approved by adviser.)

Counseling Psychology: Rehabilitation Counseling

The purpose of this program is that of educating students in the areas of rehabilitation and psychological services. Students develop the professional understanding, knowledge, attitude, and skill needed to assist individuals and groups with disabilities in achieving their maximum level of independence and functioning. The program provides a balance between technical rehabilitation knowledge and basic counseling competency and is accredited by the Council on Rehabilitation Counselor Education (CORE.)

As courses currently are scheduled, this program may be completed in four semesters and one summer of full-time study by starting classes in fall semester.

The number of credits outlined below represents minimum requirements. The counseling psychology faculty may require additional credits to overcome individual deficits.

Plan A, 49 Cr.; or B, 48 Cr.

I. Research: Min., Plan A, 12 Cr., Plan B, 6 Cr.

Plan A Prescribed:

- APSY 675. Research Methods in APSY, 3 Cr.
- APSY 678. Introduction to Graduate Statistics, 3 Cr.
- APSY 699. Thesis, 6 Cr.

Plan B Prescribed:

- APSY 675. Research Methods in APSY, 3 Cr.
- APSY 678. Introduction to Graduate Statistics, 3 Cr.

II. Major: Min., Plan A or B, 37 Cr.

A. Prescribed Pre-Practicum Core: Min., 12 Cr.

- APSY 651. Counseling Theories, 3 Cr.
- APSY 665. Measurement Techniques, 3 Cr.
- APSY 667. Career Development, 3 Cr.
- APSY 668. Counseling Procedures, 3 Cr.

B. Prescribed Rehabilitation Counseling Emphasis: Min., 25 Cr.

- APSY 629. Vocational Evaluation & Placement, 3 Cr.
- PSY 640. Advanced Developmental Psychology, 3 Cr.
- APSY 650. Introduction to Rehabilitation Process & Practice, 3 Cr.
- APSY 652. Medical & Biological Factors in Counseling, 3 Cr.
- APSY 653. Psycho-social & Cultural Factors in Counseling, 3 Cr.
- APSY 669. Supervised Counseling Practicum, 4 Cr.
- APSY 696. Supervised Internship in Counseling, 6 Cr.

III. Electives Min., Plan A, 0 Cr.; Plan B, 5 Cr.

(Electives must be approved by adviser.)

Students with three or more years of full-time experience in vocational rehabilitation settings may substitute some courses with consent of their adviser. Recommendations by the rehabilitation counseling psychology faculty will be given only for those courses in which the experienced student demonstrates the competencies encompassed in the courses for which substitution is requested.

Counseling Psychology: School Counseling

To enroll in the school counseling program, a student must hold or be eligible for a Minnesota teacher's license at the level at which one is seeking school counseling licensure or must complete additional course work and internship requirements. Contact the coordinator of counseling psychology for alternative program requirements for non-licensed applicants.

For institutional endorsement for a secondary or elementary school counseling license in Minnesota, the following are required:

1. Minnesota teaching license at the appropriate level or expanded practicum and internship requirements.
2. One year of successful teaching experience at the appropriate level or extended internship.
3. Completion of master's degree in school counseling in an approved program.
4. Two thousand hours of accumulated work experience outside field of education.
5. Completion of Applied Psychology 361 or equivalent.*
6. Completion of Education 447 or equivalent for secondary licensure or Education 346 for elementary licensure.*
7. Completion of HPERSS 405 or equivalent.*
8. Completion of Human Relations 496 and 497 or equivalent.*

**These classes may have been completed as part of an undergraduate teacher preparation program.*

Course work includes both day and evening classes. In addition, the number of credits outlined below represents minimum requirements. The counseling psychology faculty may require additional credits to overcome deficits. The following program meets the current requirements of the Minnesota State Department of Education for licensure as a school counselor. Requirements are subject to change.

Plan A, 58 Cr.; Plan B, 52 Cr.

I. Research: Min., Plan A, 12 Cr., Plan B, 6 Cr.

Plan A Prescribed:

- APSY 675. Research Methods in APSY, 3 Cr.
- APSY 678. Introduction to Graduate Statistics, 3 Cr.
- APSY 699. Thesis, 6 Cr.

Plan B Prescribed:

APSY 675. Research Methods in APSY, 3 Cr.

APSY 678. Intro. to Graduate Statistics, 3 Cr.

II. Major: Min., Plan A, 46 Cr.; Plan B, 46 Cr.

APSY 619. Professional Orientation and Ethics, 3 Cr.

APSY 651. Counseling Theories, 3 Cr.

APSY 654. Guidance for Special Needs, 3 Cr.

APSY 658. Multicultural Counseling, 3 Cr.

APSY 665. Measurement Techniques, 3 Cr.

APSY 666. Group Process and Dynamics, 3 Cr.

APSY 667. Career Development, 3 Cr.

APSY 668. Counseling Procedures, 3 Cr.

APSY 669. Counseling Practicum, 4 Cr.

APSY 670. Developmental Guidance Programs and Procedures, 3 Cr.

APSY 671. Couples and Family Counseling, 3 Cr.

APSY 696. Supervised Internship, Min. 6 Cr.

APSY 698. Practice in Small Group Process, 3 Cr.

PSY 640. Advanced Developmental Psychology, 3 Cr.

OR

CFS 621. Advanced Development of Young Children, 3 Cr.

OR

APSY 530. Seminar: Individual and Family Development, 3 Cr.

The student must select electives, with consent of adviser, on the basis of his/her specific area of professional planning in secondary or elementary school counseling.

Students with full-time experience in a school counseling setting may substitute some courses with consent of adviser. Departmental approval is 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 qualify for licensure-only status.

Middle School Counseling Licensure:

Requires either an elementary or secondary school counseling license and at least 10 more credits: ED 624 and 627 and four additional internship credits at the middle school level. Please consult the coordinator of counseling psychology for further information regarding any of the school licensure programs.

Graduate-level Chemical Dependency Certificate Program

This certificate program provides academic and experiential training intended to prepare persons in the master's program in counseling for chemical dependency practitioner/counselor positions.

To be admitted to the graduate chemical dependency certificate program, the applicant must first have been admitted to the mental health licensure counseling program. In addition the student must:

1. Complete a personal data form with an accompanying letter of application.
2. Provide 3 letters of recommendation.
3. Provide written verification of one year of abstinence from drugs if chemically dependent and in recovery.
4. Successfully complete a personal interview with faculty from the chemical dependency training program and representatives of the chemical dependency profession. Careful attention will be given to previous work experience, academic background, scholarship, interpersonal skills and commitment to the field of chemical dependency. Interviews are conducted each semester.

70 Cr.

APSY 651. Counseling Theories, 3 Cr.

APSY 668. Counseling Procedures, 3 Cr.

APSY 669. Counseling Practicum, 4 Cr.

APSY 698. Practice in Small Group Process, 3 Cr.

APSY 619. Prof. Orientation & Ethics in APSY, 3 Cr.

APSY 671. Couples and Family Counseling, 3 Cr.

APSY 696. Counseling Internship (880 hours), 12 Cr.

APSY 684. Psychopharmacology, 3 Cr.

APSY 230. Theories in Chemical Dependency (undergraduate prereq.), 3 Cr.

APSY 539. Diagnosis, Intervention and Treatment of Chemical Dependency, 3 Cr.

APSY 501 (340). Special Populations, 3 Cr.

APSY 501 (402). Professional Issues in Chemical Dependency, 3 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr.

APSY 659. Psychodiagnosis and Treatment Planning, 3 Cr.

PSY 640. Advanced Developmental Psychology, 3 Cr.

APSY 675. Research Methods in App. Psych., 3 Cr.

APSY 667. Career Development, 3 Cr.

APSY 665. Measurement Techniques, 3 Cr.

APSY 643. Social Bases of Behavior, 3 Cr.

APSY 663. Applied Theories of Learning, 3 Cr.

Chemical Dependency Internships

The internship experience involves 440 hours of supervised training in an inpatient chemical dependency treatment center in central Minnesota and surrounding communities. Sites include public and private treatment facilities for adolescents and adults, regional human service centers, and veterans' hospitals. Acceptance for internship requires approval of the internship review committee following the completion of all course work. An additional 440 hours of supervised training in an outpatient treatment setting are required to complete the requirements of the student's counseling emphasis area.

Program Inquires

For program information, write Department of Applied Psychology, St. Cloud State University, 720 South Fourth Avenue, St. Cloud, MN 56301-4498. Phone (320) 255-3131.

COURSE DESCRIPTIONS**504. Adult Children of Alcoholic and Other Dysfunctional Families.**

Adults from dysfunctional families of origin, especially alcoholic; assessment and treatment; healthy adult and family system functioning vs. unhealthy patterns. 3 Cr. DEMAND.

528. Psychodynamics of the Family. Psychological interrelationships during developmental stages of life. Theories of personality and counseling. Prereq.: APSY 323 or permission of instructor. 3 Cr. S.

530. Seminar. Selected topic in psychology. May be repeated to a max. of 12 credits. 3 Cr. DEMAND.

532. Instrumentation: Laboratory Equipment. Psychological laboratory equipment including electromechanical and solid-state control, interface, environmental, and data-recording devices. 2 Cr. DEMAND.

533. Applied Behavior Analysis I. Behavior analysis in applied settings. Design, implementation, and evaluation of behavior analysis procedures. Prereq.: APSY 330. 2 Cr. F, S.

534. Applied Behavior Analysis II. Advanced applied behavior analysis techniques. Design, assessment, and evaluation of behavior change procedures. Current issues. Prereq.: APSY 330, 433-533. 2 Cr. S.

535. Experimental Analysis of Behavior. Analysis of complex sequences of behavior, continued reinforcement, concurrent operants, stimulus control, avoidance behavior, and punishment. Prereq.: APSY 330. 2 Cr. DEMAND.

539. Diagnosis, Intervention and Treatment of Chemical Dependency.

Diagnosis, intervention and treatment. Prereq.: 230 or consent of instructor. Students taking 539 will be required to complete a graduate project. 3 Cr. S.

566. Life Style Assessment and Planning. Examination of human life style issues and their relationship with developing optimum human potential. Participants assess their own life's activities and philosophies with intent to develop a plan for improving their quality of living. 3 Cr. SUM.

574. Interpersonal Dynamics. Examination of the relationship between interpersonal communication and personal growth including a re-assessment of one's own dynamic relationships. 3 Cr. SUM.

593. 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.: APSY 463 or 665. 2 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

617. Psychological Assessment I. Instruments to assess personality, interests, and attitudes. Objective and projective techniques of personality assessment, personality reports from other mental health specialists, mental health screening such as mental status interviewing, and selection, administration, and interpretation of interest and attitude tests. Prereq.: 593. 3 Cr. DEMAND.

618. Psychological Assessment II. Psychological and educational assessment. Administration, scoring, and interpretation of several contemporary psychoeducational tests. Theories, approaches to assessment, and approaches to test interpretation. 3 Cr. DEMAND.

619. Professional Orientation and Ethics. The applied psychology professions' history, roles, and organizational structure. Ethical standards, laws, licensure, and decision-making processes. 3 Cr. S.

629. Vocational Evaluation and Placement. Vocational evaluation and vocational placement. Placement techniques used in rehab. practice, assessment elements of work samples, psychometric testing, and report writing. 3 Cr. S.

633. Behavior Therapy. History and principles of behavior therapy. Cognitive-behavior therapy applications. Current techniques, applications to specific populations, ethical issues, and future directions. Developing and delivering behavior therapy. 3 Cr. S.

634. Behavioral Assessment. Naturalistic observation, self-report inventories, behavioral checklists, other forms of assessment in mental health, schools, business and industry, and health. 3 Cr. F

641. Single-case Design. Single-case experimental designs and data analysis procedures for evaluating behavioral change strategies in behavioral intervention programs. 3 Cr. F

643. Social Bases of Behavior. Psychological approaches to the development and modification of social behavior and phenomena. 3 Cr. SUM.

646. Counseling Older Persons. Counseling special needs of: expressing feelings of loss, identifying new life goals, and adjusting to the emotional stresses of aging. Prereq.: SSCI 208 or PSY 345 or SOC 350 or consent of instructor. 3 Cr. DEMAND.

649. Affirmative Counseling of Women. Affirmative counseling practices for women's lifespan. 3 Cr. DEMAND.

650. Introduction to Rehabilitation Process and Practice.

Rehabilitation history, philosophy, legislation, organization, and resources. Service delivery and ethical and professional issues. 3 Cr. F

651. Counseling Theories. Theoretical approaches to counseling. Application of theory to counseling practice. 3 Cr. F

652. Medical and Biological Factors in Counseling. Etiology, prognosis, methods of treatment, and effects of various disorders and conditions. 3 Cr. S.

653. Psycho-social and Cultural Factors in Counseling. Effect these factors have on the counseling process. 3 Cr. SUM.

654. Guidance for Special Needs. Counseling children with special needs. Legislative, assessment, family and programming issues

examined. 3 Cr. S.

655. Seminar in Rehabilitation Counseling. Topics in the field of Rehabilitation Counseling. May be repeated to a max. of 3 credits. 1-3 Cr. DEMAND.

658. Multicultural Counseling. Enhancing cultural awareness; developing a knowledge and skill base for concepts, theories, and techniques in multicultural counseling; and counseling practices in a multicultural context. 3 Cr. F

659. Psychodiagnosis and Treatment Planning. Diagnostic process and treatment planning in psychology and rehabilitation. DSM-IV and treatment planning for managed care. 3 Cr. S.

663. Applied Theories of Learning. Applications to teaching, clinical intervention, and applied behavior analysis. 3 Cr. F

665. Measurement Techniques. Measurement theory, psychological testing, testing procedures, and test interpretation. 3 Cr. F, S.

666. Group Process and Dynamics. Concepts, theories and skills related to working with groups. 3 Cr. F, S.

667. Career Development. Developing an informational base related to occupational/educational counseling skills. *Theories of career* development, collecting and classifying occupational information, and incorporating occupational information into the counseling process. 3 Cr. F

668. Counseling Procedures. Conditions necessary for therapeutic movement to take place in the counseling relationship. Conceptualizing client concerns, establishing goals, and applying therapeutic interventions consistent with these concerns. Prereq.: instructor permission, APSY 651. 3 Cr. F, S.

669. Supervised Counseling Practicum. Application of theory and techniques to counseling. Prereq.: 619, 651, 665, 667 and 668. 4 Cr. DEMAND.

670. Developmental Guidance Programs and Procedures. Developmental guidance program components. Program organization/administration and support. Construction and demonstration of procedures to enhance normal psycho-social development. 3 Cr. F

671. Theories of Marriage and Family Therapy. The systems paradigm. An alternate conceptual framework from which to mount therapeutic interventions. Marriage and family therapy theories. Practicing family therapeutic interventions. Prereq.: instructor permission. 3 Cr. S.

672. Couples and Family Counseling: Advanced Theory and Practice. Couple and family theories. The family system in the development of relationship, identity, and mood disturbances. System interventions related to these disturbances. Prereq.: APSY 671. 3 Cr. SUM.

674. Consultation. Models of consultation and their applications to mental health, school-based, and community settings. 3 Cr. SUM.

675. Research Methods. Qualitative and quantitative research designs. Internal and external validity. Needs assessments, program/treatment evaluations, and the critical reading of published research. 3 Cr. DEMAND.

677. Stress Management: Process and Techniques. The nature of stress disorders, assessment procedures, and strategies with which to control stress reactions. 3 Cr. DEMAND.

678. Introduction to Graduate Statistics. Correlation and regression analysis, probability and sampling theory; estimating population parameters, testing hypotheses. Familiarity with descriptive statistics assumed. 3 Cr. F, S, SUM.

679. Seminar: Research Planning. Research design and tools. Development of project outline and presentation to members of the seminar. 2 Cr. DEMAND.

680. Spirituality in Counseling. Spirituality as an integral component of the counseling process; psychospiritual approaches to counseling and psychotherapy; assessment and treatment of spiritual issues. 3 Cr. DEMAND.

684. Psychopharmacology. Examination of the neurological basis of behavior, pharmacokinetics of drug action, effects of psychoactive and psychotherapeutic drugs, and principles of pharmacotherapy. 3 Cr. F

685. Individual Intelligence Testing. Psychological and educational assessment. Administration, scoring, and interpretation of psychoeduca-

tional tests. Synthesizing and integrating test findings. Prereq.: 617. 3 Cr. DEMAND.

689. Seminar: Research Reporting. Reporting of research planned in APSY 679 and subsequently implemented. Preparation of reports in accordance with APA publication standards and presentation to seminar. Prereq.: 679. 2 Cr. DEMAND.

696. Supervised Internship in Counseling. Supervised agency clinical experience. Prereq.: 669. May be repeated to a max. of 15 credits.

its. 3-6 Cr. F, S, SUM.

697. Supervised Internship in Behavior Analysis. Supervised experience in a community agency. Prereq.: Students must complete the prescribed sequence of courses (exceptions must be approved by advisor). 3-6 Cr. F, S, SUM.

698. Practice in Small Group Process. Supervised practice in conducting small group counseling sessions. Prereq.: 666. 3 Cr. F, S.

699. Thesis. 1-6 Cr. F, S, DEMAND.

Art (ART)

101 KIEHLE VISUAL ARTS CENTER/255-4283

Chairperson: Joseph Aiken

Graduate Faculty: Aiken, Bagnat, Bradley, Christensen, Goricca, Madsen, Mizuno, Sherarts, Tapola, Wagner-Ott, Weston

These programs are designed for both full-time and part-time students. Students must expect to complete their course loads by enrolling mainly in day-time courses. Parts of the program may be completed in evening and summer classes.

Master of Arts – Art

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 grade point average of 2.8 or above; applicants whose undergraduate grade point average is less than 2.8 may be admitted conditionally. The applicant also must submit a portfolio of 20 slides of original work and a statement of artistic intention. After completion of 18 credits the student must apply for candidacy for a Master of Arts degree. At that point a studio review will take place by the Art Department faculty. The student must contact the Art Department Chairperson to initiate the studio review. Three-quarters of the faculty must support the student in order for continuance in the program.

Graduate art history courses which are paired with undergraduate art history courses have an additional research project or paper required.

Plan A: Min., 36 Cr.

I. Min. of 12 credits earned in one major field of studio art. Majors available in ceramics, painting, printmaking, and sculpture. Min. of 9 credits earned in one minor field of studio art. Minors available in any of the above major areas. Min. of 9 credits earned in art history. Min. of 6 credits of creative work (ART 698) in the form of an exhibition and a written catalogue statement of intent.

II. A quarterly review of studio work completed in the major field of study must show satisfactory achievement.

COURSES DESCRIPTIONS

530. Ancient and Classical Art. The great ancient civilizations including Egyptian, Mesopotamian, Aegean, Greek, Etruscan, and Roman. 3 Cr. F-Alt.

531. Early Christian and Medieval Art. The catacombs of Rome to the Gothic Cathedrals of Western Europe and the art of the Byzantine Empire. 3 Cr. S-Alt.

532. Renaissance Art. The Italian Renaissance beginning with Giotto and including the masters of the 15th and 16th century Northern Europe. 3 Cr. F-Alt.

533. Baroque and Rococo Art. European art of the 17th and 18th centuries including El Greco, Rembrandt, Bernini, etc. 3 Cr. F-Alt.

534. European 19th Century Painting and Sculpture. Neo-Classicism, Romanticism, Realism, Impressionism and Post-Impressionism. 3 Cr. S-Alt.

535. Arts of the United States. A survey of arts and crafts of the United States from the European settlement to the recent present. 3 Cr. F.

536. Modern Art (1900-1955). Movements, artists and concepts of modernism. 3 Cr. S.

537. Art Since 1955. Major directions in contemporary visual arts of the Americas, Europe, and Japan. 3 Cr. S.

538. Women in the Visual Arts. Women artists of diverse cultures, from the Middle Ages to the present, including painting, sculpture, crafts, architecture, the women's art movement and collaborative projects. 3 Cr. F-Alt.

539. Topics in Art History. Art history topics within the academic specialties of current faculty or those of visiting scholars. May be repeated with different topics to a max. of 6 credits. 1-3 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

615. Life Drawing I. Practice in pictorial composition with various techniques and media of expression. Emphasis on anatomy of human body. 2-8 Cr. F, S.

616. Life Drawing II. Advanced practice in pictorial composition with various techniques and media of expression. Emphasis on anatomy of human body. 2-8 Cr. F, S.

630. Art Seminar. Lectures, readings and discussions on selected movements, artists and their works. 1-3 Cr. S.

641. Painting I. Advanced expression in the painting media; organization, color and technique. Prereq.: two undergraduate courses in painting or permission of the department chairperson. 2-8 Cr. F, S.

642. Painting II. Continued work in painting media leading to development in individual expression. Prereq.: 641. 2-8 Cr. F, S.

651. Prints and Composition I. Advanced experience in printing methods and composition. Developing previously learned techniques. Prereq.: two undergraduate courses in printmaking or permission of the department chairperson. 2-8 Cr. F, S.

652. Prints and Composition II. Advanced experiences in printing methods and composition. Intense concentration in a selected printing method. Prereq.: 651. 2-8 Cr. DEMAND.

661. Sculpture I. Advanced work in three-dimensional organization of form; individual concentration toward competent expression in sculpture media. Prereq.: two undergraduate courses in sculpture or permission of the department chairperson. 2-8 Cr. F, S.

662. Sculpture II. Continued work in sculpture media with emphasis on casting metals. Prereq.: 661. 2-8 Cr. F, S.

670. Ceramic Sculpture. Advanced work in ceramic sculpture, emphasizing personal expression and cohesive style. Prereq.: permission of instructor. 2-8 Cr. F, S.

671. Throwing. Advanced throwing on the wheel emphasizing personal expression. Developing a body of specialized creative work. Prereq.: permission of instructor. 2-8 Cr. F, S.

672. Ceramics. Handbuilding, throwing, slip-casting in various combinations toward a body of creative and specialized work. Prereq.: 670 or 671. 2-8 Cr. F, S.

690. Special Areas-Visual Arts (Topical). Experiences in special areas of the visual arts. Credits and meetings by arrangement. May be repeated with different topics to a max. of 9 credits. 1-3 Cr. DEMAND.

698. Creative Work. 1-6 Cr. DEMAND.

Biological Sciences (BIOL)

262 MATHEMATICS AND SCIENCE CENTER/255-2039

Chairperson: David DeGroot

Graduate faculty: Arriagada, Cronn, DeGroot, Gazal, Grewe, Gundersen, Hauslein, Knutson, Kramer, Lewis, McGuire, Meerschaert, Mork, Musah, Peck, Schrank, Schuh, Simpson, Torrence, Turner, Voelz, Williams, Woodard

Graduate advisers: Arriagada, Cronn, DeGroot, Gazal, Gundersen, McGuire, Meerschaert, Musah, Schrank, Schuh, Simpson, Turner, Voelz, Williams, Woodard

M.A. degree programs in biology: This program is designed for full-time and part-time students.

Completion of an M.A. program requires attendance in daytime courses. Some required courses may be offered in the evening and/or during summer sessions.

Master of Arts

The applicant should have earned a minimum of 32 credits in biology and 8 credits in chemistry before admission to this program. A Faculty adviser is required prior to admission. See the list of graduate advisers. In some cases it may be necessary for the student to complete additional prerequisite undergraduate work. The two tracks for the Master of Arts are the Ecology and Natural Resources (ENR) option and the Cell, Molecular and Organismal Biology (CMOB) option.

Ecology and Natural Resources Biology (ENR)

The Ecology and Natural Resources program is designed for students with a background and interest in ecology, limnology, and population biology. Students should contact the Department of Biological Sciences and arrangements will be made to talk with a prospective faculty adviser. Each application is reviewed and admission to the program is based on: previous coursework, experience, GPA, GRE scores, and letters of recommendations.

Students may select a program that includes the writing of a Master thesis (Plan A) or one that requires a final departmental written exam and the preparation of a research manuscript (Plan B). Timely design of research should allow a full time student to complete the program in two years. Part time attendance will necessarily increase enrollment time. Students should plan to spend the summer between the first and second year conducting research.

Three graduate level courses with companion field technique courses are at the heart of this program. All students will enroll in Current Trends in Ecology (BIOL 632) and Advanced Ecological

Techniques (BIOL 633) the first Fall Semester after acceptance to the program.

Thesis students (Plan A) will select one of the other two topics and field experience courses.

Non-thesis (Plan B) students will be required to take BIOL 634, 635, 636, and 637.

Additionally, students will gain experience in developing and writing a research project grant proposal (BIOL 628), presenting current advances in research to faculty and students (BIOL 630) as well as data analysis and manuscript/thesis preparation (BIOL 652).

Students will develop a graduate program of study with their faculty adviser the first semester enrolled in the program. Faculty advisers include: Jorge Arriagada-Plant Systematics, David DeGroot-Ecological Plant Physiology, Ralph Gundersen-Aquatic & Wetland Biology, Sandra Turner-Community, Ecosystem and Landscape Ecology, Neal Voelz-Aquatic Ecology, Steve Williams-Fish Biology.

Master of Arts – Biological Sciences: Ecology and Natural Resources

Required by all ENR Program students: 13 Cr.

BIOL 628. Research Design, 2 Cr.

BIOL 630. Seminar, 1 Cr.

BIOL 632. Current Trends in Ecology, 3 Cr.

BIOL 633. Advanced Ecological Techniques, 2 Cr.

BIOL 650. Biological Research, 3 Cr.

BIOL 652. Data Analysis and Manuscript/Thesis Preparation, 2 Cr.

Plan A: Thesis (17 + 13 = 30 Cr.)

BIOL 634. Current Trends in Population Biology, 3 Cr. and
BIOL 635. Advanced Techniques in Population Biology, 2 Cr.

or

BIOL 636. Current Trends in Limnology, 3 Cr. and

BIOL 637. Advanced Techniques in Limnology, 2 Cr. and

BIOL 699. Thesis, 6 Cr.

Additional 6 credits at the 500 or 600 level as approved by graduate adviser.

Plan B: Non-Thesis (23 + 13 = 36 Cr.)

BIOL 630. Seminar, 1 Cr.

BIOL 634. Current Trends in Population Biology, 3 Cr.

BIOL 635. Advanced Techniques in Limnology, 2 Cr.

BIOL 636. Current Trends in Limnology, 3 Cr.

BIOL 637. Advanced Techniques in Limnology, 2 Cr.
Additional 12 credits at the 500 or 600 level as approved by graduate adviser.

Cell Molecular and Organismal Biology

The CMOB option is designed for students interested in careers as a biotechnologist, developmental biologist, physiologist, plant molecular biologist, microbiologist, immunologist or geneticist. The degree may be useful for those interested in teaching at the community college level. There are three degree plans in this option. Plan A (Thesis) is designed for full-time students. Students are expected to conduct original research and complete and defend a thesis.

Plan B Cell, Molecular and Organismal Applied Biology students must complete a series of courses in cell, molecular and organismal theory and laboratory techniques. The laboratory courses are designed as modules so that a basic set of skills or techniques would be utilized to successfully complete the module. Students must document their mastery of the skills and techniques as well as theory by writing a formal paper that includes an introduction, materials and methods, results, discussion and references. Students must discuss and defend their work after completion of each module. In each of four semesters, students must enroll in a topics course and corresponding techniques course. At the end of these two years they must satisfactorily complete a written comprehensive examination which covers material from these four semesters. This plan is designed for full-time students. Plan B students in Cell, Molecular and Organismal Biology must complete a broad selection of courses and a final departmental written examination. This plan is designed for either full-time or part-time students.

Students will develop a graduate program of study with their faculty adviser the first semester enrolled in the program. Faculty advisers include: John Cronn-Microbiology, David DeGroot-Plant Physiology, Oladele Gazal-Reproductive Endocrinology, Denise McGuire-Biotechnology and Molecular Biology, JoAnn Meerschaert-Cell Biology, Gordon Schrank-General and Medical Microbiology, Tim Schuh-Developmental Biology, Janet Woodard-Immunology and Neurobiology.

Master of Arts – Biological Sciences: Cell, Molecular and Organismal Biology

These degree plans may be altered in the 2000-2001 academic year. Please check the SCSU Website for updates.

Plan A (Thesis), 32 Cr.

I. Courses in Biological Sciences

- A. 20 Cr. At the 600 level with the following required courses:
BIOL 628. Research Design, 2 Cr.
BIOL 630. Seminar, 2 Cr.
BIOL 652. Data Analysis & Manuscript/Thesis Preparation, 2 Cr.
BIOL 670, 672, 674, 676: Advanced Topics Course in Cell, Molecular and Organismal Biology, 8 Cr.
BIOL 699. Thesis, 6 Cr.
- B. 12 credits of Elective in Biological Sciences or Related Field as approved by graduate adviser.

II. Final oral thesis defense: Required

Plan B (Cell, Molecular and Organismal Applied Biology-Non-thesis), 38 Cr.

I. Courses in Biological Sciences

- A. 24 credits at the 600 level with the following required courses:
BIOL 628. Research Design, 2 Cr.
BIOL 630. Seminar, 2 Cr.
BIOL 652. Data Analysis & Manuscript/Thesis Preparation, 2 Cr.
BIOL 670. Advanced Topics in Genetics, 2 Cr.
BIOL 671. Techniques in Genetics, 2 Cr.

- BIOL 672. Advanced Topics in Physiology, 2 Cr.
- BIOL 673. Techniques in Physiology, 2 Cr.
- BIOL 674. Advanced Topics in Microbiology, Cell and Developmental Biology, 2 Cr.
- BIOL 675. Techniques in Microbiology, Cell and Developmental Biology, 2 Cr.
- BIOL 676. Advanced Topics in Organismal Biology, 2 Cr.
- BIOL 677. Advanced Biological Techniques, 2 Cr.
- BIOL 678. Graduate Teaching Practicum, 2 Cr.

- B. 14 credits of Electives Biological Sciences or Related Field as approved by graduate adviser

II. Satisfactory completion of a written comprehensive examination related to materials presented in the advanced topics courses (BIOL 670, 672, 674, 676).

Plan B (Cell, Molecular and Organismal Biology-Non-thesis), 38 Cr.

I. Courses in Biological Sciences

- A. 14 Credits at the 600 level with the following required courses:
BIOL 628. Research Design, 2 Cr.
BIOL 630. Seminar, 2 Cr.
BIOL 652. Data Analysis & Manuscript/Thesis Preparation, 2 Cr.
BIOL 670. Advanced Topics in Genetics, 2 Cr.
BIOL 672. Advanced Topics in Physiology, 2 Cr.
BIOL 674. Advanced Topics in Microbiology, Cell and Developmental Biology, 2 Cr.
BIOL 676. Advanced Topics in Organismal Biology, 2 Cr.
- B. 8 credits of electives in Biological Sciences at the 600 level.
- C. 16 credits of electives in Biological Sciences or Related Field as approved by graduate adviser

II. Satisfactory completion of a written comprehensive examination.

Master of Science

This program is in transition. For information regarding this program, please contact Drs. David Kramer (255-3009) or Patricia Simpson (255-3012).

COURSE DESCRIPTIONS

502. Biology of Human Aging. Study and discussion of changes in the physiology and biological processes at the organism, organ, cell and subcellular levels. Part of core requirement in gerontology minor.

(Should be addressed by adviser of program.) Prereq.: 103. 3 Cr. S.

508. Nature Study for Teachers. Classroom and outdoor techniques, strategies, and background for studying the natural environment with emphasis on the habitats and natural communities of Central Minnesota. 4 Cr. S.

512. Vertebrate Natural History. Identification and natural history of North American vertebrates. Lab. Prereq.: 214. 4 Cr. S.

514. Paleobiology. Ancient life from the Precambrian microorganism through Cenozoic macrofossils. Trace fossils, ancient animals/plants, extinction. Lab. Prereq.: 214. 3 Cr. F

518. Wetland Plant Communities. The structure, characteristics, indicator plants, wildlife uses, management, and restoration of wetland and aquatic plant communities. Field. Lab. Prereq.: 151, 152. 2 Cr. F

522. Terrestrial and Aquatic Plant Identification. Field identification and ecological aspects of local terrestrial, wetland, and aquatic vascular plants. Field trips. Lab. Prereq.: 212. 4 Cr. SUM.

524. Plant Ecology. Plants and their environment; field studies of plant communities and succession. Lab. Prereq.: 212, 312; STAT 239. 4 Cr. F

526. Plant Anatomy and Morphology. Structure, organization, and development of terrestrial and aquatic plants. Lab. Prereq.: 212. 4 Cr. S.

530. Phycology. The collection, identification, culture, and study of freshwater algae from diverse habitats; primary production, community

interactions, life cycles, and lake phytoplankton and stream phyto-benthos assessment. Lab. Prereq.: 212, 312. 4 Cr. S.

532. Ecological Measurement. Analysis of physical and biological data from on-site evaluations of local communities. Assessment and application of large data bases and field site records as required by local, state, and federal agencies for decision making. Prereq.: 212, 214, 312. 4 Cr. F

534. Freshwater Invertebrate Zoology. Natural history, collection, and classification of local species of freshwater invertebrates, exclusive of planktonic forms and Protozoa. Lab. Prereq.: 214, 312. 4 Cr. S.

536. Water Quality. Water quality monitoring, sampling strategies, and data analysis. Biomonitoring, toxicity, eutrophication, acid deposition, and groundwater quality. Lab. Prereq.: 326; STAT 239. 4 Cr. F

538. Ecology of Fish Populations. Collecting and sampling, population assessment, fisheries techniques. Lab. Prereq.: 326; STAT 239. 4 Cr. F

542. Wildlife Populations. Distribution, life histories, habitat requirements, and environmental interrelations of vertebrates and invertebrates. Lab. Prereq.: 312. Permission of instructor. 4 Cr. S.

544. Wildlife Management. Principles of wildlife management with studies of selected species. Lab. Prereq.: 312. 4 Cr. F

549. Field Studies in Biology (Topical). Field trips to study the flora, fauna, and ecology of native habitats such as Isle Royal and the Florida Keys. Arranged instructional sessions may be required before or after the trip. Travel expenses required. Permission of instructor. May be repeated, with approval of adviser to a max. of 9 credit. 1-3 Cr. DEMAND.

553. Seminar in Biology (Topical). Presentations and discussions by students under guidance of a faculty member. May be repeated to a max. of 4 credits. 1-3 Cr. F, S.

555. Practicum (Topical). Supervised experience in selected areas such as laboratory management, greenhouse management, animal room management, aquarium management, Museum/herbarium curator. May be repeated to a max. of 3 credits. Departmental approval required for enrollment. 1-3 Cr. F, S, SUM.

556. Biological Evolution. History, evidence, and processes of biological evolution (microevolution, speciation and macroevolution). Theories on the origin of life. Prereq.: 262. 3 Cr. S.

557. History and Philosophy of Biology. Origins of science and history of biological discoveries. The development of modern biology. Philosophical bases for the biological sciences. Prereq.: junior-senior, graduate student standing. 3 Cr. S.

558. Biology Topics. Topics in biology for teachers of science. May be repeated to a maximum of 4 credits. 1-3 Cr. F, S, SUM.

560. General Parasitology. Parasite ecology and classification. The relationship of these organisms to diseases of humans and animals. Lab. Prereq.: 151, 152. 4 Cr. F

562. Medical Microbiology. Taxonomy, morphology, culture biochemical activities of pathogenic microorganisms and their pathogenic mechanisms and the corresponding host response. Lab. Prereq.: 362. 4 Cr. S.

564. Hematology. Blood cell formation and function, morphology and function. Etiology and lab diagnosis of common hematologic diseases. Mechanisms of hemostasis. Clinical procedures. Lab. Prereq.: 151. 3 Cr. F

566. Microscopy and Image Analysis. Principles of light microscopy, image acquisition, and analysis including computer measurement and enhancement of images. Lab. Prereq.: 151. 2 Cr. F, S.

568. Plant and Animal Cell and Tissue Culture Techniques. Establish, grow, maintain, preserve, and utilize eucaryotic cells. Lab. Prereq.: 362. 2 Cr. S.

570. Molecular Plant Physiology. Plant molecular and cellular physiology. Influence of light on gene expression; chemical signals; the nature and variety of metabolic strategies, interspecific and intraspecific interactions. Lecture/discussion class. Prereq.: 264; CHEM 480. 3 Cr. S. ALT.

572. Virology. Morphology, virus-host relationships, diseases, prions and viroids. Prereq.: 362. 3 Cr. S.

574. Neurobiology. Molecular, cellular and developmental aspects of the nervous system. Sensory, motor, and central systems. Mechanisms of neuropathology. Prereq.: 264. 3 Cr. S-Alt.

576. Developmental Biology. The development of multi-cellular organisms at the molecular, cellular, and organismal levels. Lab. Prereq.: 264. 4 Cr. S.

577. Advanced Anatomy: Human Dissection. Intended for students with a background in human anatomy who want experience and/or review in detailed regional dissection. Functional and clinical aspects of dissections will be addressed. Emphasis will be placed on technique and preparation of prosections for introductory students. By permission only. 3 Cr. SUM.

578. Human Physiology. Physiological processes at the molecular, cellular, and organismal levels. Lab. Prereq.: 264, 366. 4 Cr. F

580. Human Endocrinology and Reproduction. Principles of endocrinology at the molecular, cellular, and organismal level and how endocrine factors regulate the reproductive physiology and behavior of humans. Prereq.: 264. 4 Cr. F

582. Advanced Protein Techniques. The theory and application of instrumentation in monitoring, quantifying, and isolating proteins. An individual protein purification project will be required. Lab. Prereq.: 264; CHEM 271. 4 Cr. F, S.

584. Advanced DNA Techniques. Theory, techniques, and instrumentation of genetic engineering and gene analysis. Lab. Prereq.: 362; CHEM 480; Senior Status. 4 Cr. S.

586. Immunology. Humoral and cell-mediated immune responses. Lymphoid tissues, initiation, and regulation of responses, mechanisms of immunopathologies. Prereq.: 362. 4 Cr. F, S.

590. Selected Topics in Biology. Topic will be announced in class schedule. May be repeated to a max. of 6 credits. 1-3 Cr. DEMAND.

593. Advanced DNA Techniques. Theory, techniques and instrumentation of genetic engineering and gene analysis. Lab. Prereq.: 362; CHEM 480; senior status. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

601. Readings in Biology (Topical). May be repeated to a max. of 8 credits. 1-3 Cr. F, S, SUM.

602. Modern Biological Concepts. Modern concepts in physiology, genetics, and ecology. Not applicable to biology M.A. program. 3 Cr. DEMAND.

610. Special Topics in Biology. A lecture or a lecture/laboratory course in a special area of the biological sciences. Prereq. may be required. May be repeated to a max. of 8 credits. 1-3 Cr. DEMAND.

628. Research Design. Writing a graduate research proposal. Prereq.: STAT 239 or transfer equivalent. 2 Cr. F

630. Seminar in Biology (Topical). Oral presentations by student under the guidance of a faculty member. May be repeated to a max. of 4 credits. 1-2 Cr. F, S.

632. Current Trends in Ecology. Research findings and trends in selected topics in Ecology; from landscape and restoration ecology to ecological physiology. Topics will be selected by the instructor(s) and revised as new findings emerge. Corequisite: 633. 3 Cr. F

633. Advanced Ecological Methods. Observation and experimental techniques to address ecological questions as related to material covered in BIOL 632. Corequisite: 632. 2 Cr. F

634. Current Trends in Population Biology. Research findings and trends in selected topics in Population Biology from Predatory-Prey dynamics to plant population distributions at native and disturbed sites. Topics will be selected by the instructor(s) and be revised as new findings emerge. Corequisite: 635. 3 Cr. F, S.

635. Advanced Techniques in Population Biology. Sampling and observation techniques to address population biology questions as related to material covered in BIOL 634. Corequisite: 634. 2 Cr. F, S.

636. Current Trends in Limnology. Research findings and trends in selected topics in Limnology from pollution impact and biomonitoring to stream ecology. Topics will be selected by the instructor(s) and be revised as new findings emerge. Corequisite: 637. 3 Cr. F

637. Advanced Limnological Techniques. Sampling and observation techniques to address limnological questions as related to material covered in BIOL 636. Corequisite: 636. 2 Cr. F

650. Research in Biology. May be repeated to a max. of 6 credits. May be applied toward a masters degree program. 1-6 Cr. F, S, SUM.

652. Data Analysis & Manuscript/Thesis Preparation.

Preparing a manuscript and/or thesis. 2 Cr. S.

670. Advanced Topics in Genetics. Topics defined by instructor based on changing trends and findings in Genetics. This course will be offered in conjunction with a corresponding laboratory course BIOL 671. Techniques in Genetics. Pre/Corequisite: 671; graduate student status and appropriate undergraduate courses. 2 Cr. F

671. Techniques in Genetics. Techniques defined by instructor based on changing trends and findings in Genetics. This course will be offered in conjunction with a corresponding topics course BIOL 670. Advanced Topics in Genetics. Pre/Corequisite: 670; graduate student status and appropriate undergraduate courses. 2 Cr. F

672. Advanced Topics in Physiology. Topics defined by instructor based on changing trends and findings in physiology. This course will be offered in conjunction with a corresponding laboratory course BIOL 673. Techniques Physiology. Pre/Corequisite: 673; graduate student status and appropriate undergraduate courses. 2 Cr. F

673. Techniques in Physiology. Techniques defined by instructor based on changing trends and findings in Physiology. This course will be offered in conjunction with a corresponding topics course BIOL 672. Advanced Topics in Physiology. Pre/Coreq: 672; graduate student status and appropriate undergraduate courses. 2 Cr. F

674. Advanced Topics in Microbiology, Cell and Developmental Biology. Topics defined by instructor based on changing trends and findings in Microbiology, Cell and Developmental Biology. This course will be offered in conjunction with a corresponding laboratory course. Pre/Corequisite: 675; graduate student status and appropriate undergraduate courses. 2 Cr. S.

675. Techniques in Microbiology, Cell and Developmental Biology. Techniques defined by instructor based on changing trends and findings in Microbiology, Cell and Developmental Biology. This course will be offered in conjunction with a corresponding topics course BIOL 674. Advanced Topics in Microbiology, Cell and Developmental Biology. Pre/Corequisite: 674; graduate student status and appropriate undergraduate courses. 2 Cr. S.

676. Advanced Topics in Organismal Biology. Topics defined by instructor based on changing trends and findings. 2 Cr. S.

677. Advanced Biological Techniques. Graduate student status and appropriate undergraduate courses. 2 Cr. S.

678. Graduate Student Practicum. Preparing materials for biology courses. Designing laboratory exercises. Teaching methods, formative and summative assessment techniques. Prereq.: graduate student status and appropriate undergraduate courses. 2 Cr. S.

699. Master's Thesis. 1-6 Cr. F, S, SUM.

Business Computer Information Systems (BCIS)

204 BUSINESS BUILDING/255-2174

Chairperson: David Krueger

Graduate faculty: Chen, D. Chou, Heath, D. Krueger, Paulson, Pearson, Phan, L. Robinson, Song, Weber, Yoshimoto

Also see MBA requirements, listed under Master of Business Administration in this bulletin.

COURSE DESCRIPTIONS

540. Advanced Business Statistics. Applied multiple regression and correlation analysis, analysis of variance with two or more variables of classification, and multivariate techniques. Prereq.: 241. 3 Cr. DEMAND.

543. Data Modeling With Database Implementation. Data modeling concepts using entity relationship and semantic object techniques, normalization, relational database implementation and concurrent database processing. Prereq.: 350 and a programming course. 3 Cr. F, S.

545. Application Program Development III. Topics in business application program development. Programming languages, development techniques, and development environments. Prereq.: 251. 3 Cr. DEMAND.

546. Information Technology for Competitive Advantage. Concepts of information technology affecting the industrial environment, cost reduction, product differentiation, competitive scopes, and new products/services development. Prereq.: 340 or permission of department. 3 Cr. DEMAND.

550. Management of Information Systems. Emerging challenges, effects of information technology on competition, interorganizational systems and strategic alliances, organization and control of information, IT architecture and IT development issues. Prereq.: 443. 3 Cr. F

551. Telecommunications and Networks. Technology and management of telecommunications and networks, the Internet, and world wide web. Prereq.: 340, 350. 3 Cr. F, S.

553. Client/Server Systems. Object oriented methods, development of C/S systems on the Intranet and Internet, messages, security and encryption, public key cryptography, digital signatures. Prereq.: 443, 451. 3 Cr. F, S.

554. Decision Support Systems. Information systems for management decision making. Decision making processes, model base development, and knowledge management. Design, implementation and evaluation of decision support systems. Prereq.: 241, 350. 3 Cr. F, S.

559. Topics in Information Systems. Recent developments in concepts, theory, practices in the analysis, design, and implementation of management information systems. Prereq.: 350 or permission of department. 3 Cr. DEMAND.

560. Project Management. Strategies, processes, and integration techniques in the management of software development projects. Planning, staffing, scheduling, controlling, and quality assurance. Prereq.: 340, 350. 3 Cr. F, S.

598. Business Consulting. Teams of students work as consultants to area businesses and non-profit organizations to diagnose and solve actual business problems. Written and oral report required. Prereq.: 240, 241, ACCT 292, FIRE 371, MGMT 301, MKTG 320. Permission of department. 3 Cr. F, S.



Chemistry (CHEM)

358 MATHEMATICS AND SCIENCE CENTER/255-3031

Chairperson: Mehroo Cooper

Graduate Faculty: Cooper, Frank, Gregory, Jeannot, Johnson, Lavallee, Lee, Leenay, McKenna, McMullen, Neu, Sadrai, Winter

The Department currently does not offer a major program. Service courses for other graduate programs are offered in daytime and summer schedules.

COURSE DESCRIPTIONS

For all courses, the number of lecture hours and laboratory hours per week are given in parentheses following the course title.

520. Physical Chemistry 1. (4, 0) Application of fundamental laws and theoretical principles to real and ideal gases, thermodynamics, systems of variable composition, chemical equilibrium, phase equilibrium, the phase rule, solutions, colligative properties, condensed phase equilibria, and nonideal systems. Prereq.: 350; PHYS 232 or 235; MATH 212 or 222. 4 Cr. F.

521. Physical Chemistry 2. (4, 0) Application of fundamental laws and theoretical principles to equilibria in electrochemical cells, surface phenomena, the structure of matter, quantum mechanics, atomic and molecular spectroscopy, bonding, solids, electrical conduction, and kinetics. Prereq.: 420/520. 4 Cr. S.

522. Physical Chemistry Lab 1. (0, 3) Laboratory to complement the Physical Chemistry 1 (420-520). A quantitative measurement of properties and phenomena of chemical interest and their interpretation by use of chemical principles. Prereq.: 420-520 or concurrent registration. 1 Cr. F.

523. Physical Chemistry Lab 2. (0, 3) Laboratory to complement the Physical Chemistry 2 (421-521). A quantitative measurement of properties and phenomena of chemical interest and their interpretation by use of chemical principles. Prereq.: 421-521, or concurrent registration. 1 Cr. S.

530. Inorganic Chemistry 1. (3, 3) Concepts of inorganic chemistry; electronic structures of atoms; crystal structure; chemical bonding including molecular orbital theory; nomenclature, bonding and structure of coordination compounds. Lab. Prereq.: 420/520, or consent of instructor. 4 Cr. F.

531. Inorganic Chemistry 2. (2, 0) Application of the concepts of inorganic chemistry to chemical elements and compounds. Coordination chemistry including the ligand field theory. Prereq.: 430/530. 2 Cr. S.

550. Instrumental Analysis. (2, 6) Major instrumental methods of chemical analysis including spectroscopic, electrometric, and chromatographic methods. Lab. Prereq.: 350, 420/520, or consent of instructor. 4 Cr. S.

551. Computers in Chemistry Laboratory. (2, 2) The principles and practice of interfacing laboratory instruments with computers for increased efficiency and effectiveness of measurements. Prereq.: 350, BASIC language ability and 450/550 desirable. 4 Cr. S-Alt

552. Nuclear Chemistry and Radiochemistry. (2, 3) Nuclear stability and structure; decay systematics and energetics; interactions of radiation with matter; nuclear energy; detection, measurement and characterization of radiation; application to chemical and biological problems. Lab. Prereq.: 211, basic calculus desirable. 3 Cr. F.

553. Organic Mechanisms and Synthesis. (2, 3) A course in advanced organic chemistry involving key mechanisms and reactions; strategies and tactics of complex organic syntheses. Lab. Prereq.: 271. 3 Cr. S-Alt.

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

580. Biochemistry 1. (3, 3) The chemical structure and function of most fundamental biomolecules; carbohydrates, lipids and proteins. Fundamentals of enzyme function and metabolism. Prereq.: 271, 4 Cr. F, S on DEMAND.

581. Biochemistry 2. (3, 3) Major metabolic pathways; biochemistry of nucleic acids; and biophysical techniques. Prereq.: 480/580. 4 Cr. S.

590. Seminar. (1, 0) Lectures, readings, discussion on selected topics. The successful conclusion of the course involves a formal presentation by the student in the form of a seminar to the department. May be repeated to a max. of 4 Cr. 1 Cr. F, S.

Child & Family Studies (CFS)

B109 EDUCATION BUILDING/255-2132

Chairperson: Glen Palm

Graduate Faculty: Bauermeister, Blaska, Gilman, Hasslen, Mayala, Minden, Palm

Master of Science – Child and Family Studies

Three Master of Science Child and Family Studies degree options: early childhood special education, family studies and early education are offered within this program.

Master of Science – Child and Family Studies: Early Childhood Special Education

Early Childhood Special Education 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 who have disabilities or in programs working with parents of such children. Either Plan A or Plan B options are available.

Plan A, students complete thesis: 32 credits

Plan B, students complete starred papers: 36 credits

1. Research Core: Required: Plan A, 6-9 Cr.; Plan B, 3-9 Cr.
Choose from the following courses or equivalent with adviser's duplicate entry:

ED 615. Introduction to Research, 3 Cr.
CFS 621. Advanced Development of Young Children, 3 Cr.
CFS 622. Advanced Studies of Parents and Families, 3 Cr.
APSY 678. Introduction to Graduate Statistics, 3 Cr.
CFS 699. Thesis (Plan A only), 6 Cr.

2. Child and Family Studies Core: Plan A, 18 Cr.; Plan B, 21 Cr.

CFS 505. Selected Topics in Child and Family, 1-4 Cr.
CFS 506 Early Literacy in Inclusionary Settings, 2 Cr.
CFS 508. Developmental Screening and Assessment, 3 Cr.
CFS 511. Foundations of early education, 3 Cr.
CFS 513. Guidance of Young Children, 2 Cr.
CFS 515. Foundations of Parent/Family Education, 3 Cr.
CFS 519. Professional/Ethical Considerations, 3 Cr.
CFS 521. Development of Young Children, 3 Cr.
CFS 522. Families: Theories & Strategies, 3 Cr.
CFS 560. Student Teaching: Prekindergarten, 1-4 Cr.
CFS 605. Issues and Topics in Early Childhood, 1-4 Cr.
CFS 623. Analysis of Early Education, 3 Cr.
CFS 625. Methods of Parent/Family Education, 2 Cr.
CFS 626. Working with Families with Special Circumstances, 2 Cr.
CFS 627. Home Visiting, 2 Cr.
CFS 631. Development of Infants & Toddlers, 3 Cr.
CFS 632. Analysis of Families with Children with Disabilities, 2 Cr.
CFS 633. Methods: Young Children with Disabilities, 3 Cr.
CFS 635. Parenthood & Adult Development, 2 Cr.
CFS 636. Fathers in Parent Education, 2 Cr.
CFS 643. Methods: Infants & Toddlers with Disabilities, 3 Cr.
CFS 645. Working with Parents in Group, 2 Cr.
CFS 653. Methods: EC Methods: Reading, Math, Science, 3 Cr.
CFS 661. Practicum in Development of Young Children, 1 Cr.

CFS 662. Family Practicum, 1 Cr.
CFS 668. Screening Practicum, 1 Cr.

3. Specialization Block: Special Needs: Plan A, 8 Cr.; Plan B, 12 Cr.

SPED 503. Foundations I, 3 Cr.
SPED 505. Classroom and Behavior Management, 3 Cr.
SPED 647. Developmental Disabilities: Methods, 3 Cr.
ED 620. Characteristics of Students with Physical, Health and Developmental Disabilities, 3 Cr.
CFS 680. ECSE Infant /Toddler Student Teaching, 2 Cr.
CFS 681. ECSE Preschool Student Teaching, 2 Cr.
CFS 682. ECSE K-Primary Student Teaching, 2 Cr.
CDIS 568. Introduction to Children's Language, 3 Cr.

Additional courses may be needed for teaching licensure, contact your adviser.

NOTE: A minimum of half of the credits must be at the 600 level.

Master of Science – Child and Family Studies: Family Studies

Family studies is a degree for early childhood family education teachers and other graduate students seeking a family emphasis.

Plan A, students complete thesis: 32 credits

Plan B, students complete starred papers: 36 credits

1. Research Core: Required: Plan A, 6-9 Cr.; Plan B, 3-9 Cr.
Choose from the following courses or equivalent with adviser's approval:

ED 615. Introduction to Research, 3 Cr.
APSY 678. Introduction to Graduate Statistics, 3 Cr.
CFS 621. Advanced Development of Young Children, 3 Cr.
CFS 622. Advanced Studies of Parents and Families, 3 Cr.
CFS 699. Thesis (Plan A only), 6 Cr.

2. Child and Family Studies Core: Plan A, 18 Cr.; Plan B, 21 Cr.

CFS 505. Selected Topics in Child and Family, 1-4 Cr.
CFS 515. Foundations of Parent/Family Education, 3 Cr.
CFS 519. Professional/Ethical Considerations, 3 Cr.
CFS 521. Development of Young Children, 3 Cr.
CFS 522. Families: Theories & Strategies, 3 Cr.
CFS 605. Issues and Topics in Early Childhood, 1-4 Cr.
CFS 625. Parent Education Methods, 2 Cr.
CFS 631. Development of Infants & Toddlers, 3 Cr.
CFS 635. Parenthood & Adult Development, 2 Cr.
CFS 645. Working with Parents in Group, 2 Cr.
CFS 661. Practicum in Development of Young Children, 1 Cr.
CFS 662. Family Practicum, 1 Cr.
CFS 665. Parent Education Methods Practicum, 1 Cr.
CFS 666. Parent Education Group Practicum, 1 Cr.
CFS 675. Parent Education Student Teaching, 3 Cr.

3. Specialization Block: Family Studies: Plan A, 8 Cr.; Plan B, 12 Cr.

CFS 626. Working with Families with Special Circumstances, 2 Cr.
CFS 627. Home Visiting, 2 Cr.
CFS 632. Analysis of Families with Children with Disabilities, 2 Cr.

- CFS 636. Fathers in Parent Education, 2 Cr.
 CFS 646. Adv. Group Skills in Parent Ed., 2 Cr.
 CFS 654. Parent Education with Parents of 5-10 year olds, 2 Cr.
 CFS 655. Parent Education with Parents of 10-15 year olds, 2 Cr.

Additional courses may be used for this block with permission of adviser. Additional courses may be needed for teaching licensure, contact your adviser.

NOTE: A minimum of half of the credits must be at the 600 level.

Master of Science – Child and Family Studies:

Early Education

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.

Plan A, Students complete thesis: 32 credits

Plan B, Students starred papers: 36 credits

1. Research Core: Required: Plan A, 6-9 Cr.; Plan B, 3-9 Cr.

Choose from the following courses or equivalent with adviser's approval:

- ED 615. Introduction to Research, 3 Cr.
 APSY 678. Introduction to Graduate Statistics, 3 Cr.
 CFS 621. Advanced Development of Young Children, 3 Cr.
 CFS 620. Advanced Studies of Parents and Families, 3 Cr.
 CFS 699. Thesis (Plan A only), 6 Cr.

2. Child and Family Studies Core: Plan A, 18 Cr.; Plan B, 21 Cr.

- CFS 511. Foundations of Early Education, 3 Cr.
 CFS 513. Guidance of Young Children, 3 Cr.
 CFS 521. Development of Young Children, 3 Cr.
 CFS 522. Families: Theories & Strategies, 3 Cr.
 CFS 560. Student Teaching: Prekindergarten, 1-4 Cr.
 CFS 623. Analysis of Early Education, 3 Cr.
 CFS 626. Working with Families with Special Circumstances, 2 Cr.
 CFS 627. Home Visiting, 2 Cr.
 CFS 631. Development of Infants & Toddlers, 3 Cr.
 CFS 633. Methods: Young Children with Disabilities, 3 Cr.
 CFS 636. Fathers in Parent Education, 2 Cr.
 CFS 653. Early Childhood Methods: Reading, Math, Science (5-8 years), 3 Cr.
 CFS 661. Practicum in Development of Young Children, 1 Cr.

3. Specialization Block: Early Education: Plan A, 8 Cr.; Plan B, 12 Cr.

- CFS 506. Early Literacy in Inclusionary Settings, 2 Cr.
 CFS 515. Foundations of Parent/Family Education, 3 Cr.
 CFS 519. Professional/Ethical Considerations, 3 Cr.
 CFS 525. Methods of Parent/Family Education, 3 Cr.
 CFS 635. Parenthood & Adult Development, 2 Cr.
 CFS 643. Methods: Infants & Toddlers with Disabilities, 3 Cr.
 CFS 645. Working with Parents in Group, 2 Cr.
 CFS 653. Methods: EC Methods: Reading, Math, Science, 3 Cr.
 CDIS 568. Introduction to Children's Language, 3 Cr.

Additional courses may be needed for teaching licensure, contact your adviser.

NOTE: A minimum of half of the credits must be at the 600 level.

Fifth Year Program: Child and Family Studies

Students who wish to pursue a teacher licensure program in CFS at the graduate level but who do not wish to pursue a master's degree, should apply to the graduate office for admission to the CFS Fifth Year Program.

After Admission to the Fifth Year Program, the department will review your previous coursework and experience to determine which licensure requirements you may already have met. When this departmental review is complete, you will complete a licensure plan of study.

Graduate Teacher Licensure

Programs available leading to recommendation for licensure in early childhood special education, parent education, or early education (Prekindergarten ends in August 2001).

It is possible to combine course work and to receive more than one license. Students interested in licensure at the graduate level should write to: Chairperson, Child and Family Studies Department, Education Building, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498. Students who wish to pursue licensure but who do not intend to complete a master's degree must complete an application to graduate school for the Fifth Year Program.

Students seeking admission to the Fifth Year Program follow the application procedures listed in the Graduate Bulletin. The CFS graduate program is designed for both full-time and part-time students. Most courses are offered in the evening with a limited offering of weekend classes. The graduate summer school offerings typically include courses applicable to teaching licensure.

Early Childhood Special Education Graduate Licensure:

- CFS 511. Foundations of Early Education, 3 Cr.

Development:

- CFS 521. Development of Young Children, 3 Cr.
 CFS 631. Development of Infants & Toddlers, 3 Cr.
 CFS 661. Practicum Development of Young Children, 1 Cr.

Methods:

- CFS 633. Methods: Young Children with Disabilities, 3 Cr.
 CFS 643. Infants & Toddlers with Disabilities, 3 Cr.
 SPED 647. Developmental Disabilities: Methods, 3 Cr.

Family:

- CFS 632. Analysis of Families with Children with Disabilities, 2 Cr.
 CFS 662. Family Practicum, 1 Cr.
 CFS 508. Developmental Screening and Assessment, 3 Cr.
 CFS 668. Assessment Practicum, 1 Cr.
 SPED 505. Classroom & Behavior Management, 4 Cr.
 SPED 620. Characteristics of Students with Physical, Health and Developmental Disabilities, 3 Cr.

Student Teaching:

- CFS 680. ECSE Infant/Toddler Student Teaching, 2 Cr.
 CFS 681. ECSE Preschool Student Teaching, 2 Cr.
 CFS 682. ECSE K-Primary Student Teaching, 2 Cr.

Parent Education Graduate Teacher Licensure:

- CFS 515. Foundations of Parent/Family Education, 3 Cr.
 CFS 521. Development of Young Child, 3 Cr.
 CFS 522. Families: Theories and Strategies, 3 Cr.
 CFS 625. Parent Education Methods, 2 Cr.
 CFS 631. Development of Infants/Toddlers, 3 Cr.
 CFS 635. Parenthood & Adult Development, 2 Cr.
 CFS 645. Working with Parents in Groups, 2 Cr.
 CFS 665. Parent Education Methods Practicum, 1 Cr.
 CFS 666. Parent Ed. Group Practicum, 1 Cr.
 CFS 675. Parent Education Student Teaching, 3 Cr.

Students must take 6 credits from the following courses or special topics approved by the student's adviser: (For new license -- students can complete old licensure requirements before August 2001).

CFS 605. Special Topics, VR Cr.

CFS 626. Working with Families in Special Circumstances, 2 Cr.

CFS 627. Home Visiting, 2 Cr.

CFS 632. Analysis of Families with Children with Disabilities, 2 Cr.

CFS 636. Fathers in Parent Education, 2 Cr.

CFS 646. Advanced Group Skills in Parent Education, 2 Cr.

CFS 654. Parent Education with Parents of 5-10 year olds, 2 Cr.

CFS 655. Parent Education with Parents of 5-10 year olds, 2 Cr.

NOTE: Students must also meet other state requirements for teachers, as needed, based on their undergraduate degree and experience.

COURSE DESCRIPTIONS

505. Selected Topics in Child and Family Studies. Current issues, child/family programs, teaching methods. May be repeated to a max. of 4 credits. 1-4 Cr. DEMAND.

506. Early Literacy in Inclusionary Settings. How literacy develops in young children. Importance of literacy rich environments for children with and without disabilities. Designing and evaluating literacy rich environments. Incorporating literacy rich practices in learning centers and dramatic play centers. Teacher behaviors and materials that promote early literacy development. 2 Cr. DEMAND.

508. Developmental Screening and Assessment. Philosophies, procedures and appropriate practices in the screening and assessment of infants, toddlers and preschoolers. Hands-on experience in conducting assessments of young children for referral/eligibility for special education. Interpretation of results for intervention. Coreq.: 668. 3 Cr. S.

511. Early Education Foundations. Overview of early childhood, early childhood special education including history, philosophies, legal requirements. Professional viewpoints from national organizations. Models of early education and early childhood special education. 3 Cr. F

513. Guidance of Young Children. Guidance approach for young children. Managing the classroom and daily routines. Using effective communication. Positive alternate solutions to discipline young children. Crisis management techniques including working with special education. 3 Cr. F

515. Foundation of Parent/Family Education. Introduction to the history, philosophy and program models for parent/family education with an emphasis on Early Childhood Family Education in Minnesota. Diverse family systems and needs for parent education are considered. Professional and ethical behavior are outlined. 3 Cr. F

521. Development of Young Children. Typical and atypical development of children, ages 3 through 10. Application of theories of development, observation skills, and understanding of the influence of early experiences for early childhood practices. 3 Cr. S.

522. Families: Theories and Strategies. In-depth analysis of diverse family systems. Theories of family development. Developing communication skills and partnership strategies. Values and attitudes and their impact on working with families. Family stress, coping and resources. Families with challenges. Levels of parent involvement. Analyzing current issues and their impact on families. 3 Cr. F

524. Administration of Early Education. This course is designed to give students skills necessary to direct and operate programs in early childhood education. Current legislation is studied. 2 Cr. DEMAND.

526. Play as a Learning Medium. How young children learn through play, environments of play, play theory, the development of play, play curriculum. 2 Cr. DEMAND.

560. Early Education Student Teaching. Supervised student teaching in early childhood settings. Prereq.: College of Education CORE courses and admittance to Teacher Education. 3-10 Cr. F, S. X grading option.

561. Pre-professional Seminar. For student teachers. Professional ethics and standards, development of a personal education philosophy, professional goals and competencies, contemporary issues. Prereq.: College of Education CORE courses and admittance to Teacher Education. 1 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

605. Issues and Topics in Early Childhood and Family Studies.

A variable content course design 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. 1-4 Cr. DEMAND.

621. Advanced Child Development/Student Research. A seminar focusing on child development and research and current issues for students working on MS projects. An overview of the research process and strategies for completing thesis and starred papers. 3 Cr. DEMAND.

622. Advanced Family Studies/Student Research. Seminar focusing on family studies and research and current issues for students working on MN projects. An overview of the research process and strategies for completing a thesis and starred papers. 3 Cr. DEMAND.

623. Analysis of Early Education. Evaluation, planning, designing learning environment, equipment/facilities, teaching roles, socialization of children in early childhood education. 3 Cr. S.

625. Methods of Parent and Family Education. Overview of various methods and curricula used in the field of parent and family education. Review and evaluation of existing programs and curricula. Development and adoption of parent and family education curricula for specific populations. Coreq.: 665. 2 Cr. S.

626. Working with Families in Special Circumstances.

Consideration for working with families experiencing stress due to poverty, racism, limited literacy, disabilities and family violence. Family strengths approach and role of parent/family education in addressing difficult family circumstances. 2 Cr. DEMAND.

627. Home Visiting. Home visiting is explored as a strategy for offering educational services to parents and young children. Different goals, communities and cultural contexts. Specific skills needed to implement this strategy are addressed. 2 Cr. DEMAND.

631. Development of Infants and Toddlers. Study of development prenatally to 2 years, typical and atypical. Analysis of the impact of family, community, culture and society upon development. Examination of ethical issues associated with this period of development. Coreq.: 661. 3 Cr. F

632. Analysis of Families with Children with Disabilities.

Analysis of diverse family systems with children with disabilities or chronic illness. Utilizing a family centered approach. Working in partnerships: effective teaming and communication techniques. Family stress and coping. Extended family: siblings and grandparents. Coreq.: 662. 2 Cr. S.

633. Methods: Young Children with Disabilities. Develop curriculum based on assessment data, children's goals, objectives and best practices. Understand inclusion and strategies for implementation. Designing and evaluating environments. Utilizing activity based instruction, adaptation strategies and curricula free from bias. Using a language based curricula with rich literacy activities. Incorporating multi-sensory activities, music, movement, art, technology and other content areas throughout the curriculum for children 3-5 years. 3 Cr. S.

635. Parenthood and Adult Development. Stages of parenthood and interface with adult development. Application of adult learning theories to parent education settings. 2 Cr.

636. Fathers in Parent Education. Exploration of the changing roles of fatherhood. Gender as a factor in relation to goals of parent education, styles of discipline, communications styles, and parent roles. Adapting programs to meet the needs of fathers in various family settings. 2 Cr.

643. Methods: Infants and Toddlers with Disabilities. Teaching strategies for infants and toddlers with disabilities/delays including appropriate handling, positioning and feeding related to disabilities and/or special health concerns. Linking assessment information to the development of appropriate goals/objectives and interventions. Working as a member of an interdisciplinary team/development of IFSPs/Home visiting. 3 Cr. S.

645. Working with Parents in Groups. In-depth analysis of group dynamics and effective group skills in parent education. Theories of group process and approaches to leadership. Communication within groups. 3 Cr.

646. Advanced Group Skills in Parent Education. Advanced skills for working with parents at different levels of involvement. Adaptation of communication and consultation parent education skills for use with individual parents and groups in parent education. Prereq.: 645. 2 Cr. DEMAND.

653. Early Childhood Methods: Reading, Math, Science (5-8 years). Understand how reading, writing, math and science are learned and taught. Methods to adapt and modify these curricular areas for students with disabilities in inclusionary settings. Teaching functional use of these four areas and integrating them into play and thematic units. 3 Cr. F

654. Parent Education with Parents of 5-10 year olds. Methods and resources for designing parent education for parents of 5-10 year olds. Emphasis on ways to guide development, support a child's learning and reinforce a family's values system. 2 Cr. DEMAND.

655. Parent Education with Parents of 10-15 year olds. Methods of working with parents of 10-15 year olds. An emphasis on understanding development, communication techniques and monitoring activities. 2 Cr. DEMAND.

661. Practicum in Development of Young Children. Field experience involving aspects of observation, assessment, participation with and planning for infants and toddlers. Coreq.: 521 or 631. May be repeated to a max. of 2 credits. 1 Cr. DEMAND.

662. Family Practicum. Develop sensitivity and skills for working with families who have children with disabilities. Conduct parent interviews. Do respite care for a child with a disability. Critical analysis of family needs, concerns, priorities, and resources. Coreq.: 632. 1 Cr. S.

665. Parent Education Practicum. Field experiences observing parent education settings. Analysis and development of parent education methods and resources. Coreq.: 625. 1 Cr. S.

666. Parent Education Group Practicum. Field experiences observing parent groups in a variety of parent and family education settings. Analysis of group process and situations. Coreq.: 645. 1 Cr. DEMAND.

668. Practicum Assessment. Field experiences in conducting norm-referenced and criterion-referenced assessment procedures and authentic assessment processes with infants and preschoolers. Coreq.: 508. 1 Cr. S.

674. Field Experiences or Research in Administration and Facilitation of Early Childhood. Opportunity to participate in a variety of administrative roles in early childhood programs. A practicum for students which will provide an experience as an administrator or coordinator of early childhood programs. 1-4 Cr. DEMAND.

675 Parent Education Student Teaching. Supervised student teaching in parent/family education programs with parent groups. Students also participate in a concurrent seminar with peers. 3 Cr. F; S.

680. ECSE Infant Student Teaching. Supervised student teaching in ECSE infant/toddler programs. Student teaching seminar. 2-4 Cr. F; S. X-grading option.

681. ECSE Preschool Student Teaching. Supervised student teaching in ECSE preschool programs. Student teaching seminars. 2-4 Cr. F; S. X-grading option.

682. ECSE K-Primary Student Teaching. Supervised student teaching in ECSE K-Primary inclusionary programs. Student teaching seminars. 2-4 Cr. S. X-grading option.

699. Master's Thesis. 1-6 Cr. DEMAND.

Communication Disorders (CDIS)

A216 EDUCATION BUILDING/255-2092

Chairperson: Gail Anderson

Graduate Faculty: Anderson, Brundage, Devers, LaVoi, Rao, Whites

The graduate program in communication disorders (CDIS) is accredited by the American Speech-Language-Hearing Association. Students earning a Master of Science degree will have completed the academic course work and clinical experiences that make them eligible to apply for the ASHA Certificate of Clinical Competence in Speech-Language Pathology. The Department of Communication Disorders at St. Cloud State University offers no graduate degree in audiology.

Phase I and Phase II

Master of Science degree in CDIS is subdivided into Phase I and Phase II. A student must have applied and been accepted into the CDIS graduate program in order to complete courses in either phase of the degree program. Admission standards and application deadlines are the same for students accepted into Phase I and Phase II.

Students begin study at Phase I if they are accepted into the graduate program with no undergraduate degree or preparation in the professional discipline. Students with an undergraduate major or minor in communication disorders initiate study at Phase II. The courses in Phase I are prerequisites for Phase II courses; students will not be permitted to enroll in Phase II courses until Phase I courses have been completed.

Phase I consists of a minimum of 30 credits with no electivity. Additional Phase I credits would be required for students with baccalaureate degrees that did not include at least 6 credits in math, human biology, chemistry, physics or computer science and at least 6 credits in the social and/or behavioral sciences. Phase II credit requirements may exceed 49 credits with a degree of electivity. Phase II credit requirements may exceed 49 credits if prerequisites have not been met, students elect to complete additional courses, or additional practicum is required in order to meet certification standards.

Students beginning study at Phase I need not reapply for Phase II of the graduate degree program. Progression into Phase II is contingent upon a student maintaining at least a 3.0 grade point average across each semester of Phase I coursework. Students must discontinue study in Phase I at any point where the grade point average falls below a 3.0 minimum. A 3.0 grade point average must be maintained during each semester of Phase II course work.

Part-Time Program: Students can complete a Master of Science degree in CDIS through either a full-time or part-time program. Admission procedures, standards, and application deadlines are the same for both programs of study. Additionally, students admitted to the part-time program must have completed at least one semester of supervised clinical practica prior to admission. Students are asked to indicate their intention to enter the full-time or part-time program at the time they apply for admission. The part-time option is available only for the Phase II portion of the degree program; completion of Phase I coursework requires full-time enrollment. Part-time students can complete the Master of Science degree in CDIS by enrolling in evening classes during the regular academic year and completing clinical requirements during summer sessions. To accommodate the needs of part-time students, all Phase II graduate courses are offered as evening classes on a rotating basis over a five year period. In order to change from part-time to full-time status, students must request to have their applications reconsidered on a competitive basis with other students applying for the limited number of full-time admissions.

Admission Procedures and Standards

Application Deadline: All application materials for admission must be received by the St. Cloud State University Office of Graduate Studies by February 1. Students who are accepted into the graduate program will receive notification approximately one month after the application deadline. Students who are offered admission to graduate study have two weeks in which to accept or reject the offer. The admission process continues until the available slots are filled. When all available slots are filled, applications will not be considered until the next academic year. Offers for admission to graduate study in CDIS are good only for the specific year in which a student applied; students must reapply each year they wish to be considered for admission.

Admission standards: The departmental selection is heavily based on the applicants' scores earned on the Verbal and Quantitative subsections of the Graduate Record Examination (GRE); on undergraduate grade point averages; and on recommendation letters from faculty familiar with the applicant's potential for success in graduate school. No departmental minimum has been established for the total verbal and quantitative score on the GRE. Departmental admissions standards require a 3.0 or better grade point average on undergraduate CDIS coursework or on coursework completed in the last two years of a baccalaureate degree in another discipline.

During the six year period 1990 through 1996, students admitted to the graduate program in CDIS have averaged a combined GRE Verbal and Quantitative score of 968 and a 3.40 cumulative undergraduate grade point average.

Number of Admissions: The Department of Communication Disorders grants admission to approximately 15 full-time students each academic year. A small number of the 15 full-time admissions are granted to students beginning study at Phase I of the degree program. The department admits no more than 5 part-time students each year, with the number of part-time students not to exceed a total of 25 at any given time.

Financial Assistance: Application for admission is separate from the process of applying for financial assistance. Students should contact the Office of Financial Aids and/or the Office of Graduate Studies for information on types of financial assistance available and the application processes involved. The Department of Communication Disorders annually awards graduate assistantships. To apply for departmental graduate assistantships, contact Dr. Shelley Brundage, Director of CDIS Graduate Studies.

Beginning Dates: Full-time and part-time students are strongly encouraged to begin their academic programs during either summer or fall semester. Initiating study during fall semester is crucial for full-time students in Phase I.

Length of the Degree Program: Students admitted into Phase I can complete the Master of Science degree in six to seven semesters of full-time study. Full-time students admitted to Phase II can complete the Master of Science degree in four to five semesters. It normally takes part-time students five years to complete the degree. The length of time needed to complete the degree increases for students who have deficiencies in undergraduate prerequisites, who have not accumulated at least 100 undergraduate clinical clock hours, who elect to complete additional coursework, and/or who elect to carry less than a normal academic load.

Thesis or Non-thesis Plan: In order to fulfill the requirements for the Master of Science degree, students may choose to complete a thesis (Plan A) or written comprehensive examinations (Plan B). Thesis students enroll for 6 thesis credits and therefore do not have to complete support course electives. Students who are interested in writing a thesis are encouraged to make their interest known early in their graduate education. Students must successfully defend their thesis work in partial fulfillment of the requirements for the MS degree. Comprehensive examinations are held during fall and spring semesters. Full-time students typically write these examinations during the fall semester of their second year. Students must successfully pass the comprehensive examinations in partial fulfillment of requirements for the MS degree.

Teacher Licensure: In order to be eligible to apply for teacher licensure students must: complete the master's degree in CDIS; take and pass the Pre-professional Skills Test; and complete all requirements for the Certificate of Clinical Competence (CCC). Students may take education courses of relevance/interest to fulfill electives for the master's degree, with permission of their adviser.

Master of Science in Communications Disorders

Phase I - Min., 30 Cr.

- CDIS 220. Phonetics, 3 Cr.
- CDIS 322. Anatomy and Physiology of the Speech Mechanism, 3 Cr.
- CDIS 324. Speech Science, 3 Cr.
- CDIS 325. Hearing Science, 3 Cr.
- CDIS 526. Neurological Bases of Speech and Language, 3 Cr.
- CDIS 534. Articulation Disorders, 3 Cr.
- CDIS 541. Hearing Measurement, 3 Cr.
- CDIS 542. Audiologic Rehabilitation, 3 Cr.
- CDIS 559. Language Development I, 3 Cr.
- CDIS 560. Language Development II, 3 Cr.

Additional courses beyond the 30 credits in Phase I would be required for students with baccalaureate degrees that did not include at least 6 semester credits in math, human biology, chemistry, physics or computer science and at least 6 semester credits in the social and/or behavioral sciences. CDIS 350 may be needed if students have not completed 25 hours of observation.

Phase II, 49 Cr.

Plan A or B, 49 Cr.

I. Research: Min., Plan A, 11 Cr.; Plan B, 5 Cr.

- CDIS 620. Research in Communication Disorders, 2 Cr.
- CDIS 699. Thesis (Plan A only), 6 Cr.
- APSY 678. Introduction to Graduate Statistics, 3 Cr.

II. Major: Min., Plan A or B, 26 Cr.

A. Professional Core

- CDIS 636. Diagnostics in Speech-Language Pathology, 2 Cr.
- CDIS 677. Seminar: Professional Issues and Ethics in Speech-Language Pathology, 2 Cr.
- CDIS 642. Audiological Evaluation and Management of Speech-Language Pathology, 2 Cr.

B. Disorders Courses

1. Language area: Min. 3 of 4 courses
 - CDIS 540. Communication Disorders of the Aged, 2 Cr.
 - CDIS 566. Augmentative Communication Systems, 2 Cr.
 - CDIS 635. Aphasia, 2 Cr.
 - CDIS 678. Seminar: Language Disorders in Children, 2 Cr.
2. Speech Area: Min. 5 of 7 courses
 - CDIS 634. Cleft Palate, 2 Cr.
 - CDIS 637. Motor Speech Disorders, 2 Cr.
 - CDIS 638. Alaryngeal Speech, 2 Cr.
 - CDIS 639. Dysphagia: Diagnosis and Management, 2 Cr.
 - CDIS 670. Seminar: Voice Disorders, 2 Cr.

CDIS 671. Seminar: Phonological Disorders, 2 Cr.

CDIS 676. Seminar: Fluency Disorders, 2 Cr.

3. Disorders Electives: no minimum requirement

When minimums in areas 1 and 2 above are elected, students need 4 additional credits of disorders courses to total 26 credits.

III. Clinical Practicum (12 Cr. minimum)

1. Graduate Practicum* (6 Cr. minimum)
 - CDIS 648. Graduate Practicum: Univ. Clinic
 - CDIS 649. Graduate Practicum: Off-Campus
2. Internship* (6 Cr. minimum)
 - CDIS 650. Internship: Medical/Rehab
 - CDIS 651. Internship: Educational

IV. Support Course Area Electives, 0-6 Cr.

Plan A, 0 Cr.; Plan B, 6 Cr.

*Additional practicum may be required to meet ASHA certification standards. Practicum courses cannot be substituted for courses in research or professional area.

PHASE I COURSE DESCRIPTIONS

220. Phonetics. Speech sounds from a sociological, physiological and acoustical point of view. Instruction and training in the use of the International Phonetic Alphabet. 3 Cr. F

322. Anatomy and Physiology of the Speech Mechanism.

Gross anatomy and physiology of the structures and processes related to respiration, phonation, articulation and central nervous system functioning. 3 Cr. S.

324. Speech Science. Integration of the physiological processes of respiration, phonation, articulation, and resonance for normal speech. Speech perception and techniques used in the study of normal speech; procedures and instrumentation used in the clinical measurement of speech and voice. 3 Cr. F

325. Hearing Science. Sounds and its measurement, anatomy and physiology of the auditory system, and an introduction to psychoacoustics. 3 Cr. S.

350. Introduction to Practicum. Facilities and equipment, clinical observation of speech and language behavior; report writing, planning, therapy for different types of disorders; and application of principles of behavioral modification to therapeutic practices. 3 Cr. F

526. Neurological Bases of Speech and Language.

Neuroanatomy and neurophysiology of speech and language. Speech, language, cognitive, and swallowing disorders associated with different types of brain damage. Prereq.: 322. 3 Cr. F

531. Voice Disorders. Types and causes of voice disorders, principles and procedures underlying the diagnosis and treatment of voice disorders. 3 Cr. S.

532. Fluency Disorders. The nature and causes of disorders of fluency; approaches for assessing and treating fluency disorders. 3 Cr. S.

534. Articulation Disorders. Development of articulation in children; factors that enhance or impede development; diagnostic procedures used in articulation assessment; treatment strategies for disorders of articulation. Prereq.: 220. 3 Cr. S.

541. Hearing Measurement. Causes and effects of hearing disorders, classification of hearing loss, and medical management procedures. Basic audiometric procedures. Lab. Participation and clinical competency demonstration required. Prereq.: 325. 3 Cr. F

542. Audiologic Rehabilitation. Effects of hearing loss on language and communication for children and adults. Interpretation of audiologic results. Rehabilitation strategies. Audiogram interpretation and intervention planning. 3 Cr. S.

559. Language Development I. Language concepts and terminology. Basic principles and parameters of normal language development in prelinguistic, phonological, morphological and syntactic areas. Intended for CDIS majors only or permission of instructor. 3 Cr. F

560. Language Development II. Semantic and pragmatic development. Relationship between cognition and language, language development theories, bilingual language acquisition, dialectal variation, and *atypical language development*. Prereq.: 459/559. 3 Cr. S.

PHASE II COURSE DESCRIPTIONS

515. Topics in Speech-Language Pathology and Audiology.

Specialized topics related to speech, language and hearing. Areas of current interest to faculty and/or students. May be repeated to a maximum of 6 credits. 1-2 Cr. SUM or DEMAND.

540. Communication Disorders of the Aged. Management of older persons with speech, language, and hearing problems. 2 Cr. F

557. Clinical Program Organization in Communication

Disorders. Operating procedures of the communication disorders professional in a variety of work settings; federal and state legislation; organizing and evaluating programs. Prereq.: CDIS 130. 2 Cr. S.

561. Language Disorders: Assessment and Intervention.

Description of common language disorders. Strategies for assessing linguistic knowledge and usage. Intervention procedures for the remediation of language disorders. Prereq.: 459/559 and 460-560. 3 Cr. F

566. Augmentative Communication Systems. Non-vocal communication techniques for non-speaking persons. Determining the most appropriate augmentative communication for a particular client and teaching him/her how to use is. 2 Cr. F

COURSES FOR GRADUATE STUDENTS ONLY

620. Research in Speech-Language Pathology. Evaluation and results of original research; experimental design, statistical procedures. 2 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. 2 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. Prereq.: 426-526. 2 Cr. F

636. Diagnostics in Speech-Language Pathology. Evaluation and use of formal and informal diagnostic materials, with an emphasis on interpretation of test results. Includes participation in diagnostic evaluations and writing of diagnostic reports. 2 Cr. F

637. Motor Speech Disorders. Study of diagnosis and therapy for problems of conceptual motor planning (dyspraxia) and motor performance (dysarthria). Prereq.: 426-526. 2 Cr. S.

638. Alaryngeal Speech. Study of theoretical and clinical issues in restoration of communication in the laryngectomized patient. 2 Cr. F

639. Dysphagia: Diagnosis and Management. A review of the anatomy, physiology and neurology of normal swallowing; discussion of evaluation and treatment of swallowing disorders in surgically and neurologically impaired populations; discussion of ethical issues related to working with dysphagic patients. Prereq.: 426-526. 2 Cr. S.

642. Audiological Evaluation and Management for Speech-Language Pathologists. Review of standard audiometric procedures; interpretation of behavioral and physiological audiometric evaluations for pediatric and adult clients; formulation of management strategies for minimizing disabilities caused by hearing loss. 2 Cr. F

648. Graduate Practicum: University Clinic. Application of theory and research to the treatment of clients with communication disorders. Must be repeated to a minimum of 6 Cr. 1-2 Cr. F, S, SUM.

649. Graduate Practicum: Off-Campus. Application of theory and research to the treatment of clients with communication disorders in an off-campus setting. May be used to meet requirements of 6 Cr. of practicum to be completed prior to internship. Permission required. Prereq.: 3 Cr. of CDIS 648. 1-3 Cr. F, S, SUM.

650. Internship: Medical/Rehab. Development of clinical skills through supervised interactions with patients in hospital, rehabilitation, and other non-school settings. Prereq.: 2 sem. Cr. of CDIS 648. 6 Cr. F, S, SUM.

651. Internship: Educational. Development of clinical skills through supervised interactions with individuals in a school setting. Prereq.: 2 sem. Cr. of CDIS 648. 6 Cr. F, S, SUM.

670. Seminar: Voice Disorders. Study of current practices in the identification and management of voice disorders. 2 Cr. F

671. Seminar: Phonological Disorders. Theoretical bases, evaluative procedures and treatment strategies for phonological approaches to disorders of articulation. 2 Cr. S.

675. Consultation in Communication Disorders. Theories, models and methods of improving clients' communicative abilities through a system approach encompassing family, school, and other support agencies. Prereq.: senior status or higher with one quarter of practicum. 2 Cr. F

676. Seminar: Fluency Disorders. Discussion and evaluation of contemporary approaches to the management of fluency disorders in children and adults with an emphasis on stuttering. 2 Cr. S.

677. Seminar: Professional Issues and Ethics in Speech-Language Pathology. Expanding knowledge of professional ethics through a case study approach; presentation and discussion of current professional issues of concern to speech-language pathologists and audiologists. 2 Cr. F

678. Seminar: Language Disorders in Children. An in-depth study of issues related to the assessment and remediation of language problems exhibited by pre-school and school-aged children. Prereq.: consent or instructor. 2 Cr. S.

699. Thesis. 1-6 Cr. F, S, SUM.

Community Studies (CS)

365 STEWART HALL/255-3947

Coordinator: Pamela Mittlefehldt

Graduate Faculty: Greenberg, Karasik, Mehrhoff, Mittlefehldt, Robertson, E. Simpson, L. Tripp

The Center for Community Studies has general responsibility for the administration of the following interdisciplinary programs: American Studies, Gerontology, and Local and Urban Affairs.

For information on graduate offerings, see American Studies and Gerontology.

COURSE DESCRIPTIONS

555. Grant Development. Raising funds for public or non-profit organizations in Minnesota. Project or program design, budget creation, objective result delineation and writing for grants from foundations, government and corporations. 3 Cr. S.

566. Issues in Community Studies. A seminar on a special topic or issue in Community Studies. May be repeated under different topics. 3 Cr. F, S.

Computer Science (CSCI)

139 ENGINEERING AND COMPUTING CENTER/255-4966

Chairperson: Larry Grover

Graduate Faculty: Dathan, Grover, Herath, Julstrom, Ramnath, A. Schoenberger, Soule

Master of Science: Computer Science (Non-teaching)

Application deadline:

Fall semester - March 1

Spring semester - October 1

Final admission decision will take up to six weeks after application deadline (and ten weeks to get 1-20 for international students.)

An applicant for this degree must have completed the equivalent of an undergraduate degree with GPA of 3.0 or better and must achieve a GRE score of 1000 (verbal + quantitative) or better. Fully qualified applicants will have taken courses that cover the topics:

- ▲ Non-linear data structures; sorting and searching algorithms
- ▲ Computer architecture: hardware organization, I/O interface, interrupt mechanisms
- ▲ File systems; hashed indexed, ISAM files; B-trees; external sorting
- ▲ Programming languages: design and implementation
- ▲ Operating systems: process, memory and file system management; device handlers
- ▲ Finite mathematics and modern algebra

Applicants found deficient in any of these areas may be required to successfully complete one or more of CSCI 591, 592 or 593 before receiving full admission to the major.

Plan A, 30 credits

Core courses (14 credits): CSCI 520, 604, 610, 2 Cr. of 680 and either 502 or 504.

Thesis (6 credits): CSCI 699.

500-level electives (no more than 9 credits).

600-level electives

Plan B, 32 credits

Core courses (14 credits): CSCI 520, 604, 610, 2 Cr. of 680 and either 502 or 504.

Research (2 credits): CSCI 690.

500-level electives (up to 10 credits).

600-level electives

For both Plan A and Plan B, the 500-level elective courses must include courses from at least two of the following areas:

Theory: CSCI 502, 503, 504, 521

Software development: CSCI 530, 531, 532.

Systems software: CSCI 511, 512, 513, 550.

AI: CSCI 540, 541, 542.

A course may not count as both a core and as an elective. A student who successfully completes a course may not, afterwards, take for credit any prerequisite to that course.

COURSE DESCRIPTIONS

502. Introduction to the Theory of Computation. Regular languages, finite-state automata, context-free languages, grammars, push-down automata, Turing machines, Church's thesis, the halting problem and computability. Prereq.: 320, 330. 3 Cr. DEMAND.

503. Theory, Design and Construction of Compilers. Formal grammars, lexical analysis, symbol tables, syntax analysis and parsing, type checking, code generation, code optimization. Prereq.: 320, 330. 5 Cr. DEMAND.

504. Design and Analysis of Algorithms. Computing time functions; maximum, minimum and average computing time of various algorithms. Prereq.: 331, MATH 253. 3 Cr. DEMAND.

511. Database Theory and Design. Principles of database systems, theory of relational databases, design techniques, concurrency control and recovery, object-oriented systems. Prereq.: 330. 3 Cr. DEMAND.

512. Distributed Systems Principles. Distributed systems architecture. Process synchronization. Distributed operating systems, file systems and database systems. Projects. Prereq.: 310. 3 Cr. DEMAND.

513. Computer Networks. Computer network architecture. The OSI seven-layer reference model and communication protocols. Network services. Projects for current applications. Prereq.: 310. 3 Cr. DEMAND.

520. Advanced Computer Architecture. Advanced computer architectures. Theories of parallel processing; multiprocessing algorithms and languages. Prereq.: 320 or EE 421. 3 Cr. DEMAND.

521. Introduction to Finite Switching and Automata. Introduction to mathematical concepts concerning the design and study of finite switching and automata theory. Fault diagnosis and detection. Algebraic structure, decomposition and memory span. Linear machines and finite state recognizers. Prereq.: 320. 4 Cr. F

530. Object-Oriented Software Development. Techniques for identifying and specifying objects, object classes and operations in designing software. Development of a major project using object-oriented analysis, design and programming techniques. Prereq.: 202 or permission of instructor. 3 Cr. DEMAND.

531. Software Engineering I. Introduction to the history and goals of software development, software specification and specification languages, requirements and requirements languages. FSA specification techniques. Software engineering design tools and testing. Lab. Prereq.: 310, 330. 5 Cr. DEMAND.

532. Software Engineering II. Continuation of Software Engineering I. Verification and validation in the design of software and throughout the life cycle. Quality assurance and control, software evolution. Performance emphasis on metrics and models. Lab. Prereq.: 431. 5 Cr. DEMAND.

540. Introduction to Artificial Intelligence. Heuristic versus deterministic methods, game playing programs, theorem proving programs, decision making programs. Prereq.: 330, MATH 253. 3 Cr. DEMAND.

541. Neural Networks. Natural and artificial neural networks. Back propagation, conjugate gradients, cascade-correlation training methods, associative memory. Self-organizing nets, adaptive resonance nets, Hopfield nets, constraint satisfaction networks. Design and applications. Prereq.: 320 or permission of instructor. 3 Cr. DEMAND.

542. Expert Systems. Introduction to the theory and applications of expert systems. Knowledge acquisition and representation. An expert systems language. Design and evolution of expert systems. Prereq.: 330. 3 Cr. DEMAND.

550. Computer Graphics. Algorithms, data structures and techniques for generating graphics. Graphics hardware, display primitives, geometric transformations, perspective projection, clipping and user interaction. Prereq.: 320. 3 Cr. DEMAND.

575. Advanced Topics in Computer Science. An in-depth study of one or more issues in contemporary computer science not covered in other computer science courses. Prereq.: consent of instructor. May be repeated to a max. of 6 credits. 1-6 credits. DEMAND.

591. Preparatory Data Structures and Algorithms. Review of programming constructs, abstraction, data structures and algorithms for graphs, trees, strings, sorting and searching. 3 Cr. DEMAND.

592. Preparatory Computer Architecture. Computer architecture fundamentals. 3 Cr. DEMAND.

593. Preparatory Systems Software. Concepts of processes, process synchronization and scheduling. Management of primary and secondary storage. File and file systems structure. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Recursive Function Theory. Computable and primitive recursive functions. Pairing functions and Godel numbers. A universal program and the halting problem. Recursively enumerable sets. Diagonalization. Prereq.: 402 or equivalent. 3 Cr. DEMAND.

602. Models of Computation. Computation on strings. Turing machines and the halting problem. Processes, grammars and unsolvable problems. Classifying unsolvable problems. Prereq.: 601. 3 Cr. DEMAND.

604. Advanced Data Structures. Advanced techniques for data representation and manipulation and their analysis. Implementation of algorithms that use these techniques. Prereq.: permission of instructor. 3 Cr. DEMAND.

610. Advanced Concepts in Operating Systems. Theory of process synchronization and security. Distributed operating systems. Performance analysis. Prereq.: 310. 3 Cr. DEMAND.

615. Computer Security. Issues and techniques in computer security. Fundamentals of computer security and current problems. Prereq.: 310. 3 Cr. DEMAND.

621. VLSI Design and Testing. Principles of CMOS VLSI design and algorithms for IC layout. Digital faults, how to test for them and how to design digital circuits that facilitate testability. Prereq.: 504. 4 Cr. DEMAND.

641. Machine Vision and Manipulators. Human and machine vision. Image processing algorithms. Mathematical description and analysis of robot manipulators. Prereq.: 440 or equivalent. 3 Cr. DEMAND.

642. Natural Language Processing. Formal and natural languages. Grammars and parsing. Ambiguity resolution. Semantics. Scoping of noun phrases. Knowledge representation and reasoning. Prereq.: 440 or equivalent. 3 Cr. DEMAND.

680. Seminar in Computer Science. Seminar in current topics in computer science. Prereq.: graduate standing and consent of instructor. May be repeated to max. of 6 credits. 1-2 Cr. DEMAND.

690. Research in Computer Science. Supervised graduate research on advanced computer science topics. Research analysis and reporting. 2 Cr. DEMAND.

699. Thesis in Computer Science. Prereq.: graduate standing in computer science and consent of student's committee. 1-6 Cr. F, S, SUM.

Criminal Justice (CJS)

257 STEWART HALL/255-4101

Chairperson: Mary Clifford

Director of Graduate Program: Robert Prout

Graduate Faculty: Andzenge, Campbell, Clifford, Lawrence, Maloney, Prout, Schreiber, Seefeldt, Sweet

Master of Science – Criminal Justice

Before applicants can be admitted to the graduate program in Criminal Justice, they must meet the admission procedures for graduate school at St. Cloud State University. See the Policies section listed earlier in this bulletin for admission requirements.

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 and the director of the Criminal Justice Graduate Program.

1. The Master of Science degree in Criminal Justice is designed to serve the needs of several types of students:
 - a. Persons with no prior criminal justice employment experience or with no undergraduate degree in the field of criminal justice who wish to prepare for careers in law enforcement, corrections, administration of justice, or an allied area.
 - b. Persons who currently are employed full or part-time in criminal justice careers at the local, county, state, or federal level.
 - c. Persons with career experience in the criminal justice system who have secured leaves of absence and/or wish to acquire new competencies before returning to their careers.
 - d. Persons who have an interest in increasing their general knowledge and understanding of criminal justice, criminal justice research methods and resources, and microcomputing as tools for professional advancement.
 - e. Persons pursuing related graduate degrees who wish to complement their primary area of specialization with selected graduate course work in criminal justice.
 - f. Persons seeking scholarly preparation to teach or to do research themselves in criminal justice programs, perhaps moving directly from the master's degree to doctoral study.
 - g. Persons without a related undergraduate degree in criminal justice who wish to prepare to teach, consult, or do research in the field of criminal justice.
2. The curriculum is course-centered and traditional. Central to the Master of Science degree in Criminal Justice are the research courses and core courses required for all students. The specialization courses provide a solid base of knowledge in a specific sub-system of criminal justice, and enhance each student's opportunity to develop unique competencies.

Each student has the option of choosing one of three specializations. The courses within the criminal justice administration and criminal justice counseling tracks are specified. Within the elective track, direct student involvement in course selection is considered. Criminal justice master's degrees may be completed with a thesis (Plan A), Three Starred Paper(s) (Plan B), or a professional portfolio of projects and papers (Plan C). Each plan requires a preliminary conference and a final oral examination. Each plan also requires successful completion of a comprehensive written examination over all course work in the research and core areas.

Plan A: Thesis

Students pursuing the Plan A option are required to complete a minimum of 15 credits in research courses, CJS 660, and a minimum of 18 credits in specialization courses for a minimum total of 36 credits. A master's thesis and final oral defense of the thesis are requirements for degree completion.

Plan C: Professional Portfolio

Students pursuing the Plan C option are required to complete a minimum of 9 credits in research courses, CJS 660, 12 credits in application and implementations courses, and a minimum of 18 credits in their specialization, for a minimum total of 42 credits. The final product prepared by the student is a professional portfolio. Preliminary and final oral examinations over the professional portfolio are required.

Plan A (Thesis), 36 Cr.; Plan C (Professional Portfolio), 42 Cr.

One-half of the minimum requirements for entire program must be completed in 600-level courses.

I. Research: Min., Plan A, 15 Cr.; Plan C, 9 Cr.

Required: Plans A and C

APSY 678. Introduction to Graduate Statistics, 3 Cr.

CJS 677. Framing and Analyzing Research Problems, 3, Cr.

CJS 679. Research in Criminal Justice, 3 Cr.

Required: Plan A only

CJS 699. Thesis, 6 Cr.

II. Core: Min., Plan A or C, 3 Cr.

Required: Plan A or C

CJS 660. Theories of Criminal Behavior and Justice, 3 Cr.

III. Applications and Implementations: Plan C only, 12 Cr.

CJS 644. Practicum, 12 Cr. in the criminal justice setting.

Director of graduate program approval required.

IV. Specialization: Min., Plan A, 18 Cr.; Plan C, 18 Cr.

Director of the graduate program approval required before registering for courses.

Track 1: Criminal Justice Administration

CJS 511. Organization and Administration in Criminal Justice, 3 Cr.

CJS 515. Corrections: Theory and Practice, 3 Cr.

CJS 520. Critical Issues in Law Enforcement, 3 Cr.

CJS 530. Criminal Law, 3 Cr.

CJS 531. Criminal Procedure, 3 Cr.

CJS 533. Ethical Studies in Criminal Justice, 3 Cr.

CJS 540. Law of Corrections, 3 Cr.

CJS 541. Correctional Alternatives, 3 Cr.

CJS 545. Crisis Intervention, 3 Cr.

CJS 546. Child Abuse and the Criminal Justice System, 3 Cr.

CJS 550. Juvenile Justice System, 3 Cr.

CJS 555. Private Security and the Criminal Justice Community, 3 Cr.

CJS 561. Juvenile Legal Process, 3 Cr.

CJS 589. Seminar in Criminal Justice, 3 Cr.

CJS 600. Special Problems, 1-3 Cr.

CJS 601. History of Criminal Justice, 3 Cr.

CJS 644. Practicum, 3-12 Cr.

CJS 650. Readings, 1-3 Cr.

CJS 661. Juvenile Justice and Schools, 3 Cr.

CJS 681. Current Problems and Issues in Criminal Justice. May be repeated to a max. of 6 Cr.

PHIL 582. Philosophy of Law and Punishment, 3 Cr.

POL 582. Public Personnel Administration, 3 Cr.

POL 583. Managing Local Governments, 3 Cr.

POL 584. Public Budgeting, 3 Cr.

POL 585. Administrative Law, 3 Cr.

Track 2: Criminal Justice Counseling

Required:

- APSY 651. Counseling Theories, 3 Cr.
- APSY 666. Small Group Process, 3 Cr.
- APSY 668. Counseling Procedures, 3 Cr.
- APSY 671. Couples and Family Counseling, 3 Cr.

Select remaining credits from:

- CJS 511. Organization and Administration in Criminal Justice, 3 Cr.
- CJS 515. Corrections: Theory and Practice, 3 Cr.
- CJS 520. Critical Issues in Law Enforcement, 3 Cr.
- CJS 530. Criminal Law, 3 Cr.
- CJS 531. Criminal Procedure, 3 Cr.
- CJS 533. Ethical Studies in Criminal Justice, 3 Cr.
- CJS 540. Law of Corrections, 3 Cr.
- CJS 541. Correctional Alternatives, 3 Cr.
- CJS 545. Crisis Intervention, 3 Cr.
- CJS 546. Child Abuse and the Criminal Justice System, 3 Cr.
- CJS 550. Juvenile Justice System, 3 Cr.
- CJS 561. Juvenile Legal Process, 3 Cr.
- CJS 589. Seminar in Criminal Justice, 3 Cr.
- CJS 600. Special Problems, 1-3 Cr.
- CJS 601. History of Criminal Justice, 3 Cr.
- CJS 644. Practicum 1-12 Cr. (Plan B only)
- CJS 650. Readings, 1-3 Cr.
- CJS 661. Juvenile Justice and Schools, 3 Cr.
- CJS 681. Current Problems and Issues in Criminal Justice. May be repeated to a max. of 6 Cr.
- PHIL 582. Philosophy of Law and Punishment, 3 Cr.

Track 3: Elective

Course selection for the Track 3 specialization is based upon the needs of the student with adviser approval.

NOTE: CJS 511, 515, 520, 530, 531, 533, 540, 541, 545, 546, 550, 555, or 561 and PHIL 582 may not be utilized in the student's program if the concomitant 400-level course was completed at the undergraduate level at St. Cloud State University.

COURSE DESCRIPTIONS

511. Organization and Administration in Criminal Justice.

Principles of organization and administration in criminal justice. Current theories of organization as they relate to the needs of the criminal justice process. 3 Cr. ANNUAL.

515. Corrections: Theory and Practice. Historical development, theories and institutions of punishment and social control. Social systems of prisoners and officers; institutional administration and legal issues in management; and strategies of intervention; decision-making in sentencing and parole; and treatment and organization as they relate to the criminal justice process. Prereq.: CJS 111 or permission of the instructor. 3 Cr. ANNUAL.

520. Critical Issues in Law Enforcement. Critical issues facing contemporary law enforcement officials in a free society. Ethnic tension, civil disobedience, police conduct, unionization, civil disturbances, and professionalism within law enforcement are discussed. 3 Cr. ANNUAL.

521. P.O.S.T., Parts 1, 4, 6, 7. Principles of law enforcement, career influences, stress/crisis intervention, crime prevention, community relations, court testimony, and law enforcement communications, and cultural awareness. 1 Cr. ANNUAL.

522. P.O.S.T., Parts 2, 3, 5. Minnesota Statutes relating to Minnesota Criminal Code, of Minnesota Law enforcement procedures relating to search, arrest, confessions, identification, and evidence, and of Minnesota Statutes relating to juvenile justice. 1 Cr. ANNUAL.

530. Criminal Law. Principles of criminal liability, defenses to criminal prosecution, elements of major crimes. 3 Cr. ANNUAL.

531. Criminal Procedure. Law of criminal procedure from arrest through post-trial proceedings. 3 Cr. ANNUAL.

533. Ethical Studies in Criminal Justice. Ethical decisions relating to criminal justice issues. 3 Cr. DEMAND.

540. Law of Corrections. Study of laws regulating sentencing, authority of correctional agencies, prisoners' rights and remedies and community supervision. 3 Cr. DEMAND.

541. Correctional Alternatives. Alternatives to incarceration, including probation, fines, house arrest, electronic surveillance, restitution programs, sentencing to service, community residential facilities, parole and supervised release. Probation and community corrections agent roles and responsibilities; pre-sentence investigation; supervision methods. Prereq.: 111 and 415. 3 Cr. DEMAND.

545. Crisis Intervention. History, theory and methods of crisis intervention, especially as used in the criminal justice system, e.g. victims of crime, suicide, domestic violence. 3 Cr. DEMAND.

546. Child Abuse and the Criminal Justice System. A survey of the response to physical and sexual child abuse by the criminal justice system, including the law, law enforcement, prosecution, courts and corrections. 3 Cr. DEMAND.

550. Juvenile Justice System. History and development of the juvenile justice system; the role of police and juvenile courts; analysis of dispositional decisions; probation investigation and supervision functions; emphasis on juvenile corrections. Prereq.: 111 or permission of instructor. 3 Cr. DEMAND.

555. Private Security and the Criminal Justice Community. The powers and authority of private security personnel. Stresses requirements and restrictions on private security. Includes criminal and civil liabilities faced by private security personnel. 3 Cr. DEMAND.

561. Juvenile Legal Process. Legal background and basis for separate juvenile statutes and justice system; legal procedures for arrest, investigation, and adjudication of juvenile offenders; examination of legal cases relating to rights of juveniles; emphasis will be on Minnesota procedure. 3 Cr. DEMAND.

589. Seminar in Criminal Justice. Special issues in the fields of corrections, law enforcement, and the general areas of the administration of justice: includes detailed examinations on vital issues and emerging trends which promise to affect the future. May be repeated for a maximum of 6 credits. 3 Cr. ANNUAL.

COURSES FOR GRADUATE STUDENTS ONLY

601. History of Criminal Justice. America's criminal justice system from early English precedents to the late 20th century. 3 Cr. DEMAND.

644. Practicum. A supervised practicum in a criminal justice agency in which the student is not employed. Prior approval by Director of Criminal Justice Graduate Program required. 3-12 Cr. F, S, SUM.

650. Readings. Specific topic in criminal justice. May be repeated with different topic to a max. of 6 credits. 1-3 Cr. DEMAND.

660. Theories of Criminal Behavior and Justice. Theories about the causes of violence and criminal behavior. 3 Cr. ANNUAL.

661. Juvenile Justice and Schools. School crime and juvenile delinquency; school failure, discipline problems, absenteeism, and dropout; juvenile law, school of law and cases relating to school crime and discipline; corrections and education policies and programs for delinquency prevention. 3 Cr. ANNUAL.

677. Framing and Analyzing Research Problems. Computer online database searching; and the elements of a research problem formulation and analysis, including operational definition, scope, geographic and time limitations, the research model, research design, questionnaire data collection, outcome measures and analysis plan. 3 Cr. DEMAND.

679. Research in Criminal Justice. Research methodology, including research design, methods of inquiry, application and interpretation of data analyses, and their relationship to criminal justice policies and programs. Prereq.: APSY 678 or STAT 521. 3 Cr. DEMAND.

681. Current Problems and Issues in Criminal Justice. Problem areas or issues in the criminal justice system as explored through direct readings in the research literature. May be repeated to max. of 6 credits. 1-3 Cr. ANNUAL.

699. Thesis. 1-6 Cr. F, S, SUM.



Earth Science (ESCI)

41 MATHEMATICS AND SCIENCE CENTER/255-3260

Chairperson: Alan Anderson

Graduate Faculty: G. Anderson, Hansen, Hoff, Nastrom, C. Nelson, Pekarek, Weisman

The department does not currently offer a major program. Service courses for other graduate programs are offered in both the daytime and evening schedules.

COURSE DESCRIPTIONS

502. Earth Sciences Institute. Selected topics in earth science for experienced teachers. 2-4 Cr. DEMAND.

507. Minnesota Rocks and Waters. Geologic history, mineral resources and regional geology of Minnesota. Prereq.: 220 or consent of instructor. 3 Cr. S, SUM.

520. Seminar. Lectures, readings, discussions on selected topics. May be repeated. 1-3 Cr. F, S.

524. Tectonic Systems. Plate tectonic context for faults and folds. Describe and contrast tectonic systems at plate margins and in intra-plate settings. Prereq.: 320. 4 Cr. S.

529. Geophysics. The basic concepts of physics are applied to the global earth and to the geologic processes at work in the earth. Prereq.: 220, PHYS 231 or 235, MATH 222. 3 Cr. DEMAND.

560. Applied Meteorology. Techniques for observing and describing the atmosphere, including cloud and weather observations, computer methods for weather map presentations, and practical laboratory exercises in atmospheric processes. Prereq.: 260. 3 Cr. SUM.

566. Agricultural Meteorology. Introduction to the soil-plant-atmosphere system and energy balance. Temperature, wind, and evapotranspiration effects. Measurement techniques. Crop planning and pest and disease management. Climate factors. Prereq.: 260 or permission. 3 Cr. S-Alt.

567. Numerical Weather Prediction. History of numerical prediction, processes to be represented, primitive equations, methods of solution, grid format for data, objective analysis, ETA, NGM and other models, initialization of model, boundary conditions, parameterization. Prereq.: 375. 3 Cr. S.

585. Advanced Synoptic Meteorology. Three dimensional analysis of cold and warm season events, jet stream circulations, frontogenesis. Vertical velocity estimates using isentropic analysis of gridded data. Current topics of synoptic and mesoscale research, possible field trips to regional conferences. Lab. Prereq.: 385, 475, Fortran or C. 4 Cr. F.

Economics (ECON)

386 STEWART HALL/255-2227

Chairperson: William Luksetich

Director, Applied Economics: Orn Bodvarsson

Director, Public and Nonprofit Institutions: Patricia Hughes

Graduate Faculty: Banaian, Bodvarsson, Edwards, Gallagher, Gleisner, Grossman, Hampton, Hughes, Kang, Larkin, Lofgreen, Luksetich, MacDonald, Moghaddam, Partridge, White

Master of Science – Applied Economics

The Master of Science in Applied Economics is a two-year program requiring a core of 23 credits, 15 credits of electives, and either a thesis (Plan A), starred paper (Plan B), or internship (Plan C). The program also has been designed to accommodate both part-time and full-time students. A preliminary oral and a final oral examination are required for all three of these plans. The preliminary and final examination cannot be held during the same semester.

Prior to taking core courses for the Master of Science in Applied Economics, students must have met the requirements for admission to graduate school as stated in the front section of this bulletin. In addition to satisfying these general university requirements, students should have completed the prerequisites (or equivalents) listed below prior to taking graduate courses for the Master of Science in Applied Economics.

ECON 405. Intermediate Macroeconomics, 3 Cr.

ECON 406. Intermediate Microeconomics, 3 Cr.

MATH 221. Calculus and Analytical Geometry I, 3 Cr.

Plan A, B or C, 44 Cr.

I. Core: Plan A, B, or C, 23 Cr.

ECON 586. Mathematical Economics, 3 Cr.

ECON 587. Advanced Topics in Economic Modeling, 2 Cr.

ECON 605. Macroeconomic Theory, 3 Cr.

ECON 606. Microeconomics Theory, 3 Cr.

ECON 615. Econometrics, 3 Cr.

ECON 670. Business Cycles and Forecasting, 3 Cr.

ECON 677. Managerial Economics, 3 Cr.

FIRE 571. Corporate Financial Policies, 3 Cr.

II. Plan requirement, 6 Cr.

ECON 699. Thesis, 6 Cr. (Plan A only)

ECON 630. Seminar, 3 Cr. (Plan B only)

ECON 697. Starred Paper, 3 Cr. (Plan B only)

ECON 644. Internship, 6 Cr. (Plan C only)

III. Electives: Plan A, 15 Cr. (at least 6 credits from Group I); Plan B, 15 Cr. (at least 9 credits from Group I plus 3 credits in 630 or 632); Plan C, 15 Cr. (at least 9 credits from Group I)

Group 1:

ECON 542. Law and Economics, 3 Cr.

ECON 551. Resource and Environmental Economics, 3 Cr.

ECON 560. Public Finance, 3 Cr.

ECON 561. Public Economics: State and Local, 3 Cr.

ECON 565. Urban and Regional Economics, 3 Cr.

ECON 571. Money and Banking, 3 Cr.

ECON 572. Industrial Organization and Public Policy, 3 Cr.

ECON 573. Labor Economics, 3 Cr.

ECON 574. International Economics, 3 Cr.

ECON 578. History of Economic Thought, 3 Cr.

ECON 630. Seminar in Economic Education, 1-3 Cr.

ECON 632. Research Methodology, 3 Cr.

Group 2:

MGMT 550. Employee Selection, 3 Cr.

MGMT 551. Employee and Labor Relations, 3 Cr.

MGMT 567. Organization Theory, 3 Cr.

FIRE 572. Financial Institutions, 3 Cr.

FIRE 573. International Finance, 3 Cr.

FIRE 574. Security Analysis, 3 Cr.

MBA 625. Advanced Marketing Information and Research, 3 Cr.

All students must satisfy a minimum number of Group 1 electives. The remaining electives may be chosen from either Group 1 or Group 2 courses. Courses in Group 1 focus on applied economic theory. Group 2 courses are more business-oriented and focus on such areas as financial analysis, financial institutions and organizational behavior.

The 5-Year BA/MS Track in Economics

The 5-Year BA/MS track is an accelerated, rigorous program option available to talented undergraduates who show the ability and discipline necessary to successfully complete an accelerated combination undergraduate and graduate program in economics. The track allows a student completing it to receive the BA in Economics and the MS in Applied Economics in 5 years. Students are admitted to this track usually during their sophomore or junior years and are granted early conditional admission to graduate school upon completion of a special undergraduate core program. This special undergraduate core is more rigorous than the traditional undergraduate core. Students would be allowed to take 500 level and 600 level courses prior to graduation and count some or all of these credits towards the BA degree. However, students may opt out early with a BA provided that certain course requirements are satisfied.

In addition to the accelerated timetable, the 5-year track differs from the stand alone BA track in the following ways:

1. Students in the 5-year track may double count certain 500 level Economics courses for either graduate or undergraduate credit. Students will be expected to enroll in these courses during their senior year.
2. Students may enroll in the thesis, starred paper or internship tracks between their fourth and fifth years. They will be encouraged to begin work on their projects during the summer between their fourth and fifth years.
3. Students may complete the BA in Economics and MS in Applied Economics with 14 fewer required semester credits than if they chose to take the BA and MS through the traditional tracks. This reduction in required credits is made possible by allowing students to double count 11 credits worth of 400/500 level courses, including two courses which are core requirements for the graduate degree, and three fewer credits of free university electives.

Students interested in the 5-year track will be encouraged to begin preparations for early admission to graduate school as soon as possible, preferably during the sophomore year. Students will be granted early conditional admission to the MS in Applied Economics upon successful completion of the following requirements:

- An undergraduate core (26 credits) consisting of ECON 205, 206, 405, 406, 481, MATH 115, MATH 221, BCIS 240 or STAT 219
- A "B" or better in each of ECON 405, 406, 586 and 587 (note: ECON 586 and 587 are two of the courses students are allowed to double count. Students must obtain approval from the graduate dean to take these courses to assure double counting.)

In addition to the undergraduate core above, students will be required to complete a 23-credit graduate core, various elective requirements and plan requirements. These requirements are listed below for each plan:

I. Core: Plan A, B or C, 23 Cr.

ECON 586. Mathematical Economics, 3 Cr.
 ECON 587. Advanced Topics in Economic Modelling, 2 Cr.
 ECON 605. Macroeconomic Theory, 3 Cr.
 ECON 606. Microeconomic Theory, 3 Cr.
 ECON 615. Econometrics, 3 Cr.
 ECON 670. Business Cycles and Forecasting, 3 Cr.
 ECON 677. Managerial Economics, 3 Cr.
 FIRE 571. Corporate Financial Policies, 3 Cr.

II. Plan Requirement, 6 Cr.

ECON 699. Thesis, 6 Cr. (Plan A (thesis) only)
 ECON 630. Seminar, 3 Cr. (Plan B (starred paper) only)
 ECON 697. Starred Paper, 3 Cr. (Plan B only)
 ECON 644. Internship, 6 Cr. (Plan C (internship) only)

III. Electives, 21 Cr.

1. (6 Credits) Any two of the following, which will be double counted for undergraduate and graduate credit: ECON 561, 565, 572, 574; FIRE 574; MGMT 550, 567. These courses must be completed before the BA can be conferred and they would double count toward undergraduate and graduate credits (they are transferred onto the graduate transcript following completion of the BA).
2. (15 Credits) Any other five 300 level or 400 level courses offered by the Economics department. These may not count towards graduate credit.

Students in the 5-year track will be conferred the BA in economics upon completion of ECON 586, ECON 587 and the electives listed in Part 1 above. Students are eligible for graduate assistantship funding after completion of the BA.

Master of Science – Public and Nonprofit Institutions

A program offering concentrations emphasizing economic and administrative issues in (1) public sector institutions and management and (2) nonprofit institutions and management. Students have the option of completing degree requirements in three plans: A--thesis option, B--starred paper option, or C--internship option. The program is designed to provide individuals interested in careers in the public or nonprofit sectors a set of analytical and managerial skills designed to solve problems particular to these sectors of the economy.

The program is designed to enhance the administrative and analytical skills of those employed in the public and nonprofit sectors and to develop skills for individuals contemplating careers in these sectors of the economy.

Public Institution Concentration:

Required Core: 27 Cr.

ECON 560. Public Finance, 3 Cr.
 ECON 603. Microeconomics for Public and Nonprofit Institutions, 3 Cr.
 ECON 620. Decision Making Tools for the Nonprofit and Public Sector, 3 Cr.
 ECON 675. Economic Decision Making for Nonprofit and Public Institutions, 3 Cr.
 POL 581. Administering Public Policy, 3 Cr.
 POL 584. Public Budgeting, 3 Cr.
 POL 619. American Government Seminar, 3 Cr.
 SOC 556. Complex Organizations, 3 Cr.
 PNI 680. Seminar: Public Policy Analysis, 3 Cr.

Plan A, 36 Cr.: Core, 27 credits plus 9 credits of electives, which includes a 6 credit thesis.

Plan B, 36 Cr.: Core, 27 credits plus 9 credits of electives and a starred paper.

Plan C, 42 Cr.: Core, 27 credits plus 9 credits of internship, 6 credits of electives, and an oral examination based upon a portfolio which is centered on the internship.

Electives:

COMM 534. Theories and Principles of Public Relations, 3 Cr.
 COMM 536. Public Relations Writing and Publications, 3 Cr.
 COMM 538. Public Relations Case Studies and Campaigns, 3 Cr.
 ECON 520. Economics of Nonprofit Organizations, 3 Cr.
 ECON 542. Law and Economics, 3 Cr.
 ECON 551. Resource and Environmental Economics, 3 Cr.
 ECON 561. Public Finance: State and Local, 3 Cr.
 ECON 565. Urban and Regional Economics, 3 Cr.
 ECON 570. Business Cycles and Forecasting, 3 Cr.
 ECON 571. Money and Banking, 3 Cr.
 ECON 572. Industrial Organization and Public Policy, 3 Cr.
 ECON 630. Seminar: Public Policy Analysis, 3 Cr.
 GEOG 554. Regional Planning, 3 Cr.
 GEOG 555. Urban Site Development, 3 Cr.
 GEOG 590. Issues in Urban Geography, 3 Cr.
 GEOG 650. Land Use Analysis, 3 Cr.
 GEOG 654. Urban, Regional, and Resource Planning, 3 Cr.
 MGMT 550. Employee Selection, 3 Cr.
 MGMT 551. Employee and Labor Relations, 3 Cr.
 MGMT 566. Strategy and Organization of Public Administration, 3 Cr.
 MGMT 567. Organization Theory, 3 Cr.
 PNI 601. Reading in Public and Nonprofit Institutions, 1-3 Cr.
 PNI 630. Seminar in Public and Nonprofit Institutions, 3 Cr.
 PNI 644. Internship, 9 Cr.
 PNI 699. Thesis, 6 Cr.
 POL 570. Public Opinion and Electoral Behavior, 3 Cr.
 POL 582. Public Personnel Administration, 3 Cr.
 POL 583. Managing Local Governments, 3 Cr.
 POL 585. Administrative Law, 3 Cr.
 POL 591. Constitutional Law, 3 Cr.
 POL 619. American Government Seminar (topic other than required), 3 Cr.
 SOC 560. Social Problems and Social Policy, 3 Cr.

Nonprofit Institution Concentration:

Required Core: 27 Cr.

ECON 520. Economics of Nonprofit Organizations, 3 Cr.
 ECON 603. 620, and 675, 3 Cr. each
 POL 582. Public Personnel Administration, 3 Cr.
 or
 MGMT 550. Employee Selection, 3 Cr.
 POL 581 and SOC 556, 3 Cr. each
 MKTG 519. Marketing of Services, 3 Cr.
 PNI 620. Seminar: Evaluation Nonprofit Performance, 3 Cr.

Plan A, 36 Cr.: Core, 27 credits plus 9 hours of electives, which includes a 6 credit thesis.

Plan B, 36 Cr.: Core, 27 credits plus 9 hours of electives and a starred paper.

Plan C, 42 Cr.: Core, 27 credits plus 9 credits of internship, 6 credits of electives, and an oral examination based upon a portfolio which is centered on the internship.

Electives:

COMM 534. 536; 3 Cr. each
 ECON 542. 551, 561, 565, 572, 630; 3 Cr. each
 ECON 640. Economics of Arts and Culture; 3 Cr.

GEOG 554, 555, 590, 650, 654; 3 Cr. each
 MGMT 566, 567; 3 Cr. each
 MKTG 625. Advanced Marketing Information and Research, 3 Cr.
 PNI 601, 630, 644, 680; 3 Cr. each
 PNI 699, 6 Cr.
 POL 570, 582, 583, 584, 585, 591, 619; 3 Cr. each
 SOC 560, 3 Cr.

COURSE DESCRIPTIONS

505. Intermediate Macroeconomics. Functioning of the economy as a whole. Determinants and interrelation of the economy's aggregate production, inflation, unemployment, economic growth, business cycles, and monetary/fiscal policies. Prereq.: 205, 206. 3 Cr. F; S, SUM.

506. Intermediate Microeconomics. Economic processes in the free enterprise system; determination of price, output, and factor services in different market structures. Prereq.: 205, 206. 3 Cr. F; S, SUM.

520. Economics of Nonprofit Organization. Economic theories of nonprofit and public organizations, their importance in the economy and the structure and performance of not-for-profit firms and public agencies. Prereq.: 205, 206. 3 Cr. S-Alt.

542. Law and Economics. Laws' effects on market and non-market behavior emphasizing the theory of externalities. Contract law, property rights, tort law, and public choice theory. Prereq.: 205, 206. 3 Cr. S-Alt.

551. Resource and Environmental Economics. Natural resource allocation: economic efficiency, externalities, and temporal implications. Environmental policy analysis, air and water quality, toxic substances, and distributional consequences. Prereq.: 205, 206. 3 Cr. S-Alt.

559. Economic Analysis. Graduate level principles of economics. The economic process, national income analysis, money and the banking system, theory of income distribution, pricing systems, resource allocation. Primarily for MBA students. 3 Cr. F; S, SUM.

560. Public Finance. The role of government in the economy with emphasis upon public revenues and expenditures, tax structure, intergovernmental fiscal relations, fiscal policy, and public debt management. Prereq.: 205, 206. 3 Cr. F; S.

561. Public Economics: State and Local. The economics of state and local government. Public projects, tax and revenue structures, and intergovernmental relations, in Minnesota. Prereq.: 205, 206, or consent of instructor. 3 Cr. F.

565. Urban and Regional Economics. Analysis of regions, development, location theory, central place theory, local public finance. Urban problems: poverty, transportation, housing, crime, pollution. Prereq.: 205, 206. 4 Cr. F; S.

570. Business Cycles and Forecasting. Business fluctuations and stabilization policies. Forecasting methods; time series and regression-based techniques for short- and long-term forecasting. Prereq.: 205, 206, BCIS 240 or STAT 229. 3 Cr. F; S, SUM.

571. Money and Banking. Monetary economics, structure and functioning of commercial banks and other financial intermediaries. The Federal Reserve System and its monetary policy tools, goals and targets. Prereq.: 205, 206. 3 Cr. F; S, SUM.

572. Industrial Organization and Public Policy. Market structure, firm behavior, and market performance. Public policy toward business via government regulation and antitrust policy. Prereq.: 205, 206. 3 Cr. S.

573. Labor Economics. Labor as a factor of production, growth of collective bargaining and labor legislation, and its effects upon society. Prereq.: 205, 206. 4 Cr. S.

574. International Economics. Trade models, terms of trade, trade patterns, economic integration, and barriers to trade. Balance of trade/payments, exchange rate determination, capital mobility, and open economy policy coordination. Prereq.: 205, 206. 3 Cr. F; S, SUM.

578. History of Economic Thought. Historical development of economic analysis and of the ideas of major economic thinkers. Prereq.: 205, 206. 3 Cr. S.

580. Area Economic Studies. Economic problems of selected regions, areas, or countries of the world. Prereq.: Consent of the instructor. May be repeated with different topics to a max. of 9 credits. 1-3 Cr. DEMAND.

583. Contemporary Economic Problems. Solutions of problems arising from growth and development of modern institutions under the free enterprise system. Prereq.: Consent of department. May be repeated with different topics to a max. of 6 credits. 3 Cr. DEMAND.

585. Introduction to Econometrics. Model development and statistical testing procedures, applied economic analysis. Model specification, properties of estimation procedures, statistical inference. Prereq.: 205, 206. STAT 229 or BCIS 240. 3 Cr. F.

586. Introduction to Mathematical Economics. Application of mathematical tools to the problems of micro and macro economic theory. Prereq.: 406 and MATH 241 or equivalent. 3 Cr. F.

587. Advanced Topics in Economic Modelling. Mathematics and software used in advanced theoretical and applied economics. Applications of integral calculus and static and dynamic optimization. Prereq.: Permission of instructor. 2 Cr. F.

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. May be repeated with different topic to a max. of 6 credits. 1-3 Cr. DEMAND.

602. Reading in Economic Education. (Topical.) Guided study of the literature in the field and/or its applications. May be repeated with different topic to a max. of 6 credits. 1-3 Cr. DEMAND.

603. Microeconomics for Public and Nonprofit Institutions. Behavior of individuals and firms with emphasis on public institutions and nonprofit firms. Prereq.: 205, 206, or 559 or equivalent. 3 Cr. F.

605. Macroeconomic Theory. The determination of aggregate output, employment, and prices. National and policy issues and their impacts on economic activity. Prereq.: 405, 406, 586, 587 or equivalent. 3 Cr. F.

606. Microeconomic Theory. Theory of behavior of individuals and firms, optimization and markets. Prereq.: 405, 406, 586, 587 or equivalent. 3 Cr. S.

610. Economic Education. 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. 3 Cr. DEMAND.

615. Econometrics. Economic theory and statistical inference to specify, estimate, and interpret economic models with emphasis on applied economic analysis. Model specification, least squares and maximum likelihood estimates of single and simultaneous equations, forecasting and simulation. 3 Cr. F.

620. Decision Making Tools for the Nonprofit and Public Sector. Statistical tools to analyze decision making. Hypothesis testing; OLS regression analysis; Probit, Tobit and Logit regression analysis; and Data Envelopment Analysis. Prereq.: BCIS 240 or STAT 229 or equivalent. 3 Cr. DEMAND.

630. Seminar in Economic Education. Research and seminar presentation on selected economic topics. Prereq.: consent of department. May be repeated to max. of 6 credits. 1-3 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.

632. Research Methodology. Methods in economic research; decision theory and decision making tools; values in economics; problem identification and selection; hypothesis testing, assumptions, model selection. Prereq.: 405, 406 or equivalent. 3 Cr. DEMAND.

640. Economics of Art and Culture. History and functioning of the live performing and fine arts, the functioning of arts markets, financial performance of arts institutions and public policy toward the arts. Prereq.: 603 or equivalent. 3 Cr. DEMAND.

- 644. Internship.** A supervised internship in a business, government, or nonprofit organization. Requires prior approval. 1-9 Cr. DEMAND.
- 645. Economic Problems of Underdeveloped Countries.** Social and economic development, economic growth theory. 3 Cr. DEMAND.
- 670. Business Cycles and Forecasting.** Business cycles (historical, theoretical, and empirical analysis), forecasting techniques, and applications. 3 Cr. S.
- 675. Economic Decision Making for Nonprofit and Public Institutions.** Application of economic theory and methods to decision making in public and nonprofit institutions. Prereq.: 603 and 620 or equivalent. 3 Cr. DEMAND.
- 677. Managerial Economics.** Economic analysis as an aid in management and control. 3 Cr. S.
- 679. Comparative Economics.** 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. 3 Cr. DEMAND.
- 697. Starred Paper (Plan B) Preparation.** Individualized, independent guidance on starred paper (Plan B) projects. Open to Plan B Master's students only by arrangement. 3 Cr. DEMAND.
- 699. Thesis.** 1-6 Cr. DEMAND.

PUBLIC AND NONPROFIT INSTITUTIONS (PNI) COURSES FOR GRADUATE STUDENTS ONLY

- 601. Readings in Public and Nonprofit.** Guided study of individual investigation of special problems and/or theoretical topics in public and/or nonprofit institutions. Prereq.: admission to graduate program. May be repeated with different topic to a maximum of 6 Cr. 1-3 Cr. DEMAND.
- 620. Seminar.** Evaluating nonprofit performance. Research and seminar presentations assessing the organizational performance in terms of specific performance objectives of not-for-profit institutions. Prereq.: Core. 3 Cr. DEMAND.
- 630. Seminar in Public and Nonprofit Institutions.** Advanced research and seminar presentation on selected topics dealing with theoretical issues and the management and evaluation of public and nonprofit institutions. Prereq.: Core. 3 Cr. DEMAND.
- 644. Internship.** A supervised internship in a government agency or a private nonprofit institution. Requires prior approval. 9 Cr. DEMAND.
- 680. Seminar: Public Policy Analysis.** Methods are presented for evaluating public policy before and after its implementation. Criteria for choosing alternative policies are discussed. Prereq.: admission to graduate program. 3 Cr. DEMAND.
- 699. Thesis.** 1-6 Cr. DEMAND.

Educational Administration & Leadership (EDAL)

A232 EDUCATION BUILDING/255-2160

Chairperson: Gary Schnellert

Graduate Faculty: Leach, McMullen, Moore, Schnellert

The Department of Educational Administration and Leadership (DEAL) develops leaders for Minnesota's schools—teachers, principals, superintendents, and central office personnel committed to providing the finest learning opportunities for K-12 students. Courses offered focus upon developing the skills and personal traits necessary for successful school administration. In addition, field-based learning experiences are an integral, crucial aspect of the program.

Programs have been approved by the Minnesota Department of Children, Families and Learning for meeting the professional preparation requirements for licensure for administrative positions in the following areas: K-12 school principal, school district superintendent, and community education. In addition, the department participates in the development of special studies programs which lead to graduate degrees in other areas of educational administration.

Master of Science – Educational Administration and Leadership

Plan A, 31 Cr.; Plan B, 34 Cr.; Plan C, 36 Cr.

Plan A, Thesis required

Plan B, Written comprehensive examination required

Plan C, Portfolio required

I. Administrative Core: Plans A, B, and C, 16 Cr.

EDAD 601. Introduction to EDAD, 1 Cr.

EDAD 610. Administrative Leadership, 3 Cr.

EDAD 620. Introduction to School Law, 3 Cr.

EDAD 630. Administering School Personnel and Supervision, 3 Cr.

EDAD 640. Introduction to School Finance, 3 Cr.

EDAD 650. Introduction to School/Community Relations, 3 Cr.

II. Research: Plan A, 12 Cr.; Plan B and C, 6 Cr.

Required for Plan A

EDAD 682. Research Design in EDAD, 3 Cr.

EDAD 699. Thesis, 6 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr.

Required for Plans B and C

EDAD 680. Introduction to Research in EDAD, 3 Cr.

EDAD 612. Program and Assessment/Evaluation Technique, 3 Cr.

III. Practicum: Plan A, B, and C

EDAD 670. Practicum in EDAD, 3 Cr.

IV. Related Studies: Plans B and C only, 9-12 Cr.

Masters of Science – Community Education

Plan A, 37 Cr. Thesis;

Plan B, 43 Cr. Non-thesis; 22 Cr. Licensure track

I. Administrative Core, 22 Cr.

EDAD 502. Overview of Community Education, 3 Cr.

EDAD 507. Community Education Internship, 3 Cr.

EDAD 509. Situational Leadership, 3 Cr.

EDAD 601. Introduction to EDAD, 1 Cr.

EDAD 603. Organizational Theory, 3 Cr.

EDAD 620. Introduction to School Law, 3 Cr.

EDAD 630. Administering School Personnel and Supervision, 3 Cr.

EDAD 650. Introduction to School/Community Relations, 3 Cr.

II. Research Thesis, 12 Cr.

EDAD 682. Research Design in EDAD, 3 Cr.

EDAD 699. Thesis, 6 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr.

Research Non-thesis, 6 Cr.

EDAD 612. Program and Assessment/Evaluation Techniques, 3 Cr.

EDAD 680. Introduction to Research in EDAD, 3 Cr.

III. Related Studies

Plan A, 3 Cr.

Plan B, 15 Cr. (9 of 15 must be taken in EDAD).

Sixth Year Program – Educational Administration and Leadership (30 Cr.)

I. Administrative Core, 15 Cr.

EDAD 603. Organizational Theory, 3 Cr.

EDAD 612. Program and Assessment/Evaluation Techniques, 3 Cr.

EDAD 622. Legal Aspects of EDAD, 3 Cr.

EDAD 631. Advanced Supervision Techniques, 3 Cr.

EDAD 652. Community Relations, 3 Cr.

EDAD 654. Leadership in Rural Schools, 3 Cr.

EDAD 657. Educational Policy, 3 Cr.

II. Administrative Specialty, 8 Cr.

EDAD 601. Introduction to EDAD, 1 Cr.

EDAD 605. Principal: K-12, 3 Cr.

EDAD 608. Superintendency, 3 Cr.

EDAD 611. Portfolio Review, 1 Cr.

EDAD 642. Aux. Func.-Site Admin., 3 Cr.

EDAD 645. Aux. Func.-Dist. Admin., 3 Cr.

III. Field Experience, 4 Cr. (320 hrs.)

EDAD 674. Field Experience: K-12, 4 Cr.

EDAD 678. Field Experience: Superintendency, 4 Cr.

IV. Electives, 3 Cr.

It is recommended that students with a master's outside of EDAD take EDAD 620, 630, 640 and 650.

Specialist Degree – Educational Administration and Leadership (35 Cr.)

Field Study

I. Administrative Core, 15 Cr.

EDAD 603. Organizational Theory, 3 Cr.

EDAD 612. Program and Assessment/Evaluation Techniques, 3 Cr.

EDAD 622. Legal Aspects in EDAD, 3 Cr.

EDAD 631. Advanced Supervision Techniques, 3 Cr.

EDAD 652. Community Relations, 3 Cr.

EDAD 654. Leadership in Rural Schools, 3 Cr.

EDAD 657. Educational Policy, 3 Cr.

II. Administrative Specialty, 8 Cr.

- EDAD 601. Introduction to EDAD, 1 Cr.
 EDAD 605. Principal: K-12, 3 Cr.
 EDAD 608. Superintendency, 3 Cr.
 EDAD 611. Portfolio Review, 1 Cr.
 EDAD 642. Aux. Func.-Site Admin., 3 Cr.
 EDAD 645. Aux. Func.-Dist. Admin., 3 Cr.

III. Research, 9 Cr.

- EDAD 682. Research Design in EDAD, 3 Cr.
 EDAD 694. Field Study, 3 Cr.
 APSY 678. Introduction to Grad. Statistics, 3 Cr.

IV. Field Experience, 3 Cr.

- EDAD 674. Field Experience: K-12, 4 Cr.
 EDAD 678. Field Experience: Superintendency, 4 Cr.

It is recommended that students with a master's outside of EDAD take EDAD 620, 630, 640, and 650.

COURSE DESCRIPTIONS

502. Overview to Community Education. Overview to Community Education is a graduate class designed to teach students how to establish, operate and maintain, and evaluate a Community Education program. The goal of the course is to leave the student with a clear understanding of what contemporary Community Education is, and how it can be implemented. 3 Cr. DEMAND.

507. Field Experience: Community Education. One-site, practical internship in cooperation with selected community agencies. Emphasis on inter relatedness and implementation of community education, concepts and strategies. (Application must be made at least one semester in advance.) Prereq.: EDAD 502. 3 Cr. DEMAND.

509. Situational Leadership. Student development of portfolio material to develop competency in each of the areas specified in the licensure rule. Materials would be reviewed by a SCSU/Community Education Director team of three people. The team will document competency achievement and final oral examination in the field of community education. 3 Cr. DEMAND.

598. 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. May be repeated to a max. of 9 credits. 1-4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Introduction to Portfolio Review. Students complete a K-12 principal and/or superintendent competency profile; instruction includes how to develop a set of competency folios; and develop a professional development plan. 1 Cr. F, S.

603. Organizational Theory. To enhance the aspiring administrators understanding of human behavior within the organization in order to promote and develop skills to effectively govern today's schools. Prereq.: Master's degree. 3 Cr. F-Alt, S.

605. K-12 Principalsip. Synthesis and application of skills and knowledge acquired in the administration core courses. The leading role of the elementary school principal and the tasks, duties, and functions inherent in the principalsip are examined. Twenty-one performance proficiencies are studied. Prereq.: Master Degree. 3 Cr. DEMAND.

608. School Superintendency. To prepare aspiring school administrators with competencies required for successful leadership by providing knowledge of the competencies and examples of practices which demonstrate the application of the stated competencies. Major competencies will include the following: leadership skills, strategic planning, communication, ethics, superintendent-board relationships, and school governance. Prereq.: Master's degree. 3 Cr. F-Alt, S.

610. Administrative Leadership. Survey of theories, models, and dimensions of leadership; introduction to leadership behavior in organizations, planning, decision-making, and assessment. 3 Cr. F-Alt, S.

611. Portfolio Review. To qualify for a K-12 and/or superintendent license, students must submit a completed set of competencies for review. The final review will be directed by an educational administration professor and practicing school administrator. 1 Cr. F, S.

612. Program and Assessment/Evaluation Technique.

Becoming a data based decision maker is an important skill for educational leaders. Techniques for determining what type of assessment and evaluation is required and the techniques for gathering data, facts, and impressions from multiple sources regarding all aspects of the educational program to be explored. Students will acquire the skills necessary to effectively plan, evaluate, and manage curriculum programs in elementary, middle-level and high schools. 3 Cr. F-Alt, S.

620. Introduction to School Law. An exploration of the relationship between public education and the legal system in the U.S.

Particular attention is directed to the roles of the federal, state, and local governments in American schools as well as issues of students rights, curriculum, teacher freedoms, and other areas of crucial concern to school teachers and administrators. 3 Cr. F-Alt, S.

622. Legal Aspects of Educational Administration. Focuses upon legal risk management in two major areas—the administration of the teacher contract and tort liability. Emphasizes knowledge which will empower administrators to assess the legal risks faced by their districts. Prereq.: EDAD 620. 3 Cr. DEMAND.

630. Introduction to Personnel Administration. An overview of the personnel functions of school administrators. Particular attention is directed to personnel policies and procedures; the selection, induction, and continuing professional development of faculty; and employee management relations. 3 Cr. F-Alt, S.

631. Advanced Supervision Techniques. This course will provide students with the skills and knowledge needed to effectively maintain instructional supervision and leadership in school settings. 3 Cr. F-Alt, S.

640. Introduction to School Finance. General introduction to funding of public education in the U.S.; review of the history, development, and theoretical foundations of education finance; local state, and federal programs of school finance; alternative structures for education finance; school finance case law; implications for educational programming and management. 3 Cr. F-Alt, S.

642. Auxiliary Functions-Site Administration. Overview of school business and facilities management for the site administrator. Topics include introduction to budgeting and accounting, supervision of classified and support staff, management of support services (e.g., transportation, food service), facility operation and maintenance, and space utilization analysis and allocation. Prereq.: Master's degree. 3 Cr. F-Alt, S.

645. Auxiliary Functions for District Administration.

Overview of school business and facilities management for the district administrator. Topics will include school district budgeting and accounting; insurance and risk management; forecasting, vendor relations; facility planning, appraisal, financing and construction; and cooperative community use of facilities. Prereq.: Master's degree. 3 Cr. F-Alt, S.

650. Introduction to School-Community Relations. Developing understanding of communication structures in the community; processes and procedures for working with various publics including parents, community agencies, special interest groups, media, business and industry; dissemination processes to the various publics. 3 Cr. F-Alt, S.

652. Community Relations in School Administration. Skills in promoting effective cooperation between the community and the school district. Focus on communication strategies, team building, and meeting constituent needs from a school district perspective. Emphasis on relations with specialized constituencies, projects, and campaign management. Prereq.: Master's degree. 3 Cr. F-Alt, S.

654. Leadership in Rural Schools. Various aspects of educational leadership in rural settings are examined. Geographic, economic, political, and social contexts in which rural education occurs are considered. Emphasis is placed on understanding the strengths and limitations of rural schools and the development of skills and attitudes necessary for successful leadership of rural schools. Prereq.: Master's degree. 3 Cr. F-Alt, S.

655. Technical Application in Educational Administration.

Study of interrelationship of current and emerging technologies and the administration of K-12 schools. Provides a survey of theory and philosophy of technologies in the educational environment. Emphasis on problem analysis in the application of technology to educational management. Students must register concurrently for IM 655. 3 Cr. F-Alt, S.

657. Education Policy. Theory, sources, processes, and structures of education policy. Provides knowledge, understanding, and experience with which to effectively comprehend and manage education policy. Emphasis on identification and understanding of values of a diverse society and their relationship to education policy and schooling. Prereq.: Master's degree. 3 Cr. F-Alt, S.

670. Practicum in Educational Administration. A culminating, year-long experience of structured and supervised administrative projects and activities at a cooperatively selected site. Class sessions each quarter are conducted on campus with opportunities to share and analyze experiences, reflect on development of administrative skills, and learn from guest speakers. Completion is required within one academic year. Prereq.: permission of DEAL program adviser. 3 Cr. DEMAND. S/U grading.

674. Field Experience: Principal K-12. Students apply acquired understandings and knowledge in on-site school activities. Experience is planned and supervised cooperatively by school district personnel and university professors in compliance with Minnesota licensure requirements of a minimum of 320 clock hours. Prereq.: 605, 642 and Masters degree. Application must be made at least one semester in advance. 4 Cr. F, S.

678. Field Experience: Superintendency. Students acquire their understandings and knowledge in on-site district activities. Experience is planned and supervised cooperatively by school district personnel and university professors in compliance with MN licensure requirements of 320 clock hours. Prereq.: 608, 645 and Masters degree. Application must be made one semester in advance. 4 Cr. F, S.

680. Introduction to Research in EDAD. Developing understanding of types of research and appropriate applications to educational management and leadership; locating, interpreting, and applying research to problems in school administration; identification, evaluation and use of data sources; application of administrative research design to educational management problems. 3 Cr. F-Alt, S.

682. Research Design in Educational Administration. An intensive experience in which the student identifies an individual research problem in educational administration and develops a complete background of and plan for investigating the problem. Through this course, masters degree students in educational administration will fulfill the Plan A requirement for initiating a thesis. Prereq.: APSY 678. 3 Cr. F-Alt, S.

686. Field Study Design. A highly structured and individualized process through which the student identifies a theoretical or applied problem in educational administration, develops a research proposal for examination of the problem, and presents and defends the proposal before his/her field study committee. Requires student to demonstrate advanced knowledge of research design, instrumentation, data analysis, and reporting techniques. Effective written communication skills essential. Credit awarded upon acceptance of proposal by student's committee. Prereq.: Master's degree, APSY 678. 3 Cr. F-Alt, S.

697. Current Problems and Issues in School Administration. Content: a different administrative problem or issue each time offered. May be repeated with a different topic to a max. of 6 credits. 1-3 Cr. DEMAND.

699. Thesis. 1-6 Cr. DEMAND.

Electrical Engineering (EE)

211 ENGINEERING AND COMPUTER CENTER/255-3252

Chairperson: Yi Zheng

Graduate faculty: Ellis, George, Heneghan, Lekhakul, Marks, Narayana

COURSE DESCRIPTIONS

- 511. Advanced Analog Electronics.** Design of dc-dc and dc-ac power converters using diodes, power transistors, and thyristors. Line frequency diode rectifiers, phase controlled rectifiers and inverters, switch mode converters and inverters, and resonant converters. Computer simulations. Lab. Prereq.: 302, 312. 3 Cr. DEMAND.
- 521. Computer Architecture and Design.** Organization at the register level of a single processor computer. Hardware description language, computer interconnection structures, mainframe memory organization, introduction to advanced architecture. Design projects and a project paper. Prereq.: 323. 3 Cr. F.
- 522. Microcontroller System Design.** Internal structure and operation of different types of microcontrollers. Design methodology for their use. Applications, software and hardware. Labs and design projects. Prereq.: 323. 3 Cr. S.
- 523. Computer Network Architecture.** Data communication basics, network architecture and protocols, network simulation and analysis, special emphasis on hardware design. Labs with design emphasis. Design projects. Prereq.: 323. 3 Cr. DEMAND.
- 531. Digital and Analog Communications.** Information and coding, spectral analysis, baseband pulse and digital signaling, communication components, modulations, bandpass communication systems. Computer simulations. Lab. Prereq.: 302, 312. 3 Cr. F.
- 532. Advanced Communications.** Selected topics in telecommunication systems and wireless communications. Computer simulation. Lab. Prereq.: 431-531. 3 Cr. S.
- 540. Seminar.** Lectures, readings, discussions on current topics. May be repeated on different topics to a max. of 6 credits. Prereq.: senior or graduate standing in electrical engineering. 1-3 Cr. DEMAND.
- 551. Control Systems.** Linear time invariant systems, time domain analysis, root locus, frequency domain analysis, compensator design, state-space techniques, introduction to digital control. Lab. Prereq.: 302, 312. 3 Cr. S.
- 552. Digital Control Systems.** Analysis and design of discrete-time systems and compensators, state-space approach, implementation of digital control systems. Other topics might include: fuzzy logic, adaptive filtering and non-linear systems. Lab. Prereq.: 451-551. 3 Cr. F.
- 571. Digital Signal Processing.** Components of a DSP system, discrete-time signals and z-transform, Fourier analysis (FFT), FIR and IIR filter design methods, and quantization effects. Computer projects and simulations. Prereq.: 302 or instructor permission. 3 Cr. DEMAND.
- 573. Neural Networks.** Neural network technology overview, back propagation, conjugate gradient, and cascade-correlation training methods, associative memory, self-organizing nets, adaptive resonance theory net, Hopfield net, constraint satisfaction networks, application and design. Prereq.: 471. 3 Cr. DEMAND.
- 574. Image Processing.** Digital image processing system, elements of visual perception, digital image fundamentals, image representation and description, image transform, image enhancement, image restoration, image encoding, image segmentation, image compression, applications. Lab. Prereq.: 471-571. 3 Cr. DEMAND.
- 582. Design of Integrated Circuits.** Design, and fabrication of integrated circuits. Semiconductor processing and design rules. Circuit techniques for designing logic circuits, sense amplifiers, and clock circuits.

Water probing, failure analysis, and yield improvement. Economic and Technological trends. Prereq.: 322, 381. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

- 621. Advanced Computer Architecture and Design.** Advanced topics in computer system architecture, real-time computing systems, computer networks, parallel processors, multiprocessors, and methods of modeling and evaluation. Prereq.: 421-521. 3 Cr. F.
- 622. Parallel Computer Architecture.** Introduction and justification for parallel processing, choice of CPU, network topologies, designing a communication network, tight and loose coupling, language and operating systems. Prereq.: 621. 3 Cr. S.
- 631. Advanced Digital Communications.** Integrated Services Digital Networks (ISDN). Speech-coding algorithms. Correlative coding. Echo cancellation. Digital speech interpolation systems. Adaptive equalization. Digital modern technique. Interfacing analysis and performance. Digital TV. Mobile-radio and satellite communications. Design projects. Prereq.: 431-531. 3 Cr. DEMAND.
- 632. Digital Coding of Waveforms.** Characteristics of waveforms. Sampling and quantization of waveforms. PCM, DPCM, ADPCM, DM, ADM. Vector quantization. Sub-band coding. Transform coding. Block coding. Trellis Codes, Projects. Prereq.: 631. 3 Cr. DEMAND.
- 651. Optimal Control Systems.** Introduction to optimization, calculus of variations, dynamic programming, application to design of control systems, quadratic optimal control, computer simulations. Prereq.: 452 or instructor permission. 3 Cr. DEMAND.
- 652. Stochastic Control Systems.** Introduction to stochastic systems, stochastic state models, analysis of systems with random inputs, analysis and design of stochastic quadratic control systems, analysis of prediction and filtering systems using stochastic system theory. Prereq.: 451. 3 Cr. DEMAND.
- 671. Advanced Digital Signal Processing.** Overview of z-transform, FFT, IIR and FIR filters. Multirate digital signal processing. Optimum linear filters. Adaptive digital filters. Power spectrum estimation. Wavelet transform. Selected applications of DSP techniques in speech, sonar, radar, communications and image processing. Projects. Prereq.: 471-571. 3 Cr. DEMAND.
- 672. Random Signals and Noise.** Probability, Random Processes, Autocorrelation, and Spectral functions. Response of linear systems to random inputs. Optimal linear filter design. Detecting signals in noise. Project. Prereq.: 451-551. 3 Cr. DEMAND.
- 680. Seminar in Electrical Engineering.** Seminar in current topics in electrical engineering. Prereq.: graduate standing and consent of the instructor. May be repeated to a max. of 3 credits. 1-3 Cr. DEMAND.
- 681. Advanced Integrated Circuit.** Semiconductor processing and fabrication techniques. Comparison of Silicon-Gate, NMOS, CMOS, bipolar, and BiCMOS technologies. CAD tools for layout and mask generation. Circuit simulation tools. Prereq.: 312, 322, 381. 3 Cr. DEMAND.
- 682. VLSI Design.** Computer-aided design of monolithic integrated circuits at the transistor, gate, circuit and subsystem level. Design rules, routing, cell placement and chip layout. Testing strategies for LSI, error correlations, validation, testability, fault tolerance, redundancy and yield improvement. Prereq.: 482-582. 3 Cr. DEMAND.
- 690. Research in Electrical Engineering.** Prereq.: graduate standing in Electrical Engineering and consent of the student's graduate committee. May be repeated to a max. of 9 credits. 1-3 Cr. DEMAND.
- 699. Master's Thesis.** Prereq.: graduate standing in Electrical Engineering and consent of the student's graduate committee. 1-6 Cr. DEMAND.

English (ENGL)

106 RIVERVIEW BUILDING/255-3061

Chairperson: Suellen Rundquist

Graduate Faculty: Abartis, J.B. Anderson, Arent, Cogdill, Connaughton, Crow, Dillman, Dorn, Foster, Gordon, Gorrell, Hibbard, Inkster, Jackson, P. Keith, Kilborn, Klepetar, Linett, J. Lundquist, Meissner, Parham, Perry, J. Robinson, Roney, Ross, Rundquist, Sebberson, Teutsch-Dwyer, Veeder

This program is designed for both full-time and part-time students. Full-time students must expect to complete much of their course load in evening classes. Graduate courses are also offered in summer school, but a student cannot be assured of completing degree requirements solely with summer school work.

Master of Arts

The MA degree in English is appropriate for a program leading to the Ph.D degree, for community college or secondary teaching, and for general cultural enrichment. A student can pursue a Master of Arts in English with a general emphasis or an emphasis in college teaching or rhetoric and applied writing.

For unconditional admission to the MA degree, the applicant must have completed not less than 24 semester hours of undergraduate credit in English, exclusive of general education courses, and must meet the admission standards as required by the graduate studies office.

A minimum of 18 credits must be earned in courses limited to graduate students.

Graduate students interested in future doctoral study should develop competence in an appropriate foreign language.

Plan A, 36 Cr. (Thesis)

I. Credits in English: Min., 30 Cr.

Prescribed:

ENGL 606, Research in English: Bibliographic Strategies (or equivalent course), 3 Cr.

ENGL 699, Thesis, 6 Cr., or

ENGL 698, Creative Work, 6 Cr.

One 600-level course in British literature, 3 Cr.

One 600-level course in American literature, 3 Cr.

General MA:

Min. of 15 credits must be elected in ENGL. Only 3 credits in any combination from ENGL 653, 655, 665 may count toward the degree.

Emphasis in teaching college English:

Min. 21 credits in English plus internship credits from the following:

Four courses (12 Cr.) from 552, 553, 561, 562, 650, 652, 653, 655, 656, 665

Two courses (6 Cr.) from 607, 631, 632, 633, 634

One course (3 Cr.) from 564, 565, 569, 669

One course (1-3 Cr.) from 694, 695, 696. Only 3 credits in any combination from 653, 655, 665 may count toward the degree.

For the emphasis in teaching college English, no cognates may count towards the degree.

Emphasis in rhetoric and applied writing:

Min. 15 credits must be elected in English from the following:

Two courses (6 Cr.) from 607, 631, 632, 633

One course (3 Cr.) from 503, 532, 697

One course (3 Cr.) 634

One additional course elected in English (3 Cr.)

Only 3 credits in any combination from 653, 655, 665 may count

toward the degree.

II. Cognate courses: Max. of 6 credits may be earned in approved cognate courses.

III. A student completing the Plan A program must pass a final oral examination on the thesis submitted to the student's final evaluation committee.

Plan B, 36 Cr. (Non-thesis)

I. Credits in English: Min. 30 Cr.

Prescribed:

ENGL 606, Research in English: Bibliographic Strategies (or equivalent course), 3 Cr.

One 600-level course in British literature, 3 Cr.

One 600-level course in American literature, 3 Cr.

Two starred papers written in conjunction with approved courses and supported with substantial research. The creative starred paper option requires one paper supported with substantial research and one creative work. Obtain department specifications for starred papers from the graduate director in English.

General MA:

Min. of 21 graduate credits must be elected in ENGL. Only 3 credits in any combination from 653, 655, 665 may count toward the degree.

Emphasis in teaching college English:

Min. 27 credits in English from the following:

Four courses (12 Cr.) from 552, 553, 561, 562, 650, 652, 653, 655, 656, 665

One course (3 Cr.) 607

Two courses (6 Cr.) from 631, 632, 633, 634

One course (3 Cr.) from 564, 565, 569, 669

Two courses (2-6 Cr.) from 694, 695, 696

Only 3 credits in any combination from 653, 655, 665 may count toward the degree. For the emphasis in teaching college English no cognates may count toward the degree.

Emphasis in rhetoric and applied writing:

Min. 21 credits must be elected in English from the following:

Two courses (6 Cr.) from 607, 631, 632, 633

One course (3 Cr.) from 503, 532, 697

One course (3 Cr.) 634

Three additional courses elected in English (9 Cr.)

Only 3 credits in any combination from 653, 655, 665 may count toward the degree.

II. Cognate courses: Max. of 6 credits may be earned in approved cognate courses.

III. A student completing the Plan B program must pass a final oral examination on the starred papers submitted to the student's final evaluation committee.

Master of Science

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution, must have completed a minimum of 24 semester hours of undergraduate credits in English exclusive of general education courses, and must meet the admission standards as required by the Graduate Studies Office.

At least one-half of the Master of Science degree program must be earned in courses limited to graduate students.

Plans A and B (36 Cr.)**I. Research: Plan A, 9 Cr.; Plan B, 3 Cr.**

- ENGL 606, Research in English: Bibliographic Strategies (or equivalent course), 3 Cr.
 ENGL 699, Thesis, 6 Cr. (Plan A only), or
 ENGL 698, Creative Work, 6 Cr. (Plan A only)

II. Major: Min. Plan A, 15 Cr.; Plan B, 18 Cr.

- One 600-level course in British literature, 3 Cr.
 One 600-level course in American literature, 3 Cr.
 Other credits to be selected with English department adviser
 Only 3 credits in any combination from 653, 655, 665 may count toward the degree.

III. Professional education: Min. Plan A or B, 9 Cr.**IV. Electives: Plan A, 3 Cr.; Plan B, 6 Cr.**

- Credits to be selected with the English department adviser from related fields, ED 614, Action Research, ED 615, Introduction to Research, or additional courses in the major.

V. Prior to graduation, a student in Plan A must pass a final oral examination on the thesis submitted to the student's final evaluation committee. A student in Plan B must pass a written comprehensive examination given by the English Department.**Plan C, 39 Cr.****I. Research: Min., 3 Cr.**

- ENGL 606, Research in English: Bibliographic Strategies (or equivalent course), 3 Cr.

II. Major: 18 Cr.

- One 600-level course in British literature, 3 Cr.
 One 600-level course in American literature, 3 Cr.
 Selected courses in English to total 18 credits not to include more than one course by independent study. Only 3 credits in any combination from 653, 655, 665 may count toward the degree.

III. Educational foundations: 6 Cr.

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

IV. Educational applications and implementations: 12 Cr.

- Selected work, with the English adviser's approval, from methods workshops, practica, internships, school curriculum development, special projects related to the teaching assignment, and from ENGL 650 and other courses in the major or in related fields, as offered and as appropriate to the student's situation.

V. Candidates are required to complete successfully a final examination, oral or written, covering the materials included in a professional portfolio 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.**Master of Arts – TESL Emphasis**

For unconditional admission to the MA with a TESL emphasis, the applicant must have an undergraduate degree, have completed one year of a foreign language or equivalent proficiency, and have completed an introductory course in linguistics. The applicant must also meet the educational standards of the Graduate School.

A minimum of half of the credits should be earned in courses limited to graduate students.

Plan A, 36 Cr. (Thesis)**I. Prescribed:****A. Research: 9 Cr.**

- ENGL 607, Research in English: Empirical Designs, 3 Cr., or ED 615, Introduction to Research, 3 Cr.
 ENGL 699, Thesis, 6 Cr.

B. Pedagogy: five courses or 15 Cr.

1. Required: two courses, 6 Cr.

- ENGL 561, Teaching ESL: Theory and Methods, 3 Cr.
 ENGL 562, TESL Methods: Reading and Writing, 3 Cr., or
 ENGL 661, Theories of Second Language Acquisition, 3 Cr.
 ENGL 662, College Level ESL, 3 Cr.

2. Distributed: three courses, 9 Cr.

- ENGL 563, ESL and Culture, 3 Cr.
 ENGL 567, Topics in Teaching ESL, 3 to 6 Cr.
 ENGL 652, Computers, English, and Pedagogy, 3 Cr.
 ENGL 667, Assessment, Evaluation, and Testing in TESL, 3 Cr.
 ENGL 668, Research in TESL: Topics, 3 Cr.
 ENGL 669, Seminar in TESL and Language Acquisition Research, 3 to 6 Cr.
 ENGL 656, Teaching College Writing, 3 Cr.
 ED 557, Bilingual-Bicultural Education, 3 Cr.
 ED 558, Literacy for Second Language Learners, 4 Cr.

C. Linguistics: two courses or 6 Cr.

- ENGL 564, English Syntax, 3 Cr.
 ENGL 565, History of the English Language, 3 Cr.
 ENGL 566, American English, 3 Cr.
 ENGL 569, Topics in Linguistics, 3 Cr.
 ENGL 663, Phonetics and Phonology, 3 Cr.
 ENGL 664, Pedagogical Grammar, 3 Cr.
 ENGL 666, Sociolinguistics, 3 Cr.

II. Electives: A maximum of 6 credits may be earned as electives from any of the courses listed above, or from any other graduate course in the English department, or from cognate courses in other departments.**Plan B, 36 Cr. (Non-thesis)****I. Prescribed****A. Research: 6 Cr.**

- ENGL 607, Research in English, 3 Cr., or
 ED 614, Interpretation of Research, 3 Cr., or
 ED 615, Introduction to Research, 3 Cr.
 ENGL 668, Research in TESL: Topics, 3 Cr.

B. Pedagogy: five courses or 15 Cr.

1. Required: two courses, 6 Cr.
 ENGL 561, Teaching ESL: Theory and Methods, 3 Cr.
 ENGL 562, TESL Methods: Reading and Writing, 3 Cr., or
 ENGL 661, Theories of Second Language Acquisition, 3 Cr.
 ENGL 662, College Level ESL, 3 Cr.
 2. Distributed: three courses, 9 Cr.
 ENGL 563, ESL and Culture, 3 Cr.
 ENGL 567, Topics in Teaching ESL, 3 to 6 Cr.
 ENGL 652, Computers, English, and Pedagogy, 3 Cr.
 ENGL 667, Assessment, Evaluation, and Testing, 3 Cr.
 ENGL 668, Research in TESL: Topics, 3 Cr.
 ENGL 669, Seminar in TESL and Language Acquisition Research, 3 to 6 Cr.
 ENGL 656, Teaching College Writing, 3 Cr.
 ED 557, Bilingual-Bicultural Education, 3 Cr.
 ED 558, Literacy for Second Language Learners, 3 Cr.

C. Linguistics: three courses or 9 Cr.

- ENGL 564, English Grammars, 3 Cr.
 ENGL 565, History of the English Language, 3 Cr.
 ENGL 566, American English, 3 Cr.
 ENGL 569, Topics in Linguistics, 3 Cr.
 ENGL 663, Phonetics and Phonology, 3 Cr.
 ENGL 664, Pedagogical Grammar, 3 Cr.
 ENGL 666, Sociolinguistics, 3 Cr.

II. Electives: A maximum of 6 credits may be earned as electives from any of the courses listed above or from any other graduate course in the English department, or from cognate courses in other departments.

Licensure in Teaching English as a Second Language (TESL) (24)

Graduate students may qualify for K-12 licensure in Teaching English as a Second Language (TESL) in the State of Minnesota by completing an appropriate education block (including graduate teaching) plus the following courses. Prerequisites include graduate standing and ENGL 361.

Linguistics (1 course, 3 Cr.): 663 or 664.

Methods/Applied Linguistics from the following (three courses, 9 Cr.): 561, 562, 661, 662, 667 or ED 558.

Language and Culture from the following (three courses, 9 Cr.): 563, 566, 569, or ED 557.

Electives: One additional course from the above or 669.

ESL Licensure is a K-12 teaching license, including practice teaching-ED 464 and 466 (10 Cr.)-and a foreign language requirement: one year of college (8 Cr.) or two years of high school or some combination of both or the equivalent.

PERMANENT WORKSHOP DESCRIPTION

These courses are not intended to support a graduate degree program but are intended to respond to identified needs of post-baccalaureate students. Please refer to the all-university courses section earlier in this bulletin to determine the maximum number of workshop credits which may be applied to graduate degrees.

545. Mississippi River Creative Writing Workshop. Writing and discussion of poetry, fiction, and other forms. Presentations by visiting professional authors. No prerequisites. Not a substitute for 341, 342, 343, or 344. May be repeated to 4 Cr. 2 Cr. SUM.

COURSE DESCRIPTIONS

500. Special Problems in English. A seminar or conference course for advanced students wishing to work out a special problem in the academic area. 1-3 Cr. DEMAND.

502. 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.

503. Computers and English. Impact of computers in humanities and English studies: history, theory, and practice of electronically mediated communication; print and electronic literacies; modes of discourse and theories of language, community, and self. 3 Cr. F.

512. The American Novel. Study of the development of the American novel. 3 Cr. DEMAND.

514. Advanced Studies in American Multicultural Literature. In-depth study of the literature of one or more groups, such as American Indian, African American, Asian American, Jewish American, Latino/a American, and European American. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.

520. British Novel. Studies in the British novel. Focus may vary from development of the novel to a period or category, e.g., eighteenth-century, nineteenth-century, twentieth-century, the Gothic. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.

523. Shakespeare II. The texts, background and criticism of Shakespeare. 3 Cr. DEMAND.

524. Milton. *Comus*, *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, *Areopagitica*, and the minor poetry. 3 Cr. S.

531. The Rhetoric of Style. Historical and conceptual study of written style, both sentence and extended discourse levels, from the perspective of rhetorical effectiveness. Extensive practice in developing stylistic competence and strategies with a focus on technical skills. 3 Cr. F, S.

532. Specialized Professional Writing. Advanced study and practice of writing in selected areas. Variable content may include technical and scientific writing, proposal writing, government report writing, and administrative writing. Prereq.: 332 or consent of instructor. May be repeated to a max. of 6 credits. 3 Cr. S.

541. Advanced Creative Writing: Nonfiction. The writing of non-fiction at the advanced level. Prereq.: 341. 3 Cr. F.

542. Advanced Creative Writing: Fiction. The writing of fiction at the advanced level. Prereq.: 342. 3 Cr. F, S.

543. Advanced Creative Writing: Poetry. The writing of poetry at the advanced level. Prereq.: 343. 3 Cr. F, S.

544. Advanced Creative Writing: Drama. The writing of plays at the advanced level. Prereq.: 344. 3 Cr. S.

551. Advanced Language Arts Pedagogy. Theory and pedagogy in rhetoric, composition, literature, and language for grades 5-12. Professional development demonstrated in portfolios. May be repeated to a max. of 6 credits. 3 Cr. F, S.

552. Advanced Writing Center Practicum. Theory, methods, and materials of one-to-one instruction: models; pedagogy and administration; effects of writing processes, learning styles, and cultural and rhetorical backgrounds on tutorial practices; development of instructional materials; tutoring experience. Required for all graduate assistants in English assigned to tutor in the writing center. By permission only. 3 Cr. F.

553. Topics in Teaching Composition. Strategies and theories for teachers of English/Language Arts. Themes and format vary. Sample topics: recent theory and practice, evaluation methods, portfolio development. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.

559. Seminar in Teaching Literature. Methods, theory, and practice for teaching grades 5-12. Variable topics and format. Sample topics: multicultural literature, the canon, young adult literature, genre, theme, literacy. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.

561. Teaching ESL: Theory and Methods. Linguistics and language acquisition theory. Emphasis on the variety of methods used in teaching English as a second language with special attention to oral skills. Prereq.: 361 or consent of instructor. 3 Cr. F.

562. TESL Methods: Reading and Writing. Application of TESL theory and methods to the teaching of reading and composition, including psycholinguistic models, the process approach, and contrastive rhetoric. Prereq.: 561 or consent of instructor. 3 Cr. S.

563. ESL and Culture. Preparation of ESL teachers for the multicultural experience of the ESL classroom. Original research in schooling across cultures and on the teaching of culture in ESL. Prereq.: 561 or consent of instructor. 3 Cr. S.

564. English Syntax. Application of modern linguistics to the description of English grammar, including an introduction to the theories and methods of structural and generative-transformational grammars. Prereq.: 361 or equivalent. 3 Cr. F.

565. 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.: 361 or equivalent or consent of instructor. 3 Cr. S.

566. American English. Spoken American English, its historical development, contemporary social, ethnic, gendered, and regional varieties, and the implications of language variation for education. Prereq.: 361 or equivalent. 3 Cr. F.

567. Topics in TESL. Variable topics in teaching English as a second language and second language acquisition, stressing the integration of theory, method, and practice. Prereq.: 561 or consent of instructor. May be repeated to a max. of 6 credits with permission of instructor and adviser. 3 Cr. F ALT.

569. Topics in Linguistics. One or more topics of current importance in linguistics. Prereq.: 361 or equivalent or consent of instructor. May be repeated to max. of 6 credits with permission of instructor and adviser. 3 Cr. DEMAND.

581. Topics in Genre. Genres such as satire, autobiography, and non-fiction considered in the relevant historical, cultural, and critical contexts. Focus of the course may vary. May be repeated to a max. 6 credits. 3 Cr. DEMAND.

582. Topics in Themes. Selected recurrent themes such as myth, science, and nature considered within the relevant historical, cultural, and critical contexts. Focus of the course may vary. May be repeated to a max. 6 credits. 3 Cr. DEMAND.

- 584. Topics in Major Authors.** A major author considered within the relevant historical, cultural, and critical contexts. Focus of the course may vary. May be repeated to a max. 6 credits. 3 Cr. DEMAND.
- 591. Advanced Holocaust Studies.** Literature of the Jewish Holocaust, the literature of lamentation, the development of contemporary Judaism, and theories of response. May include Paul Celan, Arnold Lustig, Aharon Appelfeld, and Lawrence Langer. 3 Cr. DEMAND.
- 593. Women in Literature.** Women's literature in multiple genres in at least two time periods and with a comparative view of at least two cultures, preferably also including a non-Western culture. 3 Cr. DEMAND.
- 594. Canadian Literature.** The study of Canadian literature with emphasis on twentieth-century authors such as Margaret Atwood, Robertson Davies, Margaret Laurence, Farley Mowat, Alice Munro, Mordecai Richler, Sinclair Ross, and Gabrielle Roy. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

- 600. Special Problems in English.** Independent study for advanced students. May be repeated to a max. of 3 credits. 1-3 Cr. DEMAND.
- 602. 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. 3 Cr. DEMAND.
- 606. Research in English: Bibliographic Strategies.** Bibliography, methods, and tools for research in literature, language, and writing. 3 Cr. F.
- 607. Research in English: Empirical Designs.** Empirical research as applied to rhetoric/composition and ESL: design, research methodology, and interpretation, with some attention to statistical procedures. Prereq.: 606 or consent of instructor. 3 Cr. DEMAND.
- 608. Seminar in World Literatures.** Literature from any region of the world except England or the United States: style, genre, historical, or regional. 3 Cr. DEMAND.
- 609. Contemporary Thought in Literature.** A study of the philosophical and cultural content of selected contemporary writings. 3 Cr. DEMAND.
- 610. Seminar in American Literature through the Civil War.** Study of one or more important authors, such as Franklin, Poe, Thoreau, Hawthorne, and Whitman. 3 Cr. DEMAND.
- 611. Seminar in American Literature of the Later Nineteenth Century.** The writings of one or more major literary figures, such as Twain, James, Dickinson, Howells, and Crane. 3 Cr. DEMAND.
- 612. Seminar in American Literature of the Early Twentieth Century.** Selected studies in American literature from early to mid twentieth century. 3 Cr. DEMAND.
- 613. Seminar in American Literature of the Later Twentieth Century.** Selected studies of American literature from mid twentieth century to the present. 3 Cr. DEMAND.
- 620. Topics in Early English Literature.** Selected major works in English literature from Beowulf to Malory. Varied content. 3 Cr. DEMAND.
- 621. Seminar in English Renaissance Literature.** The literary works, background, and criticism of the poetry, prose, and drama of selected principal writers of the English Renaissance. 3 Cr. DEMAND.
- 622. Seminar in Restoration and Eighteenth-Century English Literature.** Selected genres, authors, or themes in English literature from 1660 to 1789. 3 Cr. DEMAND.
- 623. Shakespeare Studies.** The text and sources, theories, and history of representative comedies, tragedies, and histories. 3 Cr. DEMAND.
- 627. Seminar in Nineteenth-Century British Literature.** A selected aspect of nineteenth-century British literature. Content will vary. 3 Cr. DEMAND.
- 628. Seminar in Twentieth-Century British Literature.** Selected aspects of twentieth-century British literature. Content will vary. 3 Cr. DEMAND.
- 631. History of Rhetorical Theory.** The development of rhetoric from its classical origins through the present. Focus on theories and how they affect our understanding of literacy and writing in contemporary applications. 3 Cr. DEMAND.
- 632. Topics in Rhetoric.** An in-depth exploration of a significant area of research in contemporary rhetoric. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.
- 633. Applied Rhetoric.** An advanced rhetorical approach to writing and the criticism of writing. Theories of rhetoric are applied to analysis and production of written discourse. The aims are practical, critical, and theoretical. 3 Cr. DEMAND.
- 634. Academic and Professional Writing.** Advanced study and practice of academic and professional discourse. The rhetoric appropriate to graduate level papers, theses, journal articles, and conference papers. Revision, including audience adaptation. Prereq.: 606 or consent of instructor. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.
- 640. Advanced Creative Writing Seminar.** Projects in poetry, fiction, nonfiction, and playwriting. Course will focus on one genre. Prereq.: appropriate 500-level course in genre or permission of the instructor. May be repeated in alternate genres to a max. of 6 credits. 3 Cr. DEMAND.
- 650. Topics in Teaching English.** Seminar in teaching English/Language Arts. Topics might include current research in teaching English/Language Arts, professional writing for educators, creative writing pedagogy, issues in teaching English grades 5-12. May be repeated to a max of 6 credits. 3 Cr. DEMAND.
- 652. Computers, English, and Pedagogy.** Theoretical and practical issues using computers in English and composition classrooms. Introduces a wide range of applications appropriate to discourse studies. 3 Cr. DEMAND.
- 653. Supervised Tutoring.** Ongoing training in tutoring in a writing center. Limited to writing center graduate assistants and required every semester they tutor. May be repeated to a max of 6 credits. 1 Cr. F, S, S/U grading.
- 655. Supervised Teaching.** Ongoing training in teaching college writing. Limited to teaching assistants and required every semester they teach. May be repeated to a max. of 6 credits. 1 Cr. F, S, S/U grading.
- 656. The Teaching of College Writing.** A survey of significant approaches to the teaching of writing in college; analysis of theoretical perspectives and pedagogical materials and methods in rhetoric and composition. Required for all teaching assistants in the first-year writing program. 3 Cr. F.
- 661. Theories in Second Language Acquisition.** Interlanguage, nativist, environmentalist, and interactionist theories. Also contrastive, error, performance, discourse analyses, and research methodology. 3 Cr. F.
- 662. TESL for Academic Purposes.** An introductory course preparing teachers for ESL classrooms that require language in an academic context. Methods to teach listening, speaking, reading, and writing and methods to integrate these four skills with grammar, pronunciation, and vocabulary. 3 Cr. F.
- 663. Phonetics and Phonology.** Articulatory phonetics, the phonetic alphabet, the phonological rules of English. Exercises in varieties of English and other languages will be featured. 3 Cr. S-Alt.
- 664. Pedagogical Grammar for ESL Teachers.** Descriptive and pedagogical English grammar, focusing on grammatical structures that cause difficulties for ESL learners and incorporating the teaching of grammar into the ESL classroom. 3 Cr. S-Alt.
- 665. TESL Practicum.** Practical preparation for TESL teaching assignments in grammar, listening/speaking, reading, writing, or cultural orientation classes. Lesson preparation and assessment/evaluation. Required for all teaching assistants up to four credits. Prereq.: 561, 562, or permission of instructor. S/U grading. 1 Cr. F, S, SUMMER.
- 666. Seminar in Sociolinguistics.** International and intercultural issues of language, such as world English, multilingualism, pidgins, and creoles, language policy, planning, education, *language and social class*, ethnicity, and gender. 3 Cr. F.
- 667. Assessment, Evaluation, and Testing in TESL.** Introduction to test design, development, and administration for English as a second/foreign language. Focus on speaking, reading, writing, listening, grammar, and vocabulary. 3 Cr. F ALT.

668. Seminar in TESL and Language Acquisition Research.

Reading, interpreting, and implementing research in applied linguistics or TESL: classroom-based research, contrastive rhetoric studies, ethnography, discourse analysis, portfolio or journal research. Prereq.: 531 and 532 or permission of instructor. May be repeated to a max. of 6 credits. 3 Cr. F.

669. Seminar in TESL Theory and Practice. Critical review of research in TESL and language acquisition. Sample topics: first and second language acquisition, language assessment, error analysis, discourse analysis, and TESL methods and materials. May be repeated with consent of instructor and graduate adviser. 3 Cr. DEMAND.

693. Internship in Teaching College English: Composition.

Supervised experience as classroom teacher of general education composition or ESL courses, or tutor in the departmental writing center. Supervising faculty determine qualifications and requirements. Admission arranged with consent of supervising instructor and director of English graduate studies. Graduate assistant assignments do not qualify for ENGL 693 credit. Prereq.: 656 or comparable course. May be repeated to a max. of 3 credits. 1-3 Cr. DEMAND.

694. Internship in Teaching College English: Literature. Team-teaching of literature with an experienced teacher. The faculty member serves as supervisor and determines internship qualifications and requirements. Admission arranged with consent of supervisor and director of English graduate studies. May be repeated to a max. of 3 credits. 1-3 Cr. DEMAND.

696. Internship in Teaching English in Community and Technical Colleges.

Practical experience in team-teaching English in a community or technical college. Supervision by SCSU English faculty member and mentoring relationship with a college teacher. Admission individually arranged by consent of internship supervisor and director of English graduate studies. May be repeated to a max. of 3 credits. 1-3 Cr. DEMAND.

697. Professional Writing Internship. Department approved and directed field experience in a professional environment requiring the research, writing, editing, and analytical skills of a graduate English student. The internship director serves as supervisor and determines internship qualifications and requirements. Arranged by permission of director of English graduate studies and department chairperson. May be repeated to a max. of 6 credits. 1-6 Cr. DEMAND.

698. Creative Work. 1-6 Cr. F, S, SUMMER.

699. Master's Thesis. 1-6 Cr. F, S, SUM.

Environmental & Technological Studies (ETS)

216 HEADLEY HALL/255-3235

Chairperson: Anthony Schwaller

Graduate Faculty: Akubue, Helgeson, Karian, Nestel, Nicholson, Rose, Schwaller

Master of Science

An applicant for admission to the Master of Science degree in Environmental and Technological Studies must meet the following requirements:

1. A baccalaureate degree from an accredited college or university.
2. 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. An entrance interview and writing sample must both be completed within the first 16 credits of course work.

At least one-half of the Master of Science degree program must be earned in courses in which enrollment is limited to graduate students.

This program is designed for both full-time and part-time students. Full-time students must expect to complete a majority of their course load in evening classes. This program in itself will not provide licensure for secondary school technology education teaching.

Plan A, 30 Cr.; Plan B, 33 Cr.

I. Core : Plan A, 15 Cr.; Plan B, 12-15 Cr.

Technology: (Plan A and B)

Select 3 credits from the following:

- ETS 505. Foundational Tech Develop, 3 Cr.
- ETS 601. Technology and Society, 3 Cr.
- ETS 604. Innovation/Contemp. Problem, 3 Cr.
- ETS 615. Seminar, 1-3 Cr.

Select 3 credits from the following:

- ETS 625. Technical Problem in Comm, 3 Cr.
- ETS 635. Technical Problems Constr, 3 Cr.
- ETS 645. Technical Problem in Mfg, 3 Cr.
- ETS 685. Technical Problems in Trans/Energy, 3 Cr.

Research:

Required (Plan A):

- ETS 699. Thesis, 6 Cr.

Select 3 credits from the following:

- ETS 668. Current Lit and Research, 3 Cr.
- ETS 670. Technical Research Design, 3 Cr.
- ED 615. Introduction to Research, 3 Cr.
- APSY 678. Introduction to Graduate Stats, 3 Cr.
- APSY 679. Seminar: Research Planning, 3 Cr.

Select 6 credits (*Plan B*) from the following:

- ETS 668. Current Lit and Research, 3 Cr.
 - ETS 670. Technical Research Design, 3 Cr.
 - ED 615. Introduction to Research, 3 Cr.
 - APSY 678. Introduction to Graduate Stats, 3 Cr.
 - APSY 679. Seminar: Research Planning, 3 Cr.
- Plus: A starred paper is required.

II. Tracks:

1. Technology Education Track:
Plan A or B, 12 Cr.

Required:

- ETS 650. Contemp Instr Strat Tech, 3 Cr.
- ETS 673. Foundations of Tech Educ, 3 Cr.

Professional Education: 6 Cr.

(See the Prof. Educ. block below)

2. Vocational Track:

Plan A or B, 12 Cr.

Select 6 Cr. From:

- ETS 595. Workshop, Vr. Cr.
- ETS 650. Comp Lnstr Strat Tech, 3 Cr.
- ETS 673. Foundations of Tech Education, 3 Cr.
- ETS 695. Workshop, Vr. Cr.

Select 6 Cr. From:

Professional Education: 6 Cr.

(See the Prof. Educ. block below)

3. Technical Research Track:

Plan A or B, 9 Cr.

Required:

- ETS 670. Technical Research Design, 3 Cr.
- ETS 671. Technical Research Experi, 3 Cr.

Select 3 Cr. from:

- ETS 625. Technical Problem in Comm, 3 Cr.
- ETS 635. Technical Problems Constr, 3 Cr.
- ETS 645. Technical Problem in Mfg, 3 Cr.
- ETS 685. Technical Problem in Trans/Energy, 3 Cr.

III. Electives:

Track 1: Plan A, 3 Cr.; Plan B, 9 Cr.

Track 2: Plan A, 3 Cr.; Plan B, 9 Cr.

Track 3: Plan A, 6 Cr.; Plan B, 9 Cr.

NOTE: Any credits over the minimum level in any area can be counted in the electives area.

Professional Education block:

Select one course from two of the following groups:

1. Educational Foundations:

ED 604, 606, 607, 609, 610, 611, 612, 632.

2. Curriculum:

ED 625, 647, 648, 649.

3. Instruction:

ED: 624, 631, 654, 655.

PERMANENT WORKSHOP DESCRIPTIONS

These courses are not intended to support a graduate degree program but are intended to respond to identified needs of post-baccalaureate students. Please refer to academic regulations under "Workshop limitation" to determine the maximum number of workshop credits which may be applied to graduate degrees.

513. Workshop: CAD on the MacIntosh. Computer-aided drawing using AutoCad and VersaCad on MacIntosh and MS DOS computers. 1-3 Cr. SUM.

551. Workshop: Technology Education Activities. Developing activities for the secondary education technology educator. 1-3 Cr. DEMAND.

558. Workshop: Modular Technology I. Modular Technology laboratory systems to develop higher level thinking skills (synthesis/evaluation) in relationship to various technologies in the areas of Communication, Construction, Manufacturing, Transportation and BioTechnology. Testing and assessment of modular units. 2 Cr. DEMAND.

559. Workshop: Modular Technology II. New educational technology systems available for middle and high school technology education classrooms including such modules as Robotics, Electronics, Graphic Design, Animation, Auto Exploration, Air Track, Satellite Communications, Weather Satellite, Virtual Reality, etc. Testing and Assessment of Modular Units. 2 Cr. DEMAND.

COURSES DESCRIPTIONS

505. Foundational Technical Developments. The universal characteristics of technology, its foundational technical developments, and their effects upon culture. Tools, materials, processes, systems. 3 Cr. DEMAND.

523. Electronic Prepress and Imaging. Electronic communication technologies and their applications to the publishing industry. Creating publications using color electronic prepress systems/desktop publishing. 3 Cr. S.

536. Construction Scheduling and Estimating. Preliminary, detail, and quantity estimating and scheduling techniques for residential and small commercial projects. 3 Cr. S.

544. Internship. Offered only to students who hold internships with industrial organizations for which advanced approval has been given by the department. May be repeated; however, a max. of 9 credits will count toward an undergraduate degree and 4 Cr. toward a graduate degree. 1-9 Cr. DEMAND.

582. Renewable/Nondepletable Energy. Evaluation of energy resources including environmental, social, political, and economic considerations; synthesis and evaluation of renewable resource potential/rationale. 3 Cr. F.

COURSES FOR GRADUATE STUDENTS ONLY

601. Technology and Society. Effects of invention and technology development on society. 3 Cr. DEMAND.

604. Innovations and Contemporary Problems. Current technological innovations, issues and events and their interrelationship to contemporary problems that face today's society. 3 Cr. DEMAND.

615. Seminar. Seminar presentation on a selected industrial education topic. Permission of department required. May be repeated to maximum of nine credits. 1-3 Cr. DEMAND.

625. Technical Problems in Communications (Topical). Technical study for specialists in communications. Recent developments, experimentation and technical reports. May be repeated to maximum of six credits. 3 Cr. DEMAND.

635. Technical Problems in Construction (Topical). Technical study for specialists in construction. Recent developments, experimentation and technical reports. May be repeated to maximum of six credits. 3 Cr. DEMAND.

645. Technical Problems in Manufacturing (Topical). Technical study for specialists in manufacturing. Recent developments, experimentation and technical reports. May be repeated to maximum of six credits. 3 Cr. DEMAND.

650. Contemporary Instructional Strategies in Technology Education. In-depth study and examination of innovative teaching strategies and their applications in technology education. Students identify, discuss, and apply selected strategies. 3 Cr. DEMAND.

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. 3 Cr. DEMAND.

670. Technical Research Design. Phase I of the technical research project. An examination of the elements and conventions used in writing a technical research report. Students select a research area of interest within the thematic areas of communication, construction, manufacturing, transportation/energy, and develop a technical research design. 3 Cr. DEMAND.

671. Technical Research Experimentation. Phase II of the technical research project. An exploration of the methods of experimentation in a technical environment. Graduate researchers engage in technical experiments related to an aspect of communication, construction, manufacturing, transportation/energy. Prereq.: 670. 3 Cr. DEMAND.

673. Foundations of Technology Education. Contributors to development of technology education with special attention to economic, social and philosophical factors motivating this development. 3 Cr. DEMAND.

685. Technical Problems in Transportation/Energy (Topical). Technical study for specialists in transportation/energy. Recent developments, experimentation and technical reports. May be repeated to maximum of six credits. 3 Cr. DEMAND.

699. Master's Thesis. 1-6 Cr. F, S.

Finance, Insurance & Real Estate (FIRE)

110 BUSINESS BUILDING/255-4986

Chairperson: Steven Mooney

Graduate Faculty: Christopherson, Gangopadhyay, Haley, Hudson, S. Mooney, Sarwar, Sneider

Also see MBA requirements under the Master of Business Administration section of this bulletin.

COURSE DESCRIPTIONS

571. Corporate Financial Policies. Corporate financial decision making; adjustments to changing conditions; market structure and corporate capital instruments; capital market movements and financial decisions. Prereq.: 371. 3 Cr. F, S, SUM.

572. Financial Institutions. Role in the economy; current issues/controversies in banking and intermediation; international aspects of financial intermediation. 3 Cr. F, S, SUM.

573. International Finance. Foreign exchange, currency and derivative markets, currency risk management, international investment and financing decisions, multinational corporate financial decisions. Prereq.: 371. 3 Cr. F.

574. Security Analysis. Organization of securities markets, risk and return analysis, modern portfolio theory, efficient market theory, fixed income securities, equity securities, and derivative securities. Prereq.: 371, 373. 3 Cr. S.

575. Life and Health Insurance. Individual life and health insurance and employee benefits; estate and financial planning; insurance company management and operations; regulation; public policy issues. 3 Cr. F.

576. Property and Liability Insurance. Property and liability risks; contracts, insurance law and regulation; company management and operations. 3 Cr. S.

579. Social Insurance. Economic security; public and worker's compensation programs designed to alleviate the perils of premature death, poor health, retirement, unemployment, and poverty. Program structure, financing, and policy. 3 Cr. F.

580. Employee Benefits and Group Insurance. Employee benefit plan design, group insurance contract provisions, group life and health coverage, pension plans, cost containment, and taxation. 3 Cr. S.

581. Financial Derivatives. Will discuss the characteristics and functions of financial derivatives. The emphasis will be on corporate risk management applications of financial derivatives. Pricing models of derivatives and trading strategies using derivatives to hedge financial risks will be discussed. 3 Cr. F.

583. Real Estate Finance and Investments. Cash flows generated by commercial investment real property, from both the lender's and investor's viewpoint. Ratio and return analysis. Primary and secondary mortgage markets. Prereq.: 378 or permission of department. 3 Cr. F.

584. Real Estate Appraisal. Cost, income, and market approaches to value of real property assets. Professional narrative appraisal employing comparable sales analysis, depreciated cost analysis and discounted cash flow analysis. Professional ethics and uniform standards of professional appraisal practice. Prereq.: 378 or permission of department. 3 Cr. S.

587. Management of Financial Institutions. Decision making in commercial banks and other depository institutions. Asset, liability, and capital management issues. Lending, depository, and trust functions. Prereq.: 371, 3 Cr. S.

590. Topics in Finance, Insurance and Real Estate. Cases and/or student research, class involvement. Options and futures, mergers and acquisitions, health care finance ethics, real estate brokerage, capital investment decisions, and emerging issues. Prereq.: Senior Finance, Insurance or Real Estate Major. MBA. 3 Cr. May be repeated with different topics to a max. of 6 credits. DEMAND.

598. Business Consulting. Teams of students work as consultants to area businesses and non-profit organizations to diagnose and solve actual business problems. Written and oral report required. Prereq.: 371; MKTG 320; ACCT 292; BCIS 240, 241; MGMT 301; and permission of department. 3 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar. Selected topics related to (1) finance; or (2) insurance and real estate. 3 Cr. DEMAND.

672. Readings in Finance.

Special readings in the subject area. 3 Cr. DEMAND.

675. Readings in Insurance and Real Estate. Special readings in the subject area. 3 Cr. DEMAND.

Foreign Languages & Literature (FORL)

228 BROWN HALL/255-4141

FAX: 320-255-2002

[HTTP://FLL.STCLOUD.MSUS.EDU/HL/INDEX.HTML](http://fll.stcloud.msus.edu/hl/index.html)

Chairperson: Shawn C. Jarvis

Graduate Faculty: Boyer, Carter, Commers, Costaglioli, Grottel, Hasbrouck, Jarvis, Langen, Mueller, Roman-Morales, Specht-Jarvis, VanBuren.

This department currently does not offer a graduate program in the study of foreign languages. Service courses for other graduate programs may be offered.

COURSE DESCRIPTIONS – FORL

553. Teaching a Foreign Language in the Secondary School. Methodologies for teaching another language. Professional development through writing of lesson and unit plans, mini-teaching demonstrations by students, and assessment of 5 modalities. Must be taken before French, German or Spanish 454-554. Prereq.: ENG 361, APSY 262 (or equivalent Tchr Dev semester course), and previous or concurrent enrollment in Spanish, French, or German 451 and 452, and admission to BS foreign language major/minor. 3 Cr. F

555. Teaching of Modern Foreign Languages in the Elementary Schools. Language acquisition theory, developmental considerations, curriculum development, and instructional strategies for second language learning by children. Must be taken before French, German or Spanish 456/556. Prereq.: 455; APSY 262 (or equivalent Tchr Dev semester course) or equivalent, admission to B.S. foreign language major or minor; 555 foreign language or elementary school teaching license or permission. 3 Cr. S.

COURSE DESCRIPTIONS – FRENCH

521. Advanced Studies in French Civilization. Intensive study of an aspect of the historical, sociological, artistic, political and intellectual development of the French-speaking peoples. May be repeated to a max. of 6 credits. Prereq.: French 302, 331. 3 Cr. S.

554. Teaching French in the Secondary School. Taken concurrently with student teaching. Application of language learning principles in secondary schools. Selection and presentation of daily and unit lessons. Critique based on the theories discussed in FORL 453. BS capstone course; cannot be used as an elective in BA program. Prereq.: FORL 453, demonstrated oral proficiency at or near level required for licensure. 2 Cr. F, S.

556. Teaching French in the Elementary School. Application of language learning principles to elementary school instruction. Development/selection of materials and practice in presenting them. B.S. capstone course; cannot be used as an elective in BA program. Prereq.: 455/555, demonstrated oral proficiency at or near level required for licensure. 2 Cr. F, S, DEMAND.

560. Study Abroad. Capstone required course for participants in the study abroad program. On-site study of selected aspects of language and/or culture in the host country. Final oral and written report presented in French. Topics determined in consultation with study abroad director. Prereq.: Approval of foreign language department program director. 3 Cr. S.

561. Internship. Use of linguistic ability in a work setting in the US or in a French-speaking country. Combines learning with an apprenticeship experience. Completion of an internship report under the guidance of instructor. May substitute for 457. Prereq.: permission. 2 Cr. Arranged.

COURSE DESCRIPTIONS – GERMAN

518. Ethnic and Social Minorities in German-Speaking Countries. Study of ethnic minorities in German speaking countries. 3 Cr. DEMAND.

554. Teaching German in the Secondary School. Taken concurrently with student teaching. Application of language learning principles in secondary schools. Selection and presentation of daily and unit lessons. Critique based on the theories discussed in FORL 453. BS capstone course; cannot be used as an elective in BA program. Prereq.: FORL 453, demonstrated oral proficiency at or near level required for licensure. 2 Cr. F, S.

556. Teaching German in the Elementary School. Application of language learning principles to elementary school instruction. Development/selection of materials and practice in presenting them. B.S. capstone course; cannot be used as an elective in BA program.

Prereq.: FORL 455/555, demonstrated oral proficiency at or near level required for licensure. 2 Cr. DEMAND.

560. Study Abroad. Required capstone course for participants in study abroad program. Requires study abroad during a semester, a thesis and public presentation of arguments made in the thesis. Topics determined in consultation with study abroad director. Prereq.: study abroad enrollment. 3 Cr. S, SUM.

561. International Internship. Independent study course offered supplementing with internships abroad. Students report back about work, tasks, and responsibilities in German and fax or e-mail reports weekly. A final report is filed with the employer and the instructor of record. Students must have mastered intermediate-mid oral proficiency and obtain the consent of the instructor to enroll. Students who completed the "Certificate Program in International Awareness" are eligible without oral proficiency test if they completed coursework at the 300-level. The course meets the 9 Cr. "Literature-requirement." 3-5 Cr. DEMAND.

571. Business German. Legal system; business administration; job market; banking, manufacturing, and service industries; real estate. Prereq.: 302, or permission of instructor. 2-4 Cr. DEMAND.

COURSE DESCRIPTION – SOVIET STUDIES

510. Contemporary Policy Issues in Soviet Studies. Policy-oriented analysis of key issues facing the former Soviet Union. Emphasis on Soviet understanding of issues, policy options, approaches to implementation. Topics vary. 3 Cr. S.

COURSE DESCRIPTIONS – SPANISH

554. Teaching Spanish in the Secondary School. Taken concurrently with student teaching. Application of language learning principles in secondary schools. Selection and presentation of daily and unit lessons. Critique based on the theories discussed in FORL 453. BS capstone course; cannot be used as an elective in a BA program. Prereq.: FORL 453, demonstrated oral proficiency at or near level required for licensure. 2 Cr. F, S.

556. Teaching Spanish in the Elementary School. Application of language learning principles to elementary school instruction. Development/selection of materials and practice in presenting them. B.S. Capstone course; cannot be used as an elective in a BA program. Prereq.: FORL 455/555, demonstrated oral proficiency at or near level required for licensure. 2 Cr. F, S, DEMAND.

560. Study Abroad. On-site study of selected aspects of language and/or culture of the host country. Final report presented in Spanish. Prereq.: 301, 302 or approval of foreign language department program director. 3 Cr. May be repeated to a max. of 6 credits with permission. DEMAND.

561. Internship. Use linguistic ability in work setting in the US or in the host country. Combines learning with an *apprenticeship experience*. May substitute for 457. Prereq.: permission of instructor/adviser. 2 Cr. Arranged.

571. Commercial Spanish. General business terminology within a business and cultural context. Preparation for a business career in a global market. Prereq.: 302, 331, 341. 3 Cr. DEMAND.

Geography (GEOG)

359 STEWART HALL/255-3160

Chairperson: Lewis Wixon

Graduate Faculty: Baker, Bixby, Blinnikov, Leppman, Richason, Torguson, Wall, Wixon

Master of Science

To be considered for admission to the Masters degree program an applicant must meet the minimum requirements of the university; have completed a baccalaureate degree from an accredited college or university with a minimum of a 2.75 grade point average over the last half of undergraduate education, and have an acceptable score on the GRE.

Admission to the graduate program in Geography requires completion of at least an undergraduate minor in Geography. In some cases the applicant may be required to complete additional undergraduate work even though they may have completed a minor or major in Geography. Applicants who do not have at least an undergraduate minor in Geography may be admitted conditionally, subject to completion of specific undergraduate courses in Geography, as determined by the department.

Teaching applicants will complete the program described below (Areas V and VI). Teaching applicants who do not have a background in teacher education should confer with the department chairperson.

At least one-half of the Master of Science degree program must be earned in courses where enrollment is limited to graduate students (600 level courses). The 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.

Geography

Plan A, 30 Cr.; Plan B, 32 Cr.; Plan C, 36 Cr.

I. Research: Min., Plan A, 6-12 Cr.; Plan B or C, 3 Cr.

GEOG 610. Research Process in Geography, 3 Cr.

GEOG 699. Thesis, 6 Cr. (Plan A only).

II. Major: Min., Plan A, 12 Cr.; Plan B or C, 16 Cr.

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

III. Professional Education: Min., Plans A or B, 6 Cr.

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

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

V. Educational foundations: Min., 3 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., 9 Cr. (Plan C only).

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

Geography: Geographic Information Science Emphasis

Plan A, 30 Cr.; Plan B, 33 Cr.

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

GEOG 610. Research Process in Geography, 3 Cr.

GEOG 699. Thesis, 6 Cr. (Plan A only).

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

The following courses are required as part of the emphasis:

GEOG 502. Techniques in GIS, 3 Cr.

GEOG 506. Thematic Cartography, 3 Cr.

GEOG 507. Map Design and Presentation, 3 Cr.

GEOG 508. Introduction to Digital Image Processing, 3 Cr.

GEOG 562. Concepts in Spatial Analysis, 3 Cr.

GEOG 605. Spatial Analysis Methods in Geography, 3 Cr.

III. Electives: Min. Plan A, 3 Cr.; Plan B, 12 Cr.

Geography: Tourism Planning and Development Emphasis

Plan A, 30 Cr.; Plan B, 32 Cr.

I. Research: Min., Plan A, 6-12 Cr.; Plan B, 3 Cr.

GEOG 610. Research Process in Geography, 3 Cr.

GEOG 699. Thesis, 6 Cr. (Plan A only)

II. Major: Min., Plan A, 12 Cr.; Plan B, 18 Cr.

The following courses are required as part of the emphasis:

GEOG 596. Tourism and the Environment, 3 Cr.

GEOG 601. Research in Geography (Tourism Emphasis), 1-6 Cr.

GEOG 654. Urban, Regional and Resource Planning, 3 Cr.

GEOG 630. Seminar (Tourism Emphasis), 3 Cr.

III. Electives: Min., Plan A, 3-6 Cr.; Plan B, 3-6 Cr.

Geography: Geographic Information Science Certificate

A Geographic Information Science certificate is available through course work completed at the graduate level within the Geography Department. To be admitted to the certificate program students must

apply for admission through the University's Office of Graduate Studies.

Applicants must have completed a baccalaureate degree from an accredited college or university, have a minimum of a 2.75 GPA over the last half of their undergraduate education, and an acceptable score on the GRE. An undergraduate major or minor in Geography is not required. Students may be required to complete an undergraduate level software applications course in geography prior to enrolling in graduate level courses. Students from disciplines other than geography that utilize GIS techniques are particularly encouraged to apply to the GIS certificate program. For further information regarding the certificate program, contact Dr. Robert Bixby, Department of Geography.

Graduate Certificate: Geographic Information Science (15 Cr.)

GEOG 502. Techniques in GIS, 3 Cr.

GEOG 506. Thematic Cartography, 3 Cr.

GEOG 507. Map Design and Presentation, 3 Cr.

GEOG 508. Introduction to Digital Image Processing, 3 Cr.

GEOG 562. Concepts in Spatial Analysis, 3 Cr.

COURSE DESCRIPTIONS

502. Techniques in GIS. Spatial, network and surface analysis.

Topical. Prereq.: 316 or consent of instructor. Integrated Lab. 3 Cr. F S.

506. Thematic Cartography. Statistical mapping of spatial data, advanced manual and computer techniques. Topical. Prereq.: 250 or consent of instructor. Integrated Lab. 3 Cr. ALT.

507. Map Design and Presentation. Vertical process camera and basic darkroom techniques and advanced color desktop computer mapping techniques. Topical. Prereq.: 250 or consent of instructor. Integrated Lab. 3 Cr. ALT.

508. Introduction to Digital Image Processing. Characteristics and qualities of nonconventional remote sensing imagery as it applies to inventory and assessment of environmental phenomena. Topical. Prereq.: 350 or consent of instructor. Integrated Lab. 3 Cr. S.

554. Regional Planning. Comparative regional planning. Economic distribution and ideological differences. Topical. Integrated Lab. 3 Cr. F-Alt.

555. Urban Site Development. Art of planning the arrangement of buildings and other structures so as to be in harmony with each other and the environment. Integrated Lab. 3 Cr. S-Alt.

557. Preservation and Neighborhood Change. District and neighborhood preservation, investment analysis, and racial issues. Integrated Lab. 3 Cr. F.

562. Concepts in Spatial Analysis. Standard techniques in geographic information systems. Topical. Prereq.: 402 or consent of instructor. Integrated Lab. 3 Cr. F S.

572. Geomorphology. The configuration of the earth's surface and

physical processes that have brought the surface to its present condition. Topical. 3 Cr. F.

586. Political Geography. Geographic concepts applied to the analysis of political organization and behavior. Topical. 3 Cr. S-Alt.

590. Issues in Urban Geography. Selected contemporary issues in urban Geography. May be repeated to a max. of 6 credits. Prereq.: 394 or consent of instructor. Integrated Lab. 3 Cr. F S.

592. Water Resources. Major problems in the development and management of water resources: supply, distribution, quality, pollution, floods and variability; case-studies in selected regions. Topical. 3 Cr. F-Alt.

596. Tourism and the Environment. Tourism and its relationship to the physical and cultural character of place. Sustainable development, particularly when expressed as eco-tourism. Prereq.: 396 or consent of instructor. 3 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

601. Research in Geography. A seminar or conference course. Credits and meetings by arrangement. May be repeated to a max. of 6 credits. 1-6 Cr. F.

602. Reading in Geography. A seminar or conference course to investigate the geography of a particular region of the world or application of geographic technique. Credits and meetings by arrangement. May be repeated to a max. of 6 credits. 1-6 Cr. S.

605. Spatial Analysis Methods in Geography. Spatial data models, regional patterns, statistical analysis of spatial variations, regional forecasting, and S-PLUS and digital maps in spatial analysis. Prereq.: undergraduate or graduate experience in statistics or consent of instructor. 3 Cr. S.

610. Research Process in Geography. Development of research prospectus, contemporary issues, systems approach, fundamental process and methods in geographic research. 3 Cr. F.

630. Seminar. Research and seminar presentation on a selected geographic topic. Regional or topical. Prereq.: consent of instructor. Variable credit. May be repeated to a max. of 6 credits. 1-3 Cr. S.

644. Internship: Practical Geography. Requires consent of the department and is limited to graduate students only. 1-6 Cr. DEMAND.

650. Land Use Analysis: Examination of the Nature, Use, and Conservation/Land. Land use planning techniques. Permission of instructor. Topical. 3 Cr. F.

654. Urban, Regional and Resource Planning. Concepts, philosophies, and theories of planning; case-studies. Topical. 3 Cr. S.

699. Master's Thesis. 1-6 Cr. DEMAND.

Gerontology (GERO)

365 STEWART HALL/255-3947

Director: Rona Karasik

Graduate Faculty: S. Brundage, DeVoe, Hauslein, Havir, Karasik, Litterst, Preble, Whitford

Master of Science – Gerontology

A Master of Science in Gerontology prepares graduates to assume professional leadership roles in the delivery of service to older people and their support networks, in the planning of services, in the administration of services, and in the training and instruction of older people and service providers.

Employment possibilities include local, state and federal levels of government as well as with private and voluntary organizations and institutions.

Students select from core courses in Psychology and Sociology of Aging, as well as courses in Community Policy, and Research Methods. Additional courses will be selected to assist the student in attaining specific professional skills and knowledge.

An internship assures that these skills can be utilized in agencies and institutional settings. All students are expected to complete a 3-6 credit internship as part of the master's program.

Those students who have experience in service-delivery to the aging must complete their internship in a different program or setting in order to diversify their educational backgrounds. Exceptions to this restriction may be approved by the graduate adviser.

The Master of Science in Gerontology requires 9 credits in core courses, 3-6 credits in internship. Plan A requires 6 thesis credits and 12 credits of electives. Plan B requires GERO 697 and 15 credits of electives.

Prerequisites for admission to the master's degree program:

Students applying for admission to the Master of Science in Gerontology program must have a Bachelor's degree from an accredited college or university and an acceptable score on the Graduate Record Examination and/or acceptable undergraduate scholastic record.

Undergraduate course work in gerontology or equivalent along with statistics and research methods are highly recommended before enrollment in relevant advanced course work. Students are encouraged to enter graduate studies during fall semester. At least one-half of the Master of Science degree program must be earned in courses in which enrollment is limited to graduate students.

Plan A (Thesis), 34 Cr.; Plan B, (Starred Paper), 36 Cr.

I. Core requirements, 9 Cr. Minimum

GERO 620. Advanced Policy Issues in Gerontology, 3 Cr.
GERO 630. Aging and Community, 3 Cr.
GERO 650. Sociology of Aging: Theory and Research, 3 Cr.
PSY 647. Psychology of Aging: Theory and Research, 3 Cr.

II. Research requirements, 9-12 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr. (or equivalent).
ED 615. Introduction to Research, 3 Cr.
or
SOC 679. Advanced Research Methods, 3 Cr. (or equivalent).
GERO 697. Starred Paper Preparation, 1-6 Cr. (Plan B only).
GERO 699. Thesis, 6 Cr. (Plan A only)

III. Internship requirements, GERO 644, 3-6 Cr.

IV. Electives: Plan A, 12 Cr.; Plan B, 15 Cr. minimum.

ANTH 520. Aging in Culture and Society, 3 Cr.
APSY 523. Counseling Older Persons, 3 Cr.
BIOL 512. Biology of Aging, 3 Cr.

CDIS 540. Communication Disorders of the Aged, 2 Cr.
FIRE 579. Social Insurance, 3 Cr.
GERO 511. Aging Policy and Programs, 3 Cr.
GERO 515. Women and Aging, 3 Cr.
GERO 525. Dementia and Aging, 3 Cr.
GERO 535. Aging and Housing Options, 3 Cr.
GERO 540. Seminar (topical),* 1-3 Cr.
HLTH 512. Advanced Nutrition, 3 Cr.
HURL 509. Ageism, 2 Cr.
PSY 543. Psychology of Adulthood, 3 Cr.
SOC 573. Sociology of Elderly Family, 3 Cr.
SOC 575. Sociology of Health and Illness, 3 Cr.
SPC 531. Speech Communication and the Aging Process, 3 Cr.

Gerontology Certificate – (12-15 Cr.)

Required: 6 Cr. minimum

Select from:

GERO 620. Advanced Policy Issues in Gerontology, 3 Cr.
GERO 630. Aging and Community, 3 Cr.
SOC 650. Sociology of Aging: Theory and Research, 3 Cr.
PSY 647. Psychology of Aging: Theory and Research, 3 Cr.

IV. Electives: 6-9 Cr.

ANTH 520. Aging in Culture and Society, 3 Cr.
APSY 523. Counseling Older Persons, 3 Cr.
BIOL 512. Biology of Aging, 3 Cr.
CDIS 540. Communication Disorders of the Aged, 2 Cr.
FIRE 579. Social Insurance, 3 Cr.
GERO 511. Aging Policy and Programs, 3 Cr.
GERO 515. Women and Aging, 3 Cr.
GERO 525. Dementia and Aging, 3 Cr.
GERO 535. Aging Housing Options, 3 Cr.
GERO 540. Seminar (topical),* 1-3 Cr.
HURL 509. Ageism, 2 Cr.
PSY 543. Psychology of Adulthood and Aging, 3 Cr.
SOC 573. Sociology of Elderly Family, 3 Cr.
SOC 575. Sociology of Health and Illness, 3 Cr.
SPC 531. Communication and Aging, 3 Cr.

*May be repeated with different topics.

COURSE DESCRIPTIONS

511. Aging Policy and Programs. The federal, state and local framework of services and programs for the aging. 3 Cr. F

515. Women and Aging. Position of older women in society and issues that are unique to women as they age. 3 Cr. S.

525. Dementia and Aging. The nature, causes and treatment of dementia in later life, including concerns for family, caregiving and community practice. 3 Cr. F

535. Aging and Housing Options. Housing needs of older persons and housing options available to them. Issues of working with older persons in a variety of housing settings. 3 Cr. S.

540. Seminar. Analysis of issues or topics in the field of aging. A specific topic will be selected each time the course is offered. May be repeated. 1-3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

620. Advanced Policy Issues in Gerontology. An in-depth exploration of key concepts and major issues in the field of aging. Students formulate positions on each major issue, based on lectures, readings, discussions. 3 Cr. S.

630. Aging and Community: Current Issues in Social Gerontology, Culture and Diversity. Aging in the U.S. and globally. Interpersonal and instrumental concerns related to aging in different communities. 3 Cr. F

644. Gerontology Internship. Supervised field experience in an agency, program, business or institution working with or on behalf of

older adults. Arranged by contract between site supervisor, faculty supervisor and student. 3-6 Cr. F, S.

697. Starred Paper (Plan B) Preparation. 1-6 Cr. F, S.

699. Thesis. 1-6 Cr. F, S.

Health (HLTH), Physical Education (PESS), Recreation (REC) & Sport Science (PESS)

227 HALENBECK HALL/255-2155

Chairperson: Rodney Dobey

Graduate Faculty: Bacharach, Becker, Collins, Dobey, Hortis, Nearing, Palmer, Risk, Seifert, Sheehan, Street, Ulferts, Wagstaff, Waxlax

Three areas of a Master's degree are offered by the HPERSS department. Additional areas of specialization (i.e., health education, community health, experiential outdoor education) at the graduate level may be obtained via the special studies option (see special studies section of this bulletin).

Master of Science – Physical Education

Admission to the graduate program in Physical Education requires holding a baccalaureate degree from accredited institutions and a minimum of twelve credits in Physical Education. Some credits in fields related to Physical Education may be accepted with consent of adviser. Individuals must also have taken the Graduate Record Exam and achieved a score of > 850 on the verbal and quantitative portions and completed the application to graduate school.

At least one-half of the minimum requirements for the Master of Science degree in Physical Education is required to be earned in courses in which enrollment is limited to graduate students. Within this degree an emphasis in Developmental/Adapted Physical Education (D/APE) may be obtained.

For specific course requirements, contact the D/APE Director.

Under Plan A, candidates are required to write a thesis.

Under Plan B, candidates are required to write a starred paper and shall take a final oral examination over the starred paper. The paper shall be a detailed study and shall follow the style manual of the Graduate Studies office. In addition, a final written comprehensive examination is required.

This program is designed for both full-time and part-time students. Full-time students can be expected to complete part of their course load in evening classes. The part-time student may complete the program through regular evening instruction and/or through summer semester attendance.

Plan A, 30 Cr; Plan B, 33 Cr.

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

Required:

PESS 601. Research Methods in Health, Physical Education and Sport Science, 3 Cr.

PESS 699. Thesis, 6 Cr. (Plan A only).

II. Major: Min., Plan A, 12 Cr.; Plan B, 18 Cr.

Selected course work in Physical Education.

Consent of adviser.

III. Professional Education: Min., Plan A or B, 6 Cr.

Consent of Professional Education adviser.

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

Prescribed:

APSY 678. Introduction to Graduate Statistics, 3 Cr.

Electives from related fields, general studies core or courses in the major.

Consent of advisers.

Master of Science – Exercise Science

This program in Exercise Science is open to individuals holding a baccalaureate degree from accredited institutions. Applicants are required to have met the requirements of the graduate school which include a bachelor's degree from an accredited institution, in addition to having taken the Graduate Record Examination and achieved a score of > 480 on the Verbal and > 1000 on the verbal and quantitative and completed the application to graduate school. Additional requirements for the program include a strong undergraduate record (GPA > 3.0) with evidence of completing courses in Biology, Chemistry, Exercise Physiology, Physics and/or Mathematics.

Plan A only, 34 Cr.

I. Research: 9 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr.

PESS 699. Thesis, 6 Cr.

II. Major: 19 Cr.

PESS 620. Seminar in Exercise and Sport Science, 3 Cr.

PESS 624. Internship in Exercise Science, 4 Cr.

PESS 625. Laboratory Techniques in Exercise and Sport Science I, 3 Cr.

PESS 626. Laboratory Techniques in Exercise and Sport Science II, 3 Cr.

PESS 630. Advanced Principles in Exercise Physiology, 3 Cr.

PESS 631. Advanced Principles in Biomechanics, 3 Cr.

III. Emphasis (Physiology or Biomechanics): 6 Cr.

A. Physiology Emphasis:

PESS 523. Basic Electrocardiography, 3 Cr.

CHEM 580. Biochemistry 1, 4 Cr.

B. Biomechanics Emphasis:

ENGR 501 (341). Dynamics, 3 Cr.

PESS 628. Numerical Analyses in Exercise and Sport Science, 3 Cr.

IV. Electives (with approval of adviser)

Master of Science – Sports Management

Admission to the graduate program in Sports Management is open to individuals holding a baccalaureate degree from accredited institutions, achieving a score of >850 on the verbal and quantitative portions combined on the Graduate Record Examination, and having completed the application to graduate school.

Under Plan A, candidates are required to write a thesis.

Under Plan B, candidates are required to write a starred paper in conjunction with a graduate course and shall take a final oral examination over the starred paper. The paper shall be a detailed study and shall follow the style manual of the Graduate Studies office. In addition, a final written comprehensive examination is required.

This program is designed for both full-time and part-time students. Full-time students can be expected to complete part of their course load in evening classes. The part-time student may complete the program through regular evening instruction and/or through summer school offerings.

Plan A, 30 Cr.; Plan B, 32 Cr.

I. Research: Plan A, 8-10 Cr.; Plan B, 3 Cr.

Required:

APSY 678. Introduction to Graduate Statistics, 3 Cr.

PESS 601. Research Methods in Physical Education and Sport Science, 3 Cr.

PESS 699. Thesis, 6 Cr. (Plan A only).

II. Major: Min., Plan A, 12 Cr.; Plan B, 16 Cr.

Recommended:

REC 515. Administration of Recreation Programs I, 3 Cr.

REC 516. Administration of Recreation Programs II, 3 Cr.

PESS 591. Psychology of Sport, 2 Cr.

PESS 660. Organization and Administration of Sports Management, 3 Cr.

PESS 680. Internship in Sports Management, 3-6 Cr.

Select other credits from:

HLTH 505. Mood Modifying Substances, 2 Cr.

PESS 610. Physical Performance and Global Society, 3 Cr.

PESS 661. Planning Physical Education and Sport Facilities, 3 Cr.

PESS 508. Philosophy of Sport, 2 Cr.

PESS 556. Administration of Interscholastic Athletics, 2 Cr.

PESS 637. Practicum I in Sports Management, 1 Cr.

PESS 638. Practicum II in Sports Management, 1 Cr.

PESS 654. Advanced Theory of Competitive Athletics, 3 Cr.

PESS 658. Finance and Marketing in Sports Management, 3 Cr.

PESS 640. Law and Sport, 3 Cr.

III. Electives: Plan A, 8 Cr.; Plan B, 12 Cr.

Must take at least one course from each area:

Personnel Area:

EDAD 630. Introduction to Personnel Administration, 3 Cr.

HURL 629. Introduction to Human Relations, 1 Cr.

MGMF 550. Employee Selection, 3 Cr.

MGMF 551. Employee and Labor Relations, 3 Cr.

Marketing Area:

MKTG 501 (320). Introduction to Marketing, 4 Cr.

COMM 502. Theories and Principles of Leadership, 4 Cr.

Finance Area:

ECON 560. Public Finance, 3 Cr.

EDAD 640. Introduction to School Finance, 3 Cr.

Law Area

EDAD 620. Introduction to School Law, 3 Cr.

MKTG 536. Commercial and Financial Law, 3 Cr.

Other electives possible with permission of adviser.

PERMANENT WORKSHOP DESCRIPTIONS

These courses are not intended to support a graduate degree program but are intended to respond to identified needs of post-baccalaureate

students. Please refer to academic regulations under the "Workshop Limitation" section to determine the maximum number of workshop credits which may be applied to graduate degrees.

PHYSICAL EDUCATION AND SPORT SCIENCE (PESS) PERMANENT WORKSHOP DESCRIPTIONS

522. Workshop: Appropriate Games and Activities for

Teaching Basic Skills. Workshop for elementary/physical education teachers. The theme is "Games with a Purpose." 1 Cr. DEMAND.

525. Workshops in Track and Field. Uses a learn-by-doing approach to track and field. Special emphasis will be placed on biomechanical analysis of events as well as coaching and officials certification. 2 Cr. DEMAND.

COURSE DESCRIPTIONS – HEALTH (HLTH)

505. Mood Modifying Substances in Contemporary Society. A study of mood modifiers including alcohol and nicotine. Suggested education strategies K-12. Complies with requirement of MSA 126.05. Prereq.: 90 Cr. of prior course work. 2 Cr. F, S, SUM.

511. Nutrition: Older Adult. Nutritional status and needs of the older adult. Common nutritional problems of the elderly. Overview of the programs designed to serve the health and nutrition needs of the older adult. Prereq.: 210 or permission of instructor. 3 Cr. DEMAND.

512. Advanced Nutrition. Current topics in nutrition; relationship of nutrition to physical performance; methods of nutritional assessment; and complex nutrient needs. Prereq.: 210 or permission of instructor. 3 Cr. DEMAND.

515. Health Education Curriculum Development. Organization and development of a school health curriculum, K-12; techniques for course of study construction. Lab. Prereq.: 210, 215, 301, 315, 405/505, 481/581. 3 Cr. F

530. Seminar: Topical. Discussion, literature search, research in selected, contemporary topics-developments in community health, health education, and safety such as AIDS, chemical abuse, consumerism, environmentalism, accidents, and health care delivery. May be repeated topically: 1-3 Cr. F, S.

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. 3 SEM Cr. S, SUM.

582. Environmental Health. Effects of environmental factors, processes, and activities on human health, comfort, welfare and survival. Prereq.: 125 or 215 or instructor's consent. 3 Cr. S, SUM.

584. Health Promotion. Comprehensive overview of the health promotion field, particularly its application in employment and other organizational settings. Content includes: planning, design, implementation, and evaluation of organizational health promotion programs. 2 Cr. DEMAND.

COURSE DESCRIPTIONS – PHYSICAL EDUCATION AND SPORT SCIENCE (PESS)

508. Philosophy of Sport. Objectives/values of sport in a contemporary society. 2 Cr. F, S, SUM.

511. Organization and Administration of Physical Education: Grades PreK -6. Program planning, curriculum development, and methodology. Prereq.: PESS 131. 2 Cr. F, S, SUM.

523. Basic Electrocardiography. Study and measurement of the electrical activity associated with cardiac function. Prereq.: 349 or permission of instructor. 3 Cr. F

530. Seminar: Topical. Selected topics in physical education and/or sport science. May be repeated to a max. of 6 credits. 1-3 Cr. DEMAND.

539. Social Skills and Initiative Activities. Adventure games, initiative problems and trust activities which foster cooperative social skills and attitudes in children and youth. 1 Cr. DEMAND.

545. Computer Applications in Health and Physical

Performance. Applications of computer technology as it relates to the disciplines of health, physical education, recreation and sport science. 2 Cr. DEMAND.

548. Biomechanics. The application of anatomy and physics to the study of human motion. Lecture and lab. Prereq.: 248 or 249 and PHYS 231 (or instructor's permission). 3 Cr. S.

549. Physiology of Exercise. A study of the physiological effects upon the human body. Lecture and lab. Prereq.: 349. 3 Cr. F, S.

553. Organization and Administration of Physical Education: Grades 7-12. Methods of presentation and adaptation of materials in grades 7-12 for instructional, intramural, and special events programs. 2 Cr. F, S.

556. Administration of Interscholastic Athletics. History and objectives of national, state and local control, and modern challenges in interscholastic athletic programs. 2 Cr. S, SUM.

561. Assessing Motor Performance of Children with

Disabilities. Techniques and procedures for assessing motor performance of children with disabilities emphasizing available assessment tools, interpretation of data, preparation of Individualized Educational Programs (IEPs), and due process. Prereq.: PESS 312 or consent of instructor. 3 Cr. S.

562. Programming for Students with Disabilities: Grades PreK-6. Curricular programming, teaching techniques, and adaptations and/or modifications for students with disabilities in physical education settings, grades PreK to 6. 2 Cr. F.

563. Programming for Students with Disabilities: Grades 7-12. Curricular programming, teaching techniques, and adaptations and/or modifications for students with disabilities in physical education settings, grades 7 to 12. 2 Cr. S.

564. Developmental/Adapted Physical Education Practicum I: Grades PreK-6. Practical experiences teaching children with disabilities through direct delivery and/or consultation services in grades PreK to 6 physical education settings. S/U grading only. 2 Cr. F, S.

565. Developmental/Adapted Physical Education Practicum II: Grades 7-12. Practical experiences teaching children with disabilities through direct delivery and/or consultation services in grades 7 to 12 physical education settings. S/U grading only. 2 Cr. F, S.

591. Psychology of Sport. Examining sport in terms of motivation, performance, and the relationship between sport and human development. 2 Cr. F, S.

COURSE DESCRIPTIONS – RECREATION (REC)

515. Recreation Administration I. Daily management of human resources and departmental operations: departmental philosophies, policies and procedures; personnel management and professional competence; management styles; personnel laws; risk management and liability. Prereq.: 233. 3 Cr. F.

516. Recreation Administration II. Daily management of departmental operations: financial accountability, bonds and taxes, budgeting process and types, fundraising and grants, customer service, marketing, promotion, public relation and program life cycle. Prereq.: 233. 3 Cr. S.

541. Outdoor Education. Developments in outdoor education, instructional principles of outing activities and outdoor education program materials and methods. 2 Cr. F.

**COURSES FOR GRADUATE STUDENTS ONLY
– HEALTH (HLTH)**

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 current topics in health education. May be repeated with different topics to a max. of 6 credits. 1-3 Cr. DEMAND.

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

**COURSES FOR GRADUATE STUDENTS ONLY –
PHYSICAL EDUCATION AND SPORT SCIENCE (PESS)**

601. Research Methods in Physical Education and Sport Science. Selection of research topics, searching literature, test construction, descriptive methods, laboratory research, application of statistical procedures, formal writing, and experimental design in physical education and sport science domains. The course is also designed to help the student prepare for work on a starred paper or thesis. 3 Cr. F.

602. Research Seminar. Research and seminar presentation on selected topics related to physical education and sport science. Prereq.: consent of department. May be repeated to a max. of 2 credits. 1 Cr. DEMAND.

610. Physical Performance and Global Society. Interrelationship of sport and physical activity with aspects of culture in the U.S. and other major countries. Offered once per calendar year. 3 Cr. S.

615. Human Movement: A Neurological Approach. The neurological foundations of movement and abnormal movement patterns as a result of genetics, trauma, environmental influences, and disease upon the nervous system. 3 Cr. F, ODD YEARS.

616. Current Issues in Developmental/Adapted Physical Education. Current issues relevant to students with disabilities, such as: state and federal mandates, education, physical activities, competitive sports, health and wellness, exercise science, and sports medicine. 3 Cr. F, EVEN YEARS.

620. Seminar in Exercise and Sport Science. A discussion and evaluation of current research in the fields of biomechanics and exercise physiology will be held. By the end of the semester students will develop, write and present a thesis proposal. Prereq.: PESS 630 and PESS 631, or permission of instructor. 3 Cr. F.

624. Internship in Exercise and Sport Science. Course is designed to provide exercise and sport science graduate students with a research, clinical or applied experience outside of the university environment. Prereq.: 625 and 626. 3-8 Cr. DEMAND.

625. Laboratory Techniques in Exercise and Sport Science I. Development of proficiency in common laboratory procedures used in exercise and sport science. Topics include: ECG, pulmonary function, body composition, test protocols, oxygen uptake and lactate threshold. Prereq.: undergraduate exercise physiology course. 3 Cr. F.

626. Laboratory Techniques in Exercise and Sport Science II. Development of proficiency in common laboratory procedures used in exercise and sport science. Topics include: EMG, 2D and 3D cinematography, ground reaction forces, center of pressure and accelerometry. Prereq.: undergraduate anatomy and biomechanics (or physics) courses. 3 Cr. S.

628. Numerical Analyses in Exercise and Sport Science. Development of proficiency in statistical application and techniques that are used to numerically analyze exercise and sport science data. Topics include: differentiating and filtering of positional data, spectral analysis (FFT) of EMG and force data. Prereq.: 626 and 631, spreadsheet proficiency or computer programming experience. 3 Cr. DEMAND.

630. Advanced Principles in Exercise Physiology. Review of fundamental principles and concepts in exercise physiology that are relevant to fitness and sport performance. It is intended to assist the exercise science students in their preparation for the Content Exam. Prereq.: undergraduate exercise physiology course. 3 Cr. F

631. Advanced Principles in Biomechanics. Review of fundamental principles and concepts in biomechanics that are relevant to injury prevention and sport performance. It is intended to assist the exercise science students in their preparation for the Content Exam. Prereq.: undergraduate anatomy and biomechanics (or physics) courses. 3 Cr. S.

632. Seminar in Physical Education and Sport Science. Issues in coaching, teaching and/or supervising in school settings. 3 Cr. DEMAND.

633. Readings and Research in Physical Education and Sport Science. Selected readings on current topics in physical education and sport science. 1-4 Cr. DEMAND.

637. Practicum I in Sports Management. Supervised experience in an off-campus recreational setting peculiar to the student's needs. Prereq.: consent of instructor. 1 Cr. DEMAND.

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

640. Law and Sport. Provides insight into the development and implementation of sound policies, procedures, and safety regulations as the law pertains to athletics and recreational sports. 3 Cr. Rotation: S, F, SUM.

652. Assessment in Physical Education and Sport Science. Critical study of assessment in physical education, sport science and other related areas. 3 Cr. DEMAND.

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. DEMAND. Rotation: F, S, SUM.

658. Finance and Marketing in Sports Management. Marketing and finance techniques unique to Sports Management. 3 Cr. F

660. Organization and Administration in Sports Management. Introduction to the organization and administrative issues in management and leadership theory in Sports Management. 3 Cr. Rotation: F, S, SUM.

661. Planning Physical Education and Sport Facilities.

Principles, terminology, and standards for planning construction, use and maintenance of facilities. 3 Cr. DEMAND.

680. Internship in Sports Management. On-site administrative internship in athletic and/or recreational sports setting under the cooperative supervision of an administrator and university supervisor. Prereq.: 640 and 660 or equivalent. 2-6 Cr. DEMAND.

699. Thesis. 1-6 Cr. F, S, SUM.

History (HIST)

283 STEWART HALL/255-3165

Chairperson: Don Hofsommer

Graduate Faculty: Glade, Hellwig, Hofsommer, Lewis, Medler, Mullins, Nayenga, Pluth, Rothaus, Simpson, Stryker, Zmora

Department policy statements on evaluation procedures, starred papers, and reading lists are available in the History Office.

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.

Master of Arts – History Track

An applicant for admission to this program must have earned a minimum of 16 credits in History beyond general education requirements, and the undergraduate grade point average 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 strongly recommended. Students contemplating a doctoral program should write a thesis (Plan A).

Students pursuing a Master of Arts degree must earn a minimum of 15 graduate-only credits in the program.

Plan A: Min., 30 Cr.

I. Courses in History

A. Prescribed: (12 Cr.)

*HIST 573. Historiography, 3 Cr.

*HIST 578. Historical Criticism and Writing, 3 Cr.

HIST 699. Thesis, 6 Cr.

B. Electives: 12-15 Cr. in History.

II. Cognate courses: 3-6 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., 33 Cr.

I. Courses in History

A. Prescribed: (7-9 Cr.)

*HIST 573. Historiography, 3 Cr.

*HIST 578. Historical Criticism and Writing, 3 Cr.

HIST 697. Starred Papers, 1-3 Cr.

B. Electives: 18-23 Cr. in History.

II. Cognate courses: 3-6 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 three starred papers submitted to the final evaluation committee.

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

Master of Arts – History: Public History Track

The following are special entrance requirements to this track:

Entrance requirements for M.A. in History-Public History Track:

It is expected that an applicant for admission to this program will have completed a major in history (or its equivalence) at the undergraduate level of at least 32 credits with a grade point average of 3.0 or higher overall and 3.25 or higher in the major. Candidates should have

completed a survey in United States History and should have taken at least 9 credits in advanced American History courses. Applicants also should have earned 9 credits or more in advanced non-United States History courses. Additional classes in such fields as American Government, Geography, American Studies, and Anthropology would strengthen the application, as would work experience in public history. Some students may be admitted conditionally depending upon their backgrounds.

Applicants should, as a part of the regular application process for graduate studies, submit a statement explaining why they are interested in entering this program and indicating what, if any, experience they have in public history. In addition, a prospective candidate in history must submit a statement of purpose, not to exceed 500 words, outlining the person's public history interest and professional goals.

Students pursuing a Master of Arts in Public History must earn a minimum of 21 graduate-only credits.

Plan A only, Min. 30 Cr.

I. Research: Min. 6 Cr.

HIST 699. Thesis, 6 Cr.

II. Major: Min. 15 Cr.

HIST 670. Introduction to Public History, 3 Cr.

HIST 671. Local History, 3 Cr.

HIST 696. Internship in Public History, 9 Cr.

III. Cognate courses: Min. 9 Cr.

AMST 570. Architecture and the American Environment, 3 Cr.

ANTH 581. Cultural Resource Management, 3 Cr.

GEOG 557. Preservation and Neighborhood Change, 3 Cr.

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

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.

Students pursuing a Master of Science degree must earn a minimum of 17 graduate-only credits in the program.

Plan B, ** Min. 33 Cr.

I. Major: Min. 9-12 Cr.

HIST 573. Historiography, 3 Cr.

HIST 578. Historical Criticism and Writing, 3 Cr.

HIST 605. Readings in History, 3-6 Cr.

II. Electives: 15-18 Cr. in History selected with adviser.

III. Professional Education: 6 Cr. selected with approval of professional education adviser.

A student completing a Master of Science program will be required to take a written comprehensive examination as a final evaluation.

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

***A Plan A option is not available in the Master of Science degree.*

COURSE DESCRIPTIONS

502. The Middle East. The rise and development of medieval Islamic Civilizations; the Middle East under the Ottomans; the recent age. 3 Cr. ALT.

503. Medieval Europe, 325-1500. Political, economic and cultural history of Europe from the later Roman Empire to the end of the fifteenth century. 3 Cr. ALT.

504. The Renaissance, 1300-1500. Growth of the secular spirit and state; rise of humanism; social and economic forces; beginnings of European expansion; the dawn of modern science. 3 Cr. ANNUAL.

505. The Reformation, 1500-1648. Protestant and Catholic Reformations; religious wars, rise of the modern state, modern culture and capitalism. 3 Cr. ANNUAL.

508. Europe and World War I. Origins of World War I; the war and peace settlement; Russian Revolution; post-war problems; origins and rise of Fascism and Nazism. 3 Cr. F.

509. Europe and World War II. Causes of World War II; the war and post-war problems; adjustments which have created contemporary Europe. 3 Cr. S.

518. History of Social Welfare in the U.S. Survey and analysis of the development of social welfare concerns in the U.S. as they have been shaped by a combination of social, political, and economic factors. 3 Cr. DEMAND.

520. Colonial America, 1607-1763. Indian experience; European Colonization; colonial economy and society. 3 Cr. F-Alt.

521. Revolutionary America, 1763-179. Revolutionary era society, the American Revolution, the War for Independence, and the development of self-rule through the adoption of the Bill of Rights. 3 Cr. ALT.

522. Expansion and Reform: U.S. 1792-1848. Territorial expansion, reform, social change, economic development and growth of political democracy from the Federalist Era to the Mexican War. 3 Cr. F.

523. Civil War and Reconstruction U.S. 1848-1877. Sectionalism, disunion and war, the Confederacy, reunion and reaction. 3 Cr. ANNUAL.

525. Reform, War and Change: U.S. 1890-1945. Social, economic, cultural, and political trends, issues, and change, including progressivism, depression, war, urbanization. 3 Cr. S-Alt.

526. United States Since 1945. Economic, political, and social development of the United States since World War II. 3 Cr. S.

533. Russia, 1700-1917. Politics, diplomacy, society, economics, and culture from Peter the Great to the Revolution. 3 Cr. S-Alt.

534. Soviet Russia Since 1917. Historical survey of politics, society, economics, and culture. 3 Cr. S.

545. United States Military History. Military problems and accomplishments from 1775 to the present. 3 Cr. DEMAND.

548. U.S. Social and Intellectual. Puritanism, revivalism, American political thought, economic values, agrarianism, reform movements, literary traditions, individualism are among the discussed topics. 3 Cr. DEMAND.

551. American Families. The family and its relationship to the individual and the community from pre-industrial British colonial America to the late twentieth century. 3 Cr. ALT.

556. U.S. Foreign Relations from World War I. The U.S. as a world power; diplomatic policies in two world wars and their aftermath. 3 Cr. ALT.

558. The American West. Topical and chronological consideration of western land policy, territorial government, Indian policy, economic development. 3 Cr. S-Alt.

563. U.S. Latin American Relations. General trends with emphasis on specific relations with selected Latin American countries or regions. 3 Cr. DEMAND.

567. Modern Japan. Japanese history, 1800-present, emphasizing political developments, social and economic change, culture and intellectual achievements. 3 Cr. F.

573. Historiography. Reading and discussion of historians and historical interpretation. 3 Cr. F.

578. Historical Criticism and Writing. Problems in and methods of

historical accuracy and consistency; references, chronology, availability of knowledge, historical myths, preparation of research papers and theses. 3 Cr. S.

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. May be repeated with different topics to a max. of 9 credits. 3 Cr. ANNUAL.

583. Seminar in European History. Bibliographical study, research, and discussion of a selected topic. Limited to senior or graduate students. May be repeated with different topic to a max. of 9 credits. 3 Cr. ALT.

586. Seminar in Africa, Asia, or Middle East. Reading and research on a selected topic. Limited to senior or graduate students. May be repeated with different topic to a max. of 9 credits. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

605. Readings in History (Topical). Guided study of individual investigation of special historical topics and/or problems. Credits and meetings by arrangement. May be repeated with different topic to a max. of 9 credits. 1-3 Cr. DEMAND.

635. Readings in European History. Guided study through individual investigation of special periods and topics. May be repeated with different topic to a max. of 9 credits. 1-3 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. ALT.

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. May be repeated with a different topic to a max. of 9 credits. 1-3 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. May be repeated with different topic to a max. of 9 credits. 3 Cr. ALT.

664. Seminar: European History. Bibliographical study, reading in documents and secondary works, analysis and discussion, research in selected topics or areas. May be repeated with different topics to a max. of 9 credits. 3 Cr. ANNUAL.

670. Introduction to Public History. Discussion of "public history"; study of historical societies; training in research methods, traditional and "straight line"; layout design work and photography for the public historian; mapping techniques. Prereq.: permission of instructor. 3 Cr. F.

671. Local History. Discussion of "local history"; consideration of oral history; genealogical study; archival work; records management. Prereq.: permission of instructor. 3 Cr. S.

681. Seminar in American History. Intensive reading and research in one area or topic of U.S. or Latin American history. May be repeated with different topic to a max. of 9 credits. 3 Cr. ANNUAL.

696. Internship in Public History. Work for a full quarter in a historical society, a history firm, or an equivalent situation to gain experience and work skills directly in a setting of Public History. Prereq.: permission of instructor. 9 Cr. S.

697. Starred Papers. Starred papers, research projects in history. Permission of adviser and instructor. 1-3 Cr. F, S.

699. Thesis. 1-6 Cr. F, S.

Human Relations & Multicultural Education (HUR)

B118 EDUCATION BUILDING/255-3124

Chairperson: Suellyn Hofmann

Graduate Faculty: Andrzejewski, Hakim, Hofmann, Kellogg, Ore, Tademe, Tripp

The Department of Human Relations and Multicultural Education provides education in self-awareness and skills essential for living and working in a pluralistic, democratic society. Human relations is a multi/interdisciplinary applied field in the study and practice of social responsibility within western and non-western cultures. The department is committed to addressing the serious questions of survival, equity and quality of life facing people around the world. The curriculum presents the voices and perspectives of groups which have historically been excluded from the western canon. Investigative and critical thinking skills are taught in which mainstream and alternative viewpoints are examined for values and veracity.

Human Relations courses examine the impact of power, resources, cultural standards, and institutional policies and practices on various groups in our society and develop active citizenship skills for participatory democracy. Specifically, the department addresses issues of social and environmental justice within a global context related to race, gender, class, age, religion, disability, physical appearance, sexual/affective orientation and nationality/culture.

Human Relations collaborates with Sociology, American Studies and Women's Studies to offer an interdisciplinary Master of Science in Social Responsibility and offers graduate teaching licensure course to meet the state human relations requirement. The graduate courses develop and enhance personal and professional skills for a wide range of public and private sector positions in education, communications, business, healthcare, advocacy, government and international careers.

The department serves as an academic and developmental resource to students, faculty, university programs, departments, administration, community institutions and organizations.

Specifically, the department (1) collaboratively offers an interdisciplinary Master's of Science in Social Responsibility; (2) provides quality courses that fulfill the human relations certification for teacher licensure in the State of Minnesota; (3) provides courses, resources, and leadership in meeting the SCSU mission and various accreditation standards on multicultural, genderfair, disability-aware, GLBT-sensitive education; (5) provides courses for other liberal arts and professional graduate programs on social and environmental justice, and skills in social responsibility.

Master of Science – Social Responsibility

This new interdisciplinary Masters Degree in Social Responsibility, collaboratively developed by Human Relations, Sociology, American Studies and Women's Studies, addresses a citizen's responsibility to others, to society, and to the environment. It provides a solid academic foundation of the theory and practice of social responsibility, historically and contemporarily, within western and non-western cultures. It offers practical skills for involved citizenship at the local, state, national, and global levels within a democratic and culturally diverse context.

Constructive approaches to the pressing issues of equality, resource distribution, work, education, health, safety, survival, and environmental sustainability are explored in a personal, professional and global context. Specifically, the curriculum will provide knowledge and skills on the issues of race, gender, class, disability, age, national origin, sexual orientation, global human rights, the environment and other issues of social responsibility. Students will develop the capacity for critical analysis, investigation, research, writing, development and implementation of

practical approaches to socially responsible citizenship.

As serious issues of cultural diversity and global sustainability become more salient features of every society, a broad foundation of academic inquiry has been developing in many traditional fields as well as newly developing fields which explores theories, paradigms and methodologies of social responsibility. The study of social responsibility is not founded in any one traditional discipline. Rather it is multidisciplinary and interdisciplinary, spanning every discipline from humanities to social science to education, business, science and technology. This interdisciplinary degree in Social Responsibility will provide knowledge and skills to persons who wish to respond to these demands. This program is sufficiently broad-based to develop and/or enhance professional skills for a wide range of public and private sector positions in education, communications, business, healthcare, advocacy, government and international careers. The program, designed for full and part-time students, can be completed by taking evening courses only.

Admission to Graduate Studies at St. Cloud State University is required for this program. Students will be asked to answer evaluation questions concerning issues of social responsibility. A background and study in social and environmental justice issues is highly desirable. For course descriptions, see sections in Human Relations and Multicultural Education, Sociology, American Studies and Women's Studies.

Plan A (Thesis), 32 Cr.; Plan B (Starred Paper), 32 Cr.; Plan C (Project/Portfolio), 36 Cr.

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

SOC 679. Research Methods 3, Cr.

HURL, SOC, AMST, WS 699, Thesis (Plan A only), 6 Cr.

II. Major: Min., Plan A, 16 Cr.; Plan B and C, 19 Cr.

Required Core:

AMST 681. Social Responsibility in U.S., 3 Cr.

HURL 682. Advanced Theory & Issues in Human Relations, 3 Cr.

SOC 684. Soc of Social Responsibility, 3 Cr.

SOC 685. Theory, 3 Cr.

Plan A or B: Choose one of the following: (Foundations)

HURL 625. The Law as an Instrument of Social Change, 2 Cr.

HURL 508. Global Human Relations, 2 Cr.

HURL 510. Xenophobia, 2 Cr.

SOC 581. Social Stratification, 3 Cr.

SSCI 565. Ideology and Control, 3 Cr.

WS 645. Social Construction of Knowledge, 3 Cr.

Plan B: Choose one of the following: (Focus Topics)

HURL/SOC/AMST/WS 630. Topics in Social Responsibility, Variable Cr.

HURL 502. Current Issues in Human Relations, Variable Cr.

HURL 507. Indians and Contemporary Human Rights Issues, 2 Cr.

HURL 509. Ageism, 2 Cr.

HURL 511. Heterosexism, 2 Cr.

HURL 512. Disability Rights, 2 Cr.

WS 515. Feminist Theory, 3 Cr.

MINS 505. Women of Color, 3 Cr.

AMST 590. Contemporary American Cultures, 3 Cr.

SSCI 576. Black and American: Issues in Afro-American Studies, 3 Cr.

Plan B: Choose one of the following: (Context)

SOC 650. Sociology of Aging, 3 Cr.

SOC 689. Advanced Analysis-Deviance Sociology, 3 Cr.

SOC/ANTH 576. Culture and Family, 3 Cr.
 SOC 570. Minority Group Cultures and Contributions, 3 Cr.
 SOC 545. Political Sociology, 3 Cr.
 SOC 520. Self and Society, 3 Cr.
 SOC 575. Sociology of Health and Illness, 3 Cr.
 SOC 562. Seminar, 3 Cr.

(Plan A may choose classes from either of the last two categories)

III. Professional/Application: Min., Plan A, 3 Cr.; Plan B, 3 Cr.

Choose at least one of the following:

HURL 591. Change Agent Skills, 3 Cr.
 HURL 592. Practicum in Social Change, Variable Cr.
 SOC 680. Sociological Practice, 3 Cr.
 HURL 622. Professional Writing & Reporting in Human Relations, 2 Cr.
 HURL 681. Teaching controversial Issues, 3 Cr.
 SOC 644, SSCI 644 or 645 or HURL 680. Internship, Variable Cr.

IV. Electives: Plan A, 4 Cr.; Plan B, 7 Cr; Plan C, 8 Cr.

COURSE DESCRIPTIONS

502. Current Issues in Human Relations. Focus on a problem area or issue in Human Relations. May be repeated to a max. of 6 Cr. 1-3 Cr. DEMAND.

506. Sexual Assault Advocacy Training. Advocacy skills for sexual assault survivors including: understanding the impact of sexual assault on survivors, the social and cultural context in which sexual assault occurs, and the role the legal system, law enforcement, social services and medical services plays with survivors. 3 Cr. SUM.

507. Indians and Contemporary Human Rights Issues. Analysis of the factors that lead to the current social, political, and economic status of American Indians. 2 Cr. S.

508. Global Human Relations. A global analysis of racism, sexism, heterosexism, class issues, and the interrelationships of global social justice issues. 2 Cr. F

509. Ageism. Analysis of how cultural standards and institutional practices lead to the oppression of people in this society based on age. 2 Cr. SUM.

510. Xenophobia. Study of xenophobic attitudes and practices and their impact on human rights in other countries. Examination of U.S. interventions and issues of torture, terrorism and related war crimes. 2 Cr. F

511. Heterosexism. Study of institutional heterosexism and homophobia and the impact on lesbian/gay and heterosexual people. 2 Cr. S.
512. Disability Rights. Study of disability rights by disabled activists. Disability rights will be examined from an oppression framework which analyzes the parallels and differences between ableism and racism, classism, sexism and heterosexism. 2 Cr. S.

513. Diversity in the Workplace. Examination of institutional policies and personal practices pertaining to harassment and discrimination in the workplace based on gender, race, national origin, religion, disability, sexual orientation and class. Knowledge and skills to enhance a constructive work environment for respect and equality. 2 Cr. F

514. Gender Issues in Education. Overview of school experiences of girls and boys. Special focus on girls and issues of self-esteem, peer pressure, academic performance, curriculum, school culture and extracurricular activities. Theories of pedagogical change are studied. Prereq.: 496/497 or 201. 2 Cr. SUM.

515. Sociology/Human Relations of Science. Critical examination of science in maintaining or challenging racism, sexism, ageism, ableism, xenophobia, heterosexism and class oppression within a global context. 2 Cr. F

516. Critical Analysis of Media. A critical examination of commercial mass media and alternative media in a global context; the ways media reinforce or challenge dominant or non-dominant paradigms and construct public consciousness particularly as it relates to class, gender, race and disability; and media investigation skills basic to democracy. 3 Cr. S.

517. Global Issues in Gender. Study of gender issues in a global context. Gender will be examined from a global oppression framework that analyzes sexism, racism, classism, heterosexism and xenophobia. How these systems of oppression operate in U.S. as compared to other countries will be examined. 2 Cr. S.

591. Change Agent Skills. Study of the theories of social empowerment and the development of practical skills for producing institutional and personal change. 3 Cr. F, S, SUM.

592. Practicum in Social Change. Experiential practicum: application of theory and research to constructive institutional and social change. 1-3 Cr. F, S, SUM.

597. Human Relations and the Teacher. Course meets State Board of Teaching Licensure Rule 3.041. Course defines, recognizes and analyzes individual and institutional racism, sexism and other forms of oppression in the school environment. 3 Cr. F, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY

608. Children's/Student's Rights. An analysis of problems related to the oppression of young people/students. 3 Cr. DEMAND.

614. Administration of Multicultural Education. Prepare administrators to provide leadership in helping their institutions and personnel to become more responsive to the human condition, individual cultural integrity, and cultural pluralism in society. 2 Cr. DEMAND.

620. Research Methods in HURL. This course exposes students to an overview of the research process and its place in the social environment. This overview includes a critical examination of the philosophical foundations of the scientific process, specifically from the perspective of oppressed social groups. Students will learn research designs and techniques appropriate to field settings and useful for social groups not represented in the research process. Research literature focusing on minorities, women, and other social groups will be critically examined for underlying assumptions. 2 Cr. DEMAND.

621. Quantitative Methods in HURL. This course is a continuation of HURL 620. It will focus on analysis and presentation of data collected on selected social issues, especially those pertaining to race, gender, sexual preference, and poverty. 2 Cr. DEMAND.

622. Professional Writing and Reporting in HURL. This course provides students with information and experiences that will enable them to write proposals for grants and contracts, research and technical reports, academic research proposals, and other professional documents in the areas of human relations and social equity. Prereq.: 620, 621. 2 Cr. DEMAND.

625. The Law as an Instrument of Social Change. Investigates the dialectical nature of U.S. legal system: how the law functions to maintain class privilege and how the law can be used for social change. Develops practical legal skills for change agents. 2 Cr. DEMAND.

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. 2-8 Cr. DEMAND.

681. Teaching Controversial Issues. This seminar will focus upon various techniques for facilitating human relations education. It will be sub-divided 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. 3 Cr. SUM.

682. Advanced Theory and Issues in Human Relations. Advanced study of current human relations theories and application of these theories in various settings and in regard to various human relations issues. 3 Cr. F

683. Achieving Gender Equity in Education. Hands on strategies to achieve gender equity. Understanding intersection of race, class, and gender in curriculum and instruction. Assessment of existing level of equity; development of specific interventions. 3 Cr. DEMAND.

699. Thesis. 1-6 Cr. F, S, SUM.

Information Media (IM)

214 CENTENNIAL HALL/255-2062

Director: Kristi Tornquist

Graduate Faculty: Byers, Fields, Hauptman, Hill, Hites, C. Inkster, Keable, P. Lacroix, J. M. Nelson, M. Thompson, Thoms, Tornquist

The Center for Information Media has developed Master of Science degree programs in educational communications, information/instructional technologies, and human resources development/training. Encompassed in the programs are competency development in the theory and practice of librarianship, education and instructional technology, instructional systems design, and message design and delivery. The underlying philosophy of these programs is the development of leadership skills that make it possible to work with people to provide appropriate services to meet their needs. An essential characteristic of the graduate programs is the incorporation of the theory and application of current and developing technologies into leadership functions message design and delivery. It is recommended that IM 502, 554 and IM 620 or 638 be taken within the first enrollment. Please contact CIM office prior to first enrollment.

Master of Science – Information Media

Programs are available for students who desire advanced degrees in educational communications, information/instructional technologies, or human resource development/training. Encompassed in the programs are competency development in the theory and practice of librarianship, education and information technology, instructional design, and message design and delivery.

The underlying philosophy of these programs is the development of leadership skills which make it possible to work with people to provide appropriate services to meet their needs. An essential characteristic of the graduate program is the incorporation of the theory and application of current and developing technologies into leadership functions, and message design and delivery.

Candidates are required to successfully complete a comprehensive written examination based on the major material covered in their individual programs and to participate in an exit interview prior to graduation.

Program One: Information Technologies: Plan A, 42 Cr.; Plan B or C, 39 Cr.

Program one is designed for persons interested in increasing their use of information/instructional technologies in classrooms and schools. This program builds on the technology certificate program to provide competencies needed to become a technology coordinator in educational settings.

Program one is also designed for persons interested in gaining competencies leading to a career in information technologies in various business, government, and industry settings.

This program is designed for both full-time and part-time students and can be completed through regular evening instruction. It can also be completed through semester attendance.

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

IM 608. Research Methods in Media, 3 Cr.

IM 697. Research Applications, 3 Cr. (Plan B only)

IM 699. Thesis, 6 Cr. (Plan A only)

II. Major Core: Min., Plan A, B, and C, 14 Cr.

Required core to include IM 502, 504, 552, 554, 555.

III. Applications: Plan A, B, and C, 9 Cr.

Required applications to include IM 556, 616, 618.

IV. Electives: Plan A and B, 10 Cr.; Plan C, 13 Cr.

Courses to be selected in consultation with adviser from related fields, general study from courses, or courses in the major.

V. Course Sequencing for Program One:

Preliminary course work: Courses in the major core should be taken at the beginning of the program.

Culminating course work and activities:

These courses must be taken at the end of the program IM 608 and IM 697, 699 or Plan C portfolio.

Program Two: Educational Media: Plan A, 42 Cr.; Plan B, or C, 39 Cr.

Program two incorporates all of the competency requirements leading to licensure as a media generalist and is specifically structured for persons desiring a career in the public schools. To be eligible, students must hold a baccalaureate degree with a current teaching license.

This program is designed for both full-time and part-time students and can be completed through regular evening instruction. It can also be completed through summer semester attendance.

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

IM 608, Research Methods in Media, 3 Cr.

IM 697, Research Applications, 3 Cr. (Plan B only)

IM 699, Thesis, 6 Cr. (Plan A only)

II. Major Core: Min., Plan A, B, and C, 14, Cr.

Required core to include IM 502, 504, 552, 554, 555.

III. Applications: Plan A, B, and C, 14 Cr.

Required applications to include IM 612, 620, 622, 624, 628.

IV. Electives: Plan A and B, 5 Cr.; Plan C, 8 Cr.

Courses to be selected in consultation with adviser from related fields, general study courses, or courses in the major.

V. Course Sequencing for Program Two:

Preliminary course work: Courses in the major core should be taken at the beginning of the program.

Culminating course work and activities:

These courses must be taken at the end of the program: IM 608 and IM 697, 699, or Plan C portfolio.

Program Three: Human Resource Development/Training: Plan A, 42 Cr.; Plan B or C, 39 Cr.

Program three, an information media master's degree in training and development, is for those interested in organizational media management in business, industrial, governmental, and health fields. The degree is designed to prepare an individual with such competencies in problem analysis, program development, resource management, personnel/performance evaluation, and instructional design. Program three gives students a basic framework for undertaking a training position, while at the same time developing the specific skills necessary for the field.

This program is designed for both full-time and part-time students and can be completed through regular evening instruction. It can also be completed through summer semester attendance.

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

IM 608. Research Methods in Media, 3 Cr.

IM 697. Research Applications, 3 Cr. (Plan B only)

IM 699. Thesis, 6 Cr. (Plan A only)

II. Major Core: Min., Plan A, B, and C, 14 Cr.

Required core to include IM 502, 504, 552, 554, 555.

III. Applications: Plan A, B, and C, Min., 12-16 Cr.

Required applications to include IM 632, 634, 638, 656, 680.

IV. Electives: Plan A and B, 7 Cr.: Plan C, 10 Cr.

(Unless internship is more than 2 credits)

Courses to be selected in consultation with adviser from related fields, general study courses, or courses in the major. Students will be required to select courses in management and marketing with consultation of adviser.

V. Course Sequencing for Program Three:

Preliminary course work: Courses in the major core should be taken at the beginning of the program.

Culminating course work and activities:

These courses must be taken at the end of the program: IM 608 and IM 697, 699, or Plan C portfolio.

Students seeking licensure endorsement:

Students with baccalaureate degrees who have teacher licensure or are eligible for teacher licensure may apply for admission to pursue license endorsement as media generalists.

Minnesota licensure endorsements require in addition to the course requirements a 200 hour practicum.

The Media Generalist licensure program requires a minimum of 34 credits plus a practicum.

Prerequisite includes courses in curriculum as prescribed by media generalist licensure and an introduction to information media. Recommended courses include: IM 502, 504, 552, 554, 555, 612, 620, 622, 624, 628, and a practicum.

Applicants planning to work toward any license endorsement should meet with a graduate adviser in the Center for Information Media to plan the sequence of courses required. Additional information may be obtained from: Director of the Center for Information Media, St. Cloud State University, 720 South 4th Avenue, St. Cloud, MN 56301-4498. Phone: 320-255-2062.

Instructional Technology Certificate

This certificate complements other majors, especially those in education. May also be used as continuing education to upgrade skills.

Applicants planning to work toward the instructional technology certificate should meet with a graduate adviser in the Center for Information Media. Additional information may be obtained from: Director of the Center for Information Media, St. Cloud State University, 720 South 4th Avenue, St. Cloud, MN 56301-4498. Phone: 320-255-2062.

Required: 12 Cr.

IM 504. Instructional Design I, 3 Cr.

IM 554. Microcomputer Applications in Education and Training, 3 Cr.

IM 555. Design and Preparation of Multimedia Presentations I, 3 Cr.

IM 618. Recent Trends in Media, 3 Cr.

PERMANENT WORKSHOP COURSE DESCRIPTIONS

These courses are not intended to support a graduate degree program but are intended to respond to identified needs of post-baccalaureate students. Please refer to academic regulations under "Workshop limitation" to determine the maximum number of workshop credits which may be applied to graduate degrees.

542. Workshop: Using Microcomputers in Education. How to use a microcomputer and related software for course or classroom purposes. Will explore both generic and dedicated software packages. Course may be repeated to a max. of 3 credits. 1 Cr. DEMAND.

545. Children's Literature Workshop. Participants will meet children's book authors and/or illustrators who will discuss their works for children in grades K-8. Ways of using children's literature in media centers and classrooms will be explored. One credit available upon completion of written assignment. May be repeated. 1 Cr. SUM.

COURSE DESCRIPTIONS**502. Information Media: Theory, Research, and Practice.**

Overview of the nature, forms, and uses of information media. Survey of emphasis areas within the Information Media field examined from the perspectives of recent research and influential theories. Introduction to professional literature, organizations, and opportunities. 2 Cr. F, S, SUM.

504. Instructional Design I. Introduction to instructional design, including theoretical background, needs assessment, learner analysis and instructional strategies. 3 Cr. F, SUM.

521. Media, Materials, and Methods of Instruction. Theory and techniques of selection, evaluation, and use of print and non-print materials, such as library materials, display materials, slides, motion pictures, videotapes, sound recordings, microcomputer programs, the internet, and telecommunications (including interactive television). 2 Cr. F, S, SUM.

552. Access to Information. Computer information access, including theory, practice, tools (print and electronic formats) and bibliographies in research and provision of information services. 3 Cr. F, SUM.

554. Microcomputer Applications in Education and Training. Instructional applications of microcomputers in educational and training settings. Survey of available hardware, software, and related instructional materials for use by classroom teachers, media generalists, instructional designers and trainers. 3 Cr. F, S, SUM.

555. Design and Preparation of Multimedia Presentations I. Design and production of multimedia support materials. Lab. Prereq.: 454/554. 3 Cr. F, SUM.

556. Design and Preparation of Multimedia Presentations II. Systematic approach to the production of multimedia presentations for informational and instructional presentations. Includes needs assessment, format selection, presentation design, equipment selection and operation, and media production. Prereq.: 455/555. 3 Cr. F, SUM.

562. Designing and Editing for Television. Developing, designing, utilizing, evaluating, and administering television in instructional and related programs with a focus on digital technologies. 3 Cr. S.

586. Seminar. Conferences, reports, readings, discussions, problems, and research in a special facet of media. May be repeated to maximum of six credits. 1-3 Cr. F, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY

608. Research Methods in Media. Methods of evaluating research procedures and interpreting findings. Defining and limiting a problem, gathering, documenting, organization and presenting findings. 3 Cr. F, SUM.

612. Technology in Libraries/Media Centers. Definition and analysis of information technology issues associated with information acquisition, processing, storage, and delivery as applied to libraries/media centers. Assessment of software and hardware, how to select vendors and evaluate their performance, definition of policy and funding issues, and management of the library/media center technology program. 3 Cr. S, SUM.

616. Social Implications and Human Factors in Information Technology. Overview of the social implications and human factors impacting information technology: ergonomics, computer-mediated communication; ethical, and socio-media issues. 3 Cr. S.

618. Recent Trends in Media. Consideration of latest trends in handling, delivery, and use of thinking in the various areas of information media handling and use. 3 Cr. S.

620. The School Information Technologies Program. Philosophy of school information technologies programs. Includes roles and responsibilities of information technology specialists, strategies for working with teachers to integrate library media skills into curriculum, and examination of current issues and trends. 2 Cr. F, SUM.

622. Media Selection and Evaluation for Children and Young Adults. Skills and background provided to select and evaluate resources in the PK-12 environment and to examine reading, listening,

and viewing guidance as a process which helps PK-12 students discover and develop literacy awareness in all formats of materials. 3 Cr. F, SUM.

624. Organization of Information Resources. Study of the principles of the organization, description, subject analysis of information resources in a variety of formats and environments. Emphasizes standards and systems for the creation, organization, maintenance, and indexing of bibliographic records in computer-based files. 3 Cr. F, SUM.

628. 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 IM program as preparation for the practicum. 3 Cr. S, SUM.

632. Training/Human Resource Development. Study of training/human resource and performance improvement, organizations, and literature. Examination of the theories of learning, motivation, and communication as they relate to training and organizations. Study of the associated practitioner roles: systems design, message design and development, training and assessment, needs analysis, and strategies. 2 Cr. F

634. Instructional Design II. Implementation of instructional design principles and procedures, construction of a specific instructional system through application of an ID model to meet an instructional needs, course design, and evaluation of instructional delivery systems. Prereq.: IM 404/504. 2 Cr. S.

638. Organizational Training and Media Management. Study of the theories, philosophy, and praxiology of training/human resource development organizations, operations research, and public/personnel relations. Investigation of advanced readings and theories of data management and long-range planning as they related to training/human resource development practitioners in their development of media equipment, training management, and operations management. Prereq.: IM 632. 3 Cr. S.

655. Technological Applications in Educational Administration. Study of interrelationship of current and emerging technologies and the administration of K-12 schools. Provides a survey of theory and philosophy of technologies in the educational environment. Emphasis is placed on problem analysis in the application of technology of educational management. Students must register concurrently for EDAD 655. 3 Cr. S.

656. Computer-based Authoring. The theoretical background of instructional programs including micro-computer programs and software; the selection, utilizations, and evaluation of exiting programs; and individual experience in planning, designing and producing programs. Prereq.: IM 405/505. 3 Cr. S.

680. Internship in Media. Intern experiences relating to information, instructional design, and organizational media in all their practical facets. 2-6 Cr. F, S, SUM.

682. Media Generalist Practicum. A field experience individualized to take into account license requirements for the media generalist, the candidate's previous experience, special needs, and other special circumstances. Prereq.: media generalist course work requirements. 1-3 Cr. F, S, SUM.

686. Seminar in Media. Conferences, reports, readings, discussions, problems, and research in a special facet of media. May be repeated to maximum of six credits. 1-3 Cr. F, S, SUM.

687. Readings in Media. Selected readings of literature of the field and related areas. 1-2 Cr. F, S, SUM.

697. Research Applications. Current experiments in media and closely related fields. 3 Cr. F, S, SUM.

699. Thesis. 1-6 Cr. F, S, SUM.

Management (MGMT)

104 BUSINESS BUILDING/255-3225

Chairperson: Richard J. Sebastian

Graduate Faculty: Ahmad, Davis, Eagle, Pesch, Polley, Rhee, Roth, Sebastian, Skalbeck, Subbanarasimha, Vora, Ward, P. Weber

Also see MBA requirements under the Master of Business Administration section of this bulletin.

COURSE DESCRIPTIONS

550. Employee Selection. Management of human resources from the labor market into and through the firm, including job analysis, predictor selection and validation, interview development, and maintaining legal defensibility. Prereq.: 352 or permission of department. 3 Cr. F

551. Employee and Labor Relations. The management of employee-employer relationships. Individual versus collective bargaining (organizing, negotiating and bargaining), dispute resolution, and alternative labor-capital conflict resolution systems in the U.S. and other countries. Prereq.: 352 or permission of department. 3 Cr. F

552. Employee Compensation. Compensation theories and practices, and their effects on employee recruitment, motivation, productivity, retention, satisfaction, and morale. Prereq.: 352 or permission of department. 3 Cr. S.

553. Employee Development. Assessing training and development needs, developing and evaluating programs via empirical designs, using technology, administering contents, and selecting methods. Prereq.: 352 or permission of department. 3 Cr. S.

559. Strategic Human Resource Management. Staffing, compensation, and employee/labor relations within the firm, focusing on current and emerging topics and developing integrated policies supporting organization strategies. Prereq.: 450, 451, 452. 3 Cr. S.

566. Strategy and Organization of Public Administration. Problems in bureaucratic organizations that arise from the political system and a non-profit orientation. Strategy formulation and decision-making in the non-business sector. 3 Cr. DEMAND.

567. Organization Theory. Survey and examination of the structures, processes, and outcomes of organizations. 3 Cr. F, S, SUM.

570. International Business Management. Cultural, economic, political, social and physical environment of doing business abroad. Theories of management for effective coordination of human and material resources in international business. 3 Cr. F, S, SUM.

579. International Business Seminar. The international business environment of geo-economic-political national cooperatives; cultural factors, technology transfers, and human resource capabilities. Prereq.: 470. 3 Cr. S-Alt.

583. Manufacturing Operations Management. Systems and sub-systems needed to achieve world-class manufacturing status. Systems examined include ERP, MRP, JIT, and DRP. Prereq.: 383. 3 Cr. F

584. Supply Chain Management. The flow of materials from the supplier to customer. Integration of functional areas such as purchasing, materials management, and distribution. Prereq.: 383. 3 Cr. S.

585. Service Operations Management. Design and management of service delivery systems. Operational aspects of service organizations: understanding customer satisfaction, selecting, training, and empowering employees, matching technology to strategy, defining and measuring quality, and designing facilities. Prereq.: 383 or permission of department. 3 Cr. F

586. Managing for Quality. Total quality management for manufacturing and service organizations: including strategic quality planning, understanding customer satisfaction, the role of human resources, benchmarking, quality costs, statistical tools and reengineering. Prereq.: 383. 3 Cr. S.

598. Business Consulting. Teams of students work as consultants to area businesses and non-profit organizations to diagnose and solve actual business problems. Written and oral report required. Prereq.: 301, ACCT 292, BCIS 240, 241, FIRE 371, MKTG 320. Permission of department. 3 Cr. F, S.

Manufacturing Engineering (MfgE)

211 ENGINEERING AND COMPUTING CENTER/255-3252

Chairperson: Andrew Bekkala

Graduate Faculty: Bekkala, Covey, Yu, Zong

COURSE DESCRIPTIONS

510. Advanced Engineering Materials. Micro-structure optimization in material selection and tool design. Metals, polymers, ceramics, and environmental factors; controlling mechanical behavior. Prereq.: 331, 341. 3 Cr. F Technical elective, offered on DEMAND.

520. Finite Element Method. Finite element method applied to manufacturing processes including casting, forging, extrusion, and rolling. FEM compared with analytical, experimental and other numerical methods. Lab. Prereq.: 320, 341, 331; MATH 325. 3 Cr. S. Technical elective, offered on DEMAND.

554. Manufacturing Automation Systems. Interface for CAD/CAM, flexible manufacturing systems, communication nets, and protocol standards. Computer integrated manufacturing. Prereq.: 320, 350. 3 Cr. Technical elective, offered on DEMAND.

556. Manufacturing Automation Equipment. Design of integrated automation equipment for high volume, flexible manufacturing systems. Automation hardware and software for control and production data acquisition. Prereq.: 350, 430. 3 Cr. Technical elective, offered on DEMAND.

590. Special Topics. Emerging manufacturing methods, experiments, materials or processes applicable to manufacturing engineering. Prereq.: Jr. or Sr. in manufacturing engineering or consent of instructor. 1-3 Cr. F, S.

Marketing & Business Law (MKTG)

304 BUSINESS BUILDING/255-2057

Chairperson: JoAnn L. Asquith

Graduate Faculty: Asquith, Bristow, Calhoun, Dou, J. Johnson, Kellerman, J. Kurtz, Rodgers, Schneider, Schuler, Sleeper, Walter, Yoo

Also see MBA requirements under the Master of Business Administration section in this bulletin.

COURSE DESCRIPTIONS (MKTG)

502. Product and Price Management. Product and price management in marketing decision-making; new product development; product/brand management; pricing policies. Prereq.: 320. 3 Cr. F, S, SUM.

503. Principles of Promotion. Principles of advertising, sales promotion, personal selling, and direct marketing. Prereq.: 320. 3 Cr. F, S, SUM.

504. Distribution Management. Movement of products and services from producer to consumer; channels of distribution; logistics. Prereq.: 320. 3 Cr. F, S, SUM.

511. Retail Management. Strategic retail management decisions regarding pricing, promotion, merchandising, site location, store planning and design, and personnel. Prereq.: 320 3 Cr. F

512. Retail Merchandising. Buying and selling in retail management; merchandise assortment planning; fashion merchandising; retail buying; preparing and pricing merchandise for resale. Prereq.: 320 and 411/511. 3 Cr. ALT.

513. Business Marketing Management. Business-to-business marketing; organizational buyer behavior and management strategies. Prereq.: 320. 3 Cr. SUM.

514. Promotion Management. Promotion policies and practices in campaign planning, media selection, client-agency relationships, research, and testing; creation of a promotional campaign. Prereq.: 320 and 403/503. 3 Cr. ALT.

515. Sales and Sales Management. Personal selling and sales management from an analytical and decision-making perspective. Prereq.: 320. 3 Cr. F, S, SUM.

516. Global Marketing Strategy. The importance of global marketing to the U.S. economy; problems, opportunities and practices of managing multinational marketing activities; characteristics and structure of international markets. Prereq.: 320. 3 Cr. F, S.

517. Global Promotional Strategies. Promotional strategies in the international marketplace, including advertising, personal selling, and sales promotion. Prereq.: 320. 3 Cr. ALT.

518. International Business Seminar. Capstone course for international business programs. Problems faced by international businesses; policy and decision-making processes in the global environment. Prereq.: 320 and 416/516; MGMT 470/570. 3 Cr. S-Alt.

519. Marketing of Services. Marketing profit and non-profit services. Differences between services and physical goods. Internal and external marketing issues. Prereq.: 320. 3 Cr. F, S, SUM.

598. Business Consulting. Teams of students work as consultants to area businesses and non-profit organizations to diagnose and solve actual business problems. Written and oral presentation required. Prereq.: 320; ACCT 292; BCIS 240, 241; FIRE 371; MGMT 301; and permission of department. 3 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar-Marketing. Selected topics related to marketing theory and/or practice; specific topic selected for each offering. 3 Cr. DEMAND.

626. Reading in Marketing. Special readings in a subject area identified by the student and instructor. Permission of department. 1-3 Cr. DEMAND.

633. Business Case Analysis. Independent graduate level research culminating in a written and/or oral presentation. 1-3 Cr. DEMAND.

BUSINESS LAW (BLAW) COURSE DESCRIPTIONS

533. Marketing and the Law. Legal, regulatory, and ethical aspects of marketing activities including product development, promotion, pricing, and distribution. 3 Cr. F, S.

534. Real Estate Law. Principles of law affecting ownership of real estate interests, the transfer of real property interests, and land use and development. Prereq.: FIRE 378. 3 Cr. F

535. Technology and the Law. The legal, regulatory and ethical aspects of managing technology and intellectual property including patents, trademarks, trade secrets, and copyrights. 3 Cr. ALT.

536. Commercial and Financial Law. Legal principles of commercial and financial transactions, including contracts, sales, commercial paper, property, secured transactions, creditor rights, bankruptcy, and securities, regulation. 3 Cr. F, S.

537. International Business Law. The legal, regulatory, and ethical aspects of international trade including cultural, political, and linguistic influences on the international legal environment. 3 Cr. F

538. Employment Law. The legal regulatory and ethical aspects of human resources management including employment discrimination, harassment, workers compensation, and terms and conditions of employment. 3 Cr. F, S.

Mass Communications (COMM)

125 STEWART HALL/255-3293

Chairperson: Gretchen Tiberghien

Graduate Faculty: Ahmed, Fish, Heinrich, McDonnell, Przytula, Vadnie

The curriculum of the graduate program in Mass Communications consists of the following major components of instruction, research and practical lab work totaling 33-36 credits leading to the degree of Master of Science in Mass Communications.

At least 50 percent of all graduate course work must be at the 600-level.

Master of Science – Mass Communications

Plan A: Thesis, 36 Cr. or Plan B: Project, 33 Cr.

Core Courses: 12 Cr. or 15 Cr.

COMM 601. Communication Theory, 3 Cr.

COMM 605. Ethics and Critical Analysis of the Mass Media, 3 Cr.

*COMM 532. Communication Research, 3 Cr.

COMM 689. Applied Research, 3 Cr.

or

COMM 699. Thesis, 6 Cr.

Specialization in one of the following Tracks: 9 Cr.

Communication Management:

COMM 610. Media Economics and Management, 3 Cr.

*COMM 560. Mass Communications Law, 3 Cr.

*COMM 564. Broadcast Management and Policy, 3 Cr.

Advertising and Public Relations:

COMM 620. Advanced Advertising/PR Theories and Practices, 3 Cr.

*COMM 571. Advertising/PR Research and Media Analysis, 3 Cr.

*COMM 538. Public Relations Case Studies and Campaigns, 3 Cr.

or

*COMM 586. Advertising Campaigns, 3 Cr.

International Communication:

COMM 630. Seminar in International Communication, 3 Cr.

*COMM 531. World Media Systems, 3 Cr.

*COMM 529. International Advertising and Public Relations, 3 Cr.

**Students who have completed undergraduate course work in any content areas that are identified in the graduate curriculum, see your adviser to select substitute content areas.*

General Track:

Students may create their own tracks by combining courses from the tracks above.

Free Electives: 12 Cr.

From Mass Communications courses (not taken as part of core or specialization area) or from other departments. All courses must be at 500 or higher level with at least one at 600 level for students selecting the thesis option and at least two for students selecting the project option. At least one of the elective courses must be from the department of Mass Communications.

TOTAL: 36 Cr. for students seeking Thesis option and 33 Cr. for students with Project option.

COURSE DESCRIPTIONS

502. Theory and Principles of Mass Media Advertising. Mass media advertising strategy. Strategic research, marketing strategy, media strategy and creative strategy. Theoretical understanding and practical application. 3 Cr. F, S.

516. Critical Analysis of Media. Commercial mass media and alternative press in a global context; the ways media reinforce or challenge dominant or non-dominant paradigms. Class, gender, race, disability. Media investigation skills basic to democracy. 3 Cr. F.

520. Mass Media and Society. Functions and impacts of mass media on contemporary society. Media content and performance. Media studies and mass communications theories. 3 Cr. F, S.

524. Seminar in Public Opinion and Communication Research. Role of public opinion as a feedback mechanism for assessing the issues and concerns facing citizens in a democracy and firms relying upon commercial speech. 3 Cr. DEMAND.

525. The Press and Government. Examination of the interaction between the news media and the government, with particular emphasis on the press playing a watchdog function and adversary to government. 3 Cr. ALT.

529. International Advertising and Public Relations.

Transnational and multicultural advertising/public relations.

Development of international advertising/public relations campaigns. 3 Cr. ALT.

530. International Mass Communication. The free flow of information, media freedom and national development. Role of international organizations in shaping global journalism. 3 Cr. S.

531. World Media Systems. Structures, processes, functions of media systems around the world. Local socio-political environments as determinants of media systems. 3 Cr. F.

532. Communication Research. Strategies, methods and resources used in mass media research. Special emphasis on research as a tool in advertising, broadcasting, news editorial and public relations. 3 Cr. F.

534. Theory and Principles of Public Relations. Communication and persuasion theories relevant to public relations. Public relations in integrated communication. Public relations process: research, planning, communication and evaluation. 3 Cr. F, S.

536. PR Writing and Publications. Preparation of materials for use in public relations work including brochures, news releases and newsletters. 3 Cr. F, S, SUM.

538. Public Relations Case Studies and Campaigns. Public relations campaigns, with special attention to case studies dealing with various public relations issues and problems. 3 Cr. F.

543. Teaching Mass Communications and Advising School

Publications. Theories, methods, materials and curriculum development for teaching mass communications. Literature review. Role of faculty adviser: trends and problems. Prereq.: consent of instructor. 3 Cr. ARRANGED.

545. Advanced Photojournalism. Photojournalistic production for newspapers, magazines, company publications, television. History, theory, trends, ethics, composition. Digital processing. Lab. 3 Cr. S.

550. Advanced Editing and Makeup. Format, makeup and typography of print publications with emphasis on traditional quality and current trends. Computer design. 3 Cr. DEMAND.

558. Advertising in Society. Role of advertising in media industry. Economic, social and cultural effects of advertising on society. Impact of advertising on media content and performance. 3 Cr. DEMAND.

560. Mass Communications Law. The First Amendment as it relates to laws governing communication institutions. Application of ethics to mass communications, problem solving. 3 Cr. F, S.

564. Broadcast Management and Policy. Advanced study of the organization, operation, policy, pricing and marketing of broadcast stations. Management decision making as it affects personnel, budget, program selection and scheduling and ratings. Government regulatory framework. 3 Cr. F.

568. Psychology of Advertising. Concepts and theories from behavioral sciences. Their use for developing advertising campaigns and programs. Interpersonal and mass communication influences on consumer behavior. 3 Cr. ALT.

570. Modern Communication Technology Uses and Influences. The communications industry and its constituents in the light of recent developments in telecommunications technology. 3 Cr. DEMAND.

571. Advertising/Public Relations Research and Media Analysis. Research in advertising and public relations processes. Planning, selection and evaluation of media as vehicles for advertising and PR. 3 Cr. F, S.

585. Cases in Advertising/Communications Management. Communications decision making, planning, and implementing. Evaluating strategies and tactics. 3 Cr. ALT.

586. Advertising Campaigns. Developing overall advertising strategies. Present, write and defend complex strategic advertising decisions. 3 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

601. Communication Theory. Theories and research approaches in the study of mass media messages and their impact on audiences. 3 Cr. F

603. Seminar in Mass Communications (Topical). Seminar presentations on topics in mass communications (example: new technology or regulation). Prereq.: consent of instructor. May be repeated with a different topic to a max. of 6 credits. 1-3 Cr. DEMAND.

604. Readings in Mass Communications. A topic in mass communications. Oral and written reporting of readings. May be repeated with a different topic to a max. of 6 credits. 1-3 Cr. DEMAND.

605. Ethics and Critical Analysis of Mass Media. Advanced analysis of the values, principles, processes and critical paradigms commonly used for ethical decision making. Critiquing mass mediated culture. 3 Cr. S.

610. Media Economics and Management. Economic and management practices and policies of corporate mass media organizations. Focus will be on the impact contemporary practices have on media industries, the marketplace and the public. 3 Cr. S.

620. Advanced Advertising/PR Theories and Practices. Major theories and methods of advertising and public relations. Applications in case analysis and problem solving. 3 Cr. S.

625. Seminar: Public Opinion and Communication. Theories in communication, public opinion and attitudinal changes; research findings on communication, opinion and persuasion; methods and methodological problems and application of research methods. Prereq.: 601. 3 Cr. S-Alt.

630. Seminar in International Mass Communications. Problems and issues involved in global communication. Media freedom. International broadcasting politics of free flow of information. Transnational advertising. 3 Cr. S.

689. Applied Research. (Plan B starred papers). Independent research for graduate candidates completing the requirements of Plan B starred papers. Prereq.: completion of course requirements. 3 Cr. DEMAND.

699. Thesis. 1-6 Cr. DEMAND.

Master of Business Administration (MBA)

124 BUSINESS BUILDING/255-3212

MBA Adviser: Michael Pesch

The College of Business is accredited by AACSB—The International Association for Management Education.

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. A score of 470 on the Graduate Management Admission Test (GMAT).
3. A score of 550 or better on the TOEFL for international students.
4. An undergraduate grade point average of 2.75 or higher.
5. Evidence of undergraduate scholarship.
6. 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 and the Office of the Dean of the College of Business. 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 MBA program as full-time day students or on a part-time basis in evening courses. Full-time students also should expect to complete part of the program with evening courses.

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

Phase I - MBA

MBA candidates admitted into the program must have completed the equivalent of the following foundation courses before starting Phase II graduate courses:

ECON 205. Principles of Macroeconomics. Economics decision-making, market processes, measurement and determination of aggregate prices, employment and output, money and banking process, fiscal policy, and monetary policy. 3 Cr. F, S, SUM. May be taken before or after 206.

ECON 206. Principles of Microeconomics. Economic decision-making, marginal analysis, consumer and producer behavior in markets, price and output under different market structures, input markets, and policy analysis. 3 Cr. F, S, SUM. May be taken before or after 205.

BCIS 240. Business Statistics I. Review of business math, probability, and distributions. Numerical and graphical descriptive statistics and inferential statistics. Prereq.: MATH 104 or equivalent. 3 Cr. F, S, SUM.

BCIS 241. Business Statistics II. Regression analysis, analysis of variance, time series analysis, quality control and decision analysis. Linear programming. Prereq.: MATH 240. 3 Cr. F, S, SUM.

ACCT 291. Accounting I. Providing financial information to investors, creditors, management, and other users. The accounting process, financial statements, and the uses and limitations of accounting information. 3 Cr. F, S, SUM.

ACCT 292. Accounting II. The statement of cash flows and financial statement analysis. Accounting information as a planning, analysis, and control tool facilitating the decision-making. Prereq.: ACCT 291. 3 Cr. F, S, SUM.

MGMT 301. Introduction to Professional Management. Theory and practice of professional management. Human resource management, operations management, organization behavior and theory, and strategic decision responsibility. 3 Cr. F, S, SUM.

MGMT 383. Operations Management. How the operations function manages people, information, technology, materials, and facilities to produce goods and services. Prereq.: BCIS 240 or permission of department. 3 Cr. F, S, SUM.

MKTG 320. Introduction to Marketing. Analysis, planning and control of marketing functions with reference to ethical, social, political, economic, technological, and global forces. 3 Cr. F, S, SUM.

BCIS 340. Management Information Systems. Conceptual foundations of MIS; the roles of computer-based information systems in organization; global and ethical issues in MIS, and business application software. Prerequisite: Computer Competency. 3 Cr. F, S, SUM.

FIRE 371. Managerial Finance. Time value of money, financial ratio analysis, and security valuation. Corporate financial decisions, including capital budgeting, choice of capital structure, and working capital management. 3 Cr. F, S, SUM.

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

Phase II-MBA

The following must be completed by all MBA students. These courses are open only to graduate students admitted to Phase II. Minimum, 36 Cr.

Required: Min., 24 Cr.

MBA 629. Marketing Management, 3 Cr.

MBA 632. Management Support Systems, 3 Cr.

or

MBA 634. Information Technology Management, 3 Cr.

MBA 636. Legal, Ethical and Regulatory Environment of Business, 3 Cr.

MBA 663. Operations Management, 3 Cr.

MBA 667. Organizational Behavior, 3 Cr.

MBA 671. Financial Analysis and Control, 3 Cr.

MBA 683. Accounting for Managers, 3 Cr.

or

MBA 684. Financial Accounting, 3 Cr.

MBA 670. Corporate Strategies, 3 Cr. (must be taken the final semester of the student's program).

International Courses: Min., 3 Cr.

MBA 625. Advanced Marketing Information and Research, 3 Cr.

MBA 627. Global Marketing Management, 3 Cr.

MBA 675. Multinational Business Management, 3 Cr.

MBA 676. Multinational Financial Management, 3 Cr.

MBA 693. International Accounting, 3 Cr.

Electives: Min., 9 Cr.

ACCT 605. Business Seminar—Accounting, 3 Cr.

ACCT 680. Professional Research, 3 Cr.

ACCT 682. Advanced Managerial Accounting, 3 Cr.

ACCT 692. Advanced Financial Accounting Seminar, 3 Cr.

ACCT 693. Advanced Tax Seminar, 3 Cr.

ACCT 694. Advanced Auditing Seminar, 3 Cr.

MBA 633. Topics in Management Information Systems, 3 Cr.

MBA 635. Management of Technology, 3 Cr.

MBA 673. Management of Human Resources, 3 Cr.

FIRE 605. Business Seminar, 3 Cr.

FIRE 672. Readings in Finance, 3 Cr.
 FIRE 675. Readings in Insurance and Real Estate, 3 Cr.
 MGMT 605. Business Seminar, 3 Cr.
 MGMT 665. Readings in Management, 3 Cr.
 MKTG 605. Business Seminar-Marketing, 3 Cr.
 MKTG 626. Readings in Marketing, 3 Cr.
 MKTG 633. Business Case Analysis, 3 Cr.
 ECON 677. Managerial Economics, 3 Cr.
 Up to 6 Cr. from 500 level courses with prior approval by adviser.

In Lieu of the required 9 Cr. in electives, students may elect to take one of the following concentrations:

Economics Concentration:

Required:

Econ 677, Managerial Economics, 3 Cr.

Select two of the following:

ECON 570. (or ECON 670), Business Cycles and Forecasting, 3 Cr.

ECON 571. Money and Banking, 3 Cr.

ECON 572. Regulations and Antitrust, 3 Cr.

ECON 574. International Economics, 3 Cr.

Human Resources Concentration:

Required:

MBA 673. Employee Selection, 3 Cr.

Select two of the following:

MGMT 550. Employee Selection, 3 Cr.

MGMT 552. Employee Compensation, 3 Cr.

MGMT 553. Employee Development, 3 Cr.

MGMT 559. Strategic Human Resource Management, 3 Cr.

MKTG 548. Employment Law, 3 Cr.

Taxation Concentration:

ACCT 582. Individualized Taxation, 3 Cr.

ACCT 583. Business Taxation, 3 Cr.

ACCT 693. Advanced Tax Seminar, 3 Cr.

All students must take a written comprehensive examination during the semester in which they complete the MBA 670 capstone course. Further information will be found in the section titled "Final Written Comprehensive Examination" listed earlier in this bulletin.

An average of a B or above is required for course work taken in Phase I and Phase II. Students may not enroll in any 600 level course unless prerequisites have been met.

COURSES FOR GRADUATE STUDENTS ONLY

625. Advanced Marketing Information and Research. Role of information and research in decision-making in business, especially marketing; marketing and competitive intelligence; designing and conducting market research studies. Prereq.: MKTG 320 and BCIS 241. 3 Cr. F-Alt.

627. Global Marketing Management. Management of multinational corporations in dealing with international markets; planning, implementing, controlling and evaluating global marketing programs; role of global competition in world markets. 3 Cr. F

629. Marketing Management. Management of the marketing function in a business organization; marketing analysis and planning in the areas of produce, price, logistics (place) and promotion; role of marketing in strategic planning. 3 Cr. F, S.

632. Management Support Systems. Topics in technology supported business decision making, reengineering, and related management strategies. Management support technologies, modeling and decision making techniques. Prereq.: BCIS 340. 3 Cr. F

633. Topics in Management Information Systems. Recent development in concepts, theory, practices in the analysis and design of management information systems. Prereq.: BCIS 340. 1-3 Cr. DEMAND.

634. Information Technology Management. Managing information technology to create competitive advantages. Changing business process, adding value to products, and creating sustainability. Prereq.: BCIS 340. 3 Cr. S.

635. Management of Technology. Public policy, product development and managing innovation. Prereq.: BCIS 340 or permission of department. 3 Cr. DEMAND.

636. Legal, Ethical, and Regulatory Environment of Business. Effect of the law and regulatory environment on business. Managerial decision-making in a legal and ethical manner. 3 Cr. F

663. Operations Management. Case studies that emphasize the direction of systems comprising people, material, facilities and information that create goods and/or services. 3 Cr. F

667. Organizational Behavior. Individual and interpersonal behavior, group dynamics and structure, and leadership within the context of work organizations. 3 Cr. ALT.

670. Corporate Strategies. Analysis, case studies, and outside readings in contemporary management problems. This course must be taken in the last semester of the MBA program. 3 Cr. F, S.

671. Financial Analysis and Control. Problems confronting corporate financial management in analyzing financial requirements. Prereq.: ECON 677 or permission of instructor. 3 Cr. S, SUM.

673. Management of Human Resources. Individual and group employment relations; theories of selecting, developing, motivating and accounting for human resources. 3 Cr. ALT.

675. Multinational Business Management. Cultural, economic, socio-political and technological factors in managing multinational corporations. Comparative management approaches suitable for managing human and material resources. Management in multinational corporations. 3 Cr. ALT.

676. Multinational Financial Management. Financial flows in multinational corporations operating in a world-wide or regional environment. Capital budgeting (asset allocation), financing within own or foreign nations, and regulations and taxes affecting flows of monies across international boundaries. 3 Cr. DEMAND.

683. Accounting for Managers. Cost functions, cost-volume-profit relationships, performance measurement and evaluation, and the allocation of scarce resources as an aid to the decision-making process. 3 Cr. S, SUM.

684. Financial Accounting. Accounting systems and their role in the evaluation of assets, the determination of income, and the measurement of equities with concentration on the interpretation of published accounting statements. 3 Cr. F

693. International Accounting. Accounting theory and practice, taxation, and reporting problems of major industrial countries. Environmental, political, and cultural considerations. 3 Cr. S.

Mathematics (MATH)

139 ENGINEERING AND COMPUTING CENTER/255-3001

Chairperson: Ralph Carr

Graduate Faculty: Bahaaddin, G. Buls, S. Buls, Buske, Chen, R. Earles, Fiske, Haller, Hanzsek-Brill, Huang, Kalia, Keith, Lahren, Leung, Naraine, Scully, Walk, Wick, Wilmesmeier, Zhao

Master of Science – Mathematics

An applicant for the M.S. degree must have completed an undergraduate teaching 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.

At least one-half of the Master of Science degree program must be earned in courses in which enrollment is limited to graduate students.

The MS in Mathematics is offered according to two plans: Plan A, which is a 30 credit thesis program; and Plan B, which is a 33 credit non-thesis program. A description of these programs follows:

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

MATH 633. Research Implications for Mathematics Learning and Teaching, 3 Cr.

MATH 699. Thesis, 6 Cr.

II. Major: Min., Plan A, 15 Cr.; Plan B, 18 Cr.

MATH 631. Teaching Middle School (5-8) Mathematics, 3 Cr.

MATH 632. Teaching Secondary School (9-12) Mathematics, 3 Cr.

The remaining credits in each plan should be selected from mathematics and statistics courses with the approval of the mathematics adviser.

III. Professional Education: Min., Plan A, 6 Cr.; Plan B, 6 Cr.

These credits are selected with approval of the professional education adviser.

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

These credits are selected with the approval of the department and are generally from support areas for the mathematics major.

COURSE DESCRIPTIONS

521. Introduction to Real Analysis I. The real number system, sequences and limits, continuity and differentiation. Upper and lower bounds, the completeness axiom for real numbers, Cauchy sequences, the Bolzano-Weierstrass property, the extreme value theorem, the intermediate value theorem, the mean value theorem, l'Hospital's rule and Taylor's theorem. Prereq.: 222, 253 or 312. 3 Cr. F-ALT.

522. Introduction to Real Analysis II. Series, power series, uniform and pointwise convergence, Riemann integration, and applications. Prereq.: 421/521. 3 Cr. DEMAND.

523. Complex Variables I. The complex field, the theory of analytic functions, power series. Fundamental theorem of algebra. Prereq.: 311 or 321. 3 Cr. DEMAND.

531. Professional Subject Matter for Middle Grades

Mathematics. For teacher candidates only. Number sense, patterns and functions, number theory, shape, space and measurement, chance and data analysis; current curriculum and pedagogical developments, lesson planning, and microteaching. Elementary Education majors; Prereq.: MATH 330. B.S. Majors: Must be taken concurrently with ED 537 or ED 521 but not with MATH 532. 3 Cr. F, S.

532. Professional Subject Matter for Secondary School

Mathematics. For teacher candidates only. Algebra, geometry, data analysis, and advanced topics; current curriculum and pedagogical

developments, lesson planning, and macroteaching. Must be taken concurrently with ED 521 or ED 537, but not with MATH 531. 4 Cr. F.

533. Algebra for Elementary and Middle School Teachers.

Algebraic concepts, representations, structures and applications.

Prereq.: 330. 3 Cr. F.

534. Recent Trends in Elementary School Mathematics.

Modern approach to teaching mathematics, teaching aids and devices, experimental work, recent research. 3 Cr. S.

535. Teaching Problem Solving in Elementary School

Mathematics. Problem solving strategies, teaching problem solving, problem solving via concrete materials, cooperative learning. For elementary education majors only. 3 Cr. F.

539. Using Technology to Teach Science and Mathematics, K-8.

Demonstrating and exploring technology, such as computers and calculators, that enhances mathematics and science learning and instruction in the K-8 curriculum. Lab. activities that involve collecting, representing, and analyzing data. Prereq.: 330. 3 Cr. S.

552. Numerical Analysis. Round-off error and computer arithmetic. Solutions of equations in one variable. Interpolation and polynomial approximation. Numerical integration and differentiation. Error analysis. Prereq.: 222, 252 or permission of instructor. 3 Cr. F-ALT.

553. Numerical Linear Algebra. Direct and iterative solutions in linear algebra. Orthogonal polynomials, splines and least squares approximations. Error analysis. Prereq.: 552. 3 Cr. DEMAND.

561. Modern Algebra I. Groups, subgroups, cyclic groups, permutation groups, isomorphisms, Cayley's theorem, cosets, LaGrange's theorem, normal subgroups, quotient groups, homomorphisms, the first isomorphism theorem construction of the integers and rational numbers from the natural numbers, rings, integral domains, and fields. Prereq.: 253. 4 Cr. F, S.

562. Modern Algebra II. Ideals, factor rings, ring homomorphisms, polynomial rings, factorization of polynomials, irreducible polynomials, Euclidean domains, introduction to fields, extension fields, splitting fields, algebraic and transcendental numbers, geometric construction. Prereq.: 561. 3 Cr. DEMAND.

580. Topics in Mathematics. Designed for intensive study in a special topic in pure or applied mathematics. Topic will be announced in class schedule. Approval of instructor required for enrollment. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.

582. Student Teaching Seminar. Reflections of and extensions of the student teaching experience in a seminar format; individual classroom observations. Must be taken concurrently with student teaching. 2 Cr. F, S.

583. Topics in Elementary School Mathematics. In depth study of a special topic in mathematics relevant to the elementary school curriculum. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

630. Topics in Mathematics Education. In-depth study of a special topic in mathematics education: topic to be announced in class schedule. Prereq.: approval of instructor. May be repeated to a maximum of six credits to be applied to M.S. in mathematics. Grading option: S/U or ABCD. 1-3 Cr. DEMAND.

631. Teaching Mathematics in the Junior High School. Selected topics including: current curriculum and pedagogical developments; mathematics content, materials, and approaches; assessment, remediation, research. 3 Cr. F-ALT.

632. Teaching Mathematics in the Secondary School. Selected topics including: mathematical perspectives and processes; mathematics content, materials, and approaches; assessment and remediation; research. 3 Cr. F-Alt; SUM, ALT.

633. Research Implications for Mathematics Learning and Teaching. Implications for classroom practice of current and past research on mathematics learning and teaching at the middle and secondary school levels. How students learn specific mathematical content within the context of mathematical learning theory. 3 Cr. DEMAND.

634. Teaching Geometry in the Secondary School. Historical development, current issues and trends, curricular reform movements, experimental programs, research findings. 3 Cr. DEMAND.

635. Teaching Algebra in the Secondary School. Historical development, current issues and trends, pedagogical issues, role of technology, special topics, experimental programs, assessment and

research findings. 3 Cr. DEMAND.

636. Calculus for Secondary Teachers. Advanced treatment of calculus concepts, including limits, the derivative, the integral, sequences, and series. Applications of calculus to real world problems. 3 Cr. DEMAND.

660. Number Theory. Prime and composite integers. Diophantine analysis, number congruences, quadratic residues. Prereq.: 561 or consent of instructor. 3 Cr. DEMAND.

661. Contemporary Geometry. Vectors and transformations on the Euclidean plane, and their application to problem solving. Prereq.: high school geometry and 312. 3 Cr. DEMAND.

662. History of Mathematics. Historical survey of the development of mathematics. Prereq.: 221. 3 Cr. S-Alt, SUM.

699. Thesis. 1-6 Cr. DEMAND.

Microcomputer Studies (MCS)

139 ENGINEERING AND COMPUTING CENTER/203-6084

Director: Monte Johnson

Graduate Faculty: Guster, M. Johnson, Mowe, Rysavy

COURSE DESCRIPTIONS

525. Microcomputer Networking I. Local area networks for micros. Network architecture, characteristics, and protocols, software packages, set up, theory, and use of local area networks. Detail coverage and application of the physical OSI model. Prereq.: 397 or equivalent. 4 Cr. F, S.

526. Microcomputer Networking II. Detail coverage and application of the datalink through application layers of the OSI model. Prereq.: 425/525 or equivalent or consent of instructor. 3 Cr. F, S.

536. World Wide Web Authoring and Administration.

Authoring and implementing web documents. Setting up and administering web servers. Prereq.: 426/526 or consent of instructor. 3 Cr. F.

537. Computer Network Security. Developing an effective network security strategy. Analyzing hole in protocols, designing firewalls, authentication and combatting the Hacker Tools. Prereq.: 426/526 or consent of instructor. 3 Cr. S.

550. Data Network Performance Analysis. Quantitative evaluation and data networks; pinpointing bottlenecks and corrective strategies. Prereq.: 426/526 and STAT 229 or higher or consent of instructor. 3 Cr. F.

551. Data Network Design. Students will develop their own document specifying a hypothetical data network through the use of simulation and case studies. Prereq.: 450/550 or consent of instructor. 3 Cr. S.

574. Advanced Microcomputer Programming. Advanced higher-level or system programming on microcomputers. Prereq.: knowledge of higher-level language and consent of instructor. 3 Cr. DEMAND.

590. Practicum in Microcomputers. Supervised programming or installation and administration of software packages. Can be repeated for a maximum of 6 credits. Prereq.: 426/526 and approval of the MCS program committee. 1-3 Cr. DEMAND.

Minnesota Highway Safety Center

A120E EDUCATION BUILDING/255-2135

Director: John Palmer

PERMANENT WORKSHOP DESCRIPTIONS

These courses are not intended to support a graduate degree program but are intended to respond to identified needs of post-baccalaureate students. Please refer to academic regulations under the "Workshop Limitation" section to determine the maximum number of workshop credits which may be applied to graduate degrees.

555. Workshop: Special Topics Traffic Safety. Specific strategies for promoting quality driver education will be identified. May be repeated three times. 1-3 Cr. DEMAND.

564. Workshop: Kids Teaching Kids. Role of an adviser in the "Kids Teaching Kids" elementary traffic safety program. The influence of peers, development of healthy attitudes, and making responsible decisions. Preparation of sixth grade peer leaders. 1 Cr. DEMAND.

COURSE DESCRIPTIONS – TRAFFIC EDUCATION (TSE)

530. Seminar: Topical Traffic Safety. Contemporary traffic safety issues, such as accident prevention and community involvement. May be repeated topically. 1-3 Cr. DEMAND.

553. Emergency Driving Techniques. Organization and administration of program development. All phases of emergency driving instruction. 1 Cr. DEMAND.

554. Risk Management and Behavior Analysis in Traffic Safety. Risk perception and risk management, the decision making process, and the influencing factors of attitude, motivation and chance as related to accident causation. How to conduct the AAA Driver Improvement Program. 3 Cr. F, S, SUM.

556. Improving Driver Education Instruction. Assists driver education instructors to improve the driving of their students. Risk management. 3 Cr. DEMAND.

590. Issues in Driver Education. Within the context of the history and origins of high school age driver education, recent trends and issues affecting high school age driver education programs are explored. Emphasis is placed on the role played by public and private agencies and organizations in setting expectations and standards for high school age driver education. The course examines the major tasks required of the DE coordinator. 3 Cr. S, SUM.

Minority Studies (MINS)

B-120A EDUCATION BUILDING/255-3036 OR 255-4928

Director: Robert C. Johnson

Graduate Faculty: Johnson, Lacourt, Parrott

The Minority Studies program is designed for students who desire to complement their course of study with an understanding and examination of American racial and ethnic groups, namely, African Americans, Latino/Hispanic Americans, Asian Americans, and Native Americans. It provides insight into the history, contributions, social/cultural development, intellectual expressions, and present circumstances of these various groups in American society. The department currently does not offer a graduate major.

COURSE DESCRIPTIONS

505. Women of Color. Examination of historical and contemporary issues facing American Indian, Afro-American, Asian and Latina women in America. The impact of race, gender, and social inequalities on the lives of women of color will be discussed. Graduate students will be required to do additional assignments or projects. 3 Cr. F

Music (MUS, MUSM, MUSP, MUSE)

238 PERFORMING ARTS CENTER/255-3223

Chairperson: Bruce Wood

Graduate Coordinator: Stephen Fuller

Graduate Faculty: Allen, Echols, Fuller, Gast, Givens, Judish, Krause, Layne, Miller, Moore, Schmidt, Smale, Springer, Tamte-Horan, Vermillion, Verrilli, Wilhite

St. Cloud State University is accredited by the National Association of Schools of Music.

Master of Music

Master of Music programs are offered in three areas: Conducting (choral or instrumental), Music Education and Piano Pedagogy.

Applicants for admission must have completed a bachelor's degree in music (for Music Education, a bachelor's degree in music education). Conducting students should submit a videotape of conducting ability or prepare a live demonstration of conducting skills for the designated adviser. Piano Pedagogy students must prepare a piano audition for the piano faculty, which includes a 20-minute memorized performance and a technique exam. For more specific information, refer to the Music Department Graduate Handbook for Students and Advisers.

All applicants must meet the admission requirements of the Office of Graduate Studies and must take the Graduate Music Placement Exam during the first semester of study.

CORE (10 Cr.) – for all programs

MUS 602. Introduction to Research in Music and Music Education, 2 Cr.

MUSM 504. Pedagogy of Music Theory, 2 Cr.

MUS 604. Analytical Techniques, 2 Cr.

MUS 6xx. Music History

(2 courses, selected from MUS 611-616), 4 Cr.

Choose from the following emphases:

Conducting, Plan A only (23 Cr.).

MUS 609. Score Preparation, 2 Cr.

MUS 620/621. Choral Conducting I/II, 4 Cr.

or

MUS 622/623. Instrumental Conducting I/II, 4 Cr.

MUS 617. History of Wind Band Literature, 3 Cr.

or

MUS 618. History of Choral Literature, 3 Cr.

or

MUS 619. History of Orchestra Literature, 3 Cr.

MUS 698. Creative Work, 6 Cr.

or

MUS 699. Thesis, 6 Cr.

Applied lessons and/or Vocal Pedagogy (Choral), 4 Cr.

or

Applied lessons and Music/MusEd Electives (Instrumental), 4 Cr.

Electives (chosen with consent of adviser), 4 Cr.

Music Education Emphasis, Plan A or B, (22 Cr.).

MUS 608. Curriculum Development in Music Education, 2 Cr.

MUS 607. Psychology of Music, 2 Cr.

MUS 605. Elementary Music Education, 2 Cr.

or

MUS 606. Secondary Music Education, 2 Cr.

Applied lessons, 2 Cr.

Music Electives, 2 Cr.

Electives (Chosen with consent of adviser), 6 Cr.

Plan A:

MUS 699. Thesis, 6 Cr.

or

Plan B:

Music Education Electives, 6 Cr.

Comprehensive Written Exam

Piano Pedagogy, Plan A only (23 Cr.).

MUSE 530/531, Piano Pedagogy I/II, 6 Cr.

MUSM 536, Piano Literature, 2 Cr.

MUS 680, Graduate Seminar: Research in Piano Pedagogy, 2 Cr.

MUS 632, Applied Piano, 4 Cr.

MUS 652, Chamber Music Performance, 1 Cr.

MUS 698, Creative Work, 6 Cr.

or

MUS 699, Thesis, 6 Cr.

Electives (Chosen with consent of adviser), 2 Cr.

PERMANENT WORKSHOP COURSE DESCRIPTIONS – MUSIC MUSICIANSHIP (MUSE)

These courses are not intended to support a graduate degree program but are intended to respond to identified needs of post-baccalaureate students. Please refer to academic regulations under "Workshop Limitation" to determine the maximum number of workshop credits which may be applied to graduate degrees.

583. Workshop: New Music Materials Clinic. Participation in clinic and music reading sessions at the Schmitt Music New Music Materials Clinic. Maximum 1 credit toward a degree program. 1 Cr. S. (registration shows as Fall through Continuing Studies)

589. Workshop: Minnesota Music Educators Clinic. Participation in clinic and workshop sessions at Minnesota Music Educators Association Mid-Winter Clinic. Maximum of 1 Cr. toward a degree program. 1 Cr. S.

COURSE DESCRIPTIONS – MUSIC EDUCATION (MUSE)

520. Early Childhood Music. Methods and materials for teaching music to children ages two through seven. 2 Cr. DEMAND.

528. Introduction to Orff-Schulwerk. Basic overview of materials and characteristics of Orff-Schulwerk-based musical instruction, with emphasis on elementary and middle-school music. Prereq.: 201, 331 or consent of instructor. 3 Cr. DEMAND.

530. Piano Pedagogy I. Basic problems and techniques of teaching piano to the elementary and early intermediate student. 3 Cr. F.

531. Piano Pedagogy II. Basic problems and techniques of teaching piano to the late intermediate and advanced student. 3 Cr. S.

542. Vocal Pedagogy. Basic techniques in the teaching of voice including the young voice. Survey of procedures and materials. 2 Cr. F.

COURSE DESCRIPTIONS – MUSICIANSHIP (MUSM)

502. Orchestration. Principles and methods of writing and arranging music for instrumental and vocal ensembles. Instruments of the orchestra, the human voice, Western music literature and arranging for various combinations of instruments. Prereq.: 204. 3 Cr. S-ALT.

503. Counterpoint. 18th century contrapuntal practices. Prereq.: 204. 2 Cr. F-Alt.

504. Pedagogy of Music Theory. A comprehensive review of Western music theory and pedagogic methodology. Prereq.: 204. 2 Cr. F-Alt.

523. Jazz Harmony. A comprehensive study of jazz harmony and its application in 20th century practices. Prereq.: 204. 2 Cr. F.

533. Electronic Music I. History and literature of electronic music. Principles of sound production, music synthesis and computer applications in music creation and pedagogy. Prereq.: 204 or permission of instructor. 2 Cr. F.

534. Electronic Music II. Applications of MIDI, synthesis, sampling, and computer based audio and MIDI software to create electronic music. Prereq.: 433/533. 2 Cr. S.

536. Piano Literature. Survey of western piano literature since 1700. Prereq.: 321, 322. 2 Cr. DEMAND.

568. Jazz Improvisation. Improvisation in the jazz style for all instruments. Permission of the instructor. 2 Cr. S.

569. Jazz Arranging. Application of practical and theoretical harmony to jazz style and scoring for jazz ensembles. Prereq.: 204. 2 Cr. DEMAND.

COURSE DESCRIPTIONS – MUSIC PERFORMANCE (MUSP)

503. Keyboard Accompanying. Discussion and performance of representative keyboard accompaniments. Permission of instructor. 1 Cr. DEMAND.

532. Piano. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

533. Organ. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

535. Percussion. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

536. Voice. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

537. Violin. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

538. Viola. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

539. Cello. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

540. Bass. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

541. Trumpet. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

542. French Horn. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

543. Trombone/Baritone. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

544. Tuba. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

545. Flute/Piccolo. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

546. Clarinet/Bass Clarinet. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

547. Saxophone. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

548. Bassoon. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

549. Oboe/English Horn. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

554. Secondary Instrument. Prereq.: consent of instructor. May be repeated. 1-2 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY – MUSIC (MUS)

602. Introduction to Research in Music and Music Education. Materials, techniques, and procedures for research in music and music education. 2 Cr. F, SUM, ALT.

603. Opera Theatre. Performance of scenes, one-act and full-scale operas. Prereq.: consent of instructor. 1-2 Cr. F, S.

604. Analytical Techniques. Methods of analyzing Western music of 18th, 19th and 20th centuries. Prereq.: MUSM 404/504. 2 Cr. S-Alt.

605. Elementary Music Education. Major contemporary methods of teaching music in grades K-8. 2 Cr. F-Alt.

606. Secondary Music Education. The music program in secondary school, including philosophies and methods. 2 Cr. F-Alt.

607. Psychology of Music. Perspectives on music learning and musical intelligence, including assessment of musical aptitude and achievement. 2 Cr. S-Alt.

608. Curriculum Development in Music Education. Philosophical and historical study of the problems of music education curricular development with emphasis on current practices. 2 Cr. S-Alt.

609. Score Preparation. Analyzing and preparing scores for rehearsal and performance with vocal and instrumental ensembles. Includes orchestration study. 2 Cr. S, SUM, ALT.

611. Music of the Medieval and Renaissance Periods. History of music of the Medieval and Renaissance periods. Prereq.: 602. 2 Cr. S, SUM.

612. Music of Baroque Period. History of music from 1600-1750. Prereq.: 602. 2 Cr. S, SUM.

613. Music of the Classical Period. History of music of the classical period. Prereq.: 602. 2 Cr. S, SUM.

614. Music of the Nineteenth Century. History of music from 1820-1900. Prereq.: 602. 2 Cr. S, SUM.

615. Music of the Twentieth Century. History of music of the 20th century. Prereq.: 602. 2 Cr. S, SUM.

616. Music of the United States. History of music in colonial North America and the United States. Prereq.: 602. 2 Cr. S, SUM.

617. History of Wind Band Literature. Historical, social and stylistic trends unique to the wind band and its music. Educational resources and programming ideas for school bands. 3 Cr. F-Alt.

618. Choral Literature. Choral scores and composers of different styles and eras from the Medieval period to the present. Analytical skills and program building. 3 Cr. F-Alt.

619. Orchestral Literature. Orchestral music from the Baroque to the present. Educational resources and programming ideas for school orchestras. 3 Cr. DEMAND.

620. Choral Conducting I. Review of basic conducting techniques. Study of advanced techniques, expressive gesture, score analysis and rehearsal techniques though preparing and conducting of choral works. 2 Cr. F-Alt.

621. Choral Conducting II. Continuation of advanced conducting techniques, score analysis and preparation for the choral conductor. Prereq.: 620. 2 Cr. S-Alt.

622. Instrumental Conducting I. Conductor's role, expressive conducting techniques, band and orchestral repertoire and literature sources, programming, score mechanics, reading, formats, and terminology. 2 Cr. DEMAND.

623. Instrumental Conducting II. Score study processes, rehearsal techniques, conducting performance, procedures for self-evaluation and improvement. Prereq.: 622. 2 Cr. DEMAND.

625. Seminar in Music Education. Research and discussion of latest developments and innovations in music education. 2 Cr. DEMAND.

Audition required for the following 600-level lessons.

632. Piano. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

633. Organ. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

634. Harpsichord. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

635. Percussion. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

636. Voice. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

637. Violin. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

638. Viola. Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.

- 639. Cello.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 640. Bass.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 641. Trumpet.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 642. French Horn.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 643. Trombone/Euphonium.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 644. Tuba.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 645. Flute/Piccolo.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 646. Clarinet/Bass Clarinet.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 647. Saxophone.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 648. Bassoon.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 649. Oboe/English Horn.** Prereq.: consent of instructor. May be repeated. 2-3 Cr. F, S.
- 652. Chamber Music Performance.** Study and performance of chamber music. Prereq.: consent of adviser. May be repeated to a max. of 2 credits. 1 Cr. F, S.
- 654. Major Performing Organization.** Participation in an assigned sectional rehearsal of the band, choir, or orchestra. Prereq.: consent of instructor. May be repeated to a max. of 2 credits. 1 Cr. F, S.
- 662. Piano.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 663. Organ.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 664. Harpsichord.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 665. Percussion.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 666. Voice.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 667. Violin.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 668. Viola.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 669. Cello.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 670. Bass.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 671. Trumpet.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 672. French Horn.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 673. Trombone/Euphonium.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 674. Tuba.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 675. Flute/Piccolo.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 676. Clarinet/Bass Clarinet.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 677. Saxophone.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 678. Bassoon.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 679. Oboe/English Horn.** Prereq.: consent of instructor. May be repeated. 3 Cr. F, S.
- 680. Graduate Seminar: Research in Piano Pedagogy.** Student research projects at all levels of piano pedagogy. Prereq.: MUSM 530, 531. 2 Cr. DEMAND.
- 698. Creative Work.** 1-6 Cr. F, S, SUM.
- 699. Thesis.** 1-6 Cr. F, S, SUM.



Philosophy (PHIL)

123 BROWN HALL/255-2234

Chairperson: John Bahde

Graduate Faculty: M. Anderson, Bahde, Boyer, Curnutt, Gill, Hartz, C. Johnson, Steup, Swank, White

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 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.

The department currently does not offer a graduate major. Service courses for other graduate programs are offered primarily in the day-time schedule, PHIL 581 is an evening course.

COURSE DESCRIPTIONS

501. Topics in Ethics. Study of one or several of the topics introduced in PHIL 301. 3 Cr. S-Alt.

502. Topics in Metaphysics. Study of one or several of the topics introduced in PHIL 302. 3 Cr. F-Alt.

503. Topics in Epistemology. Study of one or several of the topics introduced in PHIL 303. 3 Cr. S-Alt.

504. Topics in the History of Philosophy. Study of specific historical topics, including philosophical movements, individual philosophers or the evolution of concepts such as truth, beauty and justice. 3 Cr. F ALT.

505. Aesthetics. The nature and value of art, beauty, creativity, aesthetic experience and critical judgment. 3 Cr. F-Alt.

506. Philosophy of Mind. The relation between the mind and the body, knowledge of other minds, artificial intelligence and the relevance of neuro-physiological studies. 3 Cr. S-Alt.

507. Philosophy of Science. The nature of science. The views of Carnap, Popper, Kuhn and others on such topics as scientific explanation, the problem of induction, scientific realism, objectivity and relativism. 3 Cr. F-Alt.

508. Philosophy of Language. Meaning and reference, translation and indeterminacy, the analytic/synthetic distinction, speech act theory and theories of truth. 3 Cr. S-Alt.

581. Professional Ethics. The concept of a profession and the relationships that constitute professional activity. Ethical issues including confidentiality, privacy, consent, whistle blowing, professional codes of ethics and social responsibility. 3 Cr. F

582. Philosophy of Law and Punishment. The nature, purpose and foundations of law. Legal and moral responsibility, just punishment, the limits of authority and legal reasoning. 3 Cr. S.

583. Business Ethics. Personal, organizational and social issues in business. Product safety, whistle blowing, employee and corporate rights and regulation. Personal dilemmas and conflicts in policy making. 3 Cr. S-Alt.

584. International Business Ethics. Personal, organizational and nationalistic issues in international business. Ethical relativism, corporate responsibility for the environment, bribery and the use of Third World labor. Personal dilemmas and conflicts in policy making. 3 Cr. F, S.

Physics (PHYS), Astronomy (ASTR) & Engineering Science (ENGR)

324 MATHEMATICS AND SCIENCE CENTER/255-2011

Chairperson: Mark A. Nook

Graduate Faculty: R. Brundage, Bunn, Cabanela, Dalton, Garrity, Haglin, Harlander, S. Kalia, Lesikar, Nook, D. Schoenberger, Womack

The department currently does not offer a graduate program. Service courses for other graduate programs are offered primarily in the day-time schedule, although some classes may be offered in the summer.

PERMANENT WORKSHOP DESCRIPTION

This course is not intended to support a graduate degree program but is intended to respond to identified needs of post-baccalaureate students. Please refer to academic regulations under the "Workshop limitation" section to determine the maximum number of workshop credits which may be applied to graduate degrees.

585. Workshop: Observational Astronomy. Designs of small telescopes and their operation, techniques for locating and observing astronomical objects with a small telescope. Prereq.: ASTR 205 or consent. 1 Cr. SUM.

576. Workshop: Solar Energy. The energy problem, the use of solar energy to help solve this problem, and theoretical background for the design and construction of a solar energy system. 1 Cr. DEMAND.

586. Workshop: Holography. Basic principles of holography. Constructing simple holographs. 1 Cr. DEMAND.

COURSE DESCRIPTIONS – ASTRONOMY (ASTR)

505. Introduction to Planetarium Operation. Use of the planetarium projector to show important sky motions, appearance of the sky from different places on the Earth, seasonal passage and bright constellations. Prereq.: ASTR 205, 311 or equivalent or consent. 1 Cr. DEMAND.

521. Selected Topics in Astronomy. Lectures, readings and/or discussion on selected topics in astronomy, astrophysics, or planetary science. May be repeated to a max. of 6 credits. 1-3 Cr. DEMAND.

COURSE DESCRIPTIONS – PHYSICS (PHYS)

520. Seminar. Lectures, readings, discussion on selected topics. May be repeated. 1-3 Cr. DEMAND.

535. Laser Optics. The interaction of light with matter including conditions for laser gain and oscillation, resonance cavities, and Gaussian beams. Examples of laser systems and applications. Lab. Prereq.: PHYS 333. 3 Cr. S-Alt.

536. Advanced and Fourier Optics. Multilayer dielectric films, Fresnel reflection and diffraction, applications of Fourier optics. Lab. Prereq.: PHYS 333. 3 Cr. S-Alt.

542. Topics in Biomedical Engineering. Instrumentation, data analysis and phenomenological principles of clinical interest. Prereq.: EE 312; ENGR 334; MATH 334 or permission of instructor. 3 Cr. DEMAND.

556. Methods and Materials for Teaching Physical Science. Modern techniques and curricula for teaching secondary school physical science. 3 Cr. F, S.

Political Science (POL)

329 BROWN HALL/255-2162

Chairperson: Homer Williamson

Graduate faculty: Bodelson, Butenhoff, Frank, Gold-Biss, Kukoleka Hammes, Haniff, E. Jones, Kilkelly, Uradnik, Wagner, Williamson

The department of Political Science, jointly with the Department of Economics, offers a Master of Science in Public and Nonprofit Institutions. The program coordinator is located in economics and the *internship coordinator* in political science. For degree requirements see the Department of Economics in this bulletin or contact the Department of Political Science. The graduate courses offered by the department also provide service courses to other programs. Courses may be offered in either the daytime or evening schedule.

COURSE DESCRIPTIONS

511. The Presidency. Analysis of the American presidency with emphasis on presidential selection, the leadership role of the presidency, legislative involvement, relations with the media and the American public, the president as party leader, and internal relationships between members of the executive branch. Prereq.: 111. 3 Cr. ANNUAL.

512. Legislative Process. Legislative functions, elections, process, influence on decision making and problems. Prereq.: 111 or permission of instructor. 3 Cr. ALT.

513. Judicial Process. An examination of the structure, process and personnel of American courts with particular emphasis on the role of the U.S. Supreme Court in American political system. Prereq.: 111. 3 Cr. ALT.

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. 3 Cr. ALT.

552. United Nations and Regional Organization. Organization, authority, achievements and problems of the United Nations and its auxiliary components. Prereq.: 251. 3 Cr. ALT.

554. The Politics of the Global Economy. The interaction of the nation-state and the international economy will be explored through the introduction of the contending philosophies and approaches and theories (e.g. neo-realism, rational choice theory, dependency theory). Prereq.: 251 and 353 or consent of instructor. 3 Cr. ALT.

563. American Political Thought. Study of the philosophy and theories which underlie the American system of democratic government which has contributed to the formation of this system of government. Prereq.: 111. 3 Cr. ALT.

565. Modern Ideologies. A study of the ideologies of fascism, communism and ideas which have contributed to democratic thought. 3 Cr. ALT.

570. Public Opinion and Electoral Behavior. Nature of public opinion and major influences, elections, parties, measurement, and impact. Lab. Prereq.: 111 or permission of instructor. 3 Cr. ALT.

581. Administering Public Policy. Studies of the initiation, content, administration and impact of selected contemporary domestic government policies: transportation, consumerism, environment, poverty. Prereq.: 111. 3 Cr. ALT.

582. Public Personnel Administration. Personnel methods in the public sector including recruitment, employee performance, employee rights, collective bargaining, affirmative action and employee conduct. Prereq.: 111. 3 Cr. ANNUAL.

583. Managing Local Governments. Practical problems of local administration including grant applications, personnel, budgeting, public works and local renewal. Prereq.: 212 or 313 or consent of instructor. 3 Cr. ALT.

584. Public Budgeting. Budgeting in public agencies. Emphasis on budget preparation, budget politics, capital budget, debt administration. Practical applications of budget making. Lab. Prereq.: 380; computer literacy, introductory statistics; ECON 460 or 461 recommended. 3 Cr. F.

585. Administrative Law. Legal problems arising from use of administrative agencies; administrative procedure; judicial relief against administrative action. Prereq.: 111. 3 Cr. DEMAND.

586. Program Evaluation. Introduces students to methods for policy and program evaluation. Students are required to apply a methodology of choice to evaluate the effectiveness of a specific public policy or program. Prereq.: 111, 201, 380 or instructor's permission. 3 Cr. ALT.

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.: 111. 3 Cr. ALT.

592. The Courts and Civil Rights. Supreme Court decisions concerning discrimination, speech, religion, search and seizure, counsel and other individual rights. Prereq.: 111. 3 Cr. ALT.

COURSES FOR GRADUATE STUDENTS ONLY – POLITICAL SCIENCE (POL)

619. American Government Seminar. Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: consent of instructor. May be repeated to a max. of 9 credits. 3 Cr. DEMAND.

699. Thesis. 1-6 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY – PUBLIC AND NON PROFIT INSTITUTIONS (PNI)

601. Reading in Public and Nonprofit. Guided study of individual investigation of special problems and/or theoretical topics in public and/or nonprofit institutions. Prereq.: admission to graduate program. May be repeated with different topic to a maximum of 8 Cr. 1-3 Cr. DEMAND.

620. Seminar: Evaluating Nonprofit Performance. Research and seminar presentations assessing the organizational performance in terms of specific performance objectives of not-for-profit institutions. Prereq.: Core. 3 Cr. DEMAND.

630. Seminar in Public and Nonprofit Institutions. Advanced research and seminar presentation on selected topics dealing with theoretical issues and the management and evaluation of public and nonprofit institutions. Prereq.: Core. 3 Cr. DEMAND.

644. Internship. A supervised internship in a government agency or a private nonprofit institution. Requires prior approval. 9 Cr. DEMAND.

680. Seminar: Public Policy Analysis. Methods are presented for evaluating public policy before and after its implementation. Criteria for choosing alternative policies are discussed. Prereq.: admission to graduate program. 3 Cr. DEMAND.

699. Thesis. 1-6 Cr. DEMAND.

Psychology (PSY)

102 WHITNEY HOUSE/255-4157

Chairperson: Zoa Rockenstein

Graduate Faculty: D. Anderson, DeVoe, Jazwinski, Kukuk, Prochnow, Rockenstein

COURSE DESCRIPTIONS

527. Research on Psychology of Women. Psychological research dealing with women and women's issues. Reducing sex bias in psychological research. Prereq.: 225 or instructor's permission. 3 Cr. ALT.

541. Child Psychology. Study of childhood, current research, theory, and development of children in various cultures. Integrated lab. Prereq.: 240. 3 Cr. F.

542. Psychology of Adolescence. Study of adolescence: current research, theory, and development of adolescents in various cultures. Integrated lab. Prereq.: 240. 3 Cr. S.

543. Psychology of Adult Development and Aging. Study of adulthood and aging, current research, theory and development of adults in various cultures. Integrated lab. Prereq.: 240. 3 Cr. F; S.

569. Personnel Psychology. Psychological methods, procedures, and principles in personnel work; technical aids, psychological testing, vocational guidance, worker efficiency, and morale. Prereq.: 360 or instructor's permission. 3 Cr. ALT.

573. Aggression, Anger, and Violence. Origins and determinations of human aggression: psychological theories, research, and applications. 3 Cr. S.

589. Psychology of Learning. Psychological theories of learning. Human and animal research. Constraints learning. Prereq.: 115, 116, 201, 202 or instructor's permission. 3 Cr. S.

590. Psychological Disorders. Classification, description, etiology

and treatment of the disorders of personality organization and behavioral integration. 3 Cr. F, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY

621. Psychology in Human Affairs. Principles of psychology and their impact on human affairs: nature of humans, mind and body, basis of knowledge, basis for conduct; relation between psychological thinking and other modes of inquiry. 3 Cr. DEMAND.

630. Neuropsychology. Neural basis of human psychology, including learning, memory, cognition, sensory systems, motivation, emotion, and psychological disorders. 3 Cr. F

640. Advanced Developmental Psychology. Human growth and development. Trends, problems, theory, and contemporary research. 3 Cr. F.

647. Psychology of Aging: Theory and Research. Theory and research on the psychology of aging. Physical, social, and cognitive aspects of aging. 3 Cr. ALT.

660. Organizational Psychology. Psychology of individual and group behavior in the organizational complex: research and implications for administration and management; motivation, influence, communication, group processes, leadership, and supervision. 3 Cr. ALT.

681. Inferential Statistics I. Set theory, probability theory, and statistical inference, linear correlation and regression, analysis of variance and multivariate approaches. Prereq.: 201, 202 or instructor's permission. 3 Cr. DEMAND.

682. Inferential Statistics II. Quantitative methods in psychology. Correlation and regression, multiple regression, and the design and analysis of multivariate experiments. Prereq.: 201, 202, or instructor's permission. 3 Cr. DEMAND.

Sciences (SCI)

224 MATHEMATICS AND SCIENCE CENTER/255-3012

Coordinator: Patricia Simpson

Graduate Education Committee Graduate Faculty: Hoff, Kelsey, Kochmann, Kramer, Lavelle, Louisell, P. Simpson

These courses are offered by faculty with the College of Education and/or the College of Science and Engineering. They are designed to provide science content and pedagogical practice for teachers P-12.

COURSE DESCRIPTIONS

530. Methods & Materials for Teaching Secondary Science. An introduction to modern techniques and curricula for teaching secondary school science. Prereq.: Admission to a teaching licensure program. 4 Cr. F

534. Contemporary Science Curriculum K-8. Literature based overview of contemporary science curriculum for elementary schools. A

hands-on overview of recent elementary programs. Includes philosophy, rationale, sample activities and assessment. Prereq.: BIOL 302, CHEM 302, ESCI 302. 3 Cr. DEMAND.

536. Environmental Education for Teachers. Examination and experience with environmental curricula and materials for classroom and field instruction. 3 Cr. F, SUM.

538. Contemporary Principles in Science Education. Topics to be determined and announced in class schedule. 1-3 Cr. DEMAND.

540. Seminar in Science Teaching. A companion to student teaching. Reflections and application of science teaching strategies. 2 Cr. S.

542. Special Topics in Science. An opportunity to pursue an in-depth study of a science topic such as Environmental Education, Flora Fauna of Minnesota, Astronomy, Chemistry in the Home, Minnesota Rocks and Waters, and other topics as appropriate. 3 Cr. F

556. Methods and Materials for Teaching Earth Science. Modern techniques and curricula for teaching secondary school earth science. 3 Cr. F, S.

Social Sciences (SSCI) & Social Studies (SST)

361 STEWART HALL/255-2096

Social Science Director/Social Studies Coordinator: Kathleen Maloney

Graduate Faculty: Haniff, Karasik, Maloney, O'Toole, Tripp

COURSE DESCRIPTIONS – SOCIAL SCIENCE (SSCI)

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. May be repeated. Prereq. of 30 credits completed. 1-3 Cr. DEMAND.

570. Area Studies Seminar. Interdisciplinary social science analysis of conditions of an area. A specific country or region will be selected each time the course is offered. May be repeated. Prereq. of 30 credits completed. 1-3 Cr. DEMAND.

576. Black and American: Issues in Afro-American Studies. An interdisciplinary exploration of what it means to be both Black and American. A specific topic will be listed in the class schedule. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY – SOCIAL SCIENCE (SSCI)

630. Problems in Social Sciences. 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. Thesis. 1-6 Cr. F, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY – SOCIAL STUDIES (SST)

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. May be repeated with different topic to a max. of 9 credits. 3 Cr. SUM.

Social Work (SW)

224 STEWART HALL/255-3139

Chairperson: Richard Present

Graduate Faculty: Brennan, Present, Robin, Stadum, Whitford

530. Social Work Practice with the Aging. Social services related to aging including practice settings, skills, values, social policy and research. 3 Cr. ALT.

Sociology (SOC) & Anthropology (ANTH)

262 STEWART HALL/255-2294

Chairperson: James Sherohman

Graduate Faculty: Alessio, Argiros, Burmeister-May, Gold, Havir, Lavenda, Mehdi, O'Toole, Ruf, Scheel, Schultz, Sherohman, Zuo.

Master of Science–Social Responsibility

Sociology collaborates with Human Relations and Multicultural Education, Women's Studies and American Studies in this program. It provides a solid academic foundation in social theory and practice, emphasizing practical skills for involved citizens at all levels of society and constructive approaches to contemporary social problems. For the complete program description see Human Relations and Multicultural Education.

For further information contact Rita Argiros at 320-255-3046 or 320-259-6910.

Sociology and Anthropology also provide service courses to other graduate programs. Courses are offered in daytime and evening schedules.

COURSE DESCRIPTIONS – ANTHROPOLOGY (ANTH)

502. Ethnographic Research Methods. Practice and theory of ethnographic research. Research design, participant observation, interviewing, questionnaires, field note taking and management, data analysis, ethics. Prereq.: 267, 3 addl. Cr. or permission. 3 Cr. S-Alt.

503. Research Methods in Archaeology. Categories of archaeological methodology; general research, field, analytical, and quantitative methods. Prereq.: 269, 390, and/or permission. 3 Cr. DEMAND.

563. Seminar. Discussion and readings in advanced anthropology. A specific topic selected each time offered. Prereq.: 150 or permission of instructor. May be repeated to a max. of 6 credits. 3 Cr. DEMAND.

574. Culture and Family. Family structure and dynamics in Non-Western countries. Cultural variations, historical and contemporary family patterns, relationship of family to other institutions, comparisons of Non-Western and Western families. 3 Cr. S.

581. Cultural Resource Management. Management of ethnic, historic, and prehistoric cultural resources; site location and identification, determination of level(s) of significance, impact assessment, and mitigation procedures. Prereq.: 267, or permission of instructor. 3 Cr. F-Alt.

592. Field Research in Anthropology. Anthropological field methods and directed research in one of the subdisciplines of anthropology: archaeology, ethnography, linguistics, or applied anthropology. Prereq.: consent of instructor. 1-6 Cr. SUM.

COURSE DESCRIPTIONS – SOCIOLOGY (SOC)

512. Self and Society. Nature, origins, development, maintenance, and change of self. Relationships between self and social situations, social interactions and social worlds. 3 Cr. ALT.

515. Sociology of Science. Examination of science in maintaining or challenging racism, sexism, ageism, ableism, xenophobia, heterosexism, classism, and environmental oppression within a global context. 2 Cr. F.

545. Political Sociology. Structural and ideological factors influencing the development and legitimation of political institutions, and the sociological conditions influencing the political processes. Prereq.: 160. 3 Cr. ALT.

555. Sociology of Work and Occupation. Changing nature of U.S. workforce, social meaning and organization of work. Relationships between occupation and social stratification systems. Prereq.: 160 or consent of instructor. 3 Cr. S.

556. Complex Organizations. Formal and informal organizational structures, processes, and behavior. Power, conflict, roles, values, and culture in corporations and bureaucracies. Prereq.: 160 or permission. 3 Cr. F.

560. Social Problems and Social Policy. Identification and analysis of structural and value-oriented problems in industrial society. Theory and research as related to development of social policy. Prereq.: 160 or 261 or consent of instructor. 3 Cr. ALT.

562. Seminar. Evaluation of sociological theory, social issues, or contemporary events. A specific topic selected each time offered. May be repeated. 1-3 Cr. DEMAND.

568. Minorities in the Capitalist World-Systems. Racism, sexism and minority/subordinate group formation, stratification and interaction. 3 Cr. ALT.

572. Sociology of the Family. Roles and relationships within the family, household structures, marriage/partnership patterns: changing patterns of the family and its relationships with other social institutions; policy implications. 3 Cr. F.

573. Family Relationships in Later Life. Families and households in later life. Interaction patterns and lifestyles among diverse groups. Includes caregiving, grandparenting, intergenerational relationships, public policy. Prereq.: 160. 3 Cr. ALT.

574. Culture and Family. Family structure and dynamics in Non-Western countries. Cultural variations, historical and contemporary family patterns, relationship of family to other institutions, comparisons of Non-Western and Western families. 3 Cr. ALT.

575. Sociology of Health and Illness. Sociocultural aspects of illness, health, treatment, health care delivery, and the social organization of health care. 3 Cr. S.

578. Advanced Statistics I. Multivariate statistical applications applied to sociological problems using SPSS for Windows. Prereq.: 304 or equivalent. Integrated Lab. 3 Cr. ALT.

579. Computer Utilization in Sociology. Organizing and analyzing sociological data using computer software. Prereq.: 304 or equivalent or consent of instructor. Integrated Lab. 3 Cr. DEMAND.

581. Social Stratification. Class, status, and power in America: origin, legitimation, and consequences. Theories and research on stratification, and international stratification. 3 Cr. ALT.

COURSES FOR GRADUATE STUDENTS ONLY – SOCIOLOGY (SOC)

602. Seminar in Social Psychology. Theory and research in sociological social psychology. Classic works of theory and recent trends in theory and research. 3 Cr. ALT.

630. Topics in Social Responsibility. Topics and issues in the study and practice of social responsibility. Specific titles to be listed in class schedule. May be repeated under different topics to a max. of 6 credits. 1-3 Cr. ALT.

644. Internship. Internship in application of sociological knowledge and methods in business, government, nonprofit settings. Development of skills in research, analysis of problems, community organizing, and social change; development, implementation and evaluation of programs and policies. 3-6 Cr. F, S, SUM.

650. Sociology of Aging and the Life Course. Aging over the life course as a social process. Impact of baby boomers on health care system, social security, public policy, families and work place. Includes aging well, diversity and lifestyles, ethical and justice issues. 3 Cr. F.

656. Seminar in the Sociological Study of Organizations.

Organizational structures, processes, and outcomes examined from the sociological perspective. Prevalence of organizations in modern societies, sources of internal organizational structure, external and interorganizational relations, increasing complexity and organization of social environments. 3 Cr. F-Alt.

672. Family Theory and Research. The family's structure and function. Theories and research methods used in studying the family. The use of current research to explain variations and trends in family interaction. 3 Cr. ALT.

679. Advanced Research Methods. Advanced data collection and analysis techniques. Prereq.: 303 or equivalent or consent of instructor. 3 Cr. ALT.

680. Sociological Practice. Use of theory, methods, and intervention efforts on behalf of clients. 3 Cr. ALT.

684. Sociology of Social Responsibility. Integrating social theory and research with advanced topics in social problems and policy. Class and labor in a global context. Which social actors are responsible for social problems and how they can be held accountable for realistic solutions. 3 Cr. S.

685. Sociological Theory. Historical and ideological roots of classical and contemporary theories. Meaning and application of theory in traditional and applied research. 3 Cr. F.

689. Advanced Analysis of Deviance in Society. Theoretical perspectives and predominant issues related to the sociology of deviance. 3 Cr. ALT.

699. Thesis. 1-6 Cr. F, S.



Special Education (SPED)

A211 EDUCATION BUILDING/255-2041

Chairperson: Mary Beth Noll

Graduate Faculty: Gadberry, R. Johnson, Kellett, J. Lewis, Markell, Noll, D. Rogers, E. Rogers, Wellik

Master of Science – Special Education

The Department of Special Education offers program plans leading to a Master of Science degree. The graduate student's program of study may be designed to emphasize education of the K-12 students with learning disabilities, emotional/behavioral disorders, developmental disabilities and physical/health disabilities.

The Master's degree program is designed for either full-time or part-time students. Full-time students may expect to complete part of their course work in evening classes. Part-time students can complete much of their course work in evening classes, but can expect to attend some summer session courses. An introductory course on the education of exceptional children is required for admission to this program (equivalent to SPED 503).

Plan A: Thesis

Students pursuing the Plan A option, are required to complete a minimum of 30 graduate credits: 16 credits in research, 3 credits in professional education (courses outside special education), and 12 credits in the major (3 credits must be topical seminar or nonlicensure elective course). The final product prepared by the student is a research-based thesis. Preliminary and final oral examinations over the thesis are required.

Plan B: Starred Papers

Students pursuing the Plan B option, are required to complete a minimum of 33 graduate credits: 9 credits in research, 3 credits in professional education (courses outside special education), and 21 credits in the major (3 credits must be a topical seminar or nonlicensure elective). Students are required to submit two starred papers as the culminating experience of their graduate course of study. Preliminary and final oral examinations over the starred paper topics are required.

Plan A(Thesis), 30 Cr.; Plan B, (Starred Papers), 33 Cr.

I. Research: Min., Plan A, 15 Cr.; Plans B, 9 Cr.

APSY 678. Introduction to Graduate Statistics, 3 Cr.

SPED 601. Issues and Problems in Special Education, 3 Cr.

SPED 602. Research in Special Education, 3 Cr.

SPED 699. Thesis, 6 Cr. (Plan A only)

II. Major: Min., Plan A, 9 Cr.; Plan B, 18 Cr.

III. Professional Education: Min., Plan A or B, 3 Cr.

Elective from outside the Department of Special Education.

IV. Elective: Plan A or B, 3 Cr.

SPED 690-694. Topical Seminar, 3 Cr.

Fifth Year Program – Special Education

A Fifth Year program also is available primarily for those who are interested in obtaining a special education license. Admission to this program is through the graduate studies office. An undergraduate grade point average of 2.75 is required for admission to this program.

COURSE DESCRIPTIONS

503. Foundations in Special Education I. Historical and philosophical background of special education; an overview of disabling conditions and their implications; legal bases; resources; and advocacy. 3 Cr. F, S, SUM.

505. Behavior Theories and Practices in Special Education.

Introduction to the assessment and management of behavior problems in the classroom. Includes functional analysis, ecobehavioral analysis and cognitive strategies. Emphasizes a proactive approach. Prereq.: 403/503. 3 Cr. F, S, SUM.

507. Education of Students with Mild Disabilities. Introduction to students with mild disabilities. Survey of approaches to instruction. Laws and regulations governing programs for the mildly handicapped. 1-2 Cr. DEMAND.

508. Developmental Screening and Assessment of Young Children. Philosophy, procedures and methodologies used to conduct developmental screening. 2 Cr. DEMAND.

509. Foundations in Special Education II. Curriculum design and adaptation, interface of special education and regular education, individual and group management, delivery systems. 1-2 Cr. DEMAND.

511. Applied Special Education Foundations. Prereferral, referral and special education placement process; IEP development; curriculum-based evaluation and instruction; and informal assessment. Prereq.: 403/503. 3 Cr. F, S, SUM.

512. Psycholinguistics. Symbolic processes involved in communication. Interpretation of data. 2 Cr. DEMAND.

513. Mathematics and Technology Instruction for Students with Special Needs. Evaluate, prescribe, and manage mathematical instruction for students with special needs

514. General Education Science and Social Studies for the Special Educator. Overview of planning, selecting resources, scope and sequence of curriculum, responding to individual learner needs, and evaluation of student learning in the teaching of science and social studies. 2 Cr. DEMAND.

515. Psychological and Medical Perspectives for the Classroom. Classroom implications of psychological and medical conditions and their medical management. Prereq.: 403/503. 3 Cr. F, S, SUM.

516. Individualized Assessment in Special Education. Administration and interpretation of standardized instruments used in the identification of students with developmental disabilities, physical/health disabilities, emotional/behavioral disorders, and learning disabilities. Prereq.: 403/503, 411/511; APSY 361. 3 Cr. F, S, SUM.

518. General Education Reading and Language Arts for the Special Educator. Basic techniques for reading and language arts diagnosis and teaching in the regular classroom. 2 Cr. DEMAND.

519. Teaching Methods in Special Education. Adaptive teaching techniques and materials for reading, language arts and mathematics. Prereq.: 403/503, ED 371, MATH 330. 4 Cr. F, S, SUM.

520. Characteristics of Students with Physical, Health and Developmental Disabilities. Characteristics and development of students with physical, health, and developmental disabilities. Prereq.: 403/503, 415/515. 3 Cr. F, S.

521. Characteristics of Students with Learning and Behavior Disorders. Characteristics of and issues related to students with learning and behavior disorders including psychosocial, educational, vocational, and leisure outcomes. Prereq.: 403/503, 415/515. 3 Cr. F, S, SUM.

531. Collaboration Skills and Transition Planning in Diverse Settings. Rationale, design and delivery of programs for students with disabilities in transition from secondary to post secondary environments. Coordination of multiple service agencies in those transitions. Prereq.: 403/503, 411/511. 3 Cr. F, S, SUM.

534. Directed Independent Study of Occupations. Visitation and observation of work sites, job analysis, survey of human resources, and community analysis, 2 Cr. DEMAND.

536. Communication and Collaboration in Diverse Settings. Analysis, study and application of various communication and collaboration methods for working with multicultural populations. Prereq.: 403/503. 3 Cr. F, S, SUM.

538. Special Education Field Experience. Field experience in special education elementary and secondary settings. Prereq.: 403/503, 418/518. 2 Cr. F, S.

545. Content Area Instruction for Students with Mild Disabilities. Content area classroom adaptations and modifications for middle- and secondary-level students with learning and behavior problems. Prereq.: 403/503, 419/519. 3 Cr. F, S.

553. Practicum in General Education for the Special Educator. Field experiences in general education (elementary/secondary) settings. Prereq.: 403/503. 1-2 Cr. F, S.

577. Basic Skills/Severely Handicapped Young Children. Program design and strategies to meet the needs of young children with severe handicaps. 2 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Trends and Problems in Special Education. Seminar in trends and issues relating to special education services including assessment, service delivery and programming for students with disabilities. 3 Cr. F

602. Research in Special Education. Techniques and interpretation of research in special education. Problem definition, research design, reporting results and manuscript preparations. 3 Cr. F, S.

610. Supervision of Special Education. Review of approaches, models and practices required for effective supervision of special education and related personnel and programs. Primary emphasis on developing and maintaining effective working relationships with subordinates and others in the school organization. 3 Cr. F

611. Learning Strategies for Mildly Handicapped. Strategies for upper elementary, junior/senior high, post-secondary mildly handicapped/slow-learning students to aid them in learning to learn, solve problems, and complete tasks independently in regular education classes and other natural environments. 1-6 Cr. DEMAND.

613. Administration of Special Education. Review of approaches, models and practices required for effective administration of a special education organization. Primary emphasis is placed on understanding organizational structure considerations, critical management functions, and the management of structured organizational change. 3 Cr. S.

616. Special Education Program Development for Administrators. Overview and analysis of models, process requirements and indicators or quality for the design, development, implementation, and evaluation of special education programs. Special focus placed on review of the universe of generic program development components necessary to define a quality special education program. 3 Cr. S.

619. Legal and Financial Aspects of Special Education for Administrators. Overview of case law, legal standards, financial models, and budgeting practices applicable to the supervisors and administrators of special education programs. 3 Cr. S.

622. Emotional/Behavioral Disorders Methods. Analysis of programming models and behavioral and psycho-educational techniques for students with emotional/behavioral disorders. Attention is focused on intervention strategies, reintegration, and follow-up techniques. Prereq.: 521. 3 Cr. F, S.

624. Seminar: Differentiated Instruction for Gifted/Talented. Strategies for developing, adapting, and evaluating curriculum for gifted and talented children. Emphasis on identification, individualization and utilization of strategies. 3 Cr. DEMAND.

625. Seminar: Enhancing Creativity. A study of the nature of creativity; examination of obstacles and approaches that enhance development of creativity. 3 Cr. DEMAND.

645. Seminar: Mildly Handicapped Consultation. Seminar focusing on problems and issues relative to concurrent field experiences in consultation strategies for mainstreamed mildly handicapped students in the elementary and secondary school. 2 Cr. DEMAND.

646. Learning Disabilities Methods. Examination and application of strategies for elementary- and secondary-age students with learning disabilities. Focus is on the role of the learning strategy specialist in resource and inclusive settings. Prereq.: 521. 3 Cr. F, S, SUM.

647. Developmental Disabilities Methods: Moderate/Severe. Methods and materials for instruction and programming for students with moderate/severe developmental disabilities; techniques for inclusion. Prereq.: 403/503, 419/519, 620. 3 Cr. F, S.

648. Physical/Health Disabilities Methods. Methods and materials for instructors and programming for students with physical and/or health disabilities; techniques for inclusion. Prereq.: 620. 3 Cr. F, S.

649. Practicum: Mild/Moderate K-12 Special Education Settings. Field internship with students with mild/moderate disabilities in elementary and secondary settings. 1-4 Cr. F, S.

- 650. Practicum in Physical/Health Disabilities I.** Field internship in elementary school programs for students with physical/health disabilities. Prereq.: 620, 648. 2 Cr. F, S, SUM.
- 651. Practicum in Physical/Health Disabilities II.** Field internship in secondary school programs for students with physical/health disabilities. Prereq.: 620, 648, 650. 2 Cr. F, S, SUM.
- 654. Practicum in Special Education Administration.** Provides 300 hours in a structured field experience in special education supervision and administration. Experiences are tailored to insure field application of concepts, models, practices, and skills learned in special education administration classes. Prereq.: 610, 613, 616, 619. 3 Cr. S.
- 660. Practicum in Developmental Disabilities: Mild/Moderate.** Field internship in elementary/secondary school programs for students with mild/moderate developmental disabilities. Prereq.: 620, 647. 2 Cr. F, S, SUM.
- 661. Practicum in Developmental Disabilities: Moderate/Severe.** Field internship in elementary/secondary school programs for students with moderate/severe developmental disabilities. 2 Cr. F, S, SUM.
- 670. Practicum in Emotional/Behavioral Disorders I.** Field internship in Levels I-III elementary/secondary school programs for students with emotional/behavioral disorders. 2 Cr. F, S, SUM.
- 671. Practicum in Emotional/Behavioral Disorders II.** Field internship in Levels IV-VI elementary/secondary school programs for students with emotional/behavioral disorders. 2 Cr. F, S, SUM.
- 680. Practicum in Learning Disabilities I.** Field internship in elementary school programs for students with learning disabilities. 2 Cr. F, S, SUM.
- 681. Practicum in Learning Disabilities II.** Field internship in secondary school programs for students with learning disabilities. 2 Cr. F, S, SUM.
- 683. Practicum in Special Education/Early Childhood.** Supervised practicum in teaching young (ages birth to six) handicapped children. Prereq.: permission of department. 1-3 Cr. DEMAND.
- 698. Field Study.** 1-6 Cr. F, S, SUM.
- 699. Thesis.** 1-6 Cr. F, S, SUM.

Speech Communication (SPC)

129 MATHEMATICS AND SCIENCE CENTER/255-2216

Chairperson: Jeffery Bineham

Graduate Faculty: Bineham, Eyo, A. Grachek, Hyde, Japp, Kanengieter, Kassing, Kendig, Litterst, Porter, Pryately, Rehling, Ringer, Ross, Secklin, Senchez, Spry, Stocker, Tompkins, E. Vora, Wildeson

COURSE DESCRIPTIONS

502. Special Topics in Speech Communication. Discussions and readings in advanced speech topics. A specific topic will be listed each time offered. May be repeated to a max. of 9 credits. Prereq.: senior/graduate standing or permission of instructor. 3 Cr. DEMAND.

511. Critical Approaches to Public Communication. Rhetorical criticism of public communication and popular culture, such as speeches, news coverage, and entertainment. Prereq.: 311 or permission of instructor. 3 Cr. F S.

512. Theories of Persuasion. Persuasion theories applied to selected communication contexts. Prereq.: 311 or permission of instructor. 3 Cr. F S.

521. Contemporary Issues in Performance Studies. Variable content stressing methods, theories, and subjects in contemporary performance studies such as performance criticism, performance and gender, performance art, performance and culture, performance of selected literary genres. Specific topics to be announced. May be repeated. Prereq.: 192 or equivalent. 3 Cr. S.

522. Communication and Contemporary Leadership. Education for reflective leadership from the perspective of communication and rhetorical theory. Theoretical concepts of leadership and followership are examined along with skill development, research and critique. Prereq.: 211, 212, or permission of instructor. 3 Cr. F or S-Alt.

531. Communication and Aging. Communication and the aging process with primary focus on the position of the older individual in the communication transaction. Prereq.: 192 and 212 or permission of the instructor. 3 Cr. F or S-Alt.

532. Intercultural Communication for the Global Workplace. Theories and principles of intercultural communication applied toward working effectively in international contexts. Cultural synergy in global work contexts. Major intercultural communication challenges for service abroad. Prereq.: 332 or permission of instructor. 3 Cr. F or S-Alt.

541. Organizational Communication. Nature and flow of communication in modern organizations through applied theory, diagnosis and problem-solving skills. 3 Cr. F S.

542. Health Communication. Communication theory and practice in health care contexts. Prereq.: 9 SPC hours beyond 192, or permission of instructor. 3 Cr. F

552. Teaching Speech Communication. Materials and methods for curricular and co-curricular teaching in the secondary schools. Prereq.: 12 cr. of SPC. 3 Cr. F

Statistics (STAT)

139 ENGINEERING AND COMPUTING CENTER/203-6169

Chairperson: David Robinson

Graduate Faculty: Guster, Hao, J. Johnson, M. Johnson, Lawal, Mowe, Onyiah, Richardson, Robinson, Rysavy, Sundheim

The department currently does not offer a graduate program. Service courses for other graduate programs are offered in both the daytime and evening, but primarily daytime.

COURSE DESCRIPTIONS

510. Statistics and Probability for Teachers. Descriptive statistics, exploratory data analysis, probability, sampling, simulation, random variables, sampling distributions, confidence intervals, hypothesis testing; use of statistical software. Prereq.: MATH 222. 3 Cr. F

517. Applied Probability and Simulation. Probability distributions and random variables, simulation of random variates, probability modeling, applications to Markov chains, queuing models, reliability and survival; use of software. Prereq.: One programming course and MATH 211 or equivalent. 3 Cr. S.

521. Regression and Analysis of Variance II. Model checking and diagnostics in regression, model building including stepwise regression procedures, full vs reduced model formulas; analysis of covariance, comparing the various multiple comparison procedures, unbalanced designs, random effect models, variance-stabilizing transformations, three-way anova; use of statistical software. Prereq.: 321 or equivalent. Coreq.: 301. 3 Cr. F

524. Statistical Designs for Process Improvement. A study of statistically designed experiments which have proven useful in product development and process improvement; topics include randomization, blocking, factorial treatment structures, fractional factorial designs, screening designs, Taguchi methods, response surface methods; use of statistical software. Prereq.: 321 or consent. Coreq.: 301. 3 Cr. DEMAND.

527. Applied Time Series. A study of the most useful techniques of analysis and forecasting using time series data. Topics include an introduction to forecasting, time series regression, decomposition methods, smoothing, smoothing techniques, basic techniques of Box-Jenkins methodology; use of statistical software. Prereq.: 321 or equivalent. Coreq.: 301. 3 Cr. DEMAND.

530. Multivariate Statistical Methods. Principal component analysis, factor analysis, discriminant analysis, cluster analysis, manova, profile analysis, repeated measures; applications and use of statistical software. Prereq.: 321 or equivalent. Coreq.: 301. 3 Cr. DEMAND.

533. Nonparametric Statistics. Efficiency comparison of mean and median, one and two sample location problems, effect of alternative score functions, randomization and permutation tests, the independence problem, and selected problems in regression. Use of statistical software. Prereq.: 321 or equivalent. Coreq.: 301. 3 Cr. DEMAND.

536. Applied Categorical Data Analysis. Introduction to the analysis of discrete data; log-linear models for two-way and multi-way tables; linear logistics regression models; association models and models of symmetry; applications, use of statistical software. Prereq.: 321 or equivalent. Coreq.: 301 3 Cr. DEMAND.

540. Topics in Statistics. Study of modern topics in theoretical or applied statistics. Prereq.: Permission of instructor. May be repeated to a max. of 6 credits. 3 Cr. S.

547. Basic Elements of Probability Theory. A more mathematical treatment of probability distributions than STAT 417. Probability concepts and laws; sample spaces, combinations and permutations, Bayes' theorem, discrete and continuous random variables, expected value, distribution of functions of random variables, two-dimensional variates, central limit theorem; T, F, and chi-square distributions; Prereq.: MATH 222. Coreq.: MATH 321. 3 Cr. F

548. Basic Elements of Statistical Theory. Theory of estimation and hypothesis testing; maximum likelihood, method of moments, likelihood ratio tests; elementary mathematical functions illustrate theory. Prereq.: 447/557. 3 Cr. S.

Teacher Development

A132 Education Building/255-3007

Chairperson: Bruce Romanish

Graduate Faculty: Bacharach, Bradfield-Kreider, Davis, Davison, Frank, D. Heine, P. Heine, Hornstein, Kazemek, Kelsey, Kochmann, Louisell, Miller, Pierce, Romanish, Scott-Halverson, Serrano, Spies, Subrahmanyam, Tabakin, Ullrich

The following program is designed for both full-time and part-time students. Courses are offered evenings during the academic year and during the daytime in the summer.

Master of Science – Curriculum and Instruction

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.

Plan A (Thesis), 30 Cr.; Plan B (Starred Paper), 33 Cr.; Plan C (Portfolio), 36 Cr.

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

ED 615. Introduction to Research, 3 Cr.

ED 698. Plan B, Starred Paper(s), 3 Cr.

ED 699. Plan A, Thesis, 6 Cr.

II. Major: Min., Plan A, 21 Cr.; Plan B, 27 Cr.; Plan C, 33 Cr.

A. Foundations Prescribed: 9 Cr.

Curriculum

ED 646. Curriculum Theory, 3 Cr.

or

ED 647. Curriculum Development, Implementation, and Assessment, 3 Cr.

Instruction/Learning

ED 653. Learning Assessment, 3 Cr.

or

ED 654. Instruction and Assessment, 3 Cr.

Foundations

ED 611. Historical and Philosophical Foundations, 3 Cr.

or

ED 612. Social and Cultural Foundations, 3 Cr.

B. Teaching Field Applications/Electives: Plan A, 12 Cr.; Plan B, 18 Cr.; Plan C, 24 Cr.

Select courses from the various department offerings, approved workshops, specialty fields, transfer credits—all subject to Graduate School policies. At least one course must be taken in another department: course approved by adviser.

NOTE: CED prefix courses cannot be used in a master's degree program.

COURSE DESCRIPTIONS

521. Educational Foundations in Education. Surveys historical, philosophical, political and sociological issues and dimensions of American education. Education in a democracy, issues of diversity, and constitutional considerations are organizing themes. Coreq.: ED 531. 3 Cr. F, S.

524. Mainstream Science & Social Studies for the Special Educator. Overview of planning, selecting resources, scope and sequence of curriculum, responding to individual learner needs, and evaluating student learning in the teaching of science and social studies. 3 Cr. DEMAND.

531. Curriculum and Instruction. Curriculum, instruction and assessment in the PreK-12 setting. The role and responsibility of the subject area and special area teacher. Coreq.: 521. 3 Cr. F, S.

537. Principles of Middle Level Education. Provides a comprehensive look at middle level education, including its historical development, its goals and philosophy, its mission. Middle level organizational patterns, curricular structures, specific instructional strategies and assessment/evaluation methods and diversity of learners will be addressed. Coreq.: ED 547. 3 Cr. F, S.

547. High School Education. Provides a comprehensive look at high school education including its historical development, its goals and philosophy and its mission. High school organizational patterns, curricular structures, specific instructional strategies and assessment/evaluation methods, and diversity of learners will be addressed. Coreq.: ED 537. 3 Cr. F, S.

557. Issues in Bilingual/Bicultural Education. Examines current issues in Bilingual/Bicultural education from historical, political, and social dimensions. This course prepares future ESL and Bilingual teachers to examine current issues and curriculum decisions that affect the bilingual/bicultural student. 3 Cr. DEMAND.

558. Literacy for L-2 Learners. Examines socio-psycholinguistic process of second language literacy learning. Focuses on speech and print relationships, literacy emergence, strategies for teaching/writing development and integration of language and literacy across the curriculum. K-12 Prereq.: introduction to ESL or teaching experience or permission of instructor. 4 Cr. SUM.

559. Critical Pedagogy. Intended to introduce educators to current issues/concepts related to critical pedagogy. This course will examine theoretical frameworks and introduce current research in the field of critical pedagogy. Educators will examine how critical pedagogy as a philosophy impacts learners at all levels especially those from diverse populations. 3 Cr. DEMAND.

564. 5-12 Student Teaching I. Supervised teaching for students seeking 5-12 teacher licensure. Permission required. 6 Cr. F, S.

565. 5-12 Student Teaching II. Supervised teaching for students seeking 5-12 teacher licensure. Permission required. 6 Cr. F, S.

568. PreK-12 Student Teaching I. Supervised teaching for students seeking PreK-12 teacher licensure. Permission required. 6 Cr. F, S.

569. PreK-12 Student Teaching II. Supervised teaching for students seeking PreK-12 teacher licensure. Permission required. 6 Cr. F, S.

571. 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. S.

572. Content Area Reading for Middle and Secondary Schools. Nature of high school and middle school reading programs, development of reading techniques and skills, development of vocabulary, reading interests, and reading ability in content fields, appraisal of reading abilities, diagnosis and remediation. 3 Cr. DEMAND.

573. Reading and Children's Literature: Current Issues. An issues approach to examination of contemporary literature, its relationship to development of comprehension and critical thinking. 3 Cr. DEMAND.

582. Multicultural Child. Learning styles of the Afro-American, Native American, Asian-American, and Latino-American children. 3 Cr. DEMAND.

583. Black English: Teaching Black Children to Read. How Black English causes problems when Black and Latino students start to read and write. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Selected Topics in Education. Course designed for intensive study of a special topic in education. Topic will be announced in the class schedule. May be repeated to a max. of 9 credits. 1-3 Cr. DEMAND.

606. Classroom Management. Problems arise in classrooms managed by both veteran and inexperienced teachers. Establishing and teaching classroom rules that are just and having a consistent approach continue to be the bases of effective management. This course explores a variety of methods and approaches that enable teachers to help students meet their needs and behave more appropriately. Emphasis is on the prevention of problems through effective, proactive management. 3 Cr. DEMAND.

607. Judicious Discipline. Combines reasonable approaches to school discipline as part of a sound civics education. Incorporates constitutional considerations in a democracy in conjunction with the school's obligations to humaneness and a safe and supportive setting. 3 Cr. SUM, DEMAND.

608. Children's Rights. An analysis of the changing status of children—their rights, roles and responsibilities. 3 Cr. DEMAND.

611. History and Philosophy of Education. Historical and philosophical aspects of educational theory; beliefs; arguments; assumptions. Surveys major currents, movement, and intellectual contributors to western and non-western educational thought. 3 Cr. Odd F; S; Even SUM.

612. Social and Cultural Foundations of Education. Interrelationship of education and economic, political, social, and cultural systems; critical perspectives on schools as agencies of socialization and social stratification in a democratic and pluralistic society; comparative education. 3 Cr. Even F; S; Odd, SUM.

614. Action Research. This course will focus on how teachers can use Action Research as a vehicle in understanding the culture and dynamics of their classroom. Action Research aims at helping educators reflect on their own classroom practices and how these practices may affect the needs of their students, especially within a diverse population. 3 Cr. DEMAND.

615. Introduction to Research. An introduction to the assumptions, purposes, strategies, interpretation, and reporting of quantitative and qualitative research in education. 3 Cr. Odd, F; S; Even, SUM.

627. Education of the Emerging Adolescent. In-depth look at emerging adolescent development; history and major components of middle level education; how to create developmentally responsive education for diverse early adolescent learners. 3 Cr. DEMAND.

630. Kindergarten/Primary Education. The organization and implementation of developmentally and socially appropriate primary grade classrooms in formal educational settings. How to build the base for future school learning while making the transition from the family to the school. 3 Cr. DEMAND.

631. Literacy Through Literature for K-8 Schools. Explore children's books and examine strategies and techniques for effectively utilizing literature in children's literacy development. Literature response activities and the use of literature across the curriculum will be studied. 3 Cr. DEMAND.

632. Struggling Readers: Analysis & Assistance. This course fosters teachers' abilities to look closely and critically at students' reading abilities, identify specific strengths and weaknesses, and plan and implement a well considered and appropriate instructional program. 3 Cr. DEMAND.

633. Writing in the Elementary School. Exploration of how children develop as writers. Techniques for facilitating growth in writing will be examined and experienced. The connections between writing in and out of the classroom and across the curriculum will be studied. 3 Cr. DEMAND.

634. Informational Reading and Writing. Develop teaching strategies to assist students (K-12) in exploring and learning about their world through informational reading and writing. 3 Cr. DEMAND.

637. Cooperative Learning K-12+. Structuring small groups successfully includes: applied theory, various cooperative strategies, inter-

personal skills, diversity issues, and assessment strategies through practical application across the curriculum K-12+. Beginning through advanced levels. 3 Cr. DEMAND.

638. Classroom Controversy, Conflict & Mediation. Cooperative theory and strategies for resolving academic controversies and interpersonal conflict which increase comprehension, problem solving and conflict resolution through negotiation/peer mediation. Practical application K-12+. 3 Cr. S.

641. Middle Level Curriculum. Provides an in-depth look at middle level curriculum, grades 5-8. Separate-subjects, multidisciplinary and integrative approaches to curriculum will be explored. The role of action research in curriculum development will also be highlighted. 3 Cr. DEMAND.

643. Elementary School Science. Activities and procedures for improving instruction in science; current standards for elementary science education; analysis and evaluation of literature, research findings, and curriculum materials in the science curriculum. 3 Cr. DEMAND.

644. Teaching Elementary School Mathematics. Teachers will improve their instruction of K-8 mathematics with a focus on recent trends, research, and national and state standards for teaching mathematics. Technology and authentic, developmentally appropriate activities will enhance understanding and confidence in teaching and learning mathematics. 3 Cr. DEMAND.

646. Curriculum Theory. An exploration of theory and issues related to school curriculum. 3 Cr. Even F; S; Odd, SUM.

647. Curriculum Development and Assessment. Study of curriculum construction, development, implementation and assessment at all instructional levels. PreK-16. 3 Cr. Odd F; S; Even, SUM.

648. Child Centered Curriculum. This course examines child centered curriculum from a philosophical and historical perspective. Teachers and other educators will examine child centered models and create curriculum relevant to their situations. 3 Cr. DEMAND.

650. Integration Through Inquiry. Models of inquiry, strategies for facilitating inquiry in the classroom, and direct experiences with conducting interdisciplinary inquiry projects. 3 Cr. DEMAND.

651. Middle School Instruction Seminar. In-depth review of literature on theory and practice of middle school instructional and assessment techniques. 3 Cr. DEMAND.

652. Reading for Middle/High School Teachers. The reading/writing processes; techniques for maximizing student performance on reading/writing tasks in classrooms; techniques for improving reading/writing abilities of students of all ability levels; techniques for in-class assessment and remediation; ideas for integrating literature/writing into content area curriculum. 3 Cr. DEMAND.

653. Learning and Assessment. This course is designed to provide K-12 graduate students a thorough foundation in the factors related to student academic and personal development through schooling. This course will serve as a background to other application oriented courses as well as the professional activities of the candidate. 3 Cr. Odd, F; S; Even, SUM.

654. Instruction and Assessment. Investigation, application, analysis and evaluation of instruction. Includes models and strategies of teaching, the research base, implementation, staff development and peer review. 3 Cr. Even, F; S; Odd, SUM.

655. Critical Thinking-Theory into Practice. An analysis of critical thinking and current brain theory. The theoretical framework provides the basis for the creation of learning experiences designed to cultivate critical thinking by learners. 3 Cr. DEMAND.

656. Dimensions of Learning and Teaching. Research based practical strategies to create learning centered instruction, curriculum and assessment. A PreK-12+ framework for planning and implementation. Review of current literature and programs. 3 Cr. SUM.

657. Classroom-Computer Curriculum and Methods. An overview for teachers of instructional computer applications in the classroom; methods for integrating use; the selection, design, or construction of computer-based curriculum; software content evaluations; and related research findings. 3 Cr. S, SUM.

658. Technology with a Keyboarding Base. Elementary teachers will become familiar with keyboarding methods, including psychomotor learning principles. Keyboarding will be the base for learning other applications of computers in the elementary classroom. 3 Cr. DEMAND.

659. Enhancing Elementary Curriculum With Technology. K-8 teachers will develop an understanding of the variety of ways curriculum content and instruction can be improved utilizing teaching and learning strategies including technology in the following areas: Elementary Keyboarding, Children's Literature & Reading, Mathematics & Science, and Social Studies. Development and analysis of content projects. 3 Cr. F, SUM.

660. Active Assessment. Strategies for assessing, documenting, and reporting student learning to aid instructional decision making and communication with parents. Some topics to be included are: (uses of) teacher observations, checklists, rubrics, miscue analysis, clinical interviews, writing assessments, portfolios, error diagnosis, performance assessments, questionnaires, drawings, constructions, experiments, notebooks and lab reports, embedded assessments, authentic assessments, and hypothesis testing measurements. 3 Cr. DEMAND.

671. Mentoring and Supervision. Continued professional growth as a teacher is enhanced by appropriate supervision and mentoring in connection to preservice programs, during the induction year, and throughout one's career. This course provides the theory and practice

essential for effective mentoring and supervision of both beginning and experienced teachers. 3 Cr. DEMAND.

682. Teachers and Change. Change in education is necessary. However, because schools are complex organizations, long-lasting change is often difficult to implement and maintain. This course investigates the change process in organizations, the political/societal context for change, and how teachers can become active participants in change. Both change theory and practice will be addressed. 3 Cr. DEMAND.

683. Achieving Gender Equity in Education. Hands on strategies to achieve gender equity. Understanding intersection of race, class, and gender in curriculum and instruction. Assessment of existing level of equity; development of specific interventions. 3 Cr. DEMAND.

698. Starred Paper. Working through the process of writing a starred paper format, data collection, analysis, various research models. 1-3 Cr. DEMAND.

699. Thesis. Support and guidance provided by adviser as student works to complete thesis. 1-6 Cr. DEMAND.

Theatre (TH), Film Studies (FS) & Dance (DANC)

202 PERFORMING ARTS CENTER/255-3229

Chairperson: Andrew Vorder Bruegge

Graduate Faculty: Borron, Chisholm, Cimics, Conrad, Leigh, Perrier, Vorder-Bruegge, Wentworth

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.

Graduate courses in the Department of Theatre, Film Studies and Dance are offered in the daytime schedule and provide a service component to other programs.

DANCE (DANC) – COURSE DESCRIPTIONS

535. Dance History. Ballet and contemporary dance history from its origin to the present. 2 Cr. F

571. Repertory Dance Theater: Performing Practicum. Rehearsal for dance performance. Prereq.: permission of instructor. May be repeated to a max. of 4 credits. 1 Cr. F, S.

FILM STUDIES (FS) – COURSE DESCRIPTIONS

551. Film Before 1936. Origins and development of motion pictures to 1935. Background lectures, readings, film viewings, discussions. Lab. 3 Cr. Every third semester.

552. Film: The Studio Era. Origins, characters and impact of the movies of the 1930s, 1940s, and 1950s; ideas, genre, styles, directors, actors. Lab. 2 Cr. Every third semester.

553. Film: Contemporary Trends. Films, directors, movements and the political, social, cultural, intellectual, and economic influences on the development of film art from 1960 to the present. Lab. 3 Cr. Every third semester.

564. Advanced Studies in Film. Selected subjects in film such as theory, criticism, censorship, and politics. May be repeated with different content to a max. of 12 credits. Lab. 3 Cr. DEMAND.

THEATRE (TH) – COURSE DESCRIPTIONS

530. Teaching Theatre. Materials and methods for teaching in the secondary school. 3 Cr. DEMAND.

544. Internship in Theatre. In-residence training with a cooperating professional theatre. Permission of department. 3-6 Cr. F, S, SUM.

549. Directing II. Advanced directing techniques. Prereq.: 349. Permission of instructor. 3 Cr. S.

570. Advanced Lighting Design. Thrust, arena, and quasi-theatrical lighting techniques. Prereq.: 342. Lab. 3 Cr. DEMAND.

581. Theatre History I. The theatre from its origins to the mid-19th century. 3 Cr. F. ALT.

582. Theatre History II. The theatre from the mid-19th century to the present day. 3 Cr. S. ALT.

591. Drama I. World drama; from its origins to the 18th century. Prereq.: 235 or permission of instructor. 3 Cr. F. ALT.

592. Drama II. World drama; from the 18th through the 20th century. Prereq.: 235 or permission of instructor. 3 Cr. S. ALT.

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. 1-6 Cr. SUM.



Women's Studies (WS)

B-120 EDUCATION BUILDING/255-4928

Director: Patricia Samuel

Graduate Faculty: Parrott, Samuel

The Women's Studies program does not offer a graduate degree in Women's Studies. However, Women's Studies cooperates with American Studies and the Department of Sociology/Anthropology and Human Relations and Multicultural Education to offer a Master of Science degree in Social Responsibility.

The courses listed below are available for students pursuing a graduate program in Social Responsibility, as supplements to other graduate degree programs or for students with a special interest in Women's Studies but who are not pursuing a degree.

Women's studies oriented graduate courses offered by other departments include: AMST 590; ART 538; ENGL 593; GERO 515; HURL 506, 511, 514; MINS 505; PSY 527.

COURSE DESCRIPTIONS

506. Sexual Assault Advocacy Training. Advocacy skills for sexual assault survivors including: understanding the impact of sexual assault on survivors, the social and cultural context in which sexual assault occurs, and the roles the legal system, law enforcement, social services and medical services play with survivors. Prereq.: for undergrad. 201 or HURL 201. 3 Cr. F, SUM.

515. Feminist Theory. Feminist theories and their application to understanding women's lives and social institutions. Prereq.: 9 credits of women's studies or equivalent. 3 Cr. S.

545. Women and Computers. Gender issues in computer technology; the computer as a tool to enhance feminist research; application of feminist pedagogy and multimedia techniques to disseminate feminist research. Integrated lab. 3 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

630. Topics in Social Responsibility. Selected topics and issues in the study and practice of social responsibility. Specific titles to be listed in class schedule. May be repeated under different topics to a max. of 6 credits. 1-3 Cr. DEMAND.

645. Feminist Scholarship and the Construction of Knowledge. Will explore recent works of feminist scholarship with special emphasis on how taking women into account has impacted scholarship (research methods and knowledge base) in a number of disciplines. Prereq.: 525 or equivalent. 3 Cr. DEMAND.

699. Thesis. 1-6 Cr. F, S, SUM.

Administration & Faculty

Administration

Shahzad Ahmad, Director, Multicultural Student Services
Laurel Allen, Affirmative Action Officer
Robert Bayne, Director, Counseling and Student Health Services
Lee Bird, Vice President for Student Life and Development
Debra Carlson, Director, Child Care Center
Don Day, Director, American Indian Center
Eugene Gilchrist, Vice President for Administrative Affairs
Mike Hayman, Director, Residential Life/Housing
Lin Holder, Associate Vice President
Randall Kolb, Director, Academic Computer Center
Richard Lewis, Interim Dean, College of Social Sciences
Frank Loncorich, Director, Scholarships and Financial Aid
Ali Malekzadeh, Interim Vice President for Academic Affairs
Joane McKay, Dean, College of Education
Ruth Meyer, Interim Dean, College of Business
A. I. Musah, Dean, College of Science and Engineering
Dennis Nunes, Dean, Graduate and Continuing Studies;
Director of Summer Sessions
Maribeth Overland, Director, Student Disability Services
Jill Peterson, Assistant Vice President for Research
Rosanna Ross, Director, Teaching and Learning Center
Roland Specht, Dean, College of Fine Arts and Humanities
Shawn Teal, Vice President, University Advancement
Kristi Tornquist, Dean, Learning Resources and Technology Services
Myron Umerski, Registrar, Records and Registration
Suzanne Williams, Interim President

Faculty

Abartis, Caesarea (1977)

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Ahmed, Niaz (1991)

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Alessio, John C. (1984)

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Allen, Thomas O. (1966)

Professor of Music
B.Mus. 1962, M.Mus. 1966, University of Colorado at Boulder; D.A. 1991, Ball State University

Anderson, Derwyn L. (1968)

Associate Professor of Psychology
B.A. 1965, North Park College; M.A. 1967, Ph.D. 1968, University of North Dakota

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Anderson, Myron G. (1965)

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B.A. 1951, M.A. 1954, University of Minnesota-Twin Cities; Ph.D. 1959, Brown University

Andrzejewski, Julie R. (1971)

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B.A. 1969, M.A. 1971, University of Washington; Ed.D. 1978, University of Northern Colorado

Andzenge, Dick T. (1992)

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Arriagada, Jorge E. (1999)

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Claremont Graduate School

Bacharach, David W. (1989)

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of Northern Iowa; Ph.D. 1986, Texas A & M University

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1987, Texas A & M University

Bahauddin, Mohammed (1970)

Professor of Mathematics
B.Sc. 1953, Osmania University; M.Sc. 1957, Karachi University;
M.S. 1965, University of Minnesota-Twin Cities; Ph.D. 1969, New
Mexico State University

Bahde, John (1969)

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University

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Banaian, King (1984)

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Graduate School

Bates, William B. (1972)

Professor of Counseling and Related Services
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Bineham, Jeffery L. (1986)

Professor of Speech Communication; Chairperson
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Bird, Lee E. (1992)

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- Brundage, Shelley (1993)**
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- Buls, Gary D. (1984)**
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- Buls, Shirley R. (1987)**
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- Bunn, Emory F. (1999)**
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- Buske, Dale R. (1997)**
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- Busta, Bruce A. (1988)**
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B.S. 1979, M.B.A. 1983, St. Cloud State University; Ph.D. 1990, University of Nebraska at Lincoln
- Butenhoff, Linda J. (1998)**
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- Byers, Celina (1999)**
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- Carr, Ralph W. (1977)**
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- Carter, Elaine Fuller (1975)**
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B.S. 1958, Winona State University; M.A. 1961, University of Tennessee-Knoxville; Ph.D. 1988, University of Minnesota-Twin Cities
- Chen, Jiang-Ping (Jeff) (1999)**
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- Chen, Qingjun Jim (1998)**
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- Chou, David C. (1998)**
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- Christensen, Keith (1997)**
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- Christopherson, David (1990)**
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- Clifford, Mary C. (1996)**
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Connaughton, Michael E. (1982)

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Cronn, John C. (1976)

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Crow, Stephen M. (1986)

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Daneshpour, Manijeh (1998)

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Dathan, Brahma (1994)

Assistant Professor of Computer Science
B.S. 1976, University of Kerala (India); M.S. 1979, Indian Institute of Technology (India); M.S. 1987, Ph.D. 1989, University of Pittsburgh

Davis, Elaine (1985)

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B.A. 1966, Saint Olaf College; M.A. 1977, Ph.D. 1987, University of Minnesota-Twin Cities

DeGroote, David K. (1985)

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B.S. 1971, M.S. 1975, Ph.D. 1980, University of Iowa

Devers, Monica C. (1998)

Assistant Professor of Communication Disorders
M.A. 1987, M.S. 1988, University of Glasgow; M.A. 1991, Ph.D. 1999, University of Minnesota-Twin Cities

DeVoe, Marlene R. (1992)

Associate Professor of Psychology
B.S. 1982, Grand Valley State University; M.A. 1988, Ph.D. 1990, Wayne State University

Dillman, Richard H. (1978)

Professor of English
B.A. 1965, University of Connecticut; M.A. 1972, Southern Connecticut State University; M.A. 1975, D.A. 1977, Ph.D. 1978, University of Oregon

Dobey, Rodney G. (1973)

Professor of Health, Physical Education, Recreation and Sport Science; Chairperson
B.S. 1971, M.S. 1972, Ph.D. 1980, Southern Illinois University at Carbondale

Dorn, Judith A. (1993)

Associate Professor of English
B.A. 1985, Rutgers, The State University of New Jersey; M.A. 1987, Ph.D. 1992, Yale University

Dou, Wenyu (1999)

Assistant Professor of Marketing and General Business
B.S. 1988, M.S. 1991, Peking University; M.S. 1995, University of Wyoming; Ph.D. 1999, University of Wisconsin-Milwaukee

Eagle, Bruce W. (1993)

Associate Professor of Management
B.A. 1977, North Central College; M.B.A. 1983, Northern Illinois University; M.P.A. 1979, Drake University; Ph.D. 1995, Georgia State University

Echols, Charles L. (1972)

Professor of Music
B.A. 1959, B.M. 1959, Belhaven College; M.M. 1961, University of Texas at Austin; D.M.A. 1969, University of Southern California

Edwards, Mary E. (1985)

Professor of Economics
B.A. 1981, St. Cloud State University; M.A. 1983, University of Missouri-Columbia; Ph.D. 1988, Texas A & M University

Ellis, Bruce W. (1964)

Professor of Electrical Engineering
B.A. 1961, Jamestown College; M.S. 1962, University of North Dakota;
Ph.D. 1973, University of Minnesota-Twin Cities

Eyo, Bassey A. (1985)

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B.S. 1978, M.A. 1980, University of Wisconsin-Stevens Point; Ph.D.
1985, University of Minnesota-Twin Cities

Fields, Dennis C. (1971)

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Fillenworth, Lucille I. (1977)

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Fish, Marjorie J. (1987)

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Associate Professor of Mathematics
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University

Foster, Judy Carroll (1979-1981, 1983)

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B.A. 1968, Lynchburg College; M.A. 1969, University of Virginia;
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Frank, Elizabeth L. (1994)

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Frank, Jan L. H. (1990)

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Frank, Stephen (1978)

Professor of Political Science
B.S.E. 1967, M.A. 1969, Central Michigan University; Ph.D. 1977,
Washington State University

Fuller, Stephen R. (1975)

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Gadberry, Eva M. (1975)

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Johnson, Robert C. (1985)

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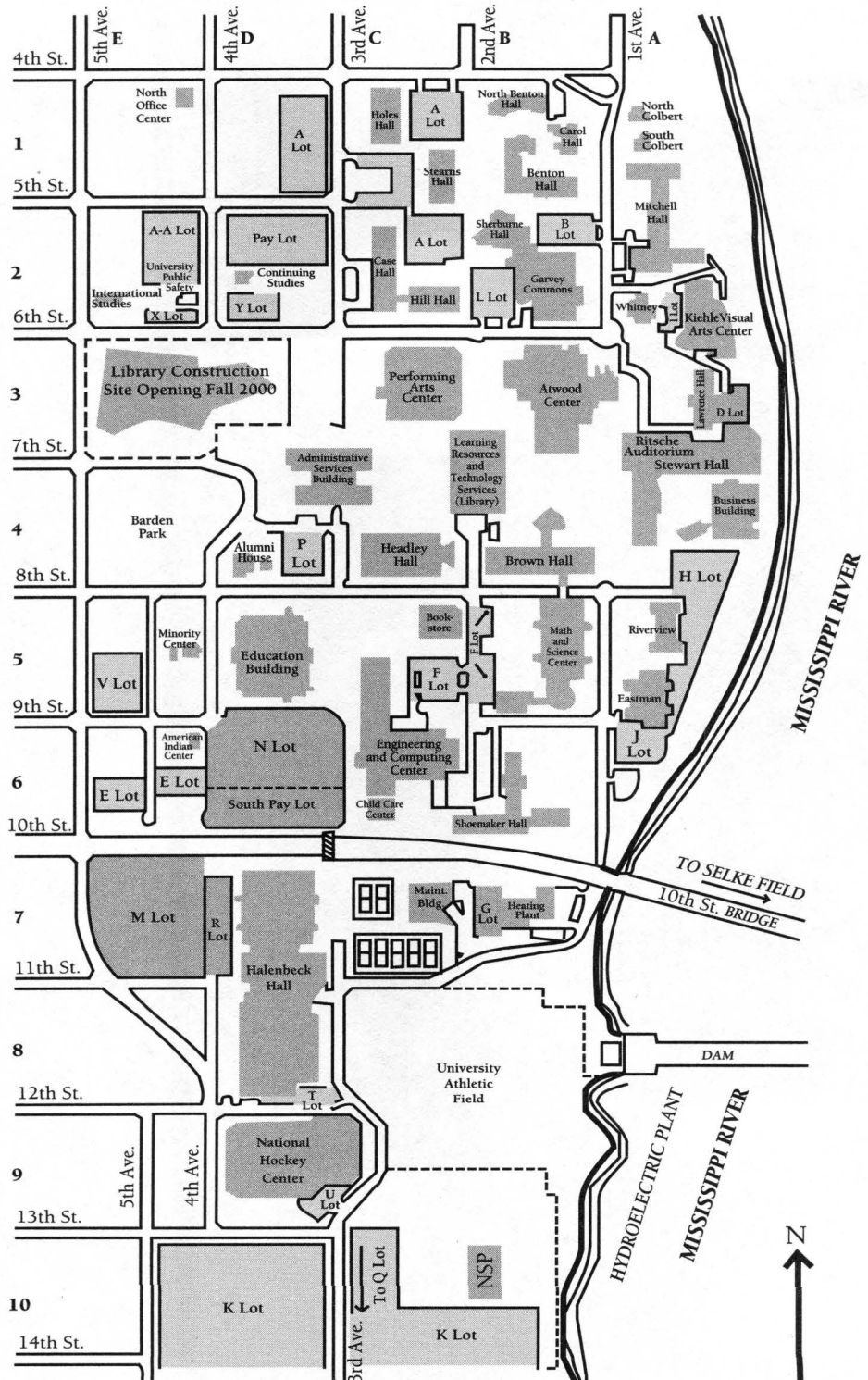
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